



**USGS – Suwannee River Water Management District
FL 1.0 Meter LiDAR
Project Survey Report**

Contract No.G10PC00093
Task Order No. G12PD00242

January, 2013

Prime Contractor

Digital Aerial Solutions (DAS)
8409 Laurel Fair circle, Suite 100
Tampa, Florida 33610



Sub-Contractor

Gustin, Cothorn & Tucker, Inc. (GCT)
121 Hart Street
Niceville, Florida 32578





USGS – Suwannee River Water Management District

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INTRODUCTION & SPECIFICATIONS

The purpose of this project was to provide ground truth data which will be used to validate LiDAR Data for the Suwannee River Water Management District Project located in Union, Columbia, Madison, Lafayette, and Suwannee Counties, FL. GCT collected 116 check points in five different classifications spread throughout the project area. The Vertical Accuracy Requirements are required to meet or exceed an RMSEz of 9.25 centimeters and a Fundamental Vertical Accuracy requirement of 18.2 centimeters at the 95% Confidence Level according to the NDEP guidelines.

HORIZONTAL & VERTICAL DATUMS

The LiDAR Data and Coordinate Values for this project are referenced to the Universal Transverse Mercator (UTM), WGS 84, Zone 17 North and the North American Vertical Datum of 1988 (NAVD88). GEOID 09 was used to translate the ellipsoid heights to Orthometric heights. All coordinate values are presented in meters.

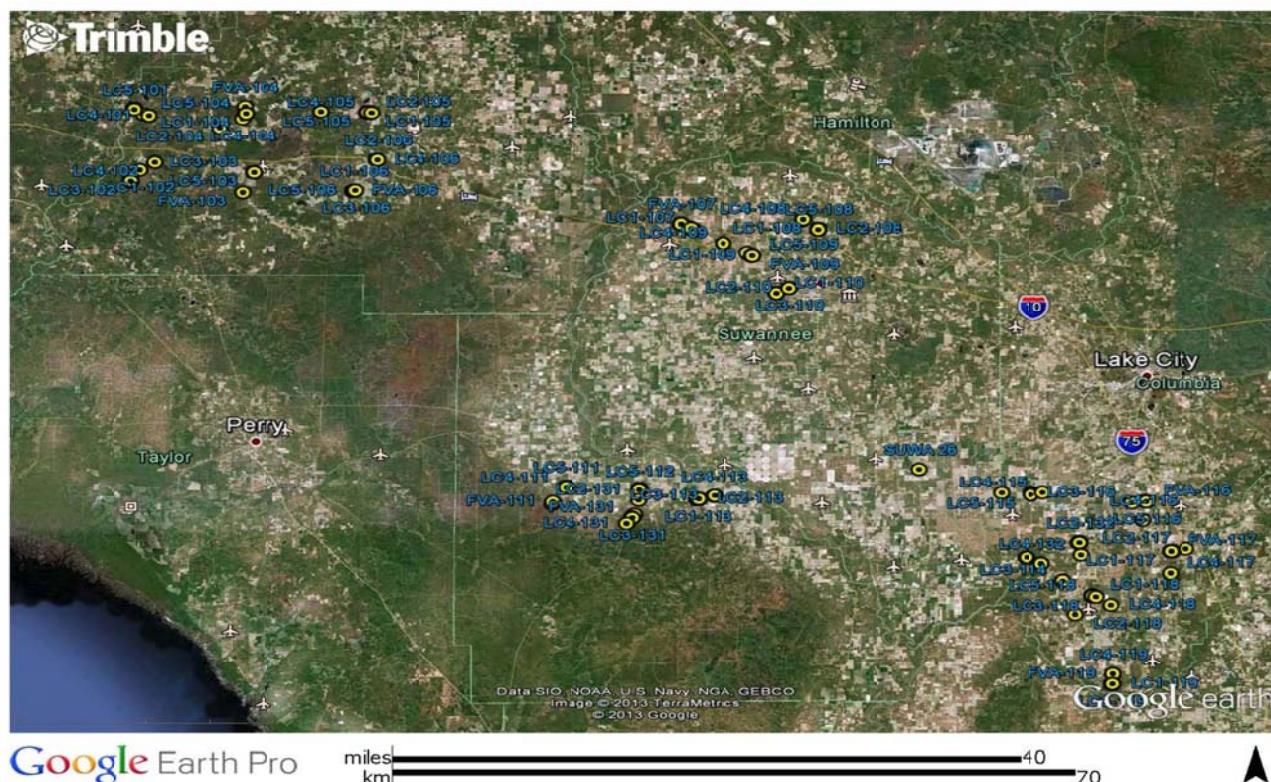
SURVEY AREA

The Survey Area consisted of approximately 1,725 square miles in Alachua, Bradford, Union, Columbia, Madison, Lafayette, and Suwannee Counties, FL. The map located on the next page shows the general location of the check points and the FVA Points.

CONTROL SURVEY

This survey references only a portion of the project. The rest of this project was completed April, 2012

GCT used PPK (post processed kinematic) GPS Data Collection to determine coordinate values for the LiDAR Check Points. Check Points were occupied for at least two minutes each. A Network Adjustment was performed using the data that was collected via PPK GPS. For the PPK data collection, four Base stations were setup in a five to ten mile square area, more or less, and check points that fell within the square were tied. Base stations were then positioned in another five to ten mile square and check points falling within that square were located. This process continued until the entire area had been covered. Base station data was submitted to OPUS for verification. A static GPS network was performed in conjunction with the PPK survey to establish control values for the twelve base stations, a table showing the Control Stations occupied and corresponding fixes is provided below. GNSS technology was used throughout the project area using varying types of Trimble GPS Receivers. Fixed height tripods and/or rover rods were used on all setups. The Network Adjustment was performed using Trimble Business Center Software.



BASE STATION OCCUPATIONS - COORDINATE FIXES

Name	WGS-84, GEOID 09 (meters)			UTM, Zone 17, NAVD88 (meters)		
	Latitude (N)	Longitude (W)	Ellipsoid Ht	Northing	Easting	Elevation
31 92 GPS 3	29°49'47.56720"	82°52'02.97474"	-12.413	3301397.952	319561.951	15.391
A 302	29°52'25.62858"	82°32'34.03968"	16.676	3305799.236	351004.520	44.676
C48	30°23'31.75529"	83°11'49.02511"	-9.452	3364288.488	288921.741	18.575
GCT-FL06	30°04'46.19915"	82°34'35.62517"	7.603	3328642.533	348055.923	35.664
GCT-FL07	30°00'41.22505"	83°18'37.35936"	-2.680	3322302.196	277164.620	25.145
GCT-FL08	30°23'34.21645"	82°58'11.91948"	3.799	3363962.826	310734.670	31.864
GCT-FL09	30°23'01.24029"	83°25'19.93891"	2.551	3363790.483	267253.696	30.431
GCT-FL10	30°22'36.69934"	83°44'23.58721"	-5.071	3363730.878	236699.187	22.541
GCT-FL11	30°31'14.28382"	83°25'20.70972"	10.410	3378974.510	267558.664	38.341
GCT-FL12	30°31'47.92587"	83°42'31.29868"	-2.373	3380635.956	240104.847	25.370
LAFAY 3	30°07'44.74389"	83°21'39.89986"	-0.035	3335443.612	272542.128	27.808
SUWA 23	30°05'48.40135"	83°03'47.04935"	-13.989	3331304.581	301193.583	13.926
SUWA 26	30°05'14.49564"	82°52'43.67860"	-2.388	3329954.178	318936.790	25.547
U 151	30°16'40.94914"	82°56'31.31982"	4.688	3351191.792	313202.012	32.735
U 355	30°14'46.02228"	83°12'16.40101"	-3.250	3348113.913	287876.346	24.723
XCTY	29°37'51.61280"	83°06'29.33703"	-13.758	3279755.653	295902.186	13.948



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ADDITIONAL CONTROL OCCUPATIONS - COORD. FIXES

Name	WGS-84, GEOID 09 (meters)			UTM, Zone 17, NAVD88 (meters)		
	Latitude (N)	Longitude (W)	Ellipsoid Ht	Northing	Easting	Elevation
FLGPS 15	30°33'57.58771"	83°52'11.78396"	28.946	3385012.791	224729.176	56.643
FLGPS 16	30°13'02.97025"	84°02'58.53235"	-21.478	3346819.693	206448.477	6.022
FLGPS 19	30°10'14.08835"	83°17'27.72173"	-2.548	3339904.748	279384.665	25.357
FLGPS 21	30°26'56.82654"	82°55'58.99291"	26.160	3370140.148	314389.426	54.225
FLGPS 71	30°33'31.11332"	83°21'58.64735"	0.967	3383073.824	273034.414	28.952
GCT-FL02	29°52'34.71999"	82°18'39.27421"	11.172	3305801.241	373403.710	39.078
GCT-FL03	30°00'46.44785"	82°18'14.65923"	11.741	3320930.985	374236.080	39.815
GNVL	29°41'11.55705"	82°16'36.73600"	23.887	3284734.512	376458.304	51.735
I75 H 1	29°45'37.27962"	82°24'11.17413"	25.383	3293055.877	364342.985	53.239
L 45	30°25'07.50816"	83°18'01.15894"	0.258	3367434.461	279047.513	28.259
LAFAY 14	29°59'56.90742"	83°03'33.54892"	-9.316	3320475.475	301360.180	18.551
LAKEPORT AZ MK	30°10'53.25042"	82°34'17.14140"	30.528	3339935.914	348706.434	58.653
N 369	30°13'20.27857"	82°49'21.76568"	28.871	3344823.144	324582.008	56.934
PRRY	30°04'40.11914"	83°34'28.60935"	-12.869	3330203.057	251836.549	14.876
SALEM NW BASE	29°53'09.13011"	83°24'42.71490"	-15.493	3308582.512	267080.576	12.259
SUWAPORT AZ MK	30°18'08.42546"	83°01'02.68228"	3.008	3354011.649	305997.997	31.044
Horizontal and Vertical Fixed						
Horizontal only Fixed						
Vertical only Fixed						

UTM, Ellipsoid and Elevations are in meters.



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FUNDAMENTAL VERTICAL ACCURACY POINTS

Name	WGS-84, GEOID 09 (meters)			UTM, Zone 17, NAVD88 (meters)		
	Latitude (N)	Longitude (W)	Ellipsoid Ht	Northing	Easting	Elevation
FVA-101	30°29'28.82513"	83°42'36.53111"	-1.090	3376355.113	239862.378	26.626
FVA-102	30°24'33.62454"	83°42'48.69557"	-2.919	3367271.011	239319.534	24.724
FVA-103	30°23'48.29902"	83°35'43.72032"	1.170	3365608.869	250631.994	28.853
FVA-104	30°29'39.19346"	83°35'37.08758"	3.520	3376411.507	251057.124	31.295
FVA-105	30°29'18.82578"	83°27'50.96253"	20.964	3375505.639	263474.967	48.843
FVA-106	30°23'54.84826"	83°28'39.96806"	25.838	3365556.972	261949.185	53.652
FVA-107	30°21'42.93831"	83°07'51.79820"	-0.798	3360816.703	295191.325	27.237
FVA-108	30°22'01.25584"	83°00'05.84141"	19.020	3361153.813	307643.188	47.077
FVA-109	30°19'39.02108"	83°03'17.87770"	2.980	3356866.002	302436.397	31.019
FVA-110	30°17'07.02510"	83°01'48.09567"	1.501	3352142.705	304750.853	29.524
FVA-111	30°03'01.70525"	83°16'00.77968"	-2.976	3326544.022	281446.450	24.890
FVA-112	30°03'50.86229"	83°10'29.33164"	-3.859	3327885.214	290353.925	24.041
FVA-113	30°03'11.51256"	83°06'54.12541"	-9.089	3326565.454	296095.423	18.804
FVA-114	29°58'45.46860"	82°44'59.41386"	-10.728	3317779.652	331183.998	17.175
FVA-115	30°03'35.51361"	82°45'39.89948"	-1.753	3326726.012	330236.225	26.201
FVA-116	30°02'58.89490"	82°38'23.37615"	-2.079	3325424.802	341910.527	25.912
FVA-117	29°59'36.68293"	82°36'47.07263"	1.498	3319162.777	344402.119	29.470
FVA-118	29°56'37.65463"	82°41'47.15943"	-4.989	3313767.226	336278.731	22.934
FVA-119	29°50'38.19783"	82°40'30.48786"	-12.548	3302670.717	338173.149	15.426
FVA-131	30°01'57.27862"	83°10'56.99635"	-3.675	3324401.927	289546.226	24.200
FVA-132	30°00'12.76997"	82°42'32.07392"	-4.166	3320407.810	335173.195	23.761

LIDAR CHECK POINTS

Name	WGS-84, GEOID 09 (meters)			UTM, Zone 17, NAVD88 (meters)		
	Latitude (N)	Longitude (W)	Ellipsoid Ht	Northing	Easting	Elevation
LC1-101	30°29'29.78410"	83°42'38.45078"	-1.575	3376385.878	239811.885	26.142
LC1-102	30°25'18.27535"	83°42'13.87232"	-2.191	3368623.940	240282.022	25.465
LC1-103	30°25'09.33772"	83°35'02.87622"	1.556	3368079.687	251779.431	29.265
LC1-104	30°29'11.86403"	83°35'33.15301"	1.728	3375567.411	251142.724	29.497
LC1-105	30°29'16.83378"	83°27'51.61743"	19.709	3375444.674	263456.161	47.588
LC1-106	30°23'55.18188"	83°28'41.36752"	26.632	3365568.064	261912.050	54.446
LC1-107	30°21'25.02767"	83°07'13.68587"	-6.947	3360246.103	296198.692	21.090
LC1-108	30°21'22.48970"	82°59'10.02616"	10.771	3359933.943	309112.524	38.830
LC1-109	30°19'38.18559"	83°03'17.36781"	3.066	3356840.030	302449.551	31.105
LC1-110	30°17'04.68825"	83°01'47.45814"	1.621	3352070.447	304766.603	29.644
LC1-111	30°04'02.60819"	83°15'08.49550"	-3.485	3328391.686	282883.980	24.397
LC1-112	30°03'53.03843"	83°10'28.65740"	-3.987	3327951.877	290373.258	23.913
LC1-113	30°03'12.36598"	83°06'47.30156"	-9.066	3326588.353	296278.691	18.827
LC1-114	29°58'45.27352"	82°45'05.89182"	-11.979	3317776.298	331010.278	15.924
LC1-115	30°03'34.28140"	82°45'38.59988"	-2.174	3326687.539	330270.445	25.780
LC1-116	30°03'00.25039"	82°38'26.68305"	0.663	3325467.804	341822.556	28.654
LC1-117	29°59'33.94056"	82°36'47.91287"	2.719	3319078.667	344378.413	30.690
LC1-118	29°56'40.79828"	82°41'45.86734"	-6.772	3313863.496	336314.805	21.150
LC1-119	29°51'17.77658"	82°40'29.79044"	-12.454	3303888.916	338209.601	15.519
LC1-131	30°02'09.45905"	83°10'47.13229"	-3.675	3324771.942	289817.649	24.204
LC1-132	30°00'13.61339"	82°42'35.42616"	-3.545	3320435.117	335083.756	24.381
LC2-101	30°29'31.55025"	83°42'37.88889"	-2.167	3376439.914	239828.179	25.550
LC2-104	30°28'12.13081"	83°37'12.25941"	15.635	3373788.795	248456.576	43.369
LC2-105	30°29'17.64026"	83°27'49.97221"	20.347	3375468.553	263500.583	48.227
LC2-106	30°26'01.22843"	83°27'11.01664"	29.853	3369397.220	264408.198	57.715
LC2-107	30°21'42.20741"	83°07'53.19444"	-0.785	3360794.898	295153.619	27.250
LC2-108	30°21'23.41848"	82°59'11.84016"	11.374	3359963.390	309064.587	39.433
LC2-109	30°20'26.74481"	83°05'10.26089"	0.456	3358390.297	299461.539	28.494
LC2-110	30°17'25.08161"	83°01'00.58980"	3.188	3352676.061	306030.194	31.218
LC2-112	30°03'52.46485"	83°10'27.44597"	-4.151	3327933.599	290405.368	23.750
LC2-113	30°03'13.93504"	83°06'45.15936"	-8.852	3326635.605	296336.964	19.042
LC2-114	29°59'12.59350"	82°45'54.65924"	-15.786	3318637.458	329716.120	12.115
LC2-115	30°03'35.96735"	82°47'31.29265"	-5.423	3326786.331	327253.180	22.519
LC2-117	29°59'44.57010"	82°35'49.02107"	-2.645	3319383.801	345961.172	25.343
LC2-118	29°55'21.82838"	82°42'50.10632"	-6.416	3311457.866	334556.136	21.507
LC2-131	30°03'09.15887"	83°10'32.39628"	-4.200	3326602.667	290247.408	23.691



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LC2-132	30°00'11.75841"	82°42'33.25182"	-2.978	3320377.138	335141.168	24.948
LC3-101	30°29'07.57292"	83°42'01.50013"	-2.578	3375678.163	240781.081	25.138
LC3-102	30°24'32.47559"	83°42'47.42265"	-4.205	3367234.809	239352.666	23.437
LC3-103	30°25'09.60439"	83°35'01.23308"	0.793	3368086.898	251823.476	28.503
LC3-104	30°29'10.65204"	83°35'34.74228"	-0.029	3375531.059	251099.476	27.738
LC3-105	30°29'19.42643"	83°30'44.96940"	3.338	3375626.464	258834.423	31.173
LC3-106	30°23'57.13813"	83°28'34.18035"	24.416	3365624.109	262105.234	52.233
LC3-107	30°21'30.05200"	83°07'21.45141"	-4.169	3360404.695	295994.222	23.867
LC3-109	30°19'48.89520"	83°03'37.53591"	-0.463	3357179.567	301916.828	27.576
LC3-110	30°17'27.09414"	83°00'59.54419"	2.932	3352737.533	306059.234	30.962
LC3-111	30°02'52.63640"	83°16'03.70124"	-3.059	3326266.323	281362.650	24.804
LC3-113	30°03'27.07677"	83°05'44.84584"	-11.934	3327010.520	297959.915	15.961
LC3-114	29°57'37.94091"	82°43'36.54279"	-3.543	3315666.997	333373.865	24.366
LC3-115	30°03'29.12935"	82°45'38.26169"	-2.769	3326528.781	330277.060	25.184
LC3-116	30°02'53.56503"	82°39'16.10151"	-6.364	3325281.048	340495.998	21.618
LC3-117	29°59'34.92198"	82°36'51.45641"	5.531	3319110.218	344283.878	33.502
LC3-118	29°56'32.99832"	82°41'32.02238"	-5.847	3313617.882	336682.472	22.078
LC3-119	29°50'37.79118"	82°40'34.29461"	-13.796	3302659.685	338070.799	14.177
LC3-131	30°01'56.10853"	83°10'55.76233"	-3.902	3324365.268	289578.600	23.973
LC3-132	30°00'09.01095"	82°42'35.13249"	-2.571	3320293.304	335089.510	25.355
LC4-101	30°29'01.82628"	83°41'40.69148"	-1.828	3375487.905	241331.908	25.889
LC4-102	30°25'49.90032"	83°41'16.79343"	-0.447	3369561.621	241828.702	27.221
LC4-104	30°28'50.25003"	83°35'46.10328"	5.584	3374909.689	250781.994	33.343
LC4-105	30°29'15.28071"	83°27'34.47666"	7.489	3375386.873	263912.280	35.372
LC4-106	30°26'01.59152"	83°27'16.06121"	28.924	3369411.323	264273.822	56.785
LC4-107	30°21'18.74372"	83°07'02.79478"	-5.753	3360047.168	296485.908	22.283
LC4-108	30°22'00.62880"	83°00'06.45225"	18.923	3361134.794	307626.537	46.980
LC4-109	30°20'26.13666"	83°05'09.79951"	0.506	3358371.345	299473.517	28.544
LC4-111	30°03'59.51890"	83°15'09.35814"	-3.415	3328297.015	282859.001	24.467
LC4-112	30°03'52.25714"	83°10'30.38557"	-4.503	3327928.701	290326.514	23.397
LC4-113	30°03'26.14063"	83°05'47.30768"	-11.655	3326982.905	297893.447	16.240
LC4-115	30°03'36.47237"	82°44'51.95191"	-4.253	3326735.828	331520.771	23.707
LC4-116	30°01'42.48019"	82°38'35.52005"	-1.946	3323076.923	341551.491	26.023
LC4-117	29°58'06.17039"	82°36'50.57704"	23.331	3316377.571	344268.970	51.300
LC4-118	29°55'59.45764"	82°40'36.00172"	-2.598	3312563.237	338169.431	25.339
LC4-119	29°51'19.23097"	82°40'29.20679"	-12.931	3303933.463	338225.915	15.042
LC4-131	30°01'32.41949"	83°11'17.80759"	-4.154	3323647.128	288974.012	23.715
LC4-132	29°59'21.81704"	82°42'27.29033"	-2.040	3318837.215	335277.997	25.880
LC5-101	30°29'27.24780"	83°42'36.72164"	-2.512	3376306.654	239856.129	25.204
LC5-102	30°24'33.65639"	83°42'47.55714"	-4.700	3367271.262	239349.948	22.943



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LC5-103	30°25'09.98878"	83°35'03.06307"	1.151	3368099.853	251774.902	28.860
LC5-104	30°29'10.82306"	83°35'33.17994"	1.656	3375535.368	251141.269	29.424
LC5-105	30°29'15.63214"	83°27'51.53138"	19.603	3375407.618	263457.648	47.482
LC5-106	30°23'54.42907"	83°28'44.35846"	22.572	3365546.630	261831.698	50.384
LC5-107	30°21'42.21039"	83°07'54.73334"	-1.046	3360795.763	295112.528	26.989
LC5-108	30°21'20.73064"	82°59'09.72953"	11.229	3359879.641	309119.496	39.288
LC5-109	30°19'37.75062"	83°03'19.72889"	3.473	3356827.779	302386.241	31.512
LC5-110	30°17'06.35098"	83°01'47.15099"	1.168	3352121.497	304775.726	29.192
LC5-111	30°04'04.14343"	83°15'08.00220"	-3.587	3328438.699	282898.124	24.296
LC5-112	30°03'50.23641"	83°10'30.73061"	-4.360	3327866.655	290316.088	23.540
LC5-113	30°03'14.43802"	83°06'49.55655"	-9.797	3326653.269	296219.468	18.097
LC5-114	29°58'46.57175"	82°44'58.31731"	-11.088	3317813.166	331213.907	16.816
LC5-115	30°03'27.86231"	82°45'38.44232"	-2.837	3326489.846	330271.622	25.116
LC5-116	30°02'57.67140"	82°38'22.03721"	-2.991	3325386.621	341945.848	25.000
LC5-117	29°59'31.63321"	82°36'45.88232"	1.761	3319006.866	344431.829	29.732
LC5-118	29°56'36.78159"	82°41'45.11966"	-5.674	3313739.539	336333.024	22.250
LC5-119	29°50'36.61644"	82°40'30.54028"	-12.669	3302622.053	338171.034	15.305
LC5-131	30°01'58.48112"	83°10'57.21965"	-3.828	3324439.068	289540.949	24.047
LC5-132	30°00'10.26244"	82°42'37.86889"	-3.058	3320332.928	335016.760	24.867

Coordinate Table Legend:

12" RCM	12" Round Concrete Monument
12" SCM	12" Square Concrete Monument
SSR	Stainless Steel Rod w/o sleeve (10 ft.+)
SSRiS	Stainless Steel Rod In Sleeve (10 ft.+)
DiRW	Disk set in a Retaining Wall or concrete ledge
ALDIRN	Aluminum Disk set on an Iron Rod (New)
ALDARD	Aluminum Disk on Aluminum Alloy Rod
BDOR	Brass Disk on rebar
ALDASP	Aluminum Disk set in Asphalt



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothern & Tucker, Inc. (GCT)



PPK GPS NETWORK ADJUSTMENT REPORT

Project Information		Coordinate System	
Name:	N:\TBC\USGS\T12-017_2013.vce	Name:	UTM
Size:	8 MB	Datum:	NAD 1983 (Conus)
Modified:	2/13/2013 2:17:35 PM (UTC:-6)	Zone:	17 North (81W)
Time zone:	Central Standard Time	Geoid:	GEOID09 (Conus)
Reference number:		Vertical datum:	
Description:			

Network Adjustment Report

Adjustment Settings

Set-Up Errors

GNSS

Error in Height of Antenna: 0.000 m

Centering Error: 0.000 m

Covariance Display

Horizontal:

Propagated Linear Error [E]: U.S.

Constant Term [C]: 0.000 m

Scale on Linear Error [S]: 1.960

Three-Dimensional

Propagated Linear Error [E]: U.S.

Constant Term [C]: 0.000 m

Scale on Linear Error [S]: 1.960

Adjustment Statistics

Number of Iterations for Successful Adjustment: 2

Network Reference Factor: 1.02



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Chi Square Test (95%): Passed

Precision Confidence Level: 95%

Degrees of Freedom: 1056

Post Processed Vector Statistics

Reference Factor: 1.02

Redundancy Number: 1056.00

A Priori Scalar: 1.65

Control Coordinate Comparisons

Values shown are control coordinates minus adjusted coordinates.

Point ID	ΔNorthing (Meter)	ΔEasting (Meter)	ΔElevation (Meter)	ΔHeight (Meter)
31 92 GPS 3	0.001	-0.014	?	-0.028
A 302	?	?	?	-0.050
FLGPS 15	?	?	?	-0.016
FLGPS 16	?	?	?	-0.017
FLGPS 19	?	?	?	-0.018
FLGPS 21	0.018	0.011	?	-0.029
FLGPS 71	?	?	?	-0.024
GNVL	?	?	0.091	0.046
L 45	?	?	?	-0.027
LAFAY 14	-0.005	-0.017	?	-0.015
LAFAY 3	?	?	?	-0.053
LAKEPORT AZ MK	0.008	0.011	?	-0.061
PRRY	?	?	?	-0.055
SALEM NW BASE	0.011	-0.102	0.034	-0.013
SUWA 23	?	?	?	-0.007
SUWA 26	?	?	?	-0.029
SUWAPORT AZ MK	?	?	?	-0.025
U 151	?	?	?	-0.032
XCTY	?	?	?	-0.062

Control Point Constraints

Point ID	Type	North σ (Meter)	East σ (Meter)	Height σ (Meter)	Elevation σ (Meter)
A 302	Local	Fixed	Fixed		
FLGPS 15	Grid				Fixed
FLGPS 15	Local	Fixed	Fixed		
FLGPS 16	Grid				Fixed
FLGPS 16	Local	Fixed	Fixed		
FLGPS 19	Grid				Fixed
FLGPS 19	Local	Fixed	Fixed		
FLGPS 21	Grid				Fixed
FLGPS 71	Grid				Fixed
FLGPS 71	Local	Fixed	Fixed		
GCT-FL02	Grid	Fixed	Fixed		Fixed
GCT-FL03	Grid	Fixed	Fixed		Fixed
GNVL	Local	Fixed	Fixed		
I75 H 1	Grid				Fixed
L 45	Grid				Fixed
L 45	Local	Fixed	Fixed		
LAFAY 3	Local	Fixed	Fixed		
N 369	Grid				Fixed
PRRY	Local	Fixed	Fixed		
SUWA 23	Local	Fixed	Fixed		
SUWA 26	Local	Fixed	Fixed		
SUWAPORT AZ MK	Grid				Fixed
SUWAPORT AZ MK	Local	Fixed	Fixed		
U 151	Grid				Fixed
U 151	Local	Fixed	Fixed		
U 355	Grid				Fixed
XCTY	Grid				Fixed
XCTY	Local	Fixed	Fixed		
Fixed = 0.000001(Meter)					

Adjusted Grid Coordinates

Point ID	Northing (Meter)	Northing Error (Meter)	Easting (Meter)	Easting Error (Meter)	Elevation (Meter)	Elevation Error (Meter)	Constraint
31 92 GPS 3	3301397.95 2	0.001	319561.95 3	0.001	15.392	0.007	
A 302	3305799.23 6	?	351004.52 0	?	44.673	0.009	LL
C48	3364288.48 7	0.002	288921.74 1	0.002	18.573	0.007	
FLGPS 15	3385012.79 1	?	224729.17 6	?	56.643	?	LLe
FLGPS 16	3346819.69 3	?	206448.47 7	?	6.022	?	LLe
FLGPS 19	3339904.74 8	?	279384.66 5	?	25.357	?	LLe
FLGPS 21	3370140.14 7	0.003	314389.42 6	0.003	54.225	?	e
FLGPS 71	3383073.82 4	?	273034.41 4	?	28.952	?	LLe
FVA-101	3376355.11 3	0.009	239862.37 8	0.007	26.618	0.019	
FVA-102	3367271.01 1	0.010	239319.53 4	0.009	24.716	0.023	
FVA-103	3365608.87 0	0.018	250631.99 4	0.013	28.844	0.036	
FVA-104	3376411.50 8	0.011	251057.12 3	0.010	31.287	0.030	
FVA-105	3375505.64 0	0.012	263474.96 7	0.008	48.833	0.025	
FVA-106	3365556.97 3	0.010	261949.18 4	0.010	53.642	0.027	
FVA-107	3360816.70 2	0.012	295191.32 5	0.011	27.236	0.033	

FVA-108	3361153.81 3	0.010	307643.18 8	0.009	47.076	0.031	
FVA-109	3356866.00 2	0.014	302436.39 7	0.012	31.018	0.026	
FVA-110	3352142.70 5	0.013	304750.85 3	0.010	29.523	0.033	
FVA-111	3326544.02 1	0.011	281446.45 0	0.012	24.890	0.037	
FVA-112	3327885.21 2	0.014	290353.92 5	0.015	24.041	0.032	
FVA-113	3326565.45 2	0.013	296095.42 2	0.010	18.804	0.029	
FVA-114	3317779.65 2	0.017	331184.00 0	0.015	17.175	0.053	
FVA-115	3326726.01 2	0.009	330236.22 8	0.009	26.202	0.022	
FVA-116	3325424.80 2	0.016	341910.53 0	0.012	25.911	0.036	
FVA-117	3319162.77 6	0.011	344402.12 2	0.008	29.470	0.023	
FVA-118	3313767.22 5	0.009	336278.73 4	0.009	22.934	0.028	
FVA-119	3302670.71 6	0.013	338173.15 2	0.010	15.425	0.037	
FVA-131	3324401.92 6	0.014	289546.22 6	0.012	24.200	0.036	
FVA-132	3320407.80 9	0.012	335173.19 8	0.010	23.761	0.031	
GCT-FL02	3305801.24 7	?	373403.72 0	?	39.078	?	NEe
GCT-FL03	3320930.99 4	?	374236.08 8	?	39.815	?	NEe
GCT-FL06	3328642.53 3	0.001	348055.92 7	0.001	35.663	0.009	
GCT-FL07	3322302.19 5	0.002	277164.62 0	0.002	25.145	0.011	
GCT-FL08	3363962.82 5	0.002	310734.67 0	0.002	31.862	0.007	
GCT-FL09	3363790.48	0.001	267253.69	0.001	30.421	0.008	

	4		5				
GCT-FL10	3363730.87 8	0.001	236699.18 7	0.002	22.534	0.009	
GCT-FL11	3378974.51 1	0.001	267558.66 4	0.002	38.331	0.007	
GCT-FL12	3380635.95 6	0.001	240104.84 6	0.002	25.362	0.009	
GNVL	3284734.51 2	?	376458.30 4	?	51.733	0.010	LL
I75 H 1	3293055.87 8	0.002	364342.98 7	0.002	53.239	?	e
L 45	3367434.46 1	?	279047.51 3	?	28.259	?	LLe
LAFAY 14	3320475.47 4	0.002	301360.18 2	0.002	18.552	0.011	
LAFAY 3	3335443.61 2	?	272542.12 8	?	27.808	0.013	LL
LAKEPOR T AZ MK	3339935.91 6	0.002	348706.44 0	0.003	58.695	0.016	
LC1-101	3376385.87 9	0.012	239811.88 5	0.010	26.134	0.025	
LC1-102	3368623.94 1	0.011	240282.02 2	0.011	25.457	0.029	
LC1-103	3368079.68 8	0.018	251779.43 1	0.016	29.256	0.042	
LC1-104	3375567.41 2	0.013	251142.72 3	0.011	29.488	0.034	
LC1-105	3375444.67 5	0.009	263456.16 0	0.007	47.578	0.021	
LC1-106	3365568.06 5	0.011	261912.05 0	0.011	54.436	0.029	
LC1-107	3360246.10 2	0.013	296198.69 2	0.011	21.089	0.028	
LC1-108	3359933.94 3	0.011	309112.52 4	0.011	38.829	0.034	
LC1-109	3356840.02 9	0.014	302449.55 1	0.011	31.104	0.025	
LC1-110	3352070.44 6	0.013	304766.60 3	0.010	29.643	0.032	

LC1-111	3328391.68 3	0.018	282883.98 0	0.016	24.398	0.042	
LC1-112	3327951.87 5	0.013	290373.25 8	0.014	23.912	0.033	
LC1-113	3326588.35 2	0.051	296278.69 1	0.020	18.826	0.059	
LC1-114	3317776.29 8	0.031	331010.27 8	0.023	15.923	0.081	
LC1-115	3326687.53 9	0.014	330270.44 8	0.012	25.780	0.044	
LC1-116	3325467.80 3	0.012	341822.55 9	0.010	28.653	0.024	
LC1-117	3319078.66 7	0.011	344378.41 6	0.008	30.690	0.022	
LC1-118	3313863.49 5	0.010	336314.80 8	0.009	21.150	0.029	
LC1-119	3303888.91 6	0.019	338209.60 2	0.023	15.519	0.048	
LC1-131	3324771.94 0	0.013	289817.64 9	0.009	24.203	0.027	
LC1-132	3320435.11 6	0.012	335083.75 9	0.009	24.381	0.028	
LC2-101	3376439.91 5	0.016	239828.17 9	0.015	25.542	0.034	
LC2-104	3373788.79 6	0.013	248456.57 6	0.010	43.361	0.032	
LC2-105	3375468.55 3	0.012	263500.58 2	0.009	48.217	0.026	
LC2-106	3369397.22 0	0.013	264408.19 7	0.010	57.706	0.033	
LC2-107	3360794.89 7	0.014	295153.61 9	0.014	27.249	0.045	
LC2-108	3359963.39 0	0.011	309064.58 7	0.011	39.431	0.035	
LC2-109	3358390.29 7	0.012	299461.53 9	0.011	28.493	0.028	
LC2-110	3352676.06 1	0.014	306030.19 4	0.010	31.217	0.029	
LC2-112	3327933.59	0.017	290405.36	0.014	23.749	0.041	

	7		8				
LC2-113	3326635.60 3	0.015	296336.96 4	0.011	19.041	0.036	
LC2-114	3318637.45 8	0.015	329716.12 4	0.016	12.115	0.049	
LC2-115	3326786.33 1	0.017	327253.18 4	0.017	22.520	0.060	
LC2-117	3319383.80 0	0.008	345961.17 5	0.009	25.342	0.023	
LC2-118	3311457.86 6	0.011	334556.13 9	0.009	21.507	0.030	
LC2-131	3326602.66 5	0.015	290247.40 8	0.012	23.690	0.036	
LC2-132	3320377.13 8	0.012	335141.17 0	0.009	24.948	0.030	
LC3-101	3375678.16 3	0.012	240781.08 1	0.010	25.130	0.025	
LC3-102	3367234.81 0	0.012	239352.66 6	0.011	23.430	0.027	
LC3-103	3368086.89 9	0.027	251823.47 5	0.033	28.494	0.065	
LC3-104	3375531.06 0	0.012	251099.47 6	0.011	27.730	0.036	
LC3-105	3375626.46 5	0.012	258834.42 2	0.010	31.163	0.028	
LC3-106	3365624.11 0	0.012	262105.23 4	0.010	52.223	0.031	
LC3-107	3360404.69 4	0.018	295994.22 2	0.014	23.865	0.030	
LC3-109	3357179.56 6	0.013	301916.82 8	0.011	27.575	0.025	
LC3-110	3352737.53 2	0.013	306059.23 4	0.009	30.961	0.027	
LC3-111	3326266.32 1	0.013	281362.65 0	0.012	24.804	0.032	
LC3-113	3327010.51 8	0.012	297959.91 4	0.011	15.960	0.035	
LC3-114	3315666.99 6	0.012	333373.86 7	0.012	24.366	0.042	

LC3-115	3326528.78 0	0.012	330277.06 3	0.012	25.183	0.034	
LC3-116	3325281.04 8	0.014	340496.00 1	0.011	21.618	0.028	
LC3-117	3319110.21 8	0.010	344283.88 1	0.009	33.501	0.021	
LC3-118	3313617.88 1	0.009	336682.47 5	0.009	22.078	0.029	
LC3-119	3302659.68 5	0.015	338070.80 2	0.011	14.177	0.042	
LC3-131	3324365.26 6	0.015	289578.60 0	0.012	23.972	0.034	
LC3-132	3320293.30 4	0.014	335089.51 4	0.011	25.355	0.034	
LC4-101	3375487.90 6	0.011	241331.90 7	0.010	25.881	0.024	
LC4-102	3369561.62 1	0.014	241828.70 2	0.013	27.213	0.042	
LC4-104	3374909.69 0	0.013	250781.99 3	0.010	33.335	0.032	
LC4-105	3375386.87 3	0.012	263912.28 0	0.010	35.362	0.034	
LC4-106	3369411.32 4	0.015	264273.82 2	0.012	56.775	0.034	
LC4-107	3360047.16 8	0.019	296485.90 8	0.015	22.282	0.037	
LC4-108	3361134.79 4	0.012	307626.53 7	0.009	46.979	0.032	
LC4-109	3358371.34 4	0.011	299473.51 7	0.010	28.543	0.028	
LC4-111	3328297.01 3	0.014	282859.00 1	0.012	24.467	0.032	
LC4-112	3327928.69 9	0.013	290326.51 4	0.015	23.396	0.035	
LC4-113	3326982.90 2	0.012	297893.44 7	0.011	16.239	0.033	
LC4-115	3326735.82 8	0.013	331520.77 3	0.012	23.707	0.040	
LC4-116	3323076.92	0.010	341551.49	0.010	26.023	0.027	

	3		3				
LC4-117	3316377.57 1	0.009	344268.97 3	0.008	51.299	0.025	
LC4-118	3312563.23 7	0.009	338169.43 4	0.009	25.338	0.028	
LC4-119	3303933.46 3	0.018	338225.91 9	0.014	15.041	0.039	
LC4-131	3323647.12 6	0.017	288974.01 2	0.016	23.715	0.053	
LC4-132	3318837.21 5	0.013	335278.00 0	0.009	25.880	0.028	
N 369	3344823.14 4	0.002	324582.01 0	0.003	56.934	?	e
PRRY	3330203.05 7	?	251836.54 9	?	14.869	0.011	LL
SALEM NW BASE	3308582.51 2	0.002	267080.57 6	0.002	12.260	0.013	
SUWA 23	3331304.57 5	?	301193.58 3	?	13.926	0.011	LL
SUWA 26	3329954.17 7	?	318936.79 5	?	25.548	0.009	LL
SUWAPO RT AZ MK	3354011.64 9	?	305997.99 7	?	31.044	?	LLe
U 151	3351191.79 2	?	313202.01 2	?	32.735	?	LLe
U 355	3348113.91 2	0.001	287876.34 6	0.001	24.723	?	e
XCTY	3279755.65 3	?	295902.18 6	?	13.948	?	LLe

Adjusted Geodetic Coordinates

Point ID	Latitude	Longitude	Height (Meter)	Height Error (Meter)	Constraint
31 92 GPS 3	N29°49'47.56720"	W82°52'02.97465"	-12.412	0.007	
A 302	N29°52'25.62858"	W82°32'34.03968"	16.673	0.009	LL



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



C48	N30°23'31.75529"	W83°11'49.02511"	-9.454	0.007	
FLGPS 15	N30°33'57.58771"	W83°52'11.78396"	28.946	?	LLe
FLGPS 16	N30°13'02.97025"	W84°02'58.53235"	-21.478	?	LLe
FLGPS 19	N30°10'14.08835"	W83°17'27.72173"	-2.548	?	LLe
FLGPS 21	N30°26'56.82653"	W82°55'58.99291"	26.160	?	e
FLGPS 71	N30°33'31.11332"	W83°21'58.64735"	0.967	?	LLe
FVA-101	N30°29'28.82515"	W83°42'36.53113"	-1.098	0.019	
FVA-102	N30°24'33.62457"	W83°42'48.69559"	-2.926	0.023	
FVA-103	N30°23'48.29906"	W83°35'43.72034"	1.162	0.036	
FVA-104	N30°29'39.19348"	W83°35'37.08760"	3.511	0.030	
FVA-105	N30°29'18.82581"	W83°27'50.96255"	20.954	0.025	
FVA-106	N30°23'54.84829"	W83°28'39.96808"	25.828	0.027	
FVA-107	N30°21'42.93830"	W83°07'51.79819"	-0.799	0.033	
FVA-108	N30°22'01.25583"	W83°00'05.84142"	19.018	0.031	
FVA-109	N30°19'39.02107"	W83°03'17.87770"	2.979	0.026	
FVA-110	N30°17'07.02509"	W83°01'48.09567"	1.500	0.033	
FVA-111	N30°03'01.70520"	W83°16'00.77968"	-2.975	0.037	
FVA-112	N30°03'50.86223"	W83°10'29.33164"	-3.859	0.032	
FVA-113	N30°03'11.51249"	W83°06'54.12541"	-9.090	0.029	
FVA-114	N29°58'45.46860"	W82°44'59.41375"	-10.728	0.053	
FVA-115	N30°03'35.51360"	W82°45'39.89936"	-1.753	0.022	
FVA-116	N30°02'58.89490"	W82°38'23.37604"	-2.080	0.036	
FVA-117	N29°59'36.68292"	W82°36'47.07252"	1.498	0.023	
FVA-118	N29°56'37.65463"	W82°41'47.15932"	-4.989	0.028	
FVA-119	N29°50'38.19783"	W82°40'30.48774"	-12.549	0.037	
FVA-131	N30°01'57.27857"	W83°10'56.99635"	-3.675	0.036	
FVA-132	N30°00'12.76996"	W82°42'32.07382"	-4.166	0.031	
GCT-FL02	N29°52'34.72019"	W82°18'39.27384"	11.172	?	NEe
GCT-FL03	N30°00'46.44815"	W82°18'14.65892"	11.741	?	NEe
GCT-FL06	N30°04'46.19916"	W82°34'35.62502"	7.602	0.009	
GCT-FL07	N30°00'41.22504"	W83°18'37.35935"	-2.680	0.011	
GCT-FL08	N30°23'34.21644"	W82°58'11.91948"	3.798	0.007	
GCT-FL09	N30°23'01.24032"	W83°25'19.93894"	2.540	0.008	
GCT-FL10	N30°22'36.69937"	W83°44'23.58722"	-5.078	0.009	



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



GCT-FL11	N30°31'14.28385"	W83°25'20.70975"	10.400	0.007	
GCT-FL12	N30°31'47.92589"	W83°42'31.29870"	-2.381	0.009	
GNVL	N29°41'11.55705"	W82°16'36.73600"	23.885	0.010	LL
I75 H 1	N29°45'37.27966"	W82°24'11.17404"	25.384	?	e
L 45	N30°25'07.50816"	W83°18'01.15894"	0.258	?	LLe
LAFAY 14	N29°59'56.90738"	W83°03'33.54885"	-9.315	0.011	
LAFAY 3	N30°07'44.74389"	W83°21'39.89986"	-0.034	0.013	LL
LAKEPORT AZ MK	N30°10'53.25049"	W82°34'17.14115"	30.570	0.016	
LC1-101	N30°29'29.78412"	W83°42'38.45080"	-1.583	0.025	
LC1-102	N30°25'18.27538"	W83°42'13.87234"	-2.198	0.029	
LC1-103	N30°25'09.33775"	W83°35'02.87624"	1.547	0.042	
LC1-104	N30°29'11.86406"	W83°35'33.15303"	1.720	0.034	
LC1-105	N30°29'16.83381"	W83°27'51.61746"	19.699	0.021	
LC1-106	N30°23'55.18191"	W83°28'41.36755"	26.623	0.029	
LC1-107	N30°21'25.02765"	W83°07'13.68586"	-6.947	0.028	
LC1-108	N30°21'22.48969"	W82°59'10.02616"	10.770	0.034	
LC1-109	N30°19'38.18558"	W83°03'17.36781"	3.065	0.025	
LC1-110	N30°17'04.68824"	W83°01'47.45813"	1.620	0.032	
LC1-111	N30°04'02.60810"	W83°15'08.49550"	-3.485	0.042	
LC1-112	N30°03'53.03837"	W83°10'28.65740"	-3.988	0.033	
LC1-113	N30°03'12.36598"	W83°06'47.30156"	-9.068	0.059	
LC1-114	N29°58'45.27352"	W82°45'05.89179"	-11.980	0.081	
LC1-115	N30°03'34.28139"	W82°45'38.59977"	-2.175	0.044	
LC1-116	N30°03'00.25039"	W82°38'26.68294"	0.662	0.024	
LC1-117	N29°59'33.94056"	W82°36'47.91276"	2.718	0.022	
LC1-118	N29°56'40.79827"	W82°41'45.86723"	-6.773	0.029	
LC1-119	N29°51'17.77658"	W82°40'29.79040"	-12.454	0.048	
LC1-131	N30°02'09.45900"	W83°10'47.13229"	-3.675	0.027	
LC1-132	N30°00'13.61338"	W82°42'35.42605"	-3.545	0.028	
LC2-101	N30°29'31.55028"	W83°42'37.88890"	-2.175	0.034	
LC2-104	N30°28'12.13083"	W83°37'12.25943"	15.627	0.032	
LC2-105	N30°29'17.64029"	W83°27'49.97224"	20.338	0.026	
LC2-106	N30°26'01.22847"	W83°27'11.01666"	29.843	0.033	
LC2-107	N30°21'42.20739"	W83°07'53.19444"	-0.786	0.045	



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

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LC2-108	N30°21'23.41847"	W82°59'11.84016"	11.372	0.035	
LC2-109	N30°20'26.74480"	W83°05'10.26088"	0.455	0.028	
LC2-110	N30°17'25.08160"	W83°01'00.58980"	3.187	0.029	
LC2-112	N30°03'52.46479"	W83°10'27.44597"	-4.151	0.041	
LC2-113	N30°03'13.93497"	W83°06'45.15937"	-8.852	0.036	
LC2-114	N29°59'12.59349"	W82°45'54.65909"	-15.786	0.049	
LC2-115	N30°03'35.96734"	W82°47'31.29249"	-5.423	0.060	
LC2-117	N29°59'44.57010"	W82°35'49.02097"	-2.646	0.023	
LC2-118	N29°55'21.82838"	W82°42'50.10621"	-6.416	0.030	
LC2-131	N30°03'09.15880"	W83°10'32.39628"	-4.201	0.036	
LC2-132	N30°00'11.75841"	W82°42'33.25172"	-2.978	0.030	
LC3-101	N30°29'07.57295"	W83°42'01.50015"	-2.586	0.025	
LC3-102	N30°24'32.47562"	W83°42'47.42266"	-4.213	0.027	
LC3-103	N30°25'09.60442"	W83°35'01.23311"	0.785	0.065	
LC3-104	N30°29'10.65207"	W83°35'34.74230"	-0.038	0.036	
LC3-105	N30°29'19.42646"	W83°30'44.96942"	3.328	0.028	
LC3-106	N30°23'57.13816"	W83°28'34.18037"	24.407	0.031	
LC3-107	N30°21'30.05198"	W83°07'21.45140"	-4.171	0.030	
LC3-109	N30°19'48.89519"	W83°03'37.53590"	-0.464	0.025	
LC3-110	N30°17'27.09413"	W83°00'59.54419"	2.931	0.027	
LC3-111	N30°02'52.63636"	W83°16'03.70124"	-3.059	0.032	
LC3-113	N30°03'27.07669"	W83°05'44.84585"	-11.935	0.035	
LC3-114	N29°57'37.94090"	W82°43'36.54269"	-3.544	0.042	
LC3-115	N30°03'29.12934"	W82°45'38.26159"	-2.769	0.034	
LC3-116	N30°02'53.56502"	W82°39'16.10140"	-6.365	0.028	
LC3-117	N29°59'34.92197"	W82°36'51.45630"	5.530	0.021	
LC3-118	N29°56'32.99832"	W82°41'32.02227"	-5.848	0.029	
LC3-119	N29°50'37.79118"	W82°40'34.29450"	-13.797	0.042	
LC3-131	N30°01'56.10847"	W83°10'55.76233"	-3.903	0.034	
LC3-132	N30°00'09.01095"	W82°42'35.13235"	-2.571	0.034	
LC4-101	N30°29'01.82631"	W83°41'40.69150"	-1.836	0.024	
LC4-102	N30°25'49.90035"	W83°41'16.79344"	-0.455	0.042	
LC4-104	N30°28'50.25006"	W83°35'46.10330"	5.575	0.032	
LC4-105	N30°29'15.28074"	W83°27'34.47669"	7.479	0.034	



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

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LC4-106	N30°26'01.59155"	W83°27'16.06123"	28.915	0.034	
LC4-107	N30°21'18.74370"	W83°07'02.79478"	-5.754	0.037	
LC4-108	N30°22'00.62879"	W83°00'06.45225"	18.921	0.032	
LC4-109	N30°20'26.13665"	W83°05'09.79951"	0.505	0.028	
LC4-111	N30°03'59.51885"	W83°15'09.35814"	-3.415	0.032	
LC4-112	N30°03'52.25708"	W83°10'30.38556"	-4.504	0.035	
LC4-113	N30°03'26.14055"	W83°05'47.30769"	-11.656	0.033	
LC4-115	N30°03'36.47237"	W82°44'51.95181"	-4.253	0.040	
LC4-116	N30°01'42.48018"	W82°38'35.51994"	-1.947	0.027	
LC4-117	N29°58'06.17038"	W82°36'50.57693"	23.330	0.025	
LC4-118	N29°55'59.45764"	W82°40'36.00161"	-2.599	0.028	
LC4-119	N29°51'19.23096"	W82°40'29.20665"	-12.931	0.039	
LC4-131	N30°01'32.41943"	W83°11'17.80759"	-4.154	0.053	
LC4-132	N29°59'21.81703"	W82°42'27.29022"	-2.040	0.028	
N 369	N30°13'20.27858"	W82°49'21.76559"	28.871	?	e
PRRY	N30°04'40.11914"	W83°34'28.60935"	-12.876	0.011	LL
SALEM NW BASE	N29°53'09.13011"	W83°24'42.71489"	-15.492	0.013	
SUWA 23	N30°05'48.40118"	W83°03'47.04935"	-13.989	0.011	LL
SUWA 26	N30°05'14.49560"	W82°52'43.67841"	-2.386	0.009	LL
SUWAPORT AZ MK	N30°18'08.42546"	W83°01'02.68228"	3.008	?	LLe
U 151	N30°16'40.94914"	W82°56'31.31982"	4.688	?	LLe
U 355	N30°14'46.02224"	W83°12'16.40100"	-3.250	?	e
XCTY	N29°37'51.61280"	W83°06'29.33703"	-13.758	?	LLe

Adjusted ECEF Coordinates

Point ID	X (Meter)	X Error (Meter)	Y (Meter)	Y Error (Meter)	Z (Meter)	Z Error (Meter)	3D Error (Meter)	Constraint
31 92 GPS 3	687579.405	0.002	5494798.346	0.006	3154022.081	0.004	0.007	

A 302	718396.937	?	5488436.434	?	3158257.759	?	?	LL
C48	652268.582	0.002	5467614.227	0.006	3207942.609	0.004	0.008	
FLGPS 15	586962.863	?	5465211.787	?	3224571.217	?	?	LLe
FLGPS 16	571845.453	?	5486422.539	?	3191219.772	?	?	LLe
FLGPS 19	644737.311	?	5480984.862	?	3186734.434	?	?	LLe
FLGPS 21	677055.166	?	5461409.153	?	3213406.298	?	?	e
FLGPS 71	635025.713	?	5460228.951	?	3223854.971	?	?	LLe
FVA-101	602660.286	0.008	5467706.737	0.016	3217426.771	0.014	0.023	
FVA-102	602842.120	0.010	5472320.008	0.021	3209589.174	0.013	0.027	
FVA-103	614194.849	0.013	5471771.798	0.028	3208387.415	0.029	0.042	
FVA-104	613760.086	0.011	5466312.853	0.027	3217704.239	0.015	0.033	
FVA-105	626149.426	0.009	5465243.019	0.021	3217172.614	0.018	0.029	
FVA-106	625425.627	0.011	5470418.194	0.024	3208573.851	0.015	0.031	
FVA-107	658760.055	0.012	5468550.203	0.029	3205056.092	0.019	0.037	



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

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FVA-108	671079.282	0.009	5466782.055	0.026	3205552.806	0.020	0.034	
FVA-109	666255.227	0.012	5469587.436	0.021	3201764.870	0.020	0.032	
FVA-110	668922.402	0.011	5471640.100	0.031	3197723.236	0.016	0.037	
FVA-111	647830.606	0.013	5487345.563	0.033	3175216.555	0.020	0.041	
FVA-112	656557.222	0.016	5485543.943	0.027	3176526.234	0.021	0.038	
FVA-113	662352.414	0.010	5485453.982	0.024	3175474.889	0.021	0.033	
FVA-114	697819.474	0.014	5485184.713	0.045	3168380.645	0.034	0.058	
FVA-115	696180.780	0.009	5480896.665	0.021	3176118.240	0.011	0.025	
FVA-116	707850.878	0.011	5479970.840	0.027	3175142.099	0.028	0.041	
FVA-117	710810.293	0.009	5482732.302	0.019	3169752.669	0.017	0.027	
FVA-118	703182.282	0.009	5486486.439	0.024	3164973.806	0.017	0.031	
FVA-119	705924.117	0.011	5491689.554	0.035	3155374.355	0.017	0.041	
FVA-131	656029.396	0.013	5487371.049	0.034	3173498.852	0.018	0.041	

FVA-132	701567.680	0.011	5483357.593	0.029	3170712.182	0.016	0.035	
GCT-FL02	740583.724	?	5485341.183	?	3158497.766	?	?	NEe
GCT-FL03	740226.251	?	5477763.334	?	3171618.159	?	?	NEe
GCT-FL06	713688.468	0.001	5477552.779	0.007	3178006.591	0.004	0.009	
GCT-FL07	643917.088	0.002	5489986.168	0.009	3171471.679	0.006	0.011	
GCT-FL08	673919.739	0.002	5464960.700	0.006	3208014.688	0.004	0.008	
GCT-FL09	630823.739	0.002	5470618.799	0.006	3207138.087	0.004	0.008	
GCT-FL10	600522.964	0.002	5474405.716	0.008	3206482.287	0.005	0.009	
GCT-FL11	629922.616	0.002	5462983.497	0.006	3220230.640	0.004	0.007	
GCT-FL12	602560.548	0.002	5465528.683	0.007	3221116.565	0.005	0.009	
GNVL	745247.903	?	5495264.608	?	3140246.772	?	?	LL
I75 H 1	732602.923	?	5492873.373	?	3147352.920	?	?	e
L 45	642229.970	?	5467308.281	?	3210490.622	?	?	LLe
LAFAY 14	668048.606	0.002	5487783.685	0.009	3170286.607	0.006	0.011	

LAFAY 3	638303.102	?	5484065.480	?	3182759.072	?	?	LL
LAKEPORT AZ MK	713448.350	0.003	5471882.529	0.014	3187793.589	0.008	0.017	
LC1-101	602607.711	0.010	5467697.037	0.020	3217451.972	0.019	0.030	
LC1-102	603689.719	0.010	5471526.863	0.028	3210775.301	0.014	0.033	
LC1-103	615137.236	0.017	5470395.189	0.035	3210539.860	0.028	0.048	
LC1-104	613911.841	0.012	5466723.966	0.032	3216978.111	0.016	0.038	
LC1-105	626135.493	0.007	5465274.853	0.017	3217119.116	0.015	0.024	
LC1-106	625387.998	0.012	5470417.953	0.026	3208583.114	0.016	0.033	
LC1-107	659803.243	0.012	5468699.875	0.023	3204577.076	0.021	0.033	
LC1-108	672631.380	0.011	5467192.079	0.030	3204518.591	0.020	0.038	
LC1-109	666270.327	0.012	5469598.758	0.020	3201742.707	0.019	0.030	
LC1-110	668943.730	0.011	5471674.156	0.030	3197661.157	0.017	0.036	
LC1-111	649111.101	0.017	5486247.893	0.034	3176839.443	0.031	0.049	

LC1-112	656571.151	0.016	5485508.354	0.028	3176584.163	0.021	0.038	
LC1-113	662532.313	0.020	5485419.019	0.045	3175497.648	0.063	0.080	
LC1-114	697647.445	0.024	5485208.529	0.063	3168374.816	0.059	0.090	
LC1-115	696217.662	0.011	5480910.771	0.043	3176085.189	0.017	0.048	
LC1-116	707760.648	0.011	5479963.813	0.021	3175179.601	0.017	0.029	
LC1-117	710793.522	0.009	5482778.109	0.018	3169680.143	0.017	0.026	
LC1-118	703210.312	0.009	5486432.575	0.024	3165056.793	0.018	0.032	
LC1-119	705865.357	0.022	5491085.629	0.046	3156431.418	0.024	0.057	
LC1-131	656269.521	0.010	5487153.271	0.024	3173823.556	0.018	0.031	
LC1-132	701476.984	0.010	5483356.645	0.026	3170734.983	0.017	0.032	
LC2-101	602619.527	0.016	5467667.457	0.028	3217498.538	0.025	0.041	
LC2-104	611390.118	0.012	5467957.440	0.029	3215399.877	0.017	0.036	
LC2-105	626177.714	0.009	5465257.887	0.021	3217140.841	0.019	0.030	
LC2-106	627560.422	0.012	5468193.931	0.031	3211932.065	0.017	0.037	



USGS – Suwannee River Water Management District

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LC2-107	658724.399	0.016	5468565.968	0.039	3205036.678	0.026	0.049	
LC2-108	672581.597	0.011	5467184.164	0.031	3204543.575	0.019	0.038	
LC2-109	663185.422	0.012	5469210.657	0.026	3203032.001	0.016	0.032	
LC2-110	670148.668	0.010	5471208.989	0.026	3198204.218	0.018	0.033	
LC2-112	656604.403	0.015	5485513.143	0.032	3176568.796	0.030	0.046	
LC2-113	662586.403	0.011	5485388.301	0.029	3175539.573	0.026	0.040	
LC2-114	696297.196	0.017	5484952.992	0.045	3169101.576	0.024	0.053	
LC2-115	693219.448	0.017	5481261.743	0.056	3176128.495	0.028	0.065	
LC2-117	712337.229	0.009	5482408.074	0.021	3169960.935	0.012	0.026	
LC2-118	701655.511	0.010	5487855.207	0.029	3162949.703	0.014	0.033	
LC2-131	656552.114	0.013	5486192.057	0.031	3175414.605	0.024	0.041	
LC2-132	701538.474	0.010	5483378.069	0.028	3170685.802	0.016	0.034	
LC3-101	603625.179	0.010	5467933.072	0.021	3216862.052	0.018	0.030	

LC3-102	602877.731	0.011	5472332.986	0.026	3209558.009	0.014	0.032	
LC3-103	615180.275	0.031	5470385.503	0.059	3210546.555	0.040	0.078	
LC3-104	613871.664	0.012	5466746.008	0.033	3216945.057	0.018	0.039	
LC3-105	621535.899	0.010	5465744.883	0.023	3217179.610	0.021	0.032	
LC3-106	625574.931	0.011	5470363.974	0.029	3208633.952	0.015	0.035	
LC3-107	659588.279	0.014	5468649.459	0.023	3204711.985	0.026	0.038	
LC3-109	665715.031	0.012	5469495.543	0.022	3202025.581	0.017	0.030	
LC3-110	670172.576	0.010	5471174.346	0.025	3198257.602	0.016	0.031	
LC3-111	647769.267	0.012	5487493.536	0.027	3174974.793	0.020	0.036	
LC3-113	664165.663	0.012	5484990.468	0.031	3175888.285	0.020	0.038	
LC3-114	700155.491	0.012	5485940.440	0.036	3166582.941	0.025	0.045	
LC3-115	696236.597	0.011	5480987.949	0.033	3175947.582	0.015	0.038	
LC3-116	706460.099	0.011	5480229.430	0.023	3174997.891	0.022	0.033	
LC3-117	710697.701	0.009	5482777.753	0.018	3169707.722	0.014	0.025	



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LC3-118	703593.923	0.009	5486505.066	0.026	3164849.138	0.017	0.032	
LC3-119	705823.420	0.012	5491707.689	0.040	3155362.873	0.018	0.046	
LC3-131	656064.343	0.012	5487384.833	0.031	3173467.545	0.020	0.039	
LC3-132	701493.892	0.011	5483426.777	0.031	3170612.741	0.018	0.038	
LC4-101	604186.729	0.010	5467962.024	0.020	3216709.930	0.017	0.028	
LC4-102	605149.754	0.013	5470870.887	0.040	3211615.936	0.019	0.046	
LC4-104	613606.644	0.010	5467101.346	0.031	3216406.474	0.016	0.036	
LC4-105	626591.224	0.009	5465236.447	0.027	3217071.702	0.023	0.037	
LC4-106	627425.951	0.012	5468202.855	0.032	3211941.235	0.019	0.039	
LC4-107	660103.840	0.016	5468763.140	0.027	3204410.701	0.031	0.044	
LC4-108	671064.271	0.009	5466793.648	0.026	3205536.098	0.022	0.035	
LC4-109	663198.799	0.012	5469218.608	0.025	3203015.864	0.016	0.031	
LC4-111	649093.763	0.013	5486297.998	0.026	3176757.152	0.023	0.037	

LC4-112	656526.570	0.016	5485525.378	0.031	3176563.083	0.019	0.040	
LC4-113	664101.962	0.011	5485012.968	0.029	3175863.475	0.021	0.037	
LC4-115	697452.690	0.012	5480717.869	0.037	3176142.540	0.020	0.044	
LC4-116	707679.083	0.011	5481180.813	0.024	3173105.209	0.015	0.031	
LC4-117	710898.614	0.009	5484144.319	0.023	3167349.424	0.012	0.027	
LC4-118	705150.068	0.010	5486827.780	0.025	3163955.781	0.014	0.031	
LC4-119	705878.002	0.014	5491061.109	0.034	3156470.020	0.026	0.045	
LC4-131	655521.127	0.019	5487817.169	0.050	3172835.887	0.023	0.058	
LC4-132	701794.647	0.010	5484121.198	0.024	3169354.439	0.020	0.032	
N 369	689158.555	?	5472697.734	?	3191705.664	?	?	e
PRRY	618178.513	?	5489228.714	?	3177834.319	?	?	LL
SALEM NW BASE	634987.776	0.002	5498010.862	0.011	3159403.170	0.007	0.013	
SUWA 23	667034.375	?	5482443.524	?	3179653.052	?	?	LL
SUWA 26	684729.192	?	5480799.314	?	3178755.539	?	?	LL

SUWAPORT AZ MK	670011.291	?	5470547.299	?	3199356.563	?	?	LLe
U 151	677374.895	?	5471010.900	?	3197031.430	?	?	LLe
U 355	652510.563	?	5475821.282	?	3193970.683	?	?	e
XCTY	665805.634	?	5508490.252	?	3134878.275	?	?	LLe

Error Ellipse Components

Point ID	Semi-major axis (Meter)	Semi-minor axis (Meter)	Azimuth
31 92 GPS 3	0.002	0.001	69°
C48	0.002	0.002	40°
FLGPS 21	0.004	0.003	37°
FVA-101	0.011	0.009	176°
FVA-102	0.013	0.011	149°
FVA-103	0.023	0.015	166°
FVA-104	0.014	0.013	13°
FVA-105	0.015	0.010	170°
FVA-106	0.013	0.013	127°
FVA-107	0.015	0.014	22°
FVA-108	0.014	0.011	149°
FVA-109	0.018	0.014	17°
FVA-110	0.017	0.012	20°
FVA-111	0.015	0.013	58°
FVA-112	0.019	0.016	124°
FVA-113	0.017	0.011	156°



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothern & Tucker, Inc. (GCT)



FVA-114	0.022	0.017	146°
FVA-115	0.011	0.011	72°
FVA-116	0.021	0.013	161°
FVA-117	0.014	0.010	6°
FVA-118	0.012	0.010	136°
FVA-119	0.016	0.012	18°
FVA-131	0.018	0.015	174°
FVA-132	0.015	0.012	19°
GCT-FL06	0.001	0.001	83°
GCT-FL07	0.002	0.002	34°
GCT-FL08	0.002	0.002	39°
GCT-FL09	0.002	0.001	77°
GCT-FL10	0.002	0.002	68°
GCT-FL11	0.002	0.002	75°
GCT-FL12	0.002	0.002	76°
I75 H 1	0.003	0.003	54°
LAFAY 14	0.003	0.002	29°
LAKEPORT AZ MK	0.004	0.003	68°
LC1-101	0.016	0.012	170°
LC1-102	0.014	0.013	33°
LC1-103	0.022	0.020	170°
LC1-104	0.016	0.014	179°
LC1-105	0.012	0.008	163°
LC1-106	0.014	0.014	109°
LC1-107	0.016	0.013	19°
LC1-108	0.014	0.013	133°
LC1-109	0.017	0.014	18°
LC1-110	0.016	0.013	13°
LC1-111	0.023	0.020	10°
LC1-112	0.018	0.016	111°
LC1-113	0.064	0.023	8°
LC1-114	0.040	0.026	158°
LC1-115	0.019	0.014	36°
LC1-116	0.015	0.012	178°



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



LC1-117	0.014	0.010	3°
LC1-118	0.013	0.010	143°
LC1-119	0.031	0.020	58°
LC1-131	0.016	0.012	177°
LC1-132	0.016	0.012	179°
LC2-101	0.021	0.018	149°
LC2-104	0.016	0.013	169°
LC2-105	0.015	0.010	165°
LC2-106	0.017	0.013	173°
LC2-107	0.018	0.017	36°
LC2-108	0.013	0.013	125°
LC2-109	0.016	0.013	38°
LC2-110	0.018	0.012	10°
LC2-112	0.022	0.017	153°
LC2-113	0.020	0.013	155°
LC2-114	0.021	0.018	58°
LC2-115	0.025	0.017	41°
LC2-117	0.011	0.010	51°
LC2-118	0.014	0.011	166°
LC2-131	0.019	0.015	164°
LC2-132	0.016	0.012	8°
LC3-101	0.015	0.012	169°
LC3-102	0.015	0.014	158°
LC3-103	0.046	0.026	57°
LC3-104	0.015	0.013	9°
LC3-105	0.016	0.011	155°
LC3-106	0.015	0.013	6°
LC3-107	0.023	0.016	20°
LC3-109	0.016	0.014	25°
LC3-110	0.016	0.012	7°
LC3-111	0.016	0.014	30°
LC3-113	0.016	0.014	154°
LC3-114	0.017	0.013	130°
LC3-115	0.016	0.014	37°



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



LC3-116	0.018	0.013	6°
LC3-117	0.012	0.011	161°
LC3-118	0.012	0.010	123°
LC3-119	0.019	0.013	19°
LC3-131	0.019	0.015	9°
LC3-132	0.018	0.013	12°
LC4-101	0.014	0.012	173°
LC4-102	0.018	0.015	37°
LC4-104	0.017	0.012	11°
LC4-105	0.016	0.010	150°
LC4-106	0.019	0.014	12°
LC4-107	0.025	0.017	20°
LC4-108	0.015	0.011	162°
LC4-109	0.014	0.013	0°
LC4-111	0.018	0.015	15°
LC4-112	0.019	0.016	89°
LC4-113	0.016	0.013	151°
LC4-115	0.016	0.014	29°
LC4-116	0.013	0.013	32°
LC4-117	0.011	0.010	16°
LC4-118	0.012	0.011	82°
LC4-119	0.025	0.014	27°
LC4-131	0.021	0.019	148°
LC4-132	0.016	0.011	174°
N 369	0.004	0.003	73°
SALEM NW BASE	0.003	0.002	28°
U 355	0.002	0.002	44°

Adjusted GPS Observations

Transformation Parameters

Deflection in Latitude: -0.130 sec (95%) 0.023 sec

Deflection in Longitude: 0.050 sec (95%) 0.032 sec

Azimuth Rotation: -0.004 sec (95%) 0.002 sec

Scale Factor: 1.000000004 (95%) 0.000000001

Observation ID		Observation	A-posteriori Error	Residual	Standardized Residual
GCT-FL06 --> GCT-FL02 (PV456)	Az.	131°14'04"	0.007 sec	-0.057 sec	-4.472
	ΔHt.	3.563 m	0.009 m	0.028 m	2.978
	Ellip Dist.	34126.347 m	0.001 m	0.003 m	1.835
GCT-FL06 --> GCT-FL03 (PV308)	Az.	105°37'23"	0.008 sec	-0.063 sec	-4.371
	ΔHt.	4.141 m	0.009 m	-0.010 m	-0.943
	Ellip Dist.	27296.687 m	0.001 m	0.004 m	1.736
L 45 --> GCT-FL09 (PV591)	Az.	251°39'56"	0.020 sec	-0.128 sec	-3.652
	ΔHt.	2.277 m	0.008 m	0.048 m	4.144
	Ellip Dist.	12341.033 m	0.002 m	-0.004 m	-1.079
SUWA 23 --> U 355 (PV540)	Az.	320°34'29"	0.015 sec	0.028 sec	1.909
	ΔHt.	10.746 m	0.012 m	0.005 m	0.600
	Ellip Dist.	21442.744 m	0.001 m	0.005 m	4.053
FLGPS 16 --> GCT-FL12 (PV603)	Az.	43°19'18"	0.007 sec	0.003 sec	0.137
	ΔHt.	19.126 m	0.011 m	0.012 m	0.184
	Ellip Dist.	47684.453 m	0.002 m	0.035 m	3.925
PRRY --> L 45 (PV884)	Az.	34°51'52"	0.002 sec	-0.042	-3.914

				sec	
	ΔHt.	13.164 m	0.010 m	-0.014 m	-1.206
	Ellip Dist.	46102.334 m	0.001 m	-0.002 m	-1.139
PRRY --> LAFAY 3 (PV865)	Az.	74°30'18"	0.002 sec	0.080 sec	3.728
	ΔHt.	12.850 m	0.017 m	0.017 m	0.710
	Ellip Dist.	21352.106 m	0.000 m	0.002 m	0.748
LAFAY 3 --> FLGPS 19 (PV416)	Az.	55°42'38"	0.002 sec	-0.270 sec	-3.646
	ΔHt.	-2.509 m	0.013 m	0.006 m	0.346
	Ellip Dist.	8166.565 m	0.000 m	-0.007 m	-2.047
A 302 --> LC1-118 (PV11)	Az.	297°59'46"	0.105 sec	-0.108 sec	-1.115
	ΔHt.	-23.444 m	0.028 m	0.118 m	3.586
	Ellip Dist.	16759.328 m	0.010 m	0.004 m	0.421
SUWA 26 --> A 302 (PV217)	Az.	126°02'58"	0.002 sec	-0.014 sec	-1.366
	ΔHt.	19.052 m	0.007 m	-0.012 m	-1.378
	Ellip Dist.	40149.756 m	0.001 m	-0.006 m	-3.495
L 45 --> C48 (PV624)	Az.	106°30'27"	0.033 sec	0.206 sec	3.472
	ΔHt.	-9.712 m	0.008 m	0.002 m	0.094
	Ellip Dist.	10361.456 m	0.002 m	0.006 m	2.000
XCTY --> FVA-111 (PV987)	Az.	341°46'53"	0.052 sec	-0.618 sec	-3.417

	ΔHt.	10.808 m	0.037 m	-0.133 m	-1.347
	Ellip Dist.	48963.192 m	0.011 m	-0.013 m	-0.466
SUWAPORT AZ MK --> GCT-FL08 (PV419)	Az.	24°26'04"	0.029 sec	0.000 sec	-0.002
	ΔHt.	0.797 m	0.007 m	-0.003 m	-0.256
	Ellip Dist.	11020.394 m	0.002 m	0.009 m	3.414
SUWA 26 --> A 302 (PV239)	Az.	126°02'58"	0.002 sec	0.015 sec	1.703
	ΔHt.	19.052 m	0.007 m	0.011 m	1.463
	Ellip Dist.	40149.756 m	0.001 m	-0.005 m	-3.390
U 151 --> SUWAPORT AZ MK (PV432)	Az.	290°23'49"	0.002 sec	-0.266 sec	-3.324
	ΔHt.	-1.680 m	0.001 m	-0.022 m	-1.610
	Ellip Dist.	7735.875 m	0.000 m	-0.001 m	-0.389
FLGPS 16 --> GCT-FL10 (PV604)	Az.	59°15'14"	0.009 sec	-0.006 sec	-0.204
	ΔHt.	16.418 m	0.011 m	0.013 m	0.271
	Ellip Dist.	34637.488 m	0.002 m	0.025 m	3.305
U 151 --> U 355 (PV288)	Az.	262°05'30"	0.012 sec	-0.047 sec	-3.294
	ΔHt.	-7.947 m	0.003 m	-0.024 m	-2.323
	Ellip Dist.	25509.675 m	0.002 m	-0.003 m	-1.466
GCT-FL02 --> GCT-FL03 (PV454)	Az.	2°29'40"	0.002 sec	-0.054 sec	-1.436

	ΔHt.	0.578 m	0.002 m	-0.046 m	-3.250
	Ellip Dist.	15155.711 m	0.000 m	0.005 m	2.031
GCT-FL11 --> GCT-FL12 (PV617)	Az.	272°13'56"	0.008 sec	-0.010 sec	-0.926
	ΔHt.	-12.787 m	0.006 m	-0.025 m	-3.149
	Ellip Dist.	27494.465 m	0.001 m	0.002 m	1.368
L 45 --> GCT-FL11 (PV594)	Az.	313°57'37"	0.018 sec	0.017 sec	0.490
	ΔHt.	10.146 m	0.007 m	0.033 m	3.142
	Ellip Dist.	16280.118 m	0.001 m	-0.007 m	-2.847
SUWA 26 --> LC1-118 (PV218)	Az.	131°51'26"	0.071 sec	-0.057 sec	-0.932
	ΔHt.	-4.392 m	0.028 m	-0.074 m	-3.137
	Ellip Dist.	23684.223 m	0.010 m	0.009 m	1.086
GCT-FL12 --> GCT-FL09 (PV589)	Az.	120°26'43"	0.009 sec	-0.013 sec	-0.402
	ΔHt.	4.917 m	0.006 m	-0.033 m	-3.102
	Ellip Dist.	31939.271 m	0.001 m	0.000 m	0.053
XCTY --> SALEM NW BASE (PV969)	Az.	313°57'30"	0.012 sec	0.028 sec	3.067
	ΔHt.	-1.723 m	0.013 m	-0.003 m	-0.432
	Ellip Dist.	40755.878 m	0.002 m	-0.002 m	-1.149
GNVL --> GCT-FL02 (PV810)	Az.	351°06'56"	0.002 sec	0.068 sec	2.672
	ΔHt.	-12.701 m	0.010 m	0.024 m	2.140

	Ellip Dist.	21291.440 m	0.000 m	0.006 m	3.062
SUWA 23 --> LAFAY 14 (PV266)	Az.	178°05'07"	0.038 sec	-0.265 sec	-3.045
	ΔHt.	4.667 m	0.012 m	0.011 m	1.347
	Ellip Dist.	10829.438 m	0.002 m	0.003 m	0.612
FLGPS 21 --> N 369 (PV500)	Az.	157°05'37"	0.029 sec	-0.079 sec	-3.013
	ΔHt.	2.699 m	0.004 m	-0.025 m	-1.207
	Ellip Dist.	27291.687 m	0.003 m	0.002 m	0.730
FLGPS 71 --> GCT-FL11 (PV599)	Az.	231°58'39"	0.039 sec	0.149 sec	3.000
	ΔHt.	9.429 m	0.007 m	-0.013 m	-1.434
	Ellip Dist.	6838.474 m	0.002 m	0.003 m	1.575
FLGPS 71 --> GCT-FL08 (PV568)	Az.	115°40'50"	0.009 sec	0.008 sec	0.872
	ΔHt.	2.828 m	0.009 m	0.019 m	1.872
	Ellip Dist.	42261.736 m	0.002 m	-0.005 m	-2.969
GCT-FL06 --> N 369 (PV291)	Az.	303°47'11"	0.020 sec	-0.052 sec	-2.746
	ΔHt.	21.274 m	0.010 m	-0.005 m	-0.346
	Ellip Dist.	28512.258 m	0.003 m	0.008 m	2.947
GCT-FL02 --> I75 H 1 (PV520)	Az.	214°45'26"	0.028 sec	0.008 sec	0.252
	ΔHt.	14.201 m	0.002 m	-0.022 m	-1.035
	Ellip Dist.	15640.753 m	0.002 m	0.008 m	2.897

SUWA 26 --> GCT-FL06 (PV206)	Az.	91°38'14"	0.006 sec	-0.021 sec	-0.613
	ΔHt.	9.994 m	0.005 m	-0.031 m	-2.890
	Ellip Dist.	29150.321 m	0.001 m	-0.001 m	-0.221
XCTY --> LAFAY 14 (PV972)	Az.	6°35'09"	0.010 sec	-0.001 sec	-0.125
	ΔHt.	4.470 m	0.010 m	-0.026 m	-2.888
	Ellip Dist.	41079.857 m	0.002 m	-0.001 m	-0.374
LAFAY 3 --> L 45 (PV339)	Az.	10°18'13"	0.002 sec	-0.052 sec	-2.750
	ΔHt.	0.314 m	0.015 m	0.009 m	0.435
	Ellip Dist.	32638.399 m	0.000 m	0.010 m	2.886
A 302 --> GCT-FL06 (PV158)	Az.	351°52'26"	0.010 sec	0.043 sec	2.769
	ΔHt.	-9.058 m	0.007 m	0.000 m	-0.009
	Ellip Dist.	23035.590 m	0.001 m	0.003 m	1.803
A 302 --> FVA-118 (PV12)	Az.	297°38'53"	0.100 sec	-0.085 sec	-0.948
	ΔHt.	-21.661 m	0.028 m	0.063 m	2.703
	Ellip Dist.	16744.929 m	0.010 m	0.011 m	1.277
FLGPS 71 --> FLGPS 15 (PV607)	Az.	271°05'41"	0.003 sec	0.019 sec	2.679
	ΔHt.	27.967 m	0.005 m	0.000 m	-0.041
	Ellip Dist.	48325.753 m	0.001 m	0.002 m	0.901

SUWA 26 --> XCTY (PV915)	Az.	203°42'49"	0.002 sec	0.014 sec	2.668
	ΔHt.	-11.409 m	0.007 m	0.003 m	0.425
	Ellip Dist.	55227.982 m	0.001 m	-0.001 m	-0.409
SUWA 26 --> N 369 (PV290)	Az.	19°50'45"	0.036 sec	-0.123 sec	-2.629
	ΔHt.	31.268 m	0.010 m	-0.003 m	-0.163
	Ellip Dist.	15904.675 m	0.003 m	-0.001 m	-0.555
PRRY --> L 45 (PV903)	Az.	34°51'52"	0.002 sec	-0.032 sec	-2.622
	ΔHt.	13.164 m	0.010 m	-0.018 m	-1.280
	Ellip Dist.	46102.334 m	0.001 m	-0.001 m	-0.271
31 92 GPS 3 --> A 302 (PV16)	Az.	81°06'07"	0.007 sec	0.005 sec	0.532
	ΔHt.	29.095 m	0.007 m	0.006 m	0.844
	Ellip Dist.	31751.153 m	0.001 m	-0.004 m	-2.572
U 151 --> C48 (PV23)	Az.	297°21'40"	0.013 sec	-0.012 sec	-0.847
	ΔHt.	-14.140 m	0.008 m	0.002 m	0.168
	Ellip Dist.	27584.772 m	0.001 m	-0.004 m	-2.561
U 151 --> N 369 (PV357)	Az.	118°15'15"	0.042 sec	-0.028 sec	-0.375
	ΔHt.	24.182 m	0.002 m	-0.026 m	-1.141
	Ellip Dist.	13040.797 m	0.003 m	0.010 m	2.534
GCT-FL09 --> GCT-FL10	Az.	268°39'45"	0.009 sec	0.009 sec	0.732

(PV613)					
	ΔHt.	-7.625 m	0.007 m	-0.021 m	-2.530
	Ellip Dist.	30543.572 m	0.002 m	0.002 m	0.847
PRRY --> GCT-FL10 (PV887)	Az.	334°24'16"	0.009 sec	-0.008 sec	-0.718
	ΔHt.	7.815 m	0.011 m	0.037 m	2.499
	Ellip Dist.	36771.634 m	0.001 m	0.000 m	0.215
A 302 --> LC3-114 (PV33)	Az.	298°27'57"	0.110 sec	-0.086 sec	-0.896
	ΔHt.	-20.215 m	0.042 m	0.088 m	2.468
	Ellip Dist.	20206.139 m	0.013 m	0.007 m	0.605
FLGPS 71 --> C48 (PV581)	Az.	138°34'38"	0.014 sec	0.022 sec	0.672
	ΔHt.	-10.429 m	0.009 m	0.013 m	0.796
	Ellip Dist.	24598.039 m	0.002 m	-0.005 m	-2.433
LAFAY 3 --> SALEM NW BASE (PV498)	Az.	190°18'42"	0.015 sec	0.038 sec	2.394
	ΔHt.	-15.476 m	0.014 m	-0.004 m	-0.391
	Ellip Dist.	27403.757 m	0.002 m	-0.001 m	-0.341
L 45 --> GCT-FL09 (PV620)	Az.	251°39'56"	0.020 sec	-0.133 sec	-2.389
	ΔHt.	2.277 m	0.008 m	-0.020 m	-1.384
	Ellip Dist.	12341.033 m	0.002 m	-0.001 m	-0.248
SUWA 26 --> LAFAY 14 (PV378)	Az.	240°43'19"	0.020 sec	0.017 sec	1.264

	ΔHt.	-6.939 m	0.011 m	0.020 m	2.365
	Ellip Dist.	19968.655 m	0.002 m	0.003 m	1.646
FLGPS 71 --> GCT-FL09 (PV596)	Az.	195°29'14"	0.015 sec	0.046 sec	2.360
	ΔHt.	1.559 m	0.008 m	-0.012 m	-1.330
	Ellip Dist.	20126.098 m	0.001 m	-0.004 m	-2.137
L 45 --> GCT-FL11 (PV622)	Az.	313°57'37"	0.018 sec	-0.065 sec	-1.795
	ΔHt.	10.146 m	0.007 m	-0.030 m	-2.314
	Ellip Dist.	16280.118 m	0.001 m	-0.003 m	-1.138
A 302 --> GCT-FL06 (PV137)	Az.	351°52'26"	0.010 sec	0.017 sec	0.946
	ΔHt.	-9.058 m	0.007 m	-0.020 m	-2.284
	Ellip Dist.	23035.590 m	0.001 m	-0.002 m	-0.948
SUWA 26 --> LAKEPORT AZ MK (PV436)	Az.	70°31'13"	0.015 sec	0.005 sec	0.696
	ΔHt.	32.970 m	0.015 m	0.002 m	0.341
	Ellip Dist.	31400.349 m	0.003 m	-0.003 m	-2.276
SUWA 23 --> LAFAY 14 (PV563)	Az.	178°05'07"	0.038 sec	-0.158 sec	-1.249
	ΔHt.	4.667 m	0.012 m	-0.032 m	-2.269
	Ellip Dist.	10829.438 m	0.002 m	-0.002 m	-0.228
LAKEPORT AZ MK --> N 369 (PV435)	Az.	280°39'41"	0.025 sec	-0.015 sec	-1.014
	ΔHt.	-1.701 m	0.016 m	-0.013 m	-0.986

	Ellip Dist.	24616.217 m	0.004 m	0.009 m	2.267
SUWAPORT AZ MK --> C48 (PV433)	Az.	300°01'15"	0.017 sec	0.059 sec	2.262
	ΔHt.	-12.460 m	0.008 m	0.001 m	0.081
	Ellip Dist.	19928.054 m	0.001 m	0.003 m	1.237
SUWAPORT AZ MK --> U 355 (PV418)	Az.	250°57'18"	0.015 sec	0.052 sec	2.182
	ΔHt.	-6.266 m	0.002 m	-0.007 m	-0.593
	Ellip Dist.	19055.138 m	0.002 m	-0.002 m	-0.977
FLGPS 21 --> GCT-FL08 (PV502)	Az.	209°37'52"	0.069 sec	-0.016 sec	-0.309
	ΔHt.	-22.367 m	0.008 m	-0.006 m	-0.532
	Ellip Dist.	7177.263 m	0.003 m	0.005 m	2.140
GNVL --> XCTY (PV910)	Az.	265°49'53"	0.002 sec	0.002 sec	1.026
	ΔHt.	-37.667 m	0.008 m	-0.010 m	-2.139
	Ellip Dist.	80714.850 m	0.001 m	0.000 m	0.265
U 151 --> GCT-FL08 (PV204)	Az.	348°05'03"	0.027 sec	0.037 sec	1.130
	ΔHt.	-0.883 m	0.007 m	-0.022 m	-2.032
	Ellip Dist.	13006.721 m	0.002 m	-0.003 m	-1.246
PRRY --> SALEM NW BASE (PV841)	Az.	143°31'34"	0.019 sec	0.045 sec	2.009
	ΔHt.	-2.626 m	0.018 m	-0.007 m	-0.332
	Ellip	26445.960 m	0.002 m	0.002 m	0.684

	Dist.				
SUWA 23 --> FLGPS 19 (PV404)	Az.	290°29'07"	0.002 sec	0.025 sec	1.008
	ΔHt.	11.441 m	0.011 m	0.002 m	0.106
	Ellip Dist.	23440.021 m	0.000 m	0.004 m	1.953
N 369 --> GCT-FL08 (PV342)	Az.	323°11'40"	0.028 sec	-0.067 sec	-1.930
	ΔHt.	-25.065 m	0.008 m	0.000 m	-0.012
	Ellip Dist.	23623.390 m	0.003 m	0.003 m	1.055
SUWA 26 --> GCT-FL06 (PV207)	Az.	91°38'14"	0.006 sec	-0.005 sec	-1.320
	ΔHt.	9.994 m	0.005 m	0.007 m	1.910
	Ellip Dist.	29150.321 m	0.001 m	-0.002 m	-1.835
GCT-FL11 --> GCT-FL12 (PV584)	Az.	272°13'56"	0.008 sec	-0.030 sec	-0.685
	ΔHt.	-12.787 m	0.006 m	-0.020 m	-1.880
	Ellip Dist.	27494.465 m	0.001 m	0.000 m	-0.006
GNVL --> GCT-FL06 (PV815)	Az.	326°27'58"	0.005 sec	-0.012 sec	-1.878
	ΔHt.	-16.264 m	0.008 m	0.009 m	1.177
	Ellip Dist.	52302.124 m	0.001 m	-0.002 m	-0.759
GNVL --> I75 H 1 (PV809)	Az.	303°51'00"	0.033 sec	-0.020 sec	-0.544
	ΔHt.	1.500 m	0.009 m	-0.008 m	-0.556
	Ellip	14700.655 m	0.002 m	0.004 m	1.870

	Dist.				
L 45 --> FLGPS 19 (PV403)	Az.	178°08'15"	0.002 sec	0.025 sec	0.704
	ΔHt.	-2.823 m	0.004 m	-0.030 m	-1.107
	Ellip Dist.	27526.232 m	0.000 m	0.006 m	1.838
LAFAY 3 --> GCT-FL07 (PV184)	Az.	159°26'14"	0.028 sec	0.041 sec	1.470
	ΔHt.	-2.652 m	0.012 m	0.010 m	1.238
	Ellip Dist.	13927.554 m	0.002 m	-0.003 m	-1.824
SALEM NW BASE --> GCT-FL07 (PV483)	Az.	35°06'42"	0.025 sec	-0.009 sec	-0.420
	ΔHt.	12.824 m	0.012 m	-0.017 m	-1.790
	Ellip Dist.	17022.868 m	0.003 m	0.004 m	1.579
GCT-FL12 --> GCT-FL10 (PV615)	Az.	190°01'00"	0.020 sec	0.020 sec	0.764
	ΔHt.	-2.708 m	0.007 m	-0.016 m	-1.778
	Ellip Dist.	17237.055 m	0.001 m	0.000 m	0.197
FLGPS 19 --> U 355 (PV538)	Az.	44°48'58"	0.024 sec	-0.002 sec	-0.044
	ΔHt.	-0.695 m	0.002 m	-0.001 m	-0.100
	Ellip Dist.	11808.872 m	0.002 m	0.004 m	1.776
SUWA 26 --> LC3-114 (PV214)	Az.	133°45'38"	0.108 sec	-0.080 sec	-0.805
	ΔHt.	-1.163 m	0.041 m	-0.067 m	-1.768
	Ellip Dist.	20311.936 m	0.013 m	0.008 m	0.649

A 302 --> LC1-114 (PV32)	Az.	300°09'10"	0.225 sec	-0.067 sec	-0.915
	ΔHt.	-28.650 m	0.081 m	0.036 m	1.768
	Ellip Dist.	23309.118 m	0.028 m	0.005 m	0.630
31 92 GPS 3 --> XCTY (PV935)	Az.	226°37'25"	0.008 sec	0.004 sec	0.538
	ΔHt.	-1.366 m	0.007 m	-0.005 m	-0.808
	Ellip Dist.	32063.328 m	0.001 m	0.003 m	1.739
31 92 GPS 3 --> FVA-118 (PV8)	Az.	52°34'13"	0.097 sec	0.029 sec	0.352
	ΔHt.	7.435 m	0.028 m	-0.037 m	-1.717
	Ellip Dist.	20796.138 m	0.008 m	0.011 m	1.641
GCT-FL06 --> LC1-118 (PV138)	Az.	217°40'35"	0.111 sec	0.086 sec	0.884
	ΔHt.	-14.387 m	0.028 m	0.042 m	1.704
	Ellip Dist.	18876.964 m	0.008 m	0.011 m	1.571
PRRY --> FLGPS 16 (PV882)	Az.	288°48'49"	0.003 sec	-0.019 sec	-0.712
	ΔHt.	-8.603 m	0.013 m	0.044 m	1.137
	Ellip Dist.	48309.635 m	0.001 m	0.006 m	1.693
A 302 --> LC3-118 (PV13)	Az.	297°51'41"	0.105 sec	-0.143 sec	-1.526
	ΔHt.	-22.519 m	0.029 m	0.042 m	1.682
	Ellip Dist.	16318.850 m	0.010 m	0.005 m	0.615
SUWA 26 --> XCTY (PV916)	Az.	203°42'49"	0.002 sec	0.016 sec	1.652

	ΔHt.	-11.409 m	0.007 m	0.003 m	0.215
	Ellip Dist.	55227.982 m	0.001 m	0.000 m	0.039
SUWA 26 --> GCT-FL06 (PV223)	Az.	91°38'14"	0.006 sec	-0.014 sec	-1.635
	ΔHt.	9.994 m	0.005 m	-0.001 m	-0.161
	Ellip Dist.	29150.321 m	0.001 m	0.000 m	-0.097
LAKEPORT AZ MK --> GCT-FL06 (PV437)	Az.	182°30'28"	0.052 sec	0.027 sec	0.797
	ΔHt.	-22.975 m	0.015 m	0.015 m	1.374
	Ellip Dist.	11313.418 m	0.002 m	0.003 m	1.634
SUWA 23 --> LC4-113 (PV253)	Az.	216°19'55"	0.477 sec	-0.422 sec	-1.630
	ΔHt.	2.330 m	0.033 m	0.006 m	0.413
	Ellip Dist.	5437.103 m	0.011 m	-0.002 m	-0.267
GCT-FL08 --> LC1-107 (PV196)	Az.	254°39'39"	0.171 sec	-0.271 sec	-1.113
	ΔHt.	-10.751 m	0.028 m	-0.013 m	-0.386
	Ellip Dist.	15002.471 m	0.012 m	0.026 m	1.629
31 92 GPS 3 --> LC3-118 (PV9)	Az.	53°33'06"	0.093 sec	0.049 sec	0.606
	ΔHt.	6.576 m	0.029 m	-0.024 m	-0.927
	Ellip Dist.	21034.972 m	0.009 m	0.012 m	1.624
PRRY --> L 45 (PV843)	Az.	34°51'52"	0.002 sec	-0.013 sec	-0.834

	ΔHt.	13.164 m	0.010 m	-0.024 m	-1.602
	Ellip Dist.	46102.334 m	0.001 m	0.001 m	0.251
GCT-FL12 --> LC2-101 (PV681)	Az.	182°23'47"	0.753 sec	-0.622 sec	-1.589
	ΔHt.	0.203 m	0.033 m	-0.009 m	-0.579
	Ellip Dist.	4203.327 m	0.016 m	-0.012 m	-1.568
A 302 --> I75 H 1 (PV533)	Az.	132°55'32"	0.026 sec	-0.038 sec	-1.334
	ΔHt.	8.706 m	0.009 m	-0.007 m	-0.447
	Ellip Dist.	18450.200 m	0.002 m	0.004 m	1.585
LAFAY 3 --> LC4-113 (PV88)	Az.	107°16'17"	0.089 sec	-0.029 sec	-0.378
	ΔHt.	-11.620 m	0.034 m	0.003 m	0.078
	Ellip Dist.	26721.346 m	0.012 m	-0.017 m	-1.581
GCT-FL09 --> LC1-101 (PV670)	Az.	293°25'36"	0.080 sec	-0.066 sec	-0.670
	ΔHt.	-4.122 m	0.024 m	-0.048 m	-1.580
	Ellip Dist.	30183.747 m	0.011 m	-0.008 m	-0.614
PRRY --> GCT-FL09 (PV906)	Az.	23°21'33"	0.008 sec	-0.005 sec	-0.546
	ΔHt.	15.441 m	0.011 m	-0.017 m	-1.567
	Ellip Dist.	36945.192 m	0.001 m	-0.002 m	-1.356
LAFAY 3 --> LC1-131 (PV83)	Az.	120°31'16"	0.119 sec	-0.150 sec	-1.485

	ΔHt.	-3.643 m	0.027 m	-0.034 m	-1.561
	Ellip Dist.	20301.986 m	0.010 m	0.006 m	0.649
31 92 GPS 3 --> LAFAY 14 (PV396)	Az.	315°24'50"	0.018 sec	-0.007 sec	-0.498
	ΔHt.	3.104 m	0.011 m	0.012 m	1.552
	Ellip Dist.	26366.563 m	0.002 m	0.000 m	0.294
L 45 --> U 355 (PV539)	Az.	154°16'44"	0.015 sec	0.056 sec	1.457
	ΔHt.	-3.518 m	0.003 m	-0.034 m	-1.490
	Ellip Dist.	21238.426 m	0.001 m	0.004 m	1.550
GCT-FL11 --> GCT-FL10 (PV582)	Az.	242°29'02"	0.008 sec	-0.003 sec	-0.426
	ΔHt.	-15.495 m	0.007 m	0.013 m	1.522
	Ellip Dist.	34406.764 m	0.002 m	-0.002 m	-1.236
GCT-FL11 --> GCT-FL09 (PV590)	Az.	179°55'20"	0.020 sec	0.028 sec	1.202
	ΔHt.	-7.870 m	0.006 m	-0.012 m	-1.503
	Ellip Dist.	15183.028 m	0.001 m	0.001 m	0.563
FLGPS 15 --> GCT-FL11 (PV612)	Az.	96°33'56"	0.006 sec	-0.005 sec	-0.593
	ΔHt.	-18.538 m	0.009 m	-0.015 m	-1.500
	Ellip Dist.	43235.881 m	0.002 m	-0.002 m	-1.037
U 355 --> C48 (PV289)	Az.	2°35'05"	0.024 sec	0.008 sec	0.365
	ΔHt.	-6.194 m	0.008 m	0.011 m	1.205

	Ellip Dist.	16205.852 m	0.002 m	0.002 m	1.485
GCT-FL11 --> C48 (PV630)	Az.	123°16'41"	0.016 sec	0.053 sec	1.462
	ΔHt.	-19.858 m	0.010 m	-0.003 m	-0.277
	Ellip Dist.	25918.756 m	0.002 m	0.006 m	1.390
GCT-FL09 --> LC2-104 (PV678)	Az.	296°46'53"	0.114 sec	-0.011 sec	-0.109
	ΔHt.	13.088 m	0.031 m	-0.048 m	-1.433
	Ellip Dist.	21283.903 m	0.011 m	0.016 m	1.361
U 355 --> GCT-FL08 (PV268)	Az.	54°09'04"	0.012 sec	-0.005 sec	-0.612
	ΔHt.	7.063 m	0.007 m	0.009 m	1.432
	Ellip Dist.	27812.590 m	0.002 m	0.000 m	-0.065
XCTY --> GCT-FL07 (PV971)	Az.	335°10'56"	0.009 sec	0.004 sec	0.568
	ΔHt.	11.101 m	0.011 m	-0.004 m	-0.648
	Ellip Dist.	46482.273 m	0.002 m	-0.002 m	-1.432
GCT-FL09 --> LC2-101 (PV671)	Az.	293°31'58"	0.105 sec	-0.174 sec	-1.423
	ΔHt.	-4.714 m	0.034 m	0.011 m	0.261
	Ellip Dist.	30191.530 m	0.016 m	0.001 m	0.054
SUWA 26 --> LC4-115 (PV233)	Az.	103°24'15"	0.205 sec	0.018 sec	0.098
	ΔHt.	-1.866 m	0.039 m	-0.014 m	-0.458
	Ellip Dist.	12989.304 m	0.012 m	0.016 m	1.420

GCT-FL10 --> LC3-106 (PV797)	Az.	84°21'06"	0.095 sec	-0.063 sec	-0.592
	ΔHt.	29.492 m	0.030 m	-0.045 m	-1.417
	Ellip Dist.	25466.927 m	0.010 m	-0.003 m	-0.329
A 302 --> LC1-116 (PV52)	Az.	334°12'16"	0.097 sec	0.096 sec	1.059
	ΔHt.	-16.001 m	0.023 m	0.030 m	1.412
	Ellip Dist.	21708.605 m	0.011 m	0.000 m	0.037
GCT-FL06 --> FVA-115 (PV149)	Az.	263°04'17"	0.098 sec	0.077 sec	0.598
	ΔHt.	-9.360 m	0.020 m	-0.031 m	-1.395
	Ellip Dist.	17923.906 m	0.009 m	0.001 m	0.126
SUWA 26 --> FVA-118 (PV219)	Az.	132°05'13"	0.069 sec	-0.079 sec	-1.215
	ΔHt.	-2.608 m	0.028 m	-0.048 m	-1.393
	Ellip Dist.	23723.350 m	0.010 m	0.004 m	0.484
GCT-FL12 --> GCT-FL09 (PV616)	Az.	120°26'43"	0.009 sec	-0.009 sec	-0.836
	ΔHt.	4.917 m	0.006 m	-0.011 m	-1.385
	Ellip Dist.	31939.271 m	0.001 m	-0.001 m	-0.544
GCT-FL12 --> LC2-104 (PV688)	Az.	127°58'16"	0.216 sec	-0.048 sec	-0.273
	ΔHt.	18.005 m	0.031 m	0.008 m	0.350
	Ellip Dist.	10795.376 m	0.012 m	0.012 m	1.374

31 92 GPS 3 --> LC1-114 (PV38)	Az.	34°01'19"	0.299 sec	0.104 sec	0.309
	ΔHt.	0.445 m	0.081 m	-0.122 m	-1.368
	Ellip Dist.	19983.315 m	0.025 m	-0.004 m	-0.166
31 92 GPS 3 --> GNVL (PV833)	Az.	105°23'48"	0.005 sec	-0.006 sec	-1.352
	ΔHt.	36.301 m	0.008 m	0.005 m	0.724
	Ellip Dist.	59292.914 m	0.001 m	0.001 m	0.393
31 92 GPS 3 --> LC3-114 (PV39)	Az.	43°08'11"	0.140 sec	-0.010 sec	-0.082
	ΔHt.	8.881 m	0.042 m	-0.046 m	-1.346
	Ellip Dist.	19859.427 m	0.011 m	0.011 m	1.193
GCT-FL11 --> LC1-106 (PV793)	Az.	201°36'42"	0.157 sec	0.031 sec	0.243
	ΔHt.	16.213 m	0.029 m	0.032 m	1.344
	Ellip Dist.	14542.948 m	0.011 m	0.002 m	0.203
GCT-FL10 --> LC4-105 (PV738)	Az.	65°25'30"	0.086 sec	-0.113 sec	-1.341
	ΔHt.	12.571 m	0.034 m	0.010 m	0.344
	Ellip Dist.	29593.351 m	0.008 m	-0.004 m	-0.422
SUWA 23 --> FVA-113 (PV250)	Az.	226°03'22"	0.379 sec	-0.056 sec	-0.226
	ΔHt.	4.895 m	0.029 m	-0.010 m	-0.518
	Ellip Dist.	6959.944 m	0.010 m	-0.009 m	-1.339
A 302 --> FVA-114 (PV31)	Az.	300°22'51"	0.130 sec	-0.006	-0.056

				sec	
	ΔHt.	-27.399 m	0.053 m	0.059 m	1.335
	Ellip Dist.	23161.990 m	0.017 m	-0.013 m	-0.929
GCT-FL11 --> LC2-104 (PV708)	Az.	253°34'55"	0.130 sec	0.058 sec	0.426
	ΔHt.	5.219 m	0.031 m	-0.023 m	-0.625
	Ellip Dist.	19787.080 m	0.010 m	0.014 m	1.326
PRRY --> GCT-FL07 (PV845)	Az.	106°02'07"	0.015 sec	0.019 sec	1.261
	ΔHt.	10.198 m	0.016 m	0.009 m	0.531
	Ellip Dist.	26524.211 m	0.002 m	-0.002 m	-0.551
U 355 --> FVA-107 (PV277)	Az.	28°49'23"	0.153 sec	0.030 sec	0.212
	ΔHt.	2.461 m	0.033 m	0.039 m	1.257
	Ellip Dist.	14656.441 m	0.012 m	0.003 m	0.278
XCTY --> A 302 (PV934)	Az.	63°39'24"	0.002 sec	-0.002 sec	-0.446
	ΔHt.	30.461 m	0.008 m	0.009 m	1.130
	Ellip Dist.	60947.736 m	0.001 m	-0.003 m	-1.253
SUWA 26 --> 31 92 GPS 3 (PV240)	Az.	177°48'27"	0.010 sec	0.011 sec	1.043
	ΔHt.	-10.043 m	0.006 m	-0.008 m	-1.247
	Ellip Dist.	28562.977 m	0.001 m	0.000 m	-0.346
U 151 --> LC4-109 (PV100)	Az.	296°37'40"	0.144 sec	-0.053 sec	-0.348
	ΔHt.	-4.182 m	0.028 m	-0.036 m	-1.245

	Ellip Dist.	15491.525 m	0.011 m	-0.006 m	-0.555
GCT-FL11 --> LC3-106 (PV803)	Az.	200°59'26"	0.148 sec	-0.054 sec	-0.429
	ΔHt.	13.997 m	0.030 m	0.031 m	1.244
	Ellip Dist.	14417.202 m	0.012 m	0.002 m	0.171
A 302 --> LC3-116 (PV50)	Az.	330°53'13"	0.111 sec	0.103 sec	0.908
	ΔHt.	-23.028 m	0.028 m	0.035 m	1.241
	Ellip Dist.	22137.618 m	0.013 m	0.005 m	0.413
U 355 --> N 369 (PV341)	Az.	94°00'45"	0.015 sec	-0.015 sec	-0.866
	ΔHt.	32.129 m	0.004 m	0.010 m	0.563
	Ellip Dist.	36850.500 m	0.003 m	0.004 m	1.223
31 92 GPS 3 --> I75 H 1 (PV534)	Az.	99°37'27"	0.011 sec	-0.003 sec	-0.305
	ΔHt.	37.801 m	0.009 m	-0.004 m	-0.339
	Ellip Dist.	45555.499 m	0.002 m	0.002 m	1.223
U 355 --> LC1-107 (PV280)	Az.	33°20'11"	0.152 sec	0.029 sec	0.143
	ΔHt.	-3.688 m	0.028 m	-0.007 m	-0.191
	Ellip Dist.	14710.323 m	0.013 m	-0.023 m	-1.197
31 92 GPS 3 --> LC1-118 (PV7)	Az.	52°25'01"	0.101 sec	-0.082 sec	-0.952
	ΔHt.	5.651 m	0.028 m	-0.025 m	-1.196
	Ellip	20882.478 m	0.008 m	0.007 m	1.104

	Dist.				
GCT-FL11 --> GCT-FL10 (PV614)	Az.	242°29'02"	0.008 sec	0.008 sec	0.957
	ΔHt.	-15.495 m	0.007 m	-0.009 m	-1.187
	Ellip Dist.	34406.764 m	0.002 m	0.001 m	0.628
GCT-FL09 --> LC3-105 (PV727)	Az.	323°20'49"	0.125 sec	-0.040 sec	-0.355
	ΔHt.	0.794 m	0.028 m	-0.029 m	-1.186
	Ellip Dist.	14520.712 m	0.013 m	-0.004 m	-0.330
U 151 --> LC4-108 (PV117)	Az.	329°44'17"	0.164 sec	-0.074 sec	-0.342
	ΔHt.	14.238 m	0.032 m	-0.028 m	-0.663
	Ellip Dist.	11399.030 m	0.012 m	0.018 m	1.185
A 302 --> LC3-117 (PV19)	Az.	332°26'28"	0.118 sec	0.131 sec	1.183
	ΔHt.	-11.136 m	0.020 m	0.022 m	1.183
	Ellip Dist.	14913.073 m	0.010 m	0.002 m	0.228
U 151 --> LC1-109 (PV97)	Az.	296°43'57"	0.234 sec	-0.078 sec	-0.301
	ΔHt.	-1.622 m	0.025 m	-0.028 m	-1.176
	Ellip Dist.	12145.021 m	0.011 m	-0.005 m	-0.420
A 302 --> FVA-117 (PV17)	Az.	332°56'16"	0.129 sec	0.133 sec	0.978
	ΔHt.	-15.168 m	0.022 m	0.026 m	1.150
	Ellip Dist.	14907.261 m	0.010 m	0.008 m	0.806

31 92 GPS 3 --> GCT-FL06 (PV159)	Az.	45°21'06"	0.007 sec	0.002 sec	0.343
	ΔHt.	20.038 m	0.006 m	-0.007 m	-1.145
	Ellip Dist.	39425.311 m	0.002 m	0.000 m	0.069
LAFAY 3 --> FVA-113 (PV85)	Az.	109°28'09"	0.093 sec	0.000 sec	-0.005
	ΔHt.	-9.055 m	0.030 m	0.006 m	0.196
	Ellip Dist.	25166.610 m	0.011 m	-0.012 m	-1.145
GCT-FL12 --> LC3-103 (PV772)	Az.	135°35'07"	0.434 sec	-0.454 sec	-1.122
	ΔHt.	3.160 m	0.065 m	-0.069 m	-1.141
	Ellip Dist.	17163.086 m	0.022 m	0.020 m	1.004
A 302 --> LC2-132 (PV63)	Az.	311°48'43"	0.111 sec	0.110 sec	1.131
	ΔHt.	-19.646 m	0.029 m	0.023 m	0.856
	Ellip Dist.	21546.464 m	0.010 m	-0.002 m	-0.180
GCT-FL06 --> LC1-116 (PV155)	Az.	242°13'11"	0.334 sec	0.074 sec	0.303
	ΔHt.	-6.943 m	0.023 m	-0.005 m	-0.302
	Ellip Dist.	6995.992 m	0.010 m	0.009 m	1.128
SUWA 23 --> LC2-113 (PV251)	Az.	225°05'39"	0.462 sec	-0.293 sec	-1.127
	ΔHt.	5.132 m	0.035 m	0.000 m	0.021
	Ellip Dist.	6736.246 m	0.011 m	0.000 m	0.047
GCT-FL06 --> FVA-118 (PV139)	Az.	217°34'51"	0.106 sec	-0.036	-0.395

				sec	
	ΔHt.	-12.603 m	0.028 m	-0.001 m	-0.027
	Ellip Dist.	18974.816 m	0.008 m	0.008 m	1.122
LAFAY 3 --> LC4-131 (PV81)	Az.	124°29'27"	0.157 sec	0.006 sec	0.054
	ΔHt.	-4.123 m	0.053 m	-0.037 m	-1.095
	Ellip Dist.	20223.889 m	0.017 m	-0.008 m	-0.696
GCT-FL10 --> FVA-105 (PV734)	Az.	64°52'26"	0.081 sec	-0.031 sec	-0.373
	ΔHt.	26.046 m	0.025 m	0.001 m	0.051
	Ellip Dist.	29239.568 m	0.009 m	0.009 m	1.093
U 151 --> FLGPS 21 (PV518)	Az.	2°36'14"	0.029 sec	0.023 sec	1.084
	ΔHt.	21.483 m	0.003 m	-0.013 m	-0.961
	Ellip Dist.	18984.996 m	0.003 m	-0.002 m	-0.972
A 302 --> LC4-132 (PV65)	Az.	308°53'25"	0.112 sec	0.049 sec	0.508
	ΔHt.	-18.709 m	0.028 m	0.026 m	1.080
	Ellip Dist.	20430.188 m	0.011 m	-0.003 m	-0.282
GCT-FL12 --> GCT-FL10 (PV583)	Az.	190°01'00"	0.020 sec	-0.020 sec	-0.878
	ΔHt.	-2.708 m	0.007 m	0.001 m	0.145
	Ellip Dist.	17237.055 m	0.001 m	0.002 m	1.073
GCT-FL06 --> LC2-118 (PV165)	Az.	217°21'49"	0.095 sec	0.047 sec	0.562
	ΔHt.	-14.032 m	0.030 m	-0.028 m	-1.057

	Ellip Dist.	21855.025 m	0.010 m	0.001 m	0.104
GCT-FL12 --> LC4-105 (PV733)	Az.	101°03'28"	0.091 sec	-0.023 sec	-0.248
	ΔHt.	9.863 m	0.033 m	-0.036 m	-1.046
	Ellip Dist.	24370.470 m	0.010 m	0.008 m	0.725
U 355 --> FVA-108 (PV273)	Az.	55°28'30"	0.095 sec	-0.043 sec	-0.438
	ΔHt.	22.281 m	0.031 m	0.036 m	1.040
	Ellip Dist.	23678.032 m	0.009 m	0.004 m	0.379
U 151 --> LC2-109 (PV99)	Az.	296°40'09"	0.167 sec	-0.093 sec	-0.402
	ΔHt.	-4.233 m	0.028 m	-0.038 m	-1.032
	Ellip Dist.	15510.924 m	0.011 m	-0.003 m	-0.236
GCT-FL06 --> LC4-116 (PV143)	Az.	228°39'28"	0.244 sec	0.143 sec	0.715
	ΔHt.	-9.554 m	0.026 m	0.008 m	0.354
	Ellip Dist.	8561.468 m	0.011 m	0.009 m	1.025
GCT-FL08 --> LC4-108 (PV190)	Az.	226°42'18"	0.552 sec	-0.192 sec	-0.746
	ΔHt.	15.121 m	0.032 m	-0.017 m	-1.024
	Ellip Dist.	4201.965 m	0.009 m	0.000 m	-0.079
31 92 GPS 3 --> FVA-116 (PV58)	Az.	41°59'43"	0.099 sec	-0.076 sec	-0.796
	ΔHt.	10.353 m	0.035 m	0.027 m	0.885

	Ellip Dist.	32815.352 m	0.013 m	0.011 m	1.022
LAFAY 3 --> LC3-111 (PV73)	Az.	134°57'05"	0.207 sec	-0.003 sec	-0.019
	ΔHt.	-3.028 m	0.031 m	0.001 m	0.037
	Ellip Dist.	12726.153 m	0.012 m	-0.010 m	-1.011
U 355 --> LC4-108 (PV274)	Az.	55°29'28"	0.101 sec	-0.027 sec	-0.184
	ΔHt.	22.184 m	0.032 m	0.032 m	0.842
	Ellip Dist.	23653.663 m	0.009 m	0.011 m	0.999
C48 --> LC3-107 (PV106)	Az.	117°39'42"	0.461 sec	-0.191 sec	-0.605
	ΔHt.	5.283 m	0.031 m	0.005 m	0.257
	Ellip Dist.	8067.634 m	0.013 m	0.009 m	0.996
31 92 GPS 3 --> FVA-115 (PV53)	Az.	21°55'13"	0.067 sec	0.052 sec	0.596
	ΔHt.	10.677 m	0.021 m	-0.011 m	-0.452
	Ellip Dist.	27486.056 m	0.009 m	0.011 m	0.994
GCT-FL09 --> C48 (PV627)	Az.	87°27'27"	0.018 sec	0.017 sec	0.599
	ΔHt.	-11.988 m	0.010 m	-0.003 m	-0.162
	Ellip Dist.	21669.259 m	0.002 m	-0.003 m	-0.992
GCT-FL06 --> LC1-132 (PV147)	Az.	236°53'21"	0.157 sec	-0.007 sec	-0.048
	ΔHt.	-11.155 m	0.028 m	-0.027 m	-0.989
	Ellip	15351.915 m	0.010 m	0.007 m	0.702

	Dist.				
U 355 --> LC2-110 (PV271)	Az.	74°46'55"	0.146 sec	-0.050 sec	-0.408
	ΔHt.	6.444 m	0.029 m	0.024 m	0.980
	Ellip Dist.	18716.276 m	0.010 m	0.000 m	-0.046
GCT-FL07 --> LC1-131 (PV166)	Az.	77°47'56"	0.202 sec	0.006 sec	0.034
	ΔHt.	-0.991 m	0.027 m	0.022 m	0.980
	Ellip Dist.	12889.509 m	0.009 m	-0.007 m	-0.888
GCT-FL08 --> C48 (PV205)	Az.	269°51'30"	0.018 sec	0.013 sec	0.979
	ΔHt.	-13.257 m	0.009 m	0.008 m	0.964
	Ellip Dist.	21813.291 m	0.002 m	0.001 m	0.459
GCT-FL12 --> LC1-106 (PV775)	Az.	123°16'08"	0.084 sec	0.011 sec	0.155
	ΔHt.	28.999 m	0.029 m	-0.023 m	-0.978
	Ellip Dist.	26496.835 m	0.011 m	-0.001 m	-0.071
XCTY --> LC1-131 (PV980)	Az.	351°15'11"	0.042 sec	-0.030 sec	-0.722
	ΔHt.	10.110 m	0.027 m	0.008 m	0.343
	Ellip Dist.	45419.746 m	0.013 m	-0.013 m	-0.973
U 355 --> LC3-110 (PV272)	Az.	74°37'17"	0.135 sec	0.007 sec	0.059
	ΔHt.	6.188 m	0.027 m	0.023 m	0.967
	Ellip Dist.	18759.493 m	0.010 m	0.000 m	-0.037

GNVL --> GCT-FL06 (PV816)	Az.	326°27'58"	0.005 sec	0.007 sec	0.485
	ΔHt.	-16.264 m	0.008 m	0.007 m	0.938
	Ellip Dist.	52302.124 m	0.001 m	-0.002 m	-0.594
SUWA 26 --> FVA-114 (PV212)	Az.	133°53'20"	0.166 sec	0.062 sec	0.418
	ΔHt.	-8.347 m	0.053 m	-0.035 m	-0.833
	Ellip Dist.	17269.231 m	0.018 m	-0.014 m	-0.938
GCT-FL08 --> FVA-108 (PV189)	Az.	226°44'39"	0.531 sec	-0.102 sec	-0.373
	ΔHt.	15.218 m	0.031 m	-0.013 m	-0.825
	Ellip Dist.	4176.853 m	0.009 m	0.004 m	0.934
SUWA 26 --> LC3-119 (PV216)	Az.	144°01'48"	0.085 sec	0.095 sec	0.931
	ΔHt.	-11.422 m	0.041 m	0.010 m	0.222
	Ellip Dist.	33334.383 m	0.012 m	0.006 m	0.471
GCT-FL06 --> LC3-117 (PV162)	Az.	200°48'00"	0.183 sec	0.145 sec	0.817
	ΔHt.	-2.078 m	0.020 m	0.000 m	-0.024
	Ellip Dist.	10252.613 m	0.009 m	0.008 m	0.930
XCTY --> I75 H 1 (PV911)	Az.	77°57'30"	0.006 sec	-0.005 sec	-0.919
	ΔHt.	39.167 m	0.008 m	-0.002 m	-0.159
	Ellip Dist.	69723.878 m	0.002 m	0.000 m	-0.163
GCT-FL12 --> LC3-106 (PV794)	Az.	122°56'00"	0.089 sec	0.041 sec	0.519
	ΔHt.	26.783 m	0.030 m	0.025 m	0.800

	Ellip Dist.	26624.336 m	0.011 m	0.009 m	0.915
GCT-FL10 --> LC2-105 (PV735)	Az.	64°57'38"	0.083 sec	0.033 sec	0.386
	ΔHt.	25.430 m	0.026 m	-0.023 m	-0.906
	Ellip Dist.	29248.120 m	0.008 m	0.001 m	0.106
SUWA 26 --> FVA-119 (PV215)	Az.	143°52'31"	0.075 sec	0.016 sec	0.273
	ΔHt.	-10.175 m	0.037 m	-0.017 m	-0.613
	Ellip Dist.	33384.232 m	0.011 m	-0.007 m	-0.903
SUWA 26 --> LC4-118 (PV221)	Az.	131°10'52"	0.072 sec	-0.005 sec	-0.073
	ΔHt.	-0.219 m	0.027 m	-0.002 m	-0.087
	Ellip Dist.	25930.461 m	0.009 m	-0.007 m	-0.901
GCT-FL06 --> FVA-116 (PV154)	Az.	241°34'24"	0.501 sec	-0.224 sec	-0.897
	ΔHt.	-9.685 m	0.035 m	-0.009 m	-0.476
	Ellip Dist.	6937.554 m	0.011 m	0.006 m	0.718
GCT-FL11 --> LC3-103 (PV790)	Az.	234°05'26"	0.227 sec	0.068 sec	0.461
	ΔHt.	-9.626 m	0.065 m	0.045 m	0.888
	Ellip Dist.	19128.704 m	0.037 m	0.016 m	0.653
GCT-FL07 --> LC4-131 (PV182)	Az.	82°20'47"	0.291 sec	0.148 sec	0.723
	ΔHt.	-1.471 m	0.053 m	0.032 m	0.885
	Ellip Dist.	11883.581 m	0.016 m	0.005 m	0.546

GCT-FL11 --> LC4-104 (PV707)	Az.	255°09'01"	0.152 sec	-0.019 sec	-0.142
	ΔHt.	-4.832 m	0.032 m	0.024 m	0.879
	Ellip Dist.	17256.630 m	0.011 m	0.006 m	0.614
FLGPS 15 --> FLGPS 16 (PV606)	Az.	204°07'29"	0.003 sec	0.014 sec	0.877
	ΔHt.	-50.452 m	0.006 m	0.028 m	0.693
	Ellip Dist.	42317.287 m	0.001 m	0.005 m	0.834
GCT-FL12 --> FVA-103 (PV771)	Az.	143°36'47"	0.149 sec	0.066 sec	0.476
	ΔHt.	3.536 m	0.036 m	-0.027 m	-0.875
	Ellip Dist.	18340.255 m	0.017 m	0.006 m	0.413
A 302 --> FVA-132 (PV61)	Az.	311°55'46"	0.112 sec	0.045 sec	0.457
	ΔHt.	-20.834 m	0.031 m	0.027 m	0.875
	Ellip Dist.	21543.682 m	0.010 m	-0.006 m	-0.646
GCT-FL06 --> FVA-117 (PV160)	Az.	200°17'20"	0.174 sec	0.033 sec	0.214
	ΔHt.	-6.111 m	0.022 m	-0.006 m	-0.316
	Ellip Dist.	10160.631 m	0.011 m	0.009 m	0.873
31 92 GPS 3 --> FVA-114 (PV37)	Az.	34°25'22"	0.178 sec	-0.056 sec	-0.341
	ΔHt.	1.697 m	0.053 m	-0.046 m	-0.873
	Ellip Dist.	20086.091 m	0.014 m	0.007 m	0.558
GCT-FL09 --> FVA-103 (PV783)	Az.	275°01'02"	0.217 sec	0.158 sec	0.871
	ΔHt.	-1.381 m	0.036 m	0.027 m	0.843

	Ellip Dist.	16715.567 m	0.013 m	0.007 m	0.702
SUWA 23 --> LC3-113 (PV254)	Az.	215°56'51"	0.477 sec	-0.229 sec	-0.865
	ΔHt.	2.051 m	0.034 m	0.009 m	0.572
	Ellip Dist.	5374.944 m	0.011 m	0.003 m	0.553
C48 --> LC4-108 (PV125)	Az.	98°27'32"	0.122 sec	0.045 sec	0.317
	ΔHt.	28.378 m	0.032 m	0.027 m	0.828
	Ellip Dist.	18966.852 m	0.010 m	-0.008 m	-0.859
U 151 --> LC3-110 (PV115)	Az.	281°13'52"	0.358 sec	0.110 sec	0.273
	ΔHt.	-1.758 m	0.027 m	-0.022 m	-0.858
	Ellip Dist.	7307.773 m	0.009 m	0.001 m	0.142
GCT-FL06 --> LC4-132 (PV148)	Az.	231°42'34"	0.150 sec	-0.013 sec	-0.101
	ΔHt.	-9.651 m	0.028 m	-0.014 m	-0.549
	Ellip Dist.	16107.968 m	0.010 m	0.008 m	0.849
U 151 --> LC2-110 (PV114)	Az.	280°42'47"	0.395 sec	0.188 sec	0.404
	ΔHt.	-1.502 m	0.029 m	-0.024 m	-0.844
	Ellip Dist.	7323.453 m	0.009 m	0.002 m	0.192
A 302 --> LC2-117 (PV20)	Az.	338°51'44"	0.127 sec	0.095 sec	0.842
	ΔHt.	-19.311 m	0.023 m	0.001 m	0.057
	Ellip Dist.	14492.230 m	0.008 m	0.001 m	0.114

GCT-FL08 --> LC2-108 (PV192)	Az.	201°40'05"	0.511 sec	0.013 sec	0.057
	ΔHt.	7.571 m	0.035 m	-0.013 m	-0.841
	Ellip Dist.	4333.929 m	0.011 m	0.001 m	0.300
XCTY --> FVA-131 (PV995)	Az.	350°50'55"	0.054 sec	0.009 sec	0.164
	ΔHt.	10.110 m	0.037 m	-0.091 m	-0.841
	Ellip Dist.	45090.558 m	0.014 m	0.031 m	0.671
GCT-FL11 --> LC3-105 (PV742)	Az.	247°46'29"	0.286 sec	0.066 sec	0.254
	ΔHt.	-7.076 m	0.028 m	0.013 m	0.512
	Ellip Dist.	9341.886 m	0.009 m	0.007 m	0.840
PRRY --> GCT-FL10 (PV905)	Az.	334°24'16"	0.009 sec	-0.008 sec	-0.648
	ΔHt.	7.815 m	0.011 m	0.010 m	0.819
	Ellip Dist.	36771.634 m	0.001 m	0.001 m	0.839
GCT-FL11 --> C48 (PV629)	Az.	123°16'41"	0.016 sec	-0.001 sec	-0.030
	ΔHt.	-19.858 m	0.010 m	-0.005 m	-0.341
	Ellip Dist.	25918.756 m	0.002 m	0.002 m	0.825
U 355 --> LC2-109 (PV286)	Az.	47°18'49"	0.141 sec	-0.005 sec	-0.042
	ΔHt.	3.714 m	0.028 m	0.019 m	0.824
	Ellip Dist.	15484.206 m	0.013 m	0.004 m	0.354
C48 --> LC1-108 (PV126)	Az.	101°03'34"	0.105 sec	-0.085 sec	-0.823

	ΔHt.	20.226 m	0.035 m	-0.011 m	-0.261
	Ellip Dist.	20652.978 m	0.011 m	0.002 m	0.220
GCT-FL06 --> LC3-114 (PV134)	Az.	227°44'31"	0.142 sec	0.003 sec	0.025
	ΔHt.	-11.157 m	0.041 m	0.025 m	0.638
	Ellip Dist.	19595.765 m	0.011 m	0.008 m	0.821
31 92 GPS 3 --> LC4-118 (PV10)	Az.	58°06'14"	0.083 sec	0.004 sec	0.051
	ΔHt.	9.824 m	0.027 m	-0.005 m	-0.232
	Ellip Dist.	21701.105 m	0.009 m	0.007 m	0.820
GCT-FL11 --> GCT-FL09 (PV588)	Az.	179°55'20"	0.020 sec	-0.003 sec	-0.102
	ΔHt.	-7.870 m	0.006 m	0.007 m	0.816
	Ellip Dist.	15183.028 m	0.001 m	0.000 m	0.261
LAFAY 14 --> GCT-FL07 (PV340)	Az.	273°17'14"	0.023 sec	0.002 sec	0.078
	ΔHt.	6.631 m	0.013 m	0.011 m	0.812
	Ellip Dist.	24260.816 m	0.002 m	0.000 m	0.179
GCT-FL10 --> LC4-101 (PV693)	Az.	20°07'04"	0.163 sec	0.040 sec	0.317
	ΔHt.	3.250 m	0.023 m	-0.014 m	-0.811
	Ellip Dist.	12631.280 m	0.011 m	-0.001 m	-0.075
GCT-FL08 --> LC3-107 (PV198)	Az.	255°25'58"	0.226 sec	-0.008 sec	-0.048
	ΔHt.	-7.974 m	0.031 m	-0.005 m	-0.228
	Ellip	15162.638 m	0.015 m	0.009 m	0.806

	Dist.				
A 302 --> LC3-119 (PV25)	Az.	255°35'15"	0.214 sec	0.004 sec	0.025
	ΔHt.	-30.475 m	0.041 m	0.006 m	0.225
	Ellip Dist.	13310.667 m	0.012 m	-0.008 m	-0.806
GCT-FL06 --> LC2-114 (PV128)	Az.	240°35'48"	0.142 sec	-0.085 sec	-0.803
	ΔHt.	-23.398 m	0.048 m	-0.011 m	-0.306
	Ellip Dist.	20893.042 m	0.017 m	0.002 m	0.167
SUWA 26 --> LC3-117 (PV243)	Az.	112°13'17"	0.069 sec	0.009 sec	0.145
	ΔHt.	7.916 m	0.020 m	-0.013 m	-0.802
	Ellip Dist.	27570.662 m	0.009 m	0.000 m	0.025
SUWA 26 --> LC3-118 (PV220)	Az.	131°41'31"	0.071 sec	-0.049 sec	-0.798
	ΔHt.	-3.467 m	0.029 m	-0.002 m	-0.085
	Ellip Dist.	24121.009 m	0.010 m	-0.003 m	-0.317
U 151 --> FVA-110 (PV113)	Az.	275°26'25"	0.329 sec	-0.212 sec	-0.556
	ΔHt.	-3.190 m	0.033 m	-0.027 m	-0.795
	Ellip Dist.	8504.061 m	0.010 m	0.004 m	0.347
GCT-FL11 --> FVA-102 (PV759)	Az.	246°15'36"	0.071 sec	-0.036 sec	-0.640
	ΔHt.	-13.341 m	0.022 m	0.013 m	0.795
	Ellip Dist.	30557.568 m	0.009 m	-0.004 m	-0.623

GCT-FL06 --> FVA-115 (PV156)	Az.	263°04'17"	0.098 sec	-0.097 sec	-0.793
	ΔHt.	-9.360 m	0.020 m	0.011 m	0.459
	Ellip Dist.	17923.906 m	0.009 m	0.005 m	0.550
GCT-FL06 --> FVA-132 (PV144)	Az.	236°37'25"	0.143 sec	0.033 sec	0.255
	ΔHt.	-11.776 m	0.031 m	-0.021 m	-0.792
	Ellip Dist.	15291.095 m	0.011 m	0.007 m	0.746
GCT-FL06 --> LC3-118 (PV140)	Az.	216°20'12"	0.105 sec	0.014 sec	0.151
	ΔHt.	-13.461 m	0.029 m	-0.019 m	-0.791
	Ellip Dist.	18845.737 m	0.008 m	0.004 m	0.556
SUWA 23 --> FVA-111 (PV255)	Az.	255°24'42"	0.108 sec	0.032 sec	0.343
	ΔHt.	11.005 m	0.037 m	0.000 m	-0.002
	Ellip Dist.	20310.059 m	0.012 m	-0.008 m	-0.786
U 355 --> LC2-107 (PV278)	Az.	28°44'15"	0.191 sec	0.127 sec	0.785
	ΔHt.	2.474 m	0.045 m	-0.008 m	-0.190
	Ellip Dist.	14618.748 m	0.014 m	0.000 m	-0.035
GCT-FL10 --> LC2-104 (PV698)	Az.	48°03'59"	0.160 sec	-0.015 sec	-0.119
	ΔHt.	20.714 m	0.031 m	0.018 m	0.780
	Ellip Dist.	15466.027 m	0.011 m	0.007 m	0.764
GCT-FL09 --> LC1-105 (PV726)	Az.	340°43'27"	0.110 sec	-0.030 sec	-0.289

	ΔHt.	17.166 m	0.021 m	-0.015 m	-0.778
	Ellip Dist.	12253.879 m	0.010 m	0.000 m	-0.023
SUWA 26 --> LC1-117 (PV242)	Az.	112°12'16"	0.079 sec	0.009 sec	0.140
	ΔHt.	5.104 m	0.021 m	-0.013 m	-0.778
	Ellip Dist.	27669.999 m	0.009 m	0.002 m	0.295
GCT-FL09 --> GCT-FL10 (PV587)	Az.	268°39'45"	0.009 sec	-0.007 sec	-0.778
	ΔHt.	-7.625 m	0.007 m	0.002 m	0.212
	Ellip Dist.	30543.572 m	0.002 m	-0.001 m	-0.669
LAFAY 3 --> LC1-112 (PV77)	Az.	111°36'19"	0.140 sec	0.070 sec	0.647
	ΔHt.	-3.954 m	0.033 m	0.020 m	0.774
	Ellip Dist.	19337.359 m	0.015 m	-0.008 m	-0.747
GCT-FL06 --> LC2-132 (PV146)	Az.	236°35'29"	0.151 sec	0.000 sec	-0.002
	ΔHt.	-10.588 m	0.029 m	-0.022 m	-0.770
	Ellip Dist.	15334.606 m	0.011 m	0.008 m	0.773
SUWA 26 --> FVA-117 (PV241)	Az.	112°01'30"	0.082 sec	0.013 sec	0.184
	ΔHt.	3.884 m	0.022 m	-0.014 m	-0.771
	Ellip Dist.	27658.872 m	0.009 m	0.002 m	0.337
C48 --> LC2-110 (PV122)	Az.	123°03'24"	0.134 sec	0.048 sec	0.431
	ΔHt.	12.638 m	0.029 m	0.001 m	0.055
	Ellip Dist.	20675.025 m	0.010 m	0.007 m	0.768

GCT-FL07 --> FVA-113 (PV168)	Az.	76°09'07"	0.140 sec	0.102 sec	0.767
	ΔHt.	-6.403 m	0.029 m	-0.007 m	-0.272
	Ellip Dist.	19401.767 m	0.009 m	0.004 m	0.426
GCT-FL09 --> FVA-102 (PV756)	Az.	275°52'34"	0.073 sec	0.044 sec	0.767
	ΔHt.	-5.471 m	0.022 m	0.001 m	0.050
	Ellip Dist.	28140.259 m	0.010 m	0.005 m	0.656
GCT-FL11 --> FVA-105 (PV739)	Az.	228°25'26"	0.417 sec	-0.085 sec	-0.320
	ΔHt.	10.551 m	0.024 m	0.004 m	0.239
	Ellip Dist.	5356.647 m	0.009 m	0.005 m	0.766
A 302 --> LC4-116 (PV60)	Az.	330°32'44"	0.110 sec	0.078 sec	0.761
	ΔHt.	-18.611 m	0.026 m	0.010 m	0.413
	Ellip Dist.	19696.757 m	0.010 m	0.000 m	-0.041
SUWA 26 --> LC4-117 (PV245)	Az.	117°14'54"	0.062 sec	-0.009 sec	-0.160
	ΔHt.	25.715 m	0.024 m	0.015 m	0.760
	Ellip Dist.	28742.393 m	0.008 m	0.000 m	-0.074
GCT-FL09 --> LC3-102 (PV757)	Az.	275°48'40"	0.086 sec	0.041 sec	0.585
	ΔHt.	-6.758 m	0.026 m	-0.008 m	-0.404
	Ellip Dist.	28102.939 m	0.011 m	0.007 m	0.753
LAFAY 3 --> FVA-131 (PV80)	Az.	121°48'50"	0.136 sec	0.092 sec	0.750
	ΔHt.	-3.643 m	0.036 m	0.023 m	0.752

	Ellip Dist.	20270.681 m	0.013 m	0.002 m	0.161
A 302 --> FVA-115 (PV42)	Az.	314°26'49"	0.063 sec	-0.033 sec	-0.419
	ΔHt.	-18.418 m	0.021 m	0.020 m	0.743
	Ellip Dist.	29485.617 m	0.009 m	-0.004 m	-0.373
GCT-FL12 --> LC2-105 (PV730)	Az.	101°04'45"	0.096 sec	-0.020 sec	-0.199
	ΔHt.	22.721 m	0.026 m	0.019 m	0.727
	Ellip Dist.	23950.965 m	0.009 m	0.000 m	0.016
A 302 --> LC1-117 (PV18)	Az.	332°42'43"	0.127 sec	0.078 sec	0.562
	ΔHt.	-13.948 m	0.021 m	0.012 m	0.518
	Ellip Dist.	14842.460 m	0.010 m	0.007 m	0.726
GCT-FL10 --> LC1-105 (PV736)	Az.	64°58'07"	0.067 sec	-0.023 sec	-0.343
	ΔHt.	24.791 m	0.021 m	-0.004 m	-0.198
	Ellip Dist.	29197.865 m	0.007 m	0.005 m	0.723
C48 --> FVA-108 (PV124)	Az.	98°23'38"	0.110 sec	-0.082 sec	-0.717
	ΔHt.	28.475 m	0.032 m	0.004 m	0.133
	Ellip Dist.	18980.120 m	0.010 m	0.000 m	0.027
GCT-FL11 --> LC4-105 (PV743)	Az.	224°14'06"	0.490 sec	-0.197 sec	-0.583
	ΔHt.	-2.924 m	0.033 m	0.013 m	0.514

	Ellip Dist.	5113.977 m	0.009 m	0.004 m	0.716
U 151 --> LC1-110 (PV112)	Az.	274°58'01"	0.310 sec	-0.240 sec	-0.712
	ΔHt.	-3.070 m	0.033 m	-0.011 m	-0.328
	Ellip Dist.	8480.621 m	0.010 m	0.001 m	0.142
31 92 GPS 3 --> FVA-115 (PV44)	Az.	21°55'13"	0.067 sec	0.031 sec	0.159
	ΔHt.	10.677 m	0.021 m	0.024 m	0.711
	Ellip Dist.	27486.056 m	0.009 m	-0.005 m	-0.337
U 151 --> LC1-107 (PV92)	Az.	297°03'17"	0.141 sec	0.114 sec	0.706
	ΔHt.	-11.634 m	0.028 m	-0.011 m	-0.318
	Ellip Dist.	19262.419 m	0.011 m	-0.001 m	-0.071
GCT-FL08 --> LC1-108 (PV191)	Az.	200°56'05"	0.521 sec	0.113 sec	0.479
	ΔHt.	6.969 m	0.034 m	0.001 m	0.054
	Ellip Dist.	4342.986 m	0.010 m	0.003 m	0.706
GCT-FL10 --> LC3-102 (PV754)	Az.	35°44'57"	0.550 sec	0.000 sec	0.001
	ΔHt.	0.868 m	0.026 m	-0.021 m	-0.705
	Ellip Dist.	4393.317 m	0.011 m	0.002 m	0.122
GCT-FL06 --> LC3-116 (PV153)	Az.	245°14'17"	0.333 sec	-0.010 sec	-0.038
	ΔHt.	-13.970 m	0.028 m	-0.013 m	-0.602
	Ellip Dist.	8274.410 m	0.012 m	0.007 m	0.705

SUWA 26 --> LC2-118 (PV246)	Az.	138°52'50"	0.078 sec	0.046 sec	0.701
	ΔHt.	-4.038 m	0.030 m	0.016 m	0.678
	Ellip Dist.	24209.747 m	0.010 m	0.002 m	0.215
LAFAY 3 --> LC2-113 (PV86)	Az.	109°07'43"	0.108 sec	-0.035 sec	-0.408
	ΔHt.	-8.817 m	0.036 m	-0.011 m	-0.350
	Ellip Dist.	25368.314 m	0.013 m	-0.008 m	-0.697
XCTY --> FVA-113 (PV982)	Az.	359°11'14"	0.043 sec	-0.031 sec	-0.696
	ΔHt.	4.698 m	0.029 m	0.019 m	0.661
	Ellip Dist.	46804.884 m	0.013 m	-0.003 m	-0.236
GCT-FL07 --> LC4-112 (PV180)	Az.	65°41'50"	0.188 sec	0.011 sec	0.077
	ΔHt.	-1.818 m	0.034 m	-0.006 m	-0.263
	Ellip Dist.	14311.547 m	0.015 m	-0.007 m	-0.695
C48 --> LC1-109 (PV108)	Az.	117°43'36"	0.184 sec	-0.016 sec	-0.101
	ΔHt.	12.518 m	0.025 m	0.015 m	0.695
	Ellip Dist.	15441.056 m	0.011 m	-0.001 m	-0.074
GCT-FL08 --> FVA-107 (PV193)	Az.	257°33'39"	0.154 sec	0.094 sec	0.694
	ΔHt.	-4.602 m	0.033 m	-0.008 m	-0.284
	Ellip Dist.	15857.295 m	0.011 m	0.005 m	0.528
U 355 --> LC2-108 (PV276)	Az.	59°40'17"	0.091 sec	0.010 sec	0.118
	ΔHt.	14.635 m	0.035 m	0.022 m	0.686

	Ellip Dist.	24274.100 m	0.011 m	0.004 m	0.445
31 92 GPS 3 --> LC4-117 (PV5)	Az.	57°50'27"	0.058 sec	0.001 sec	0.018
	ΔHt.	35.758 m	0.024 m	-0.014 m	-0.685
	Ellip Dist.	28894.818 m	0.008 m	0.002 m	0.236
GCT-FL11 --> FVA-101 (PV699)	Az.	263°22'01"	0.067 sec	0.001 sec	0.014
	ΔHt.	-11.507 m	0.018 m	0.011 m	0.683
	Ellip Dist.	27810.165 m	0.007 m	0.003 m	0.516
GCT-FL12 --> LC4-104 (PV687)	Az.	116°49'46"	0.224 sec	0.006 sec	0.028
	ΔHt.	7.955 m	0.032 m	-0.004 m	-0.132
	Ellip Dist.	12110.918 m	0.010 m	0.006 m	0.682
GCT-FL10 --> LC4-106 (PV798)	Az.	76°58'21"	0.106 sec	-0.039 sec	-0.432
	ΔHt.	34.003 m	0.034 m	-0.015 m	-0.557
	Ellip Dist.	28143.266 m	0.012 m	0.008 m	0.682
GCT-FL06 --> LC3-132 (PV145)	Az.	236°25'57"	0.168 sec	0.005 sec	0.039
	ΔHt.	-10.181 m	0.033 m	-0.017 m	-0.676
	Ellip Dist.	15423.371 m	0.013 m	0.003 m	0.272
FLGPS 21 --> C48 (PV519)	Az.	256°04'51"	0.022 sec	0.009 sec	0.590
	ΔHt.	-35.624 m	0.008 m	-0.009 m	-0.676
	Ellip Dist.	26129.053 m	0.003 m	0.000 m	0.147

SALEM NW BASE --> GCT-FL07 (PV807)	Az.	35°06'42"	0.025 sec	0.007 sec	0.353
	ΔHt.	12.824 m	0.012 m	0.007 m	0.676
	Ellip Dist.	17022.868 m	0.003 m	-0.001 m	-0.467
GCT-FL12 --> LC1-101 (PV680)	Az.	182°34'02"	0.475 sec	-0.044 sec	-0.132
	ΔHt.	0.795 m	0.024 m	0.010 m	0.674
	Ellip Dist.	4258.313 m	0.012 m	0.001 m	0.144
GCT-FL12 --> LC2-106 (PV796)	Az.	113°26'34"	0.097 sec	-0.044 sec	-0.523
	ΔHt.	32.223 m	0.033 m	0.019 m	0.665
	Ellip Dist.	26766.567 m	0.011 m	0.005 m	0.545
U 355 --> FVA-110 (PV270)	Az.	75°27'38"	0.150 sec	-0.012 sec	-0.100
	ΔHt.	4.756 m	0.033 m	0.018 m	0.662
	Ellip Dist.	17346.833 m	0.011 m	0.005 m	0.584
SUWA 26 --> FVA-115 (PV237)	Az.	105°00'09"	0.152 sec	0.128 sec	0.661
	ΔHt.	0.634 m	0.020 m	0.015 m	0.534
	Ellip Dist.	11751.758 m	0.009 m	-0.003 m	-0.265
GCT-FL09 --> FVA-101 (PV669)	Az.	293°24'49"	0.060 sec	-0.006 sec	-0.101
	ΔHt.	-3.637 m	0.018 m	-0.012 m	-0.661
	Ellip Dist.	30125.049 m	0.008 m	0.000 m	-0.043

GCT-FL11 --> LC1-105 (PV741)	Az.	228°03'39"	0.346 sec	-0.143 sec	-0.627
	ΔHt.	9.296 m	0.020 m	0.009 m	0.660
	Ellip Dist.	5410.543 m	0.007 m	0.003 m	0.562
LAFAY 3 --> LC3-113 (PV89)	Az.	107°10'14"	0.092 sec	-0.047 sec	-0.588
	ΔHt.	-11.899 m	0.035 m	-0.019 m	-0.593
	Ellip Dist.	26775.690 m	0.012 m	-0.007 m	-0.658
GCT-FL09 --> LC4-106 (PV801)	Az.	330°50'36"	0.426 sec	-0.084 sec	-0.286
	ΔHt.	26.377 m	0.034 m	0.003 m	0.124
	Ellip Dist.	6360.117 m	0.014 m	-0.007 m	-0.657
A 302 --> LC1-115 (PV47)	Az.	314°26'29"	0.106 sec	-0.011 sec	-0.110
	ΔHt.	-18.840 m	0.043 m	0.026 m	0.655
	Ellip Dist.	29434.202 m	0.011 m	-0.001 m	-0.156
GCT-FL11 --> LC3-101 (PV702)	Az.	261°45'07"	0.093 sec	-0.051 sec	-0.611
	ΔHt.	-12.995 m	0.024 m	-0.014 m	-0.648
	Ellip Dist.	26970.370 m	0.010 m	0.001 m	0.146
GCT-FL12 --> LC3-102 (PV751)	Az.	181°50'18"	0.171 sec	-0.095 sec	-0.644
	ΔHt.	-1.841 m	0.026 m	0.012 m	0.556
	Ellip Dist.	13416.392 m	0.012 m	0.003 m	0.358

GCT-FL10 --> LC4-104 (PV697)	Az.	50°10'10"	0.129 sec	-0.048 sec	-0.405
	ΔHt.	10.663 m	0.032 m	-0.012 m	-0.411
	Ellip Dist.	17972.925 m	0.012 m	0.008 m	0.642
SUWA 26 --> LC1-116 (PV236)	Az.	100°08'59"	0.102 sec	0.004 sec	0.044
	ΔHt.	3.051 m	0.023 m	-0.014 m	-0.635
	Ellip Dist.	23322.394 m	0.010 m	0.002 m	0.182
GCT-FL09 --> FVA-106 (PV786)	Az.	287°11'33"	0.375 sec	0.155 sec	0.633
	ΔHt.	23.288 m	0.027 m	0.002 m	0.108
	Ellip Dist.	5589.328 m	0.010 m	0.002 m	0.288
GCT-FL09 --> LC3-104 (PV675)	Az.	304°46'53"	0.123 sec	0.024 sec	0.219
	ΔHt.	-2.575 m	0.035 m	-0.012 m	-0.390
	Ellip Dist.	19963.670 m	0.011 m	0.006 m	0.631
U 355 --> LC1-110 (PV269)	Az.	75°42'17"	0.146 sec	-0.075 sec	-0.627
	ΔHt.	4.876 m	0.032 m	-0.002 m	-0.066
	Ellip Dist.	17345.531 m	0.011 m	0.005 m	0.560
SUWA 26 --> FVA-115 (PV230)	Az.	105°00'09"	0.152 sec	-0.152 sec	-0.615
	ΔHt.	0.634 m	0.020 m	-0.020 m	-0.625
	Ellip Dist.	11751.758 m	0.009 m	0.001 m	0.060
GCT-FL11 --> FVA-106 (PV792)	Az.	201°27'35"	0.147 sec	0.020 sec	0.144
	ΔHt.	15.418 m	0.027 m	0.015 m	0.624

	Ellip Dist.	14538.810 m	0.010 m	0.003 m	0.370
LAFAY 3 --> LC1-113 (PV87)	Az.	109°16'28"	0.406 sec	-0.064 sec	-0.270
	ΔHt.	-9.033 m	0.058 m	0.005 m	0.164
	Ellip Dist.	25330.153 m	0.021 m	-0.007 m	-0.624
GCT-FL06 --> LC4-115 (PV152)	Az.	262°37'55"	0.155 sec	0.003 sec	0.025
	ΔHt.	-11.860 m	0.039 m	0.008 m	0.293
	Ellip Dist.	16646.105 m	0.012 m	0.006 m	0.621
GCT-FL11 --> LC4-106 (PV804)	Az.	197°43'40"	0.233 sec	0.090 sec	0.619
	ΔHt.	18.508 m	0.034 m	0.007 m	0.347
	Ellip Dist.	10108.823 m	0.015 m	-0.001 m	-0.110
C48 --> LC4-107 (PV105)	Az.	118°10'07"	0.471 sec	0.264 sec	0.612
	ΔHt.	3.699 m	0.037 m	-0.010 m	-0.283
	Ellip Dist.	8670.976 m	0.014 m	0.000 m	-0.012
GCT-FL09 --> LC3-106 (PV800)	Az.	288°22'39"	0.444 sec	0.198 sec	0.606
	ΔHt.	21.866 m	0.030 m	-0.013 m	-0.577
	Ellip Dist.	5463.692 m	0.010 m	0.004 m	0.495
GCT-FL06 --> LC4-117 (PV164)	Az.	196°22'11"	0.125 sec	0.037 sec	0.322
	ΔHt.	15.720 m	0.024 m	0.004 m	0.172
	Ellip Dist.	12837.675 m	0.009 m	0.005 m	0.605

GCT-FL10 --> FVA-102 (PV753)	Az.	35°07'16"	0.482 sec	-0.024 sec	-0.040
	ΔHt.	2.154 m	0.022 m	-0.016 m	-0.601
	Ellip Dist.	4402.435 m	0.009 m	-0.002 m	-0.186
GCT-FL08 --> LC1-107 (PV195)	Az.	254°39'39"	0.171 sec	0.084 sec	0.501
	ΔHt.	-10.751 m	0.028 m	0.006 m	0.218
	Ellip Dist.	15002.471 m	0.012 m	-0.007 m	-0.591
GCT-FL10 --> LC2-101 (PV691)	Az.	12°26'33"	0.248 sec	-0.112 sec	-0.542
	ΔHt.	2.912 m	0.034 m	0.006 m	0.190
	Ellip Dist.	13082.727 m	0.016 m	-0.009 m	-0.591
GCT-FL06 --> LC2-115 (PV151)	Az.	264°06'39"	0.165 sec	-0.014 sec	-0.125
	ΔHt.	-13.031 m	0.060 m	0.000 m	0.011
	Ellip Dist.	20886.945 m	0.017 m	0.007 m	0.590
31 92 GPS 3 --> LC4-119 (PV36)	Az.	81°20'03"	0.189 sec	-0.007 sec	-0.056
	ΔHt.	-0.513 m	0.038 m	0.014 m	0.589
	Ellip Dist.	18836.126 m	0.015 m	0.004 m	0.407
SUWA 23 --> LC3-111 (PV256)	Az.	254°42'39"	0.122 sec	-0.015 sec	-0.143
	ΔHt.	10.921 m	0.032 m	0.006 m	0.227
	Ellip Dist.	20458.114 m	0.012 m	-0.006 m	-0.587

SUWA 26 --> LC3-116 (PV234)	Az.	101°17'19"	0.133 sec	0.029 sec	0.244
	ΔHt.	-3.976 m	0.028 m	-0.014 m	-0.583
	Ellip Dist.	22060.782 m	0.011 m	0.004 m	0.440
A 302 --> FVA-119 (PV24)	Az.	255°31'46"	0.191 sec	-0.119 sec	-0.582
	ΔHt.	-29.227 m	0.037 m	0.005 m	0.141
	Ellip Dist.	13208.601 m	0.011 m	0.001 m	0.060
GCT-FL06 --> LC1-117 (PV161)	Az.	200°14'37"	0.175 sec	0.059 sec	0.380
	ΔHt.	-4.891 m	0.021 m	0.008 m	0.420
	Ellip Dist.	10247.651 m	0.011 m	0.006 m	0.579
U 355 --> LC1-109 (PV284)	Az.	57°58'32"	0.150 sec	-0.077 sec	-0.579
	ΔHt.	6.324 m	0.025 m	0.004 m	0.198
	Ellip Dist.	16983.974 m	0.013 m	0.003 m	0.279
GCT-FL08 --> LC4-107 (PV197)	Az.	253°38'15"	0.251 sec	0.098 sec	0.570
	ΔHt.	-9.558 m	0.037 m	0.003 m	0.116
	Ellip Dist.	14775.871 m	0.016 m	-0.002 m	-0.205
U 355 --> LC1-107 (PV279)	Az.	33°20'11"	0.152 sec	0.022 sec	0.139
	ΔHt.	-3.688 m	0.028 m	0.014 m	0.462
	Ellip Dist.	14710.323 m	0.013 m	0.007 m	0.568
GCT-FL11 --> LC2-105 (PV740)	Az.	227°56'41"	0.429 sec	0.021 sec	0.075
	ΔHt.	9.934 m	0.025 m	0.008 m	0.474

	Ellip Dist.	5361.321 m	0.009 m	0.003 m	0.567
A 302 --> LC2-118 (PV22)	Az.	288°12'55"	0.121 sec	0.065 sec	0.567
	ΔHt.	-23.090 m	0.030 m	-0.002 m	-0.076
	Ellip Dist.	17396.168 m	0.009 m	-0.002 m	-0.249
GCT-FL09 --> LC1-104 (PV676)	Az.	304°56'19"	0.124 sec	-0.013 sec	-0.127
	ΔHt.	-0.817 m	0.033 m	-0.016 m	-0.565
	Ellip Dist.	19950.141 m	0.011 m	0.000 m	0.012
GCT-FL07 --> LC4-113 (PV171)	Az.	76°07'08"	0.125 sec	-0.008 sec	-0.078
	ΔHt.	-8.968 m	0.033 m	-0.014 m	-0.545
	Ellip Dist.	21247.378 m	0.010 m	-0.005 m	-0.558
SUWA 23 --> LC4-111 (PV257)	Az.	259°38'59"	0.153 sec	0.056 sec	0.468
	ΔHt.	10.568 m	0.032 m	-0.009 m	-0.386
	Ellip Dist.	18577.131 m	0.013 m	-0.005 m	-0.551
GCT-FL12 --> LC3-105 (PV732)	Az.	103°35'54"	0.122 sec	-0.014 sec	-0.137
	ΔHt.	5.711 m	0.028 m	0.012 m	0.517
	Ellip Dist.	19380.672 m	0.010 m	0.005 m	0.550
GCT-FL10 --> LC2-106 (PV799)	Az.	77°03'19"	0.097 sec	-0.005 sec	-0.046
	ΔHt.	34.931 m	0.033 m	-0.014 m	-0.426
	Ellip	28272.026 m	0.010 m	-0.006 m	-0.546

	Dist.				
GCT-FL06 --> LC2-117 (PV163)	Az.	191°57'32"	0.185 sec	0.043 sec	0.277
	ΔHt.	-10.254 m	0.022 m	-0.001 m	-0.031
	Ellip Dist.	9493.796 m	0.009 m	0.004 m	0.546
GCT-FL10 --> FVA-106 (PV780)	Az.	84°28'37"	0.084 sec	0.022 sec	0.220
	ΔHt.	30.913 m	0.027 m	-0.016 m	-0.545
	Ellip Dist.	25306.429 m	0.010 m	0.002 m	0.176
GCT-FL10 --> LC1-104 (PV696)	Az.	49°16'36"	0.131 sec	-0.068 sec	-0.541
	ΔHt.	6.808 m	0.034 m	-0.002 m	-0.069
	Ellip Dist.	18666.387 m	0.012 m	0.004 m	0.361
A 302 --> LC4-118 (PV14)	Az.	297°01'11"	0.126 sec	-0.048 sec	-0.457
	ΔHt.	-19.271 m	0.027 m	0.009 m	0.402
	Ellip Dist.	14509.790 m	0.009 m	-0.004 m	-0.536
GCT-FL06 --> FVA-114 (PV132)	Az.	236°26'08"	0.183 sec	-0.090 sec	-0.536
	ΔHt.	-18.341 m	0.053 m	0.013 m	0.272
	Ellip Dist.	20068.144 m	0.014 m	0.002 m	0.135
GCT-FL12 --> LC1-102 (PV752)	Az.	177°46'49"	0.184 sec	-0.031 sec	-0.224
	ΔHt.	0.175 m	0.028 m	-0.005 m	-0.247
	Ellip Dist.	12008.124 m	0.011 m	-0.004 m	-0.535

GCT-FL06 --> LC4-118 (PV141)	Az.	210°47'49"	0.100 sec	0.019 sec	0.202
	ΔHt.	-10.213 m	0.027 m	-0.004 m	-0.141
	Ellip Dist.	18877.369 m	0.009 m	0.004 m	0.525
SUWA 23 --> LC1-112 (PV260)	Az.	251°45'00"	0.250 sec	0.057 sec	0.337
	ΔHt.	9.996 m	0.033 m	-0.004 m	-0.198
	Ellip Dist.	11326.544 m	0.014 m	-0.005 m	-0.518
GCT-FL07 --> LC3-111 (PV174)	Az.	45°29'05"	0.414 sec	0.116 sec	0.516
	ΔHt.	-0.376 m	0.031 m	-0.003 m	-0.207
	Ellip Dist.	5772.724 m	0.013 m	-0.002 m	-0.354
SUWA 23 --> FVA-112 (PV261)	Az.	251°27'28"	0.261 sec	0.001 sec	0.007
	ΔHt.	10.125 m	0.032 m	-0.007 m	-0.314
	Ellip Dist.	11364.884 m	0.014 m	-0.005 m	-0.512
LAFAY 3 --> LC4-111 (PV74)	Az.	123°31'34"	0.230 sec	0.084 sec	0.509
	ΔHt.	-3.382 m	0.032 m	0.010 m	0.462
	Ellip Dist.	12547.735 m	0.012 m	0.004 m	0.512
GCT-FL07 --> LC4-111 (PV175)	Az.	42°22'15"	0.317 sec	-0.114 sec	-0.512
	ΔHt.	-0.730 m	0.032 m	-0.001 m	-0.064
	Ellip Dist.	8266.611 m	0.014 m	-0.003 m	-0.320
31 92 GPS 3 --> LC3-132 (PV68)	Az.	38°28'50"	0.097 sec	0.013 sec	0.201
	ΔHt.	9.857 m	0.033 m	0.011 m	0.512

	Ellip Dist.	24457.668 m	0.014 m	0.004 m	0.377
GCT-FL07 --> FVA-131 (PV181)	Az.	79°13'07"	0.234 sec	-0.078 sec	-0.511
	ΔHt.	-0.991 m	0.036 m	-0.005 m	-0.210
	Ellip Dist.	12556.133 m	0.012 m	0.002 m	0.209
C48 --> FVA-107 (PV101)	Az.	117°51'51"	0.354 sec	0.057 sec	0.220
	ΔHt.	8.655 m	0.033 m	-0.011 m	-0.511
	Ellip Dist.	7165.700 m	0.011 m	0.002 m	0.274
LAFAY 3 --> LC2-112 (PV76)	Az.	111°37'06"	0.164 sec	0.064 sec	0.510
	ΔHt.	-4.117 m	0.041 m	0.005 m	0.177
	Ellip Dist.	19374.038 m	0.016 m	0.002 m	0.169
GCT-FL06 --> LC3-115 (PV157)	Az.	262°25'47"	0.136 sec	-0.052 sec	-0.422
	ΔHt.	-10.377 m	0.033 m	0.004 m	0.124
	Ellip Dist.	17905.518 m	0.012 m	0.005 m	0.510
SUWA 26 --> LC1-115 (PV231)	Az.	105°08'12"	0.257 sec	-0.037 sec	-0.171
	ΔHt.	0.213 m	0.043 m	-0.018 m	-0.504
	Ellip Dist.	11795.264 m	0.011 m	0.003 m	0.260
FLGPS 15 --> GCT-FL12 (PV610)	Az.	104°25'48"	0.020 sec	-0.015 sec	-0.502
	ΔHt.	-31.325 m	0.010 m	-0.004 m	-0.343
	Ellip	15978.764 m	0.002 m	0.001 m	0.352

	Dist.				
GCT-FL12 --> LC3-101 (PV682)	Az.	170°51'25"	0.409 sec	-0.054 sec	-0.141
	ΔHt.	-0.208 m	0.024 m	0.011 m	0.500
	Ellip Dist.	5001.542 m	0.012 m	-0.005 m	-0.446
GCT-FL10 --> LC1-101 (PV690)	Az.	12°25'47"	0.161 sec	-0.061 sec	-0.412
	ΔHt.	3.504 m	0.024 m	0.003 m	0.151
	Ellip Dist.	13026.387 m	0.012 m	0.005 m	0.494
31 92 GPS 3 --> LC3-119 (PV27)	Az.	85°10'15"	0.160 sec	-0.046 sec	-0.279
	ΔHt.	-1.379 m	0.041 m	-0.022 m	-0.493
	Ellip Dist.	18552.510 m	0.012 m	0.000 m	0.040
C48 --> FVA-110 (PV121)	Az.	126°23'21"	0.140 sec	-0.058 sec	-0.492
	ΔHt.	10.950 m	0.033 m	0.003 m	0.109
	Ellip Dist.	19949.777 m	0.010 m	-0.002 m	-0.176
GCT-FL10 --> FVA-101 (PV689)	Az.	12°40'41"	0.119 sec	0.057 sec	0.491
	ΔHt.	3.988 m	0.019 m	-0.003 m	-0.203
	Ellip Dist.	13008.704 m	0.009 m	0.003 m	0.391
LAFAY 3 --> FVA-112 (PV78)	Az.	111°48'34"	0.137 sec	0.015 sec	0.137
	ΔHt.	-3.825 m	0.032 m	-0.001 m	-0.028
	Ellip Dist.	19345.478 m	0.015 m	-0.006 m	-0.485

31 92 GPS 3 --> LC3-115 (PV45)	Az.	22°09'35"	0.084 sec	-0.001 sec	-0.018
	ΔHt.	9.661 m	0.033 m	-0.014 m	-0.484
	Ellip Dist.	27320.402 m	0.012 m	0.003 m	0.297
U 151 --> LC3-109 (PV98)	Az.	296°58'11"	0.208 sec	0.046 sec	0.196
	ΔHt.	-5.152 m	0.025 m	0.003 m	0.108
	Ellip Dist.	12774.592 m	0.011 m	0.005 m	0.482
A 302 --> LC1-119 (PV29)	Az.	260°44'24"	0.283 sec	-0.115 sec	-0.482
	ΔHt.	-29.131 m	0.048 m	0.014 m	0.358
	Ellip Dist.	12938.058 m	0.024 m	0.004 m	0.440
GCT-FL12 --> GCT-FL09 (PV586)	Az.	120°26'43"	0.009 sec	-0.003 sec	-0.291
	ΔHt.	4.917 m	0.006 m	-0.003 m	-0.360
	Ellip Dist.	31939.271 m	0.001 m	-0.001 m	-0.482
GCT-FL06 --> LC1-119 (PV130)	Az.	200°54'13"	0.154 sec	-0.032 sec	-0.127
	ΔHt.	-20.073 m	0.048 m	-0.016 m	-0.388
	Ellip Dist.	26642.604 m	0.022 m	-0.013 m	-0.481
GCT-FL08 --> LC2-107 (PV194)	Az.	257°30'39"	0.180 sec	0.016 sec	0.115
	ΔHt.	-4.589 m	0.045 m	-0.005 m	-0.134
	Ellip Dist.	15898.579 m	0.014 m	0.005 m	0.479

SUWA 23 --> LC2-112 (PV259)	Az.	251°36'48"	0.318 sec	0.102 sec	0.478
	ΔHt.	9.833 m	0.041 m	0.006 m	0.214
	Ellip Dist.	11301.319 m	0.014 m	0.000 m	-0.047
GCT-FL09 --> LC1-103 (PV785)	Az.	284°15'58"	0.224 sec	-0.057 sec	-0.373
	ΔHt.	-0.994 m	0.041 m	-0.013 m	-0.478
	Ellip Dist.	16052.675 m	0.016 m	-0.004 m	-0.357
GCT-FL09 --> LC4-102 (PV766)	Az.	281°33'43"	0.111 sec	-0.039 sec	-0.474
	ΔHt.	-2.997 m	0.041 m	-0.012 m	-0.394
	Ellip Dist.	26062.786 m	0.013 m	0.002 m	0.263
GCT-FL11 --> LC2-106 (PV805)	Az.	196°58'46"	0.224 sec	0.022 sec	0.124
	ΔHt.	19.436 m	0.033 m	-0.007 m	-0.280
	Ellip Dist.	10079.380 m	0.013 m	0.005 m	0.473
SUWA 23 --> LC1-111 (PV258)	Az.	259°55'34"	0.201 sec	0.017 sec	0.168
	ΔHt.	10.497 m	0.042 m	0.009 m	0.471
	Ellip Dist.	18537.379 m	0.016 m	-0.003 m	-0.308
A 302 --> LC1-132 (PV64)	Az.	311°49'19"	0.107 sec	0.043 sec	0.468
	ΔHt.	-20.213 m	0.028 m	0.008 m	0.308
	Ellip Dist.	21627.973 m	0.011 m	0.002 m	0.162
GCT-FL09 --> FVA-104 (PV674)	Az.	306°41'58"	0.111 sec	-0.015 sec	-0.151
	ΔHt.	0.975 m	0.029 m	0.000 m	-0.015

	Ellip Dist.	20526.882 m	0.010 m	0.004 m	0.468
U 151 --> FVA-107 (PV90)	Az.	297°08'21"	0.124 sec	-0.051 sec	-0.394
	ΔHt.	-5.486 m	0.033 m	-0.019 m	-0.463
	Ellip Dist.	20419.661 m	0.011 m	-0.005 m	-0.465
GCT-FL09 --> LC4-101 (PV673)	Az.	293°03'36"	0.079 sec	0.033 sec	0.217
	ΔHt.	-4.375 m	0.023 m	0.005 m	0.159
	Ellip Dist.	28429.036 m	0.010 m	0.006 m	0.460
31 92 GPS 3 --> LC1-116 (PV59)	Az.	41°49'54"	0.068 sec	0.014 sec	0.225
	ΔHt.	13.095 m	0.023 m	-0.009 m	-0.459
	Ellip Dist.	32787.051 m	0.011 m	0.000 m	-0.013
SUWA 26 --> LC2-132 (PV227)	Az.	119°38'34"	0.133 sec	0.054 sec	0.458
	ΔHt.	-0.594 m	0.029 m	-0.010 m	-0.417
	Ellip Dist.	18823.473 m	0.010 m	-0.001 m	-0.162
GCT-FL07 --> LC1-111 (PV176)	Az.	42°02'52"	0.413 sec	0.006 sec	0.030
	ΔHt.	-0.800 m	0.042 m	-0.011 m	-0.457
	Ellip Dist.	8352.570 m	0.018 m	-0.003 m	-0.363
GCT-FL10 --> LC3-105 (PV737)	Az.	60°21'28"	0.106 sec	-0.023 sec	-0.252
	ΔHt.	8.419 m	0.028 m	0.005 m	0.203
	Ellip Dist.	25119.456 m	0.009 m	0.003 m	0.455

31 92 GPS 3 --> LC2-114 (PV41)	Az.	29°34'01"	0.154 sec	-0.049 sec	-0.454
	ΔHt.	-3.361 m	0.048 m	-0.008 m	-0.217
	Ellip Dist.	20008.101 m	0.016 m	0.004 m	0.268
GCT-FL07 --> LC3-131 (PV183)	Az.	79°24'28"	0.241 sec	0.075 sec	0.451
	ΔHt.	-1.219 m	0.033 m	0.008 m	0.368
	Ellip Dist.	12581.988 m	0.012 m	0.003 m	0.382
U 151 --> FVA-109 (PV96)	Az.	296°48'43"	0.246 sec	0.122 sec	0.449
	ΔHt.	-1.709 m	0.026 m	0.001 m	0.033
	Ellip Dist.	12168.754 m	0.012 m	-0.003 m	-0.243
SUWA 23 --> LC3-131 (PV265)	Az.	238°06'36"	0.209 sec	0.068 sec	0.448
	ΔHt.	10.079 m	0.034 m	0.000 m	-0.003
	Ellip Dist.	13528.455 m	0.013 m	0.004 m	0.439
GCT-FL12 --> LC3-104 (PV685)	Az.	113°31'48"	0.206 sec	0.011 sec	0.064
	ΔHt.	2.342 m	0.035 m	0.010 m	0.320
	Ellip Dist.	12117.127 m	0.011 m	0.004 m	0.447
GCT-FL12 --> LC1-103 (PV773)	Az.	135°42'34"	0.199 sec	-0.044 sec	-0.287
	ΔHt.	3.923 m	0.041 m	0.016 m	0.447
	Ellip Dist.	17138.343 m	0.017 m	-0.004 m	-0.258
A 302 --> LC4-115 (PV49)	Az.	316°17'15"	0.093 sec	-0.003 sec	-0.033
	ΔHt.	-20.918 m	0.040 m	0.000 m	-0.008

	Ellip Dist.	28602.489 m	0.012 m	0.004 m	0.441
LAFAY 3 --> LC4-112 (PV79)	Az.	111°43'20"	0.138 sec	-0.041 sec	-0.427
	ΔHt.	-4.470 m	0.034 m	0.010 m	0.441
	Ellip Dist.	19303.287 m	0.015 m	0.004 m	0.399
GCT-FL12 --> LC4-101 (PV683)	Az.	165°13'03"	0.378 sec	-0.018 sec	-0.052
	ΔHt.	0.542 m	0.023 m	0.008 m	0.373
	Ellip Dist.	5289.996 m	0.011 m	0.004 m	0.437
GCT-FL07 --> LC2-113 (PV169)	Az.	76°06'25"	0.163 sec	-0.058 sec	-0.435
	ΔHt.	-6.165 m	0.035 m	0.008 m	0.294
	Ellip Dist.	19652.796 m	0.011 m	-0.004 m	-0.416
U 355 --> LC3-109 (PV285)	Az.	56°02'18"	0.142 sec	0.042 sec	0.355
	ΔHt.	2.795 m	0.025 m	-0.009 m	-0.434
	Ellip Dist.	16710.913 m	0.012 m	-0.001 m	-0.127
31 92 GPS 3 --> LC2-118 (PV6)	Az.	55°12'40"	0.121 sec	0.036 sec	0.348
	ΔHt.	6.006 m	0.030 m	0.011 m	0.433
	Ellip Dist.	18056.785 m	0.009 m	0.003 m	0.349
GCT-FL09 --> FVA-105 (PV724)	Az.	340°53'43"	0.139 sec	-0.025 sec	-0.190
	ΔHt.	18.421 m	0.025 m	-0.010 m	-0.427
	Ellip	12306.058 m	0.012 m	0.003 m	0.297

	Dist.				
C48 --> LC3-109 (PV109)	Az.	117°34'12"	0.180 sec	-0.005 sec	-0.034
	ΔHt.	8.988 m	0.026 m	0.009 m	0.425
	Ellip Dist.	14810.736 m	0.011 m	0.002 m	0.195
LAFAY 3 --> LC2-131 (PV84)	Az.	115°21'02"	0.144 sec	-0.048 sec	-0.425
	ΔHt.	-4.167 m	0.036 m	0.011 m	0.397
	Ellip Dist.	19786.119 m	0.013 m	0.003 m	0.298
PRRY --> GCT-FL09 (PV885)	Az.	23°21'33"	0.008 sec	0.005 sec	0.342
	ΔHt.	15.441 m	0.011 m	0.005 m	0.424
	Ellip Dist.	36945.192 m	0.001 m	0.001 m	0.310
31 92 GPS 3 --> LC1-132 (PV70)	Az.	38°15'37"	0.090 sec	0.012 sec	0.156
	ΔHt.	8.882 m	0.028 m	0.009 m	0.424
	Ellip Dist.	24563.763 m	0.011 m	0.002 m	0.233
GCT-FL11 --> LC1-101 (PV700)	Az.	263°26'23"	0.093 sec	-0.021 sec	-0.222
	ΔHt.	-11.991 m	0.024 m	0.011 m	0.422
	Ellip Dist.	27857.538 m	0.010 m	-0.001 m	-0.123
GCT-FL11 --> LC4-101 (PV703)	Az.	261°11'50"	0.087 sec	0.027 sec	0.421
	ΔHt.	-12.245 m	0.023 m	0.007 m	0.398
	Ellip Dist.	26448.381 m	0.010 m	0.001 m	0.080

GCT-FL07 --> FVA-111 (PV173)	Az.	44°06'44"	0.364 sec	0.087 sec	0.415
	ΔHt.	-0.292 m	0.036 m	0.008 m	0.420
	Ellip Dist.	6025.990 m	0.012 m	0.002 m	0.308
SUWA 23 --> LC4-112 (PV262)	Az.	251°42'29"	0.233 sec	0.044 sec	0.265
	ΔHt.	9.480 m	0.035 m	-0.015 m	-0.419
	Ellip Dist.	11378.049 m	0.015 m	-0.006 m	-0.388
GCT-FL07 --> LC1-112 (PV178)	Az.	65°41'07"	0.200 sec	0.037 sec	0.260
	ΔHt.	-1.301 m	0.033 m	-0.009 m	-0.418
	Ellip Dist.	14363.631 m	0.014 m	0.004 m	0.384
GCT-FL11 --> LC3-102 (PV760)	Az.	246°10'25"	0.081 sec	-0.019 sec	-0.286
	ΔHt.	-14.627 m	0.026 m	0.009 m	0.417
	Ellip Dist.	30540.864 m	0.011 m	0.001 m	0.163
GCT-FL07 --> LC2-112 (PV177)	Az.	65°48'09"	0.251 sec	0.012 sec	0.066
	ΔHt.	-1.465 m	0.040 m	-0.012 m	-0.416
	Ellip Dist.	14385.993 m	0.014 m	0.002 m	0.169
C48 --> LC2-107 (PV102)	Az.	118°09'49"	0.413 sec	-0.062 sec	-0.236
	ΔHt.	8.668 m	0.045 m	0.010 m	0.415
	Ellip Dist.	7143.376 m	0.014 m	-0.003 m	-0.402
GCT-FL09 --> LC2-105 (PV725)	Az.	340°57'21"	0.139 sec	0.055 sec	0.415
	ΔHt.	17.804 m	0.026 m	-0.008 m	-0.347

	Ellip Dist.	12262.919 m	0.012 m	0.004 m	0.338
GCT-FL11 --> LC1-102 (PV761)	Az.	247°59'27"	0.075 sec	-0.014 sec	-0.247
	ΔHt.	-12.612 m	0.028 m	0.009 m	0.414
	Ellip Dist.	29164.320 m	0.011 m	0.001 m	0.136
SUWA 26 --> LC3-115 (PV238)	Az.	105°51'56"	0.216 sec	0.008 sec	0.042
	ΔHt.	-0.382 m	0.033 m	0.010 m	0.337
	Ellip Dist.	11846.549 m	0.011 m	0.004 m	0.413
GCT-FL06 --> LC1-115 (PV150)	Az.	262°56'13"	0.153 sec	0.015 sec	0.112
	ΔHt.	-9.782 m	0.043 m	-0.014 m	-0.358
	Ellip Dist.	17894.044 m	0.013 m	0.005 m	0.413
A 302 --> FVA-115 (PV46)	Az.	314°26'49"	0.063 sec	0.047 sec	0.312
	ΔHt.	-18.418 m	0.021 m	0.025 m	0.411
	Ellip Dist.	29485.617 m	0.009 m	0.004 m	0.293
FLGPS 15 --> GCT-FL10 (PV611)	Az.	149°11'17"	0.014 sec	-0.003 sec	-0.170
	ΔHt.	-34.034 m	0.010 m	-0.002 m	-0.235
	Ellip Dist.	24405.150 m	0.001 m	0.001 m	0.409
GCT-FL06 --> FVA-119 (PV135)	Az.	200°02'43"	0.073 sec	-0.035 sec	-0.408
	ΔHt.	-20.169 m	0.037 m	-0.003 m	-0.066
	Ellip Dist.	27791.241 m	0.013 m	0.000 m	0.025

C48 --> LC2-109 (PV110)	Az.	118°07'15"	0.214 sec	0.013 sec	0.086
	ΔHt.	9.908 m	0.028 m	-0.006 m	-0.266
	Ellip Dist.	12076.431 m	0.011 m	0.004 m	0.402
GCT-FL11 --> FVA-104 (PV704)	Az.	259°56'28"	0.136 sec	0.013 sec	0.107
	ΔHt.	-6.895 m	0.029 m	0.010 m	0.399
	Ellip Dist.	16694.136 m	0.010 m	0.000 m	-0.027
31 92 GPS 3 --> FVA-119 (PV26)	Az.	85°09'30"	0.140 sec	0.014 sec	0.107
	ΔHt.	-0.132 m	0.037 m	0.014 m	0.398
	Ellip Dist.	18655.382 m	0.010 m	0.002 m	0.221
GCT-FL12 --> LC1-105 (PV731)	Az.	101°09'28"	0.077 sec	-0.031 sec	-0.393
	ΔHt.	22.083 m	0.021 m	0.006 m	0.276
	Ellip Dist.	23912.771 m	0.007 m	-0.003 m	-0.398
U 355 --> LC1-108 (PV275)	Az.	59°47'14"	0.094 sec	0.034 sec	0.394
	ΔHt.	14.032 m	0.034 m	0.003 m	0.097
	Ellip Dist.	24301.616 m	0.010 m	0.003 m	0.368
GCT-FL08 --> LC2-109 (PV202)	Az.	242°41'59"	0.179 sec	0.060 sec	0.393
	ΔHt.	-3.349 m	0.028 m	0.007 m	0.295
	Ellip Dist.	12574.371 m	0.012 m	0.000 m	0.021
C48 --> LC1-107 (PV103)	Az.	117°56'28"	0.326 sec	-0.082 sec	-0.241
	ΔHt.	2.506 m	0.029 m	-0.012 m	-0.391

	Ellip Dist.	8323.265 m	0.011 m	0.000 m	0.009
GCT-FL06 --> LC4-119 (PV131)	Az.	200°54'24"	0.089 sec	0.011 sec	0.157
	ΔHt.	-20.551 m	0.039 m	-0.014 m	-0.389
	Ellip Dist.	26595.177 m	0.020 m	0.002 m	0.142
GCT-FL08 --> LC4-109 (PV203)	Az.	242°35'53"	0.178 sec	0.042 sec	0.269
	ΔHt.	-3.299 m	0.028 m	0.009 m	0.388
	Ellip Dist.	12572.052 m	0.011 m	0.002 m	0.248
GCT-FL07 --> LC1-113 (PV170)	Az.	76°12'15"	0.503 sec	0.086 sec	0.384
	ΔHt.	-6.381 m	0.058 m	-0.003 m	-0.119
	Ellip Dist.	19585.577 m	0.025 m	0.002 m	0.183
GCT-FL11 --> LC1-104 (PV706)	Az.	257°02'41"	0.153 sec	-0.019 sec	-0.155
	ΔHt.	-8.687 m	0.033 m	0.010 m	0.382
	Ellip Dist.	16760.505 m	0.011 m	-0.001 m	-0.093
GCT-FL10 --> LC1-102 (PV755)	Az.	34°49'31"	0.355 sec	0.219 sec	0.379
	ΔHt.	2.883 m	0.029 m	0.004 m	0.081
	Ellip Dist.	6061.860 m	0.011 m	0.000 m	0.018
SUWA 26 --> LC4-116 (PV224)	Az.	105°58'25"	0.092 sec	0.008 sec	0.101
	ΔHt.	0.441 m	0.026 m	-0.009 m	-0.378
	Ellip Dist.	23638.322 m	0.010 m	0.003 m	0.334

LAFAY 3 --> LC3-131 (PV82)	Az.	121°51'03"	0.148 sec	-0.033 sec	-0.294
	ΔHt.	-3.871 m	0.034 m	-0.009 m	-0.376
	Ellip Dist.	20317.795 m	0.012 m	0.000 m	0.006
GCT-FL09 --> LC3-101 (PV672)	Az.	292°57'18"	0.082 sec	0.012 sec	0.163
	ΔHt.	-5.125 m	0.025 m	0.008 m	0.371
	Ellip Dist.	29009.165 m	0.011 m	-0.001 m	-0.120
GCT-FL11 --> LC4-102 (PV767)	Az.	248°40'36"	0.095 sec	0.026 sec	0.371
	ΔHt.	-10.867 m	0.041 m	0.009 m	0.303
	Ellip Dist.	27388.292 m	0.014 m	-0.002 m	-0.217
SUWA 23 --> LC2-131 (PV249)	Az.	245°43'12"	0.264 sec	0.024 sec	0.137
	ΔHt.	9.782 m	0.036 m	-0.008 m	-0.371
	Ellip Dist.	11911.930 m	0.012 m	0.001 m	0.142
SUWA 26 --> LC2-114 (PV208)	Az.	135°27'09"	0.219 sec	-0.039 sec	-0.265
	ΔHt.	-13.404 m	0.048 m	0.012 m	0.370
	Ellip Dist.	15629.184 m	0.015 m	-0.002 m	-0.150
GCT-FL12 --> FVA-102 (PV750)	Az.	181°59'19"	0.146 sec	0.015 sec	0.122
	ΔHt.	-0.554 m	0.022 m	-0.007 m	-0.370
	Ellip Dist.	13382.164 m	0.010 m	0.003 m	0.337
SUWA 26 --> LC2-117 (PV244)	Az.	110°25'18"	0.062 sec	0.004 sec	0.073
	ΔHt.	-0.259 m	0.022 m	0.003 m	0.121

	Ellip Dist.	29019.631 m	0.008 m	-0.003 m	-0.369
GCT-FL07 --> LC2-131 (PV167)	Az.	70°38'49"	0.230 sec	0.034 sec	0.201
	ΔHt.	-1.515 m	0.036 m	0.002 m	0.079
	Ellip Dist.	13769.026 m	0.012 m	-0.003 m	-0.363
31 92 GPS 3 --> LC4-115 (PV56)	Az.	24°20'01"	0.085 sec	-0.026 sec	-0.360
	ΔHt.	8.177 m	0.039 m	0.009 m	0.221
	Ellip Dist.	28018.913 m	0.013 m	-0.002 m	-0.120
GCT-FL09 --> LC3-103 (PV784)	Az.	284°19'59"	0.390 sec	-0.098 sec	-0.358
	ΔHt.	-1.757 m	0.065 m	0.009 m	0.211
	Ellip Dist.	16012.183 m	0.029 m	0.007 m	0.354
GCT-FL11 --> LC1-103 (PV791)	Az.	234°08'52"	0.188 sec	0.046 sec	0.354
	ΔHt.	-8.864 m	0.041 m	0.003 m	0.102
	Ellip Dist.	19169.021 m	0.016 m	0.002 m	0.132
U 355 --> LC3-107 (PV282)	Az.	32°19'53"	0.185 sec	-0.049 sec	-0.352
	ΔHt.	-0.911 m	0.030 m	0.000 m	0.014
	Ellip Dist.	14727.695 m	0.018 m	-0.001 m	-0.099
SUWA 26 --> LC2-115 (PV232)	Az.	109°54'39"	0.440 sec	-0.084 sec	-0.351
	ΔHt.	-3.036 m	0.060 m	0.004 m	0.109
	Ellip	8899.424 m	0.015 m	0.002 m	0.174

	Dist.				
C48 --> LC4-109 (PV111)	Az.	118°10'17"	0.185 sec	-0.028 sec	-0.186
	ΔHt.	9.958 m	0.028 m	0.008 m	0.346
	Ellip Dist.	12096.142 m	0.011 m	-0.001 m	-0.121
U 355 --> LC4-109 (PV287)	Az.	47°23'44"	0.143 sec	-0.002 sec	-0.019
	ΔHt.	3.764 m	0.028 m	0.008 m	0.345
	Ellip Dist.	15480.607 m	0.011 m	0.002 m	0.203
GCT-FL12 --> FVA-104 (PV684)	Az.	109°42'59"	0.197 sec	-0.023 sec	-0.136
	ΔHt.	5.892 m	0.029 m	-0.009 m	-0.344
	Ellip Dist.	11734.074 m	0.010 m	0.003 m	0.329
C48 --> LC1-110 (PV120)	Az.	126°31'33"	0.128 sec	-0.016 sec	-0.150
	ΔHt.	11.070 m	0.033 m	0.010 m	0.339
	Ellip Dist.	20006.312 m	0.011 m	-0.001 m	-0.118
GCT-FL11 --> LC3-104 (PV705)	Az.	256°57'12"	0.147 sec	-0.023 sec	-0.182
	ΔHt.	-10.445 m	0.035 m	0.010 m	0.339
	Ellip Dist.	16810.241 m	0.011 m	0.003 m	0.281
GCT-FL07 --> LC3-113 (PV172)	Az.	76°05'09"	0.124 sec	-0.035 sec	-0.337
	ΔHt.	-9.247 m	0.034 m	-0.007 m	-0.238

	Ellip Dist.	21318.292 m	0.011 m	0.000 m	0.037
C48 --> LC2-108 (PV127)	Az.	101°00'26"	0.107 sec	-0.009 sec	-0.089
	ΔHt.	20.828 m	0.035 m	0.012 m	0.336
	Ellip Dist.	20599.921 m	0.011 m	-0.002 m	-0.213
GCT-FL09 --> LC1-102 (PV758)	Az.	278°56'00"	0.084 sec	-0.015 sec	-0.224
	ΔHt.	-4.742 m	0.028 m	-0.005 m	-0.204
	Ellip Dist.	27391.786 m	0.011 m	0.003 m	0.335
GCT-FL11 --> GCT-FL12 (PV585)	Az.	272°13'56"	0.008 sec	0.001 sec	0.298
	ΔHt.	-12.787 m	0.006 m	0.000 m	0.074
	Ellip Dist.	27494.465 m	0.001 m	0.000 m	-0.335
U 151 --> FVA-108 (PV116)	Az.	329°51'27"	0.162 sec	0.024 sec	0.116
	ΔHt.	14.335 m	0.031 m	-0.004 m	-0.105
	Ellip Dist.	11407.500 m	0.011 m	-0.005 m	-0.333
C48 --> FVA-109 (PV107)	Az.	117°39'56"	0.194 sec	0.056 sec	0.332
	ΔHt.	12.432 m	0.026 m	0.004 m	0.148
	Ellip Dist.	15417.017 m	0.012 m	-0.001 m	-0.129
GCT-FL07 --> FVA-112 (PV179)	Az.	65°54'01"	0.211 sec	0.041 sec	0.265
	ΔHt.	-1.173 m	0.032 m	0.008 m	0.331
	Ellip Dist.	14319.747 m	0.014 m	0.000 m	0.010

SUWA 23 --> FVA-131 (PV263)	Az.	238°18'49"	0.211 sec	-0.018 sec	-0.108
	ΔHt.	10.307 m	0.036 m	-0.004 m	-0.145
	Ellip Dist.	13537.529 m	0.012 m	0.004 m	0.328
31 92 GPS 3 --> LC2-132 (PV69)	Az.	38°26'59"	0.086 sec	0.009 sec	0.129
	ΔHt.	9.449 m	0.029 m	0.007 m	0.328
	Ellip Dist.	24555.244 m	0.012 m	0.000 m	0.032
GCT-FL09 --> LC1-106 (PV787)	Az.	287°10'49"	0.396 sec	0.060 sec	0.277
	ΔHt.	24.082 m	0.029 m	-0.005 m	-0.294
	Ellip Dist.	5628.054 m	0.011 m	-0.002 m	-0.327
GCT-FL12 --> LC1-104 (PV686)	Az.	113°17'19"	0.208 sec	0.064 sec	0.326
	ΔHt.	4.100 m	0.033 m	0.008 m	0.258
	Ellip Dist.	12141.144 m	0.011 m	0.002 m	0.201
31 92 GPS 3 --> LC4-116 (PV66)	Az.	44°28'32"	0.068 sec	0.011 sec	0.177
	ΔHt.	10.484 m	0.026 m	-0.007 m	-0.325
	Ellip Dist.	30880.477 m	0.011 m	0.002 m	0.163
LAFAY 3 --> FVA-111 (PV72)	Az.	133°48'02"	0.201 sec	0.051 sec	0.303
	ΔHt.	-2.944 m	0.037 m	-0.011 m	-0.322
	Ellip Dist.	12586.578 m	0.011 m	0.000 m	-0.030
GCT-FL09 --> LC4-104 (PV677)	Az.	302°47'37"	0.135 sec	-0.023 sec	-0.212
	ΔHt.	3.038 m	0.032 m	-0.008 m	-0.318

	Ellip Dist.	19867.149 m	0.010 m	0.002 m	0.221
GCT-FL08 --> LC1-109 (PV200)	Az.	228°19'05"	0.224 sec	-0.050 sec	-0.299
	ΔHt.	-0.739 m	0.025 m	0.003 m	0.179
	Ellip Dist.	10925.325 m	0.013 m	0.003 m	0.315
XCTY --> FVA-112 (PV993)	Az.	352°22'28"	0.061 sec	-0.090 sec	-0.313
	ΔHt.	9.928 m	0.033 m	0.017 m	0.186
	Ellip Dist.	48442.092 m	0.014 m	-0.005 m	-0.085
SUWA 23 --> LC1-131 (PV248)	Az.	239°05'58"	0.189 sec	0.037 sec	0.241
	ΔHt.	10.307 m	0.027 m	0.007 m	0.308
	Ellip Dist.	13116.678 m	0.010 m	0.002 m	0.196
SUWA 23 --> LC4-131 (PV264)	Az.	236°53'34"	0.245 sec	0.008 sec	0.039
	ΔHt.	9.827 m	0.053 m	0.014 m	0.307
	Ellip Dist.	14418.920 m	0.015 m	-0.004 m	-0.301
31 92 GPS 3 --> LC3-117 (PV3)	Az.	53°26'55"	0.066 sec	0.010 sec	0.182
	ΔHt.	17.959 m	0.020 m	-0.005 m	-0.306
	Ellip Dist.	30413.681 m	0.009 m	0.001 m	0.179
GCT-FL12 --> FVA-106 (PV774)	Az.	123°14'35"	0.079 sec	0.006 sec	0.088
	ΔHt.	28.205 m	0.027 m	-0.005 m	-0.213
	Ellip Dist.	26533.684 m	0.010 m	0.003 m	0.300

31 92 GPS 3 --> LC1-117 (PV2)	Az.	53°36'01"	0.068 sec	0.017 sec	0.299
	ΔHt.	15.147 m	0.021 m	-0.001 m	-0.061
	Ellip Dist.	30472.268 m	0.010 m	0.001 m	0.087
GCT-FL08 --> FVA-109 (PV199)	Az.	228°27'59"	0.234 sec	0.010 sec	0.059
	ΔHt.	-0.826 m	0.026 m	-0.001 m	-0.047
	Ellip Dist.	10918.404 m	0.014 m	0.003 m	0.297
31 92 GPS 3 --> LC1-119 (PV35)	Az.	81°27'43"	0.196 sec	0.033 sec	0.226
	ΔHt.	-0.036 m	0.048 m	-0.001 m	-0.032
	Ellip Dist.	18814.006 m	0.024 m	0.006 m	0.294
GCT-FL09 --> LC4-105 (PV728)	Az.	342°41'54"	0.146 sec	-0.040 sec	-0.292
	ΔHt.	4.946 m	0.033 m	0.004 m	0.132
	Ellip Dist.	12064.840 m	0.012 m	-0.001 m	-0.128
GCT-FL10 --> FVA-104 (PV694)	Az.	47°09'40"	0.113 sec	0.029 sec	0.290
	ΔHt.	8.600 m	0.029 m	0.000 m	-0.016
	Ellip Dist.	19148.063 m	0.011 m	-0.001 m	-0.130
SUWA 26 --> LC4-119 (PV211)	Az.	142°30'42"	0.117 sec	0.020 sec	0.262
	ΔHt.	-10.556 m	0.038 m	-0.007 m	-0.286
	Ellip Dist.	32391.752 m	0.013 m	-0.002 m	-0.177
GCT-FL10 --> FVA-103 (PV777)	Az.	80°56'12"	0.266 sec	0.127 sec	0.284
	ΔHt.	6.244 m	0.036 m	-0.006 m	-0.120
	Ellip	14053.029 m	0.012 m	0.004 m	0.246

	Dist.				
GCT-FL08 --> LC3-110 (PV188)	Az.	201°37'00"	0.162 sec	-0.036 sec	-0.283
	ΔHt.	-0.875 m	0.027 m	-0.001 m	-0.038
	Ellip Dist.	12159.410 m	0.013 m	0.000 m	-0.037
A 302 --> LC4-117 (PV21)	Az.	326°44'39"	0.137 sec	0.035 sec	0.282
	ΔHt.	6.663 m	0.024 m	-0.006 m	-0.264
	Ellip Dist.	12542.108 m	0.008 m	0.001 m	0.124
GCT-FL08 --> FVA-110 (PV186)	Az.	205°51'18"	0.154 sec	0.036 sec	0.277
	ΔHt.	-2.307 m	0.033 m	0.003 m	0.096
	Ellip Dist.	13247.703 m	0.014 m	0.003 m	0.278
GCT-FL10 --> LC3-104 (PV695)	Az.	49°16'44"	0.126 sec	0.020 sec	0.174
	ΔHt.	5.051 m	0.035 m	-0.009 m	-0.277
	Ellip Dist.	18609.915 m	0.012 m	0.002 m	0.153
GCT-FL12 --> LC4-102 (PV764)	Az.	169°46'39"	0.246 sec	-0.048 sec	-0.277
	ΔHt.	1.920 m	0.041 m	0.003 m	0.104
	Ellip Dist.	11202.908 m	0.013 m	0.000 m	0.014
A 302 --> LC3-115 (PV43)	Az.	314°13'55"	0.089 sec	0.015 sec	0.198
	ΔHt.	-19.435 m	0.033 m	0.001 m	0.019
	Ellip Dist.	29317.054 m	0.011 m	0.003 m	0.271

31 92 GPS 3 --> LC4-132 (PV71)	Az.	41°05'36"	0.098 sec	-0.022 sec	-0.257
	ΔHt.	10.387 m	0.028 m	-0.006 m	-0.268
	Ellip Dist.	23476.744 m	0.011 m	0.000 m	0.020
SUWA 26 --> LC4-132 (PV229)	Az.	123°17'12"	0.119 sec	-0.027 sec	-0.255
	ΔHt.	0.343 m	0.028 m	-0.007 m	-0.261
	Ellip Dist.	19764.765 m	0.011 m	0.001 m	0.086
SUWA 26 --> FVA-132 (PV225)	Az.	119°30'46"	0.130 sec	-0.031 sec	-0.258
	ΔHt.	-1.781 m	0.031 m	0.005 m	0.177
	Ellip Dist.	18835.490 m	0.010 m	0.000 m	0.023
GCT-FL08 --> LC2-110 (PV187)	Az.	201°37'54"	0.162 sec	0.001 sec	0.011
	ΔHt.	-0.619 m	0.029 m	-0.006 m	-0.254
	Ellip Dist.	12227.317 m	0.014 m	0.000 m	0.039
U 355 --> LC4-107 (PV281)	Az.	34°41'49"	0.201 sec	0.035 sec	0.246
	ΔHt.	-2.495 m	0.037 m	0.001 m	0.044
	Ellip Dist.	14712.905 m	0.020 m	0.001 m	0.096
GCT-FL08 --> LC1-110 (PV185)	Az.	205°39'14"	0.159 sec	0.003 sec	0.025
	ΔHt.	-2.187 m	0.033 m	0.005 m	0.175
	Ellip Dist.	13305.136 m	0.013 m	0.003 m	0.243
GCT-FL11 --> FVA-103 (PV789)	Az.	230°28'34"	0.165 sec	-0.026 sec	-0.237

	ΔHt.	-9.251 m	0.036 m	0.004 m	0.183
	Ellip Dist.	21560.574 m	0.013 m	-0.002 m	-0.199
31 92 GPS 3 --> LC1-115 (PV54)	Az.	22°01'02"	0.084 sec	0.010 sec	0.138
	ΔHt.	10.256 m	0.043 m	0.009 m	0.231
	Ellip Dist.	27463.934 m	0.015 m	0.000 m	-0.018
GCT-FL10 --> LC3-101 (PV692)	Az.	17°28'29"	0.171 sec	-0.032 sec	-0.222
	ΔHt.	2.500 m	0.025 m	-0.004 m	-0.226
	Ellip Dist.	12619.770 m	0.012 m	0.000 m	0.035
C48 --> LC3-110 (PV123)	Az.	122°52'14"	0.121 sec	0.023 sec	0.222
	ΔHt.	12.382 m	0.027 m	-0.002 m	-0.097
	Ellip Dist.	20664.642 m	0.010 m	0.000 m	-0.031
GCT-FL06 --> LC3-119 (PV136)	Az.	200°14'03"	0.079 sec	0.013 sec	0.199
	ΔHt.	-21.417 m	0.041 m	0.002 m	0.058
	Ellip Dist.	27838.101 m	0.015 m	-0.002 m	-0.109
GCT-FL12 --> FVA-101 (PV679)	Az.	181°51'57"	0.355 sec	-0.001 sec	-0.004
	ΔHt.	1.280 m	0.018 m	0.002 m	0.142
	Ellip Dist.	4285.843 m	0.009 m	0.001 m	0.189
31 92 GPS 3 --> LC2-115 (PV55)	Az.	15°55'17"	0.116 sec	0.014 sec	0.103
	ΔHt.	7.007 m	0.060 m	-0.010 m	-0.174
	Ellip Dist.	26528.213 m	0.019 m	-0.005 m	-0.142

GCT-FL09 --> LC2-106 (PV802)	Az.	331°51'54"	0.354 sec	0.050 sec	0.166
	ΔHt.	27.306 m	0.033 m	0.003 m	0.100
	Ellip Dist.	6285.738 m	0.013 m	0.002 m	0.141
SUWA 26 --> LC3-132 (PV226)	Az.	119°56'33"	0.153 sec	0.018 sec	0.160
	ΔHt.	-0.186 m	0.033 m	0.002 m	0.105
	Ellip Dist.	18821.913 m	0.011 m	-0.001 m	-0.133
SUWA 26 --> LC1-132 (PV228)	Az.	119°34'46"	0.129 sec	0.012 sec	0.108
	ΔHt.	-1.161 m	0.028 m	0.003 m	0.146
	Ellip Dist.	18744.556 m	0.010 m	0.001 m	0.114
GCT-FL12 --> FVA-105 (PV729)	Az.	101°00'20"	0.097 sec	0.014 sec	0.144
	ΔHt.	23.338 m	0.025 m	0.003 m	0.127
	Ellip Dist.	23917.983 m	0.009 m	0.000 m	0.015
31 92 GPS 3 --> LC3-116 (PV57)	Az.	40°18'11"	0.077 sec	-0.002 sec	-0.030
	ΔHt.	6.067 m	0.028 m	0.003 m	0.139
	Ellip Dist.	31760.407 m	0.013 m	-0.001 m	-0.062
U 355 --> FVA-109 (PV283)	Az.	57°52'39"	0.156 sec	-0.013 sec	-0.097
	ΔHt.	6.238 m	0.026 m	-0.003 m	-0.135
	Ellip Dist.	16986.056 m	0.013 m	0.002 m	0.137
31 92 GPS 3 --> FVA-117 (PV1)	Az.	53°29'51"	0.068 sec	-0.004 sec	-0.070

	ΔHt.	13.927 m	0.022 m	0.002 m	0.124
	Ellip Dist.	30540.434 m	0.010 m	0.001 m	0.064
A 302 --> FVA-116 (PV51)	Az.	334°22'03"	0.104 sec	0.010 sec	0.087
	ΔHt.	-18.742 m	0.035 m	0.004 m	0.068
	Ellip Dist.	21632.511 m	0.017 m	0.003 m	0.111
SUWA 26 --> FVA-116 (PV235)	Az.	100°12'41"	0.138 sec	-0.004 sec	-0.018
	ΔHt.	0.310 m	0.035 m	-0.005 m	-0.096
	Ellip Dist.	23417.016 m	0.013 m	0.000 m	-0.005
31 92 GPS 3 --> FVA-132 (PV67)	Az.	38°27'43"	0.084 sec	0.001 sec	0.022
	ΔHt.	8.262 m	0.031 m	-0.002 m	-0.093
	Ellip Dist.	24599.276 m	0.012 m	0.000 m	0.007
GCT-FL08 --> LC3-109 (PV201)	Az.	231°26'03"	0.210 sec	0.012 sec	0.073
	ΔHt.	-4.269 m	0.026 m	-0.002 m	-0.079
	Ellip Dist.	11124.360 m	0.013 m	-0.001 m	-0.068
31 92 GPS 3 --> LC2-117 (PV4)	Az.	54°48'07"	0.053 sec	0.000 sec	-0.002
	ΔHt.	9.784 m	0.023 m	-0.001 m	-0.048
	Ellip Dist.	31945.581 m	0.009 m	0.000 m	-0.009

Covariance Terms

From Point	To Point		Components	A-posteriori	Horiz.	3D Precision
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				Error	Precision (Ratio)	(Ratio)
31 92 GPS 3	A 302	Az.	81°06'07"	0.007 sec	1 : 23763175	1 : 23726837
		ΔHt.	29.085 m	0.008 m		
		ΔElev.	29.282 m	0.008 m		
		Ellip Dist.	31751.154 m	0.001 m		
31 92 GPS 3	FVA-114	Az.	34°25'22"	0.178 sec	1 : 1399618	1 : 1394821
		ΔHt.	1.683 m	0.053 m		
		ΔElev.	1.783 m	0.053 m		
		Ellip Dist.	20086.092 m	0.014 m		
31 92 GPS 3	FVA-115	Az.	21°55'13"	0.067 sec	1 : 3129113	1 : 3134020
		ΔHt.	10.659 m	0.021 m		
		ΔElev.	10.810 m	0.021 m		
		Ellip Dist.	27486.057 m	0.009 m		
31 92 GPS 3	FVA-116	Az.	41°59'43"	0.100 sec	1 : 2636040	1 : 2615194
		ΔHt.	10.332 m	0.035 m		
		ΔElev.	10.520 m	0.035 m		
		Ellip Dist.	32815.354 m	0.012 m		
31 92 GPS 3	FVA-117	Az.	53°29'51"	0.068 sec	1 : 3124385	1 : 3108329
		ΔHt.	13.910 m	0.022 m		
		ΔElev.	14.078 m	0.022 m		
		Ellip Dist.	30540.435 m	0.010 m		
31 92 GPS 3	FVA-118	Az.	52°34'13"	0.097 sec	1 : 2581198	1 : 2584137
		ΔHt.	7.423 m	0.028 m		
		ΔElev.	7.542 m	0.028 m		
		Ellip Dist.	20796.139 m	0.008 m		
31 92 GPS 3	FVA-119	Az.	85°09'30"	0.141 sec	1 : 1796178	1 : 1788898

		ΔHt.	-0.137 m	0.037 m		
		ΔElev.	0.033 m	0.037 m		
		Ellip Dist.	18655.383 m	0.010 m		
31 92 GPS 3	FVA-132	Az.	38°27'43"	0.084 sec	1 : 2087404	1 : 2083872
		ΔHt.	8.246 m	0.031 m		
		ΔElev.	8.369 m	0.031 m		
		Ellip Dist.	24599.277 m	0.012 m		
31 92 GPS 3	GCT-FL06	Az.	45°21'06"	0.007 sec	1 : 25273860	1 : 25329418
		ΔHt.	20.014 m	0.008 m		
		ΔElev.	20.272 m	0.008 m		
		Ellip Dist.	39425.312 m	0.002 m		
31 92 GPS 3	GNVL	Az.	105°23'48"	0.004 sec	1 : 46965540	1 : 46813470
		ΔHt.	36.297 m	0.011 m		
		ΔElev.	36.342 m	0.011 m		
		Ellip Dist.	59292.916 m	0.001 m		
31 92 GPS 3	I75 H 1	Az.	99°37'27"	0.011 sec	1 : 19234375	1 : 19192500
		ΔHt.	37.795 m	0.007 m		
		ΔElev.	37.847 m	0.007 m		
		Ellip Dist.	45555.501 m	0.002 m		
31 92 GPS 3	LAFAY 14	Az.	315°24'50"	0.018 sec	1 : 13175136	1 : 13184643
		ΔHt.	3.096 m	0.011 m		
		ΔElev.	3.160 m	0.011 m		
		Ellip Dist.	26366.564 m	0.002 m		
31 92 GPS 3	LC1-114	Az.	34°01'19"	0.301 sec	1 : 814395	1 : 808385
		ΔHt.	0.432 m	0.081 m		
		ΔElev.	0.531 m	0.081 m		
		Ellip	19983.316 m	0.025 m		

		Dist.				
31 92 GPS 3	LC1-115	Az.	22°01'02"	0.084 sec	1 : 1827711	1 : 1832434
		ΔHt.	10.237 m	0.044 m		
		ΔElev.	10.388 m	0.044 m		
		Ellip Dist.	27463.935 m	0.015 m		
31 92 GPS 3	LC1-116	Az.	41°49'54"	0.068 sec	1 : 3016788	1 : 3009055
		ΔHt.	13.074 m	0.024 m		
		ΔElev.	13.261 m	0.024 m		
		Ellip Dist.	32787.052 m	0.011 m		
31 92 GPS 3	LC1-117	Az.	53°36'01"	0.068 sec	1 : 3203001	1 : 3188434
		ΔHt.	15.130 m	0.022 m		
		ΔElev.	15.298 m	0.022 m		
		Ellip Dist.	30472.269 m	0.010 m		
31 92 GPS 3	LC1-118	Az.	52°25'01"	0.101 sec	1 : 2557141	1 : 2557477
		ΔHt.	5.639 m	0.028 m		
		ΔElev.	5.758 m	0.028 m		
		Ellip Dist.	20882.479 m	0.008 m		
31 92 GPS 3	LC1-119	Az.	81°27'43"	0.198 sec	1 : 798418	1 : 795437
		ΔHt.	-0.042 m	0.048 m		
		ΔElev.	0.127 m	0.048 m		
		Ellip Dist.	18814.007 m	0.024 m		
31 92 GPS 3	LC1-132	Az.	38°15'37"	0.091 sec	1 : 2163805	1 : 2155099
		ΔHt.	8.866 m	0.028 m		
		ΔElev.	8.989 m	0.028 m		
		Ellip Dist.	24563.764 m	0.011 m		
31 92 GPS 3	LC2-114	Az.	29°34'01"	0.154 sec	1 : 1232452	1 : 1234543
		ΔHt.	-3.374 m	0.048 m		

		ΔElev.	-3.277 m	0.048 m		
		Ellip Dist.	20008.101 m	0.016 m		
31 92 GPS 3	LC2-115	Az.	15°55'17"	0.116 sec	1 : 1405936	1 : 1411266
		ΔHt.	6.989 m	0.060 m		
		ΔElev.	7.128 m	0.060 m		
		Ellip Dist.	26528.214 m	0.019 m		
31 92 GPS 3	LC2-117	Az.	54°48'07"	0.053 sec	1 : 3531592	1 : 3531221
		ΔHt.	9.766 m	0.023 m		
		ΔElev.	9.950 m	0.023 m		
		Ellip Dist.	31945.583 m	0.009 m		
31 92 GPS 3	LC2-118	Az.	55°12'40"	0.122 sec	1 : 2008814	1 : 2003538
		ΔHt.	5.995 m	0.030 m		
		ΔElev.	6.115 m	0.030 m		
		Ellip Dist.	18056.786 m	0.009 m		
31 92 GPS 3	LC2-132	Az.	38°26'59"	0.087 sec	1 : 2080998	1 : 2074148
		ΔHt.	9.434 m	0.029 m		
		ΔElev.	9.557 m	0.029 m		
		Ellip Dist.	24555.245 m	0.012 m		
31 92 GPS 3	LC3-114	Az.	43°08'11"	0.141 sec	1 : 1855283	1 : 1856902
		ΔHt.	8.868 m	0.042 m		
		ΔElev.	8.974 m	0.042 m		
		Ellip Dist.	19859.428 m	0.011 m		
31 92 GPS 3	LC3-115	Az.	22°09'35"	0.084 sec	1 : 2169855	1 : 2173150
		ΔHt.	9.642 m	0.034 m		
		ΔElev.	9.792 m	0.034 m		
		Ellip Dist.	27320.404 m	0.013 m		

31 92 GPS 3	LC3-116	Az.	40°18'11"	0.078 sec	1 : 2409941	1 : 2399990
		ΔHt.	6.047 m	0.028 m		
		ΔElev.	6.226 m	0.028 m		
		Ellip Dist.	31760.409 m	0.013 m		
31 92 GPS 3	LC3-117	Az.	53°26'55"	0.066 sec	1 : 3508061	1 : 3502425
		ΔHt.	17.942 m	0.021 m		
		ΔElev.	18.109 m	0.021 m		
		Ellip Dist.	30413.682 m	0.009 m		
31 92 GPS 3	LC3-118	Az.	53°33'06"	0.093 sec	1 : 2464033	1 : 2468555
		ΔHt.	6.564 m	0.029 m		
		ΔElev.	6.686 m	0.029 m		
		Ellip Dist.	21034.973 m	0.009 m		
31 92 GPS 3	LC3-119	Az.	85°10'15"	0.161 sec	1 : 1615767	1 : 1607449
		ΔHt.	-1.385 m	0.041 m		
		ΔElev.	-1.215 m	0.041 m		
		Ellip Dist.	18552.511 m	0.011 m		
31 92 GPS 3	LC3-132	Az.	38°28'50"	0.098 sec	1 : 1792393	1 : 1787232
		ΔHt.	9.841 m	0.033 m		
		ΔElev.	9.964 m	0.033 m		
		Ellip Dist.	24457.669 m	0.014 m		
31 92 GPS 3	LC4-115	Az.	24°20'01"	0.085 sec	1 : 2140038	1 : 2141283
		ΔHt.	8.159 m	0.040 m		
		ΔElev.	8.315 m	0.040 m		
		Ellip Dist.	28018.914 m	0.013 m		
31 92 GPS 3	LC4-116	Az.	44°28'32"	0.068 sec	1 : 2894102	1 : 2893107
		ΔHt.	10.465 m	0.027 m		
		ΔElev.	10.631 m	0.027 m		

		Ellip Dist.	30880.478 m	0.011 m		
31 92 GPS 3	LC4-117	Az.	57°50'27"	0.059 sec	1 : 3464571	1 : 3458055
		ΔHt.	35.742 m	0.024 m		
		ΔElev.	35.907 m	0.024 m		
		Ellip Dist.	28894.820 m	0.008 m		
31 92 GPS 3	LC4-118	Az.	58°06'14"	0.083 sec	1 : 2305914	1 : 2308887
		ΔHt.	9.813 m	0.027 m		
		ΔElev.	9.946 m	0.027 m		
		Ellip Dist.	21701.105 m	0.009 m		
31 92 GPS 3	LC4-119	Az.	81°20'03"	0.191 sec	1 : 1288741	1 : 1277007
		ΔHt.	-0.519 m	0.039 m		
		ΔElev.	-0.350 m	0.039 m		
		Ellip Dist.	18836.127 m	0.015 m		
31 92 GPS 3	LC4-132	Az.	41°05'36"	0.099 sec	1 : 2150133	1 : 2138148
		ΔHt.	10.372 m	0.028 m		
		ΔElev.	10.488 m	0.028 m		
		Ellip Dist.	23476.745 m	0.011 m		
31 92 GPS 3	SUWA 26	Az.	357°48'47"	0.010 sec	1 : 25233547	1 : 25292252
		ΔHt.	10.026 m	0.008 m		
		ΔElev.	10.157 m	0.008 m		
		Ellip Dist.	28562.978 m	0.001 m		
31 92 GPS 3	XCTY	Az.	226°37'25"	0.007 sec	1 : 24338386	1 : 24385439
		ΔHt.	-1.347 m	0.007 m		
		ΔElev.	-1.444 m	0.007 m		
		Ellip Dist.	32063.330 m	0.001 m		
A 302	FVA-114	Az.	300°22'51"	0.130 sec	1 : 1351827	1 : 1357509

		ΔHt.	-27.401 m	0.053 m		
		ΔElev.	-27.498 m	0.053 m		
		Ellip Dist.	23161.991 m	0.017 m		
A 302	FVA-115	Az.	314°26'49"	0.063 sec	1 : 3428494	1 : 3425188
		ΔHt.	-18.426 m	0.021 m		
		ΔElev.	-18.472 m	0.021 m		
		Ellip Dist.	29485.619 m	0.009 m		
A 302	FVA-116	Az.	334°22'03"	0.103 sec	1 : 1274660	1 : 1277080
		ΔHt.	-18.752 m	0.036 m		
		ΔElev.	-18.762 m	0.036 m		
		Ellip Dist.	21632.512 m	0.017 m		
A 302	FVA-117	Az.	332°56'16"	0.128 sec	1 : 1414494	1 : 1419828
		ΔHt.	-15.175 m	0.022 m		
		ΔElev.	-15.204 m	0.022 m		
		Ellip Dist.	14907.262 m	0.011 m		
A 302	FVA-118	Az.	297°38'53"	0.100 sec	1 : 1735112	1 : 1739017
		ΔHt.	-21.662 m	0.028 m		
		ΔElev.	-21.740 m	0.028 m		
		Ellip Dist.	16744.930 m	0.010 m		
A 302	FVA-119	Az.	255°31'46"	0.192 sec	1 : 1218765	1 : 1215395
		ΔHt.	-29.222 m	0.037 m		
		ΔElev.	-29.249 m	0.037 m		
		Ellip Dist.	13208.602 m	0.011 m		
A 302	FVA-132	Az.	311°55'46"	0.112 sec	1 : 2134739	1 : 2137738
		ΔHt.	-20.839 m	0.031 m		
		ΔElev.	-20.913 m	0.031 m		
		Ellip	21543.683 m	0.010 m		

		Dist.				
A 302	GCT-FL06	Az.	351°52'26"	0.010 sec	1 : 26701733	1 : 26698687
		ΔHt.	-9.071 m	0.007 m		
		ΔElev.	-9.010 m	0.007 m		
		Ellip Dist.	23035.591 m	0.001 m		
A 302	I75 H 1	Az.	132°55'32"	0.026 sec	1 : 8829196	1 : 8823496
		ΔHt.	8.711 m	0.009 m		
		ΔElev.	8.566 m	0.009 m		
		Ellip Dist.	18450.201 m	0.002 m		
A 302	LC1-114	Az.	300°09'10"	0.224 sec	1 : 819289	1 : 824146
		ΔHt.	-28.653 m	0.081 m		
		ΔElev.	-28.751 m	0.081 m		
		Ellip Dist.	23309.119 m	0.028 m		
A 302	LC1-115	Az.	314°26'29"	0.106 sec	1 : 2675469	1 : 2679376
		ΔHt.	-18.847 m	0.044 m		
		ΔElev.	-18.894 m	0.044 m		
		Ellip Dist.	29434.204 m	0.011 m		
A 302	LC1-116	Az.	334°12'16"	0.097 sec	1 : 1904471	1 : 1907146
		ΔHt.	-16.011 m	0.024 m		
		ΔElev.	-16.020 m	0.024 m		
		Ellip Dist.	21708.606 m	0.011 m		
A 302	LC1-117	Az.	332°42'43"	0.126 sec	1 : 1433312	1 : 1437789
		ΔHt.	-13.955 m	0.021 m		
		ΔElev.	-13.984 m	0.021 m		
		Ellip Dist.	14842.461 m	0.010 m		
A 302	LC1-118	Az.	297°59'46"	0.105 sec	1 : 1688403	1 : 1694129
		ΔHt.	-23.446 m	0.028 m		

		ΔElev.	-23.524 m	0.028 m		
		Ellip Dist.	16759.329 m	0.010 m		
A 302	LC1-119	Az.	260°44'24"	0.286 sec	1 : 547723	1 : 546696
		ΔHt.	-29.126 m	0.048 m		
		ΔElev.	-29.154 m	0.048 m		
		Ellip Dist.	12938.059 m	0.024 m		
A 302	LC1-132	Az.	311°49'19"	0.106 sec	1 : 1973659	1 : 1980529
		ΔHt.	-20.218 m	0.028 m		
		ΔElev.	-20.292 m	0.028 m		
		Ellip Dist.	21627.974 m	0.011 m		
A 302	LC2-117	Az.	338°51'44"	0.127 sec	1 : 1765649	1 : 1765780
		ΔHt.	-19.319 m	0.023 m		
		ΔElev.	-19.332 m	0.023 m		
		Ellip Dist.	14492.231 m	0.008 m		
A 302	LC2-118	Az.	288°12'55"	0.121 sec	1 : 1856913	1 : 1859321
		ΔHt.	-23.089 m	0.030 m		
		ΔElev.	-23.167 m	0.030 m		
		Ellip Dist.	17396.168 m	0.009 m		
A 302	LC2-132	Az.	311°48'43"	0.111 sec	1 : 2057471	1 : 2064442
		ΔHt.	-19.651 m	0.029 m		
		ΔElev.	-19.725 m	0.029 m		
		Ellip Dist.	21546.465 m	0.010 m		
A 302	LC3-114	Az.	298°27'57"	0.110 sec	1 : 1502630	1 : 1505604
		ΔHt.	-20.216 m	0.042 m		
		ΔElev.	-20.308 m	0.042 m		
		Ellip Dist.	20206.139 m	0.013 m		

A 302	LC3-115	Az.	314°13'55"	0.089 sec	1 : 2651141	1 : 2651751
		ΔHt.	-19.442 m	0.034 m		
		ΔElev.	-19.490 m	0.034 m		
		Ellip Dist.	29317.055 m	0.011 m		
A 302	LC3-116	Az.	330°53'13"	0.111 sec	1 : 1675359	1 : 1681882
		ΔHt.	-23.037 m	0.028 m		
		ΔElev.	-23.056 m	0.028 m		
		Ellip Dist.	22137.619 m	0.013 m		
A 302	LC3-117	Az.	332°26'28"	0.118 sec	1 : 1523924	1 : 1524845
		ΔHt.	-11.142 m	0.021 m		
		ΔElev.	-11.172 m	0.021 m		
		Ellip Dist.	14913.073 m	0.010 m		
A 302	LC3-118	Az.	297°51'41"	0.105 sec	1 : 1704712	1 : 1706195
		ΔHt.	-22.520 m	0.029 m		
		ΔElev.	-22.596 m	0.029 m		
		Ellip Dist.	16318.850 m	0.010 m		
A 302	LC3-119	Az.	255°35'15"	0.216 sec	1 : 1097715	1 : 1093488
		ΔHt.	-30.469 m	0.041 m		
		ΔElev.	-30.497 m	0.041 m		
		Ellip Dist.	13310.667 m	0.012 m		
A 302	LC4-115	Az.	316°17'15"	0.093 sec	1 : 2460485	1 : 2462229
		ΔHt.	-20.926 m	0.040 m		
		ΔElev.	-20.967 m	0.040 m		
		Ellip Dist.	28602.490 m	0.012 m		
A 302	LC4-116	Az.	330°32'44"	0.110 sec	1 : 1929611	1 : 1929688
		ΔHt.	-18.620 m	0.027 m		
		ΔElev.	-18.651 m	0.027 m		

		Ellip Dist.	19696.758 m	0.010 m		
A 302	LC4-117	Az.	326°44'39"	0.137 sec	1 : 1534438	1 : 1537832
		ΔHt.	6.658 m	0.024 m		
		ΔElev.	6.625 m	0.024 m		
		Ellip Dist.	12542.109 m	0.008 m		
A 302	LC4-118	Az.	297°01'11"	0.126 sec	1 : 1581872	1 : 1578494
		ΔHt.	-19.272 m	0.027 m		
		ΔElev.	-19.336 m	0.027 m		
		Ellip Dist.	14509.791 m	0.009 m		
A 302	LC4-132	Az.	308°53'25"	0.111 sec	1 : 1847954	1 : 1856741
		ΔHt.	-18.713 m	0.028 m		
		ΔElev.	-18.793 m	0.028 m		
		Ellip Dist.	20430.189 m	0.011 m		
A 302	SUWA 26	Az.	306°13'03"	0.000 sec	1 : 0	1 : 8203755988
		ΔHt.	-19.059 m	0.008 m		
		ΔElev.	-19.125 m	0.008 m		
		Ellip Dist.	40149.757 m	0.000 m		
A 302	XCTY	Az.	243°56'14"	0.000 sec	1 : 0	1 : 11796489380
		ΔHt.	-30.431 m	0.009 m		
		ΔElev.	-30.725 m	0.009 m		
		Ellip Dist.	60947.738 m	0.000 m		
C48	FLGPS 21	Az.	75°56'50"	0.022 sec	1 : 8873590	1 : 8819883
		ΔHt.	35.614 m	0.007 m		
		ΔElev.	35.652 m	0.007 m		
		Ellip Dist.	26129.054 m	0.003 m		

C48	FLGPS 71	Az.	318°39'47"	0.014 sec	1 : 16845864	1 : 16863136
		ΔHt.	10.421 m	0.007 m		
		ΔElev.	10.379 m	0.007 m		
		Ellip Dist.	24598.040 m	0.001 m		
C48	FVA-107	Az.	117°51'51"	0.355 sec	1 : 658513	1 : 658748
		ΔHt.	8.655 m	0.033 m		
		ΔElev.	8.663 m	0.033 m		
		Ellip Dist.	7165.700 m	0.011 m		
C48	FVA-108	Az.	98°23'38"	0.110 sec	1 : 1931312	1 : 1941124
		ΔHt.	28.472 m	0.032 m		
		ΔElev.	28.503 m	0.032 m		
		Ellip Dist.	18980.121 m	0.010 m		
C48	FVA-109	Az.	117°39'56"	0.194 sec	1 : 1326233	1 : 1329196
		ΔHt.	12.433 m	0.026 m		
		ΔElev.	12.445 m	0.026 m		
		Ellip Dist.	15417.018 m	0.012 m		
C48	FVA-110	Az.	126°23'21"	0.140 sec	1 : 1943571	1 : 1952067
		ΔHt.	10.954 m	0.033 m		
		ΔElev.	10.950 m	0.033 m		
		Ellip Dist.	19949.778 m	0.010 m		
C48	GCT-FL08	Az.	89°44'37"	0.018 sec	1 : 11783034	1 : 11750742
		ΔHt.	13.252 m	0.009 m		
		ΔElev.	13.289 m	0.009 m		
		Ellip Dist.	21813.292 m	0.002 m		
C48	GCT-FL09	Az.	267°34'18"	0.018 sec	1 : 10623444	1 : 10603648
		ΔHt.	11.994 m	0.010 m		
		ΔElev.	11.848 m	0.010 m		

		Ellip Dist.	21669.260 m	0.002 m		
C48	GCT-FL11	Az.	303°23'33"	0.016 sec	1 : 13796737	1 : 13768409
		ΔHt.	19.854 m	0.009 m		
		ΔElev.	19.758 m	0.009 m		
		Ellip Dist.	25918.757 m	0.002 m		
C48	L 45	Az.	286°33'35"	0.033 sec	1 : 6951183	1 : 6934999
		ΔHt.	9.712 m	0.007 m		
		ΔElev.	9.686 m	0.007 m		
		Ellip Dist.	10361.457 m	0.001 m		
C48	LC1-107	Az.	117°56'28"	0.326 sec	1 : 770453	1 : 771618
		ΔHt.	2.507 m	0.029 m		
		ΔElev.	2.516 m	0.029 m		
		Ellip Dist.	8323.266 m	0.011 m		
C48	LC1-108	Az.	101°03'34"	0.105 sec	1 : 1893006	1 : 1896019
		ΔHt.	20.224 m	0.035 m		
		ΔElev.	20.255 m	0.035 m		
		Ellip Dist.	20652.978 m	0.011 m		
C48	LC1-109	Az.	117°43'36"	0.184 sec	1 : 1373692	1 : 1376326
		ΔHt.	12.519 m	0.025 m		
		ΔElev.	12.531 m	0.025 m		
		Ellip Dist.	15441.056 m	0.011 m		
C48	LC1-110	Az.	126°31'33"	0.128 sec	1 : 1879608	1 : 1885986
		ΔHt.	11.074 m	0.033 m		
		ΔElev.	11.070 m	0.033 m		
		Ellip Dist.	20006.313 m	0.011 m		
C48	LC2-107	Az.	118°09'49"	0.414 sec	1 : 528158	1 : 527294

		ΔHt.	8.668 m	0.045 m		
		ΔElev.	8.676 m	0.045 m		
		Ellip Dist.	7143.377 m	0.014 m		
C48	LC2-108	Az.	101°00'26"	0.107 sec	1 : 1914603	1 : 1915107
		ΔHt.	20.826 m	0.035 m		
		ΔElev.	20.858 m	0.035 m		
		Ellip Dist.	20599.922 m	0.011 m		
C48	LC2-109	Az.	118°07'15"	0.215 sec	1 : 1136518	1 : 1134669
		ΔHt.	9.909 m	0.028 m		
		ΔElev.	9.920 m	0.028 m		
		Ellip Dist.	12076.432 m	0.011 m		
C48	LC2-110	Az.	123°03'24"	0.134 sec	1 : 2006769	1 : 2021275
		ΔHt.	12.641 m	0.029 m		
		ΔElev.	12.644 m	0.029 m		
		Ellip Dist.	20675.025 m	0.010 m		
C48	LC3-107	Az.	117°39'42"	0.462 sec	1 : 616419	1 : 618052
		ΔHt.	5.284 m	0.031 m		
		ΔElev.	5.292 m	0.031 m		
		Ellip Dist.	8067.634 m	0.013 m		
C48	LC3-109	Az.	117°34'12"	0.180 sec	1 : 1351426	1 : 1351841
		ΔHt.	8.990 m	0.026 m		
		ΔElev.	9.001 m	0.026 m		
		Ellip Dist.	14810.736 m	0.011 m		
C48	LC3-110	Az.	122°52'14"	0.121 sec	1 : 2048989	1 : 2060550
		ΔHt.	12.385 m	0.027 m		
		ΔElev.	12.388 m	0.027 m		
		Ellip	20664.643 m	0.010 m		

		Dist.				
C48	LC4-107	Az.	118°10'07"	0.471 sec	1 : 614514	1 : 616327
		ΔHt.	3.700 m	0.037 m		
		ΔElev.	3.709 m	0.037 m		
		Ellip Dist.	8670.976 m	0.014 m		
C48	LC4-108	Az.	98°27'32"	0.122 sec	1 : 1975538	1 : 1987021
		ΔHt.	28.375 m	0.032 m		
		ΔElev.	28.406 m	0.032 m		
		Ellip Dist.	18966.853 m	0.010 m		
C48	LC4-109	Az.	118°10'17"	0.185 sec	1 : 1144241	1 : 1144360
		ΔHt.	9.959 m	0.028 m		
		ΔElev.	9.970 m	0.028 m		
		Ellip Dist.	12096.142 m	0.011 m		
C48	SUWAPORT AZ MK	Az.	119°55'48"	0.017 sec	1 : 13650057	1 : 13634530
		ΔHt.	12.462 m	0.007 m		
		ΔElev.	12.471 m	0.007 m		
		Ellip Dist.	19928.055 m	0.001 m		
C48	U 151	Az.	117°13'56"	0.013 sec	1 : 18838911	1 : 18812157
		ΔHt.	14.142 m	0.007 m		
		ΔElev.	14.162 m	0.007 m		
		Ellip Dist.	27584.773 m	0.001 m		
C48	U 355	Az.	182°35'19"	0.024 sec	1 : 8798481	1 : 8821998
		ΔHt.	6.204 m	0.007 m		
		ΔElev.	6.150 m	0.007 m		
		Ellip Dist.	16205.853 m	0.002 m		
FLGPS 16	FLGPS 15	Az.	24°02'02"	0.000 sec	1 : 0	1 : 0

		ΔHt.	50.423 m	0.000 m		
		ΔElev.	50.621 m	0.000 m		
		Ellip Dist.	42317.289 m	0.000 m		
FLGPS 16	PRRY	Az.	108°34'30"	0.000 sec	1 : 0	1 : 13914914228
		ΔHt.	8.601 m	0.011 m		
		ΔElev.	8.847 m	0.011 m		
		Ellip Dist.	48309.637 m	0.000 m		
FLGPS 19	L 45	Az.	358°08'32"	0.000 sec	1 : 0	1 : 0
		ΔHt.	2.806 m	0.000 m		
		ΔElev.	2.902 m	0.000 m		
		Ellip Dist.	27526.233 m	0.000 m		
FLGPS 71	FLGPS 15	Az.	271°05'41"	0.000 sec	1 : 0	1 : 0
		ΔHt.	27.978 m	0.000 m		
		ΔElev.	27.691 m	0.000 m		
		Ellip Dist.	48325.755 m	0.000 m		
FLGPS 71	GCT-FL09	Az.	195°29'14"	0.015 sec	1 : 15688801	1 : 15761240
		ΔHt.	1.573 m	0.008 m		
		ΔElev.	1.469 m	0.008 m		
		Ellip Dist.	20126.099 m	0.001 m		
FLGPS 71	GCT-FL11	Az.	231°58'39"	0.038 sec	1 : 4592690	1 : 4606068
		ΔHt.	9.433 m	0.007 m		
		ΔElev.	9.379 m	0.007 m		
		Ellip Dist.	6838.474 m	0.001 m		
FVA-111	XCTY	Az.	161°42'09"	0.052 sec	1 : 4599970	1 : 4608950
		ΔHt.	-10.783 m	0.037 m		
		ΔElev.	-10.942 m	0.037 m		

		Ellip Dist.	48963.194 m	0.011 m		
FVA-112	XCTY	Az.	172°20'29"	0.061 sec	1 : 3492675	1 : 3480175
		ΔHt.	-9.899 m	0.032 m		
		ΔElev.	-10.093 m	0.032 m		
		Ellip Dist.	48442.094 m	0.014 m		
FVA-113	XCTY	Az.	179°11'01"	0.043 sec	1 : 3714401	1 : 3699094
		ΔHt.	-4.669 m	0.029 m		
		ΔElev.	-4.856 m	0.029 m		
		Ellip Dist.	46804.886 m	0.013 m		
FVA-131	XCTY	Az.	170°48'41"	0.054 sec	1 : 3157684	1 : 3159244
		ΔHt.	-10.084 m	0.036 m		
		ΔElev.	-10.252 m	0.036 m		
		Ellip Dist.	45090.560 m	0.014 m		
GCT-FL02	GNVL	Az.	171°05'55"	0.000 sec	1 : 0	1 : 3208770313
		ΔHt.	12.713 m	0.010 m		
		ΔElev.	12.655 m	0.010 m		
		Ellip Dist.	21291.441 m	0.000 m		
GCT-FL02	I75 H 1	Az.	214°45'26"	0.028 sec	1 : 6762679	1 : 6767504
		ΔHt.	14.211 m	0.000 m		
		ΔElev.	14.161 m	0.000 m		
		Ellip Dist.	15640.753 m	0.002 m		
GCT-FL03	GCT-FL02	Az.	182°29'53"	0.000 sec	1 : 0	1 : 0
		ΔHt.	-0.568 m	0.000 m		
		ΔElev.	-0.737 m	0.000 m		
		Ellip Dist.	15155.711 m	0.000 m		
GCT-FL06	FVA-114	Az.	236°26'08"	0.183 sec	1 : 1460764	1 : 1461758

		ΔHt.	-18.330 m	0.053 m		
		ΔElev.	-18.488 m	0.053 m		
		Ellip Dist.	20068.145 m	0.014 m		
GCT-FL06	FVA-115	Az.	263°04'17"	0.098 sec	1 : 1975527	1 : 1975351
		ΔHt.	-9.355 m	0.020 m		
		ΔElev.	-9.462 m	0.020 m		
		Ellip Dist.	17923.907 m	0.009 m		
GCT-FL06	FVA-116	Az.	241°34'24"	0.503 sec	1 : 634192	1 : 631696
		ΔHt.	-9.681 m	0.035 m		
		ΔElev.	-9.752 m	0.035 m		
		Ellip Dist.	6937.555 m	0.011 m		
GCT-FL06	FVA-117	Az.	200°17'20"	0.174 sec	1 : 914051	1 : 912219
		ΔHt.	-6.104 m	0.022 m		
		ΔElev.	-6.194 m	0.022 m		
		Ellip Dist.	10160.631 m	0.011 m		
GCT-FL06	FVA-118	Az.	217°34'51"	0.106 sec	1 : 2366374	1 : 2364044
		ΔHt.	-12.591 m	0.028 m		
		ΔElev.	-12.729 m	0.028 m		
		Ellip Dist.	18974.817 m	0.008 m		
GCT-FL06	FVA-119	Az.	200°02'43"	0.073 sec	1 : 2114801	1 : 2115887
		ΔHt.	-20.151 m	0.037 m		
		ΔElev.	-20.238 m	0.037 m		
		Ellip Dist.	27791.242 m	0.013 m		
GCT-FL06	FVA-132	Az.	236°37'25"	0.144 sec	1 : 1366784	1 : 1363346
		ΔHt.	-11.767 m	0.031 m		
		ΔElev.	-11.902 m	0.031 m		
		Ellip	15291.096 m	0.011 m		

		Dist.				
GCT-FL06	GCT-FL02	Az.	131°14'04"	0.006 sec	1 : 34552249	1 : 34423321
		ΔHt.	3.571 m	0.009 m		
		ΔElev.	3.415 m	0.009 m		
		Ellip Dist.	34126.349 m	0.001 m		
GCT-FL06	GCT-FL03	Az.	105°37'23"	0.007 sec	1 : 24945595	1 : 24890493
		ΔHt.	4.139 m	0.009 m		
		ΔElev.	4.152 m	0.009 m		
		Ellip Dist.	27296.689 m	0.001 m		
GCT-FL06	GNVL	Az.	146°19'01"	0.004 sec	1 : 56838972	1 : 56641812
		ΔHt.	16.284 m	0.011 m		
		ΔElev.	16.070 m	0.011 m		
		Ellip Dist.	52302.126 m	0.001 m		
GCT-FL06	LAKEPORT AZ MK	Az.	2°30'18"	0.052 sec	1 : 4573567	1 : 4586436
		ΔHt.	22.968 m	0.015 m		
		ΔElev.	23.032 m	0.015 m		
		Ellip Dist.	11313.419 m	0.002 m		
GCT-FL06	LC1-115	Az.	262°56'13"	0.155 sec	1 : 1377940	1 : 1372950
		ΔHt.	-9.776 m	0.043 m		
		ΔElev.	-9.884 m	0.043 m		
		Ellip Dist.	17894.044 m	0.013 m		
GCT-FL06	LC1-116	Az.	242°13'11"	0.335 sec	1 : 680603	1 : 679153
		ΔHt.	-6.939 m	0.023 m		
		ΔElev.	-7.010 m	0.023 m		
		Ellip Dist.	6995.992 m	0.010 m		
GCT-FL06	LC1-117	Az.	200°14'37"	0.175 sec	1 : 955851	1 : 953978

		ΔHt.	-4.884 m	0.021 m		
		ΔElev.	-4.974 m	0.021 m		
		Ellip Dist.	10247.651 m	0.011 m		
GCT-FL06	LC1-118	Az.	217°40'35"	0.111 sec	1 : 2279670	1 : 2275087
		ΔHt.	-14.375 m	0.028 m		
		ΔElev.	-14.513 m	0.028 m		
		Ellip Dist.	18876.965 m	0.008 m		
GCT-FL06	LC1-119	Az.	200°54'13"	0.152 sec	1 : 1201742	1 : 1208017
		ΔHt.	-20.055 m	0.048 m		
		ΔElev.	-20.144 m	0.048 m		
		Ellip Dist.	26642.605 m	0.022 m		
GCT-FL06	LC1-132	Az.	236°53'21"	0.157 sec	1 : 1480858	1 : 1475276
		ΔHt.	-11.147 m	0.028 m		
		ΔElev.	-11.282 m	0.028 m		
		Ellip Dist.	15351.916 m	0.010 m		
GCT-FL06	LC2-114	Az.	240°35'48"	0.142 sec	1 : 1254647	1 : 1255060
		ΔHt.	-23.387 m	0.048 m		
		ΔElev.	-23.548 m	0.048 m		
		Ellip Dist.	20893.042 m	0.017 m		
GCT-FL06	LC2-115	Az.	264°06'39"	0.167 sec	1 : 1224780	1 : 1219135
		ΔHt.	-13.024 m	0.060 m		
		ΔElev.	-13.144 m	0.060 m		
		Ellip Dist.	20886.946 m	0.017 m		
GCT-FL06	LC2-117	Az.	191°57'32"	0.184 sec	1 : 1094266	1 : 1096338
		ΔHt.	-10.247 m	0.022 m		
		ΔElev.	-10.322 m	0.022 m		
		Ellip	9493.796 m	0.009 m		

		Dist.				
GCT-FL06	LC2-118	Az.	217°21'49"	0.095 sec	1 : 2286784	1 : 2280865
		ΔHt.	-14.018 m	0.030 m		
		ΔElev.	-14.156 m	0.030 m		
		Ellip Dist.	21855.026 m	0.010 m		
GCT-FL06	LC2-132	Az.	236°35'29"	0.152 sec	1 : 1413207	1 : 1407983
		ΔHt.	-10.580 m	0.029 m		
		ΔElev.	-10.715 m	0.029 m		
		Ellip Dist.	15334.606 m	0.011 m		
GCT-FL06	LC3-114	Az.	227°44'31"	0.142 sec	1 : 1825185	1 : 1827863
		ΔHt.	-11.145 m	0.042 m		
		ΔElev.	-11.298 m	0.042 m		
		Ellip Dist.	19595.766 m	0.011 m		
GCT-FL06	LC3-115	Az.	262°25'47"	0.137 sec	1 : 1510008	1 : 1508032
		ΔHt.	-10.371 m	0.033 m		
		ΔElev.	-10.480 m	0.033 m		
		Ellip Dist.	17905.518 m	0.012 m		
GCT-FL06	LC3-116	Az.	245°14'17"	0.335 sec	1 : 713288	1 : 709648
		ΔHt.	-13.966 m	0.028 m		
		ΔElev.	-14.045 m	0.028 m		
		Ellip Dist.	8274.410 m	0.012 m		
GCT-FL06	LC3-117	Az.	200°48'00"	0.183 sec	1 : 1102694	1 : 1100576
		ΔHt.	-2.071 m	0.020 m		
		ΔElev.	-2.162 m	0.020 m		
		Ellip Dist.	10252.613 m	0.009 m		
GCT-FL06	LC3-118	Az.	216°20'12"	0.105 sec	1 : 2261754	1 : 2262771
		ΔHt.	-13.449 m	0.029 m		

		ΔElev.	-13.586 m	0.029 m		
		Ellip Dist.	18845.738 m	0.008 m		
GCT-FL06	LC3-119	Az.	200°14'03"	0.079 sec	1 : 1844581	1 : 1846019
		ΔHt.	-21.398 m	0.041 m		
		ΔElev.	-21.487 m	0.041 m		
		Ellip Dist.	27838.103 m	0.015 m		
GCT-FL06	LC3-132	Az.	236°25'57"	0.169 sec	1 : 1220522	1 : 1216225
		ΔHt.	-10.172 m	0.033 m		
		ΔElev.	-10.308 m	0.033 m		
		Ellip Dist.	15423.372 m	0.013 m		
GCT-FL06	LC4-115	Az.	262°37'55"	0.156 sec	1 : 1383717	1 : 1381733
		ΔHt.	-11.855 m	0.039 m		
		ΔElev.	-11.957 m	0.039 m		
		Ellip Dist.	16646.106 m	0.012 m		
GCT-FL06	LC4-116	Az.	228°39'28"	0.244 sec	1 : 806311	1 : 805911
		ΔHt.	-9.548 m	0.026 m		
		ΔElev.	-9.641 m	0.026 m		
		Ellip Dist.	8561.469 m	0.011 m		
GCT-FL06	LC4-117	Az.	196°22'11"	0.125 sec	1 : 1468836	1 : 1467656
		ΔHt.	15.729 m	0.024 m		
		ΔElev.	15.636 m	0.024 m		
		Ellip Dist.	12837.675 m	0.009 m		
GCT-FL06	LC4-118	Az.	210°47'49"	0.100 sec	1 : 2109912	1 : 2113756
		ΔHt.	-10.201 m	0.027 m		
		ΔElev.	-10.325 m	0.027 m		
		Ellip Dist.	18877.370 m	0.009 m		

GCT-FL06	LC4-119	Az.	200°54'24"	0.089 sec	1 : 1353372	1 : 1354321
		ΔHt.	-20.533 m	0.039 m		
		ΔElev.	-20.622 m	0.039 m		
		Ellip Dist.	26595.178 m	0.020 m		
GCT-FL06	LC4-132	Az.	231°42'34"	0.151 sec	1 : 1573670	1 : 1565803
		ΔHt.	-9.642 m	0.028 m		
		ΔElev.	-9.783 m	0.028 m		
		Ellip Dist.	16107.969 m	0.010 m		
GCT-FL06	N 369	Az.	303°47'11"	0.020 sec	1 : 10701663	1 : 10657191
		ΔHt.	21.270 m	0.009 m		
		ΔElev.	21.271 m	0.009 m		
		Ellip Dist.	28512.260 m	0.003 m		
GCT-FL06	SUWA 26	Az.	271°47'19"	0.006 sec	1 : 25891868	1 : 25867762
		ΔHt.	-9.988 m	0.006 m		
		ΔElev.	-10.115 m	0.006 m		
		Ellip Dist.	29150.322 m	0.001 m		
GCT-FL07	FVA-111	Az.	44°06'44"	0.364 sec	1 : 489469	1 : 490091
		ΔHt.	-0.296 m	0.036 m		
		ΔElev.	-0.255 m	0.036 m		
		Ellip Dist.	6025.990 m	0.012 m		
GCT-FL07	FVA-112	Az.	65°54'01"	0.211 sec	1 : 1050691	1 : 1054575
		ΔHt.	-1.180 m	0.032 m		
		ΔElev.	-1.105 m	0.032 m		
		Ellip Dist.	14319.748 m	0.014 m		
GCT-FL07	FVA-113	Az.	76°09'07"	0.140 sec	1 : 2098827	1 : 2107287
		ΔHt.	-6.410 m	0.029 m		
		ΔElev.	-6.341 m	0.029 m		

		Ellip Dist.	19401.768 m	0.009 m		
GCT-FL07	FVA-131	Az.	79°13'07"	0.235 sec	1 : 1051061	1 : 1050423
		ΔHt.	-0.995 m	0.036 m		
		ΔElev.	-0.945 m	0.036 m		
		Ellip Dist.	12556.134 m	0.012 m		
GCT-FL07	LC1-111	Az.	42°02'52"	0.414 sec	1 : 471735	1 : 470707
		ΔHt.	-0.806 m	0.042 m		
		ΔElev.	-0.748 m	0.042 m		
		Ellip Dist.	8352.571 m	0.018 m		
GCT-FL07	LC1-112	Az.	65°41'07"	0.200 sec	1 : 1027937	1 : 1030012
		ΔHt.	-1.308 m	0.033 m		
		ΔElev.	-1.233 m	0.033 m		
		Ellip Dist.	14363.632 m	0.014 m		
GCT-FL07	LC1-113	Az.	76°12'15"	0.508 sec	1 : 788520	1 : 770033
		ΔHt.	-6.388 m	0.058 m		
		ΔElev.	-6.319 m	0.058 m		
		Ellip Dist.	19585.577 m	0.025 m		
GCT-FL07	LC1-131	Az.	77°47'56"	0.203 sec	1 : 1369183	1 : 1365630
		ΔHt.	-0.995 m	0.027 m		
		ΔElev.	-0.942 m	0.027 m		
		Ellip Dist.	12889.509 m	0.009 m		
GCT-FL07	LC2-112	Az.	65°48'09"	0.252 sec	1 : 1055793	1 : 1056735
		ΔHt.	-1.471 m	0.040 m		
		ΔElev.	-1.396 m	0.040 m		
		Ellip Dist.	14385.994 m	0.014 m		
GCT-FL07	LC2-113	Az.	76°06'25"	0.163 sec	1 : 1858967	1 : 1867839

		ΔHt.	-6.173 m	0.035 m		
		ΔElev.	-6.104 m	0.035 m		
		Ellip Dist.	19652.797 m	0.011 m		
GCT-FL07	LC2-131	Az.	70°38'49"	0.231 sec	1 : 1177102	1 : 1176357
		ΔHt.	-1.521 m	0.036 m		
		ΔElev.	-1.455 m	0.036 m		
		Ellip Dist.	13769.027 m	0.012 m		
GCT-FL07	LC3-111	Az.	45°29'05"	0.414 sec	1 : 451420	1 : 450937
		ΔHt.	-0.380 m	0.031 m		
		ΔElev.	-0.341 m	0.031 m		
		Ellip Dist.	5772.724 m	0.013 m		
GCT-FL07	LC3-113	Az.	76°05'09"	0.124 sec	1 : 1923197	1 : 1926082
		ΔHt.	-9.255 m	0.034 m		
		ΔElev.	-9.185 m	0.034 m		
		Ellip Dist.	21318.293 m	0.011 m		
GCT-FL07	LC3-131	Az.	79°24'28"	0.243 sec	1 : 1034393	1 : 1030459
		ΔHt.	-1.223 m	0.033 m		
		ΔElev.	-1.173 m	0.033 m		
		Ellip Dist.	12581.988 m	0.012 m		
GCT-FL07	LC4-111	Az.	42°22'15"	0.318 sec	1 : 598075	1 : 596754
		ΔHt.	-0.735 m	0.032 m		
		ΔElev.	-0.678 m	0.032 m		
		Ellip Dist.	8266.612 m	0.014 m		
GCT-FL07	LC4-112	Az.	65°41'50"	0.188 sec	1 : 982418	1 : 984504
		ΔHt.	-1.824 m	0.034 m		
		ΔElev.	-1.749 m	0.034 m		
		Ellip	14311.548 m	0.015 m		

		Dist.				
GCT-FL07	LC4-113	Az.	76°07'08"	0.125 sec	1 : 2020113	1 : 2026152
		ΔHt.	-8.976 m	0.033 m		
		ΔElev.	-8.906 m	0.033 m		
		Ellip Dist.	21247.379 m	0.011 m		
GCT-FL07	LC4-131	Az.	82°20'47"	0.292 sec	1 : 765019	1 : 766778
		ΔHt.	-1.475 m	0.053 m		
		ΔElev.	-1.431 m	0.053 m		
		Ellip Dist.	11883.582 m	0.016 m		
GCT-FL07	PRRY	Az.	286°10'03"	0.015 sec	1 : 15326320	1 : 15300183
		ΔHt.	-10.197 m	0.015 m		
		ΔElev.	-10.276 m	0.015 m		
		Ellip Dist.	26524.212 m	0.002 m		
GCT-FL07	SALEM NW BASE	Az.	215°09'44"	0.025 sec	1 : 6466062	1 : 6451468
		ΔHt.	-12.812 m	0.012 m		
		ΔElev.	-12.885 m	0.012 m		
		Ellip Dist.	17022.869 m	0.003 m		
GCT-FL07	XCTY	Az.	155°04'54"	0.008 sec	1 : 26144569	1 : 26206954
		ΔHt.	-11.079 m	0.011 m		
		ΔElev.	-11.197 m	0.011 m		
		Ellip Dist.	46482.275 m	0.002 m		
GCT-FL08	FLGPS 21	Az.	29°36'45"	0.069 sec	1 : 2170597	1 : 2172513
		ΔHt.	22.362 m	0.007 m		
		ΔElev.	22.363 m	0.007 m		
		Ellip Dist.	7177.263 m	0.003 m		
GCT-FL08	FLGPS 71	Az.	295°52'54"	0.009 sec	1 : 27489847	1 : 27456686

		ΔHt.	-2.830 m	0.007 m		
		ΔElev.	-2.910 m	0.007 m		
		Ellip Dist.	42261.738 m	0.002 m		
GCT-FL08	FVA-107	Az.	257°33'39"	0.155 sec	1 : 1397192	1 : 1394191
		ΔHt.	-4.597 m	0.033 m		
		ΔElev.	-4.626 m	0.033 m		
		Ellip Dist.	15857.296 m	0.011 m		
GCT-FL08	FVA-108	Az.	226°44'39"	0.533 sec	1 : 465328	1 : 464392
		ΔHt.	15.220 m	0.031 m		
		ΔElev.	15.214 m	0.031 m		
		Ellip Dist.	4176.853 m	0.009 m		
GCT-FL08	FVA-109	Az.	228°27'59"	0.235 sec	1 : 791038	1 : 788385
		ΔHt.	-0.819 m	0.026 m		
		ΔElev.	-0.844 m	0.026 m		
		Ellip Dist.	10918.404 m	0.014 m		
GCT-FL08	FVA-110	Az.	205°51'18"	0.154 sec	1 : 961816	1 : 961048
		ΔHt.	-2.298 m	0.033 m		
		ΔElev.	-2.339 m	0.033 m		
		Ellip Dist.	13247.703 m	0.014 m		
GCT-FL08	LC1-108	Az.	200°56'05"	0.521 sec	1 : 419878	1 : 419346
		ΔHt.	6.972 m	0.034 m		
		ΔElev.	6.966 m	0.034 m		
		Ellip Dist.	4342.986 m	0.010 m		
GCT-FL08	LC1-109	Az.	228°19'05"	0.225 sec	1 : 828058	1 : 825511
		ΔHt.	-0.733 m	0.025 m		
		ΔElev.	-0.758 m	0.025 m		
		Ellip	10925.325 m	0.013 m		

		Dist.				
GCT-FL08	LC1-110	Az.	205°39'14"	0.159 sec	1 : 1047303	1 : 1045814
		ΔHt.	-2.178 m	0.033 m		
		ΔElev.	-2.219 m	0.033 m		
		Ellip Dist.	13305.137 m	0.013 m		
GCT-FL08	LC2-107	Az.	257°30'39"	0.180 sec	1 : 1137257	1 : 1135697
		ΔHt.	-4.584 m	0.045 m		
		ΔElev.	-4.613 m	0.045 m		
		Ellip Dist.	15898.580 m	0.014 m		
GCT-FL08	LC2-108	Az.	201°40'05"	0.510 sec	1 : 408283	1 : 407993
		ΔHt.	7.574 m	0.035 m		
		ΔElev.	7.569 m	0.035 m		
		Ellip Dist.	4333.929 m	0.011 m		
GCT-FL08	LC2-109	Az.	242°41'59"	0.180 sec	1 : 1024692	1 : 1022569
		ΔHt.	-3.343 m	0.028 m		
		ΔElev.	-3.369 m	0.028 m		
		Ellip Dist.	12574.371 m	0.012 m		
GCT-FL08	LC2-110	Az.	201°37'54"	0.163 sec	1 : 880760	1 : 879028
		ΔHt.	-0.611 m	0.029 m		
		ΔElev.	-0.646 m	0.029 m		
		Ellip Dist.	12227.318 m	0.014 m		
GCT-FL08	LC3-107	Az.	255°25'58"	0.228 sec	1 : 1027752	1 : 1021248
		ΔHt.	-7.968 m	0.031 m		
		ΔElev.	-7.997 m	0.031 m		
		Ellip Dist.	15162.638 m	0.015 m		
GCT-FL08	LC3-109	Az.	231°26'03"	0.211 sec	1 : 887082	1 : 885163
		ΔHt.	-4.262 m	0.026 m		

		ΔElev.	-4.288 m	0.026 m		
		Ellip Dist.	11124.360 m	0.013 m		
GCT-FL08	LC3-110	Az.	201°37'00"	0.162 sec	1 : 970128	1 : 968128
		ΔHt.	-0.867 m	0.027 m		
		ΔElev.	-0.901 m	0.027 m		
		Ellip Dist.	12159.410 m	0.013 m		
GCT-FL08	LC4-107	Az.	253°38'15"	0.253 sec	1 : 910953	1 : 904622
		ΔHt.	-9.552 m	0.037 m		
		ΔElev.	-9.580 m	0.037 m		
		Ellip Dist.	14775.872 m	0.016 m		
GCT-FL08	LC4-108	Az.	226°42'18"	0.554 sec	1 : 444937	1 : 444054
		ΔHt.	15.124 m	0.032 m		
		ΔElev.	15.117 m	0.032 m		
		Ellip Dist.	4201.965 m	0.009 m		
GCT-FL08	LC4-109	Az.	242°35'53"	0.178 sec	1 : 1190210	1 : 1189267
		ΔHt.	-3.293 m	0.028 m		
		ΔElev.	-3.319 m	0.028 m		
		Ellip Dist.	12572.052 m	0.011 m		
GCT-FL08	N 369	Az.	143°07'13"	0.028 sec	1 : 9238140	1 : 9214221
		ΔHt.	25.074 m	0.007 m		
		ΔElev.	25.072 m	0.007 m		
		Ellip Dist.	23623.391 m	0.003 m		
GCT-FL08	SUWAPORT AZ MK	Az.	204°27'30"	0.029 sec	1 : 6312867	1 : 6319226
		ΔHt.	-0.790 m	0.007 m		
		ΔElev.	-0.818 m	0.007 m		
		Ellip Dist.	11020.394 m	0.002 m		

GCT-FL08	U 355	Az.	234°16'10"	0.013 sec	1 : 14589522	1 : 14585222
		ΔHt.	-7.048 m	0.007 m		
		ΔElev.	-7.139 m	0.007 m		
		Ellip Dist.	27812.591 m	0.002 m		
GCT-FL09	FVA-101	Az.	293°24'49"	0.060 sec	1 : 3868099	1 : 3884267
		ΔHt.	-3.638 m	0.019 m		
		ΔElev.	-3.802 m	0.019 m		
		Ellip Dist.	30125.051 m	0.008 m		
GCT-FL09	FVA-102	Az.	275°52'34"	0.073 sec	1 : 2930851	1 : 2940615
		ΔHt.	-5.466 m	0.022 m		
		ΔElev.	-5.704 m	0.022 m		
		Ellip Dist.	28140.260 m	0.010 m		
GCT-FL09	FVA-103	Az.	275°01'02"	0.217 sec	1 : 1275893	1 : 1285322
		ΔHt.	-1.378 m	0.036 m		
		ΔElev.	-1.577 m	0.036 m		
		Ellip Dist.	16715.568 m	0.013 m		
GCT-FL09	FVA-104	Az.	306°41'58"	0.111 sec	1 : 1985643	1 : 1989318
		ΔHt.	0.971 m	0.029 m		
		ΔElev.	0.866 m	0.029 m		
		Ellip Dist.	20526.883 m	0.010 m		
GCT-FL09	FVA-105	Az.	340°53'43"	0.139 sec	1 : 1056016	1 : 1056935
		ΔHt.	18.414 m	0.025 m		
		ΔElev.	18.413 m	0.025 m		
		Ellip Dist.	12306.059 m	0.012 m		
GCT-FL09	FVA-106	Az.	287°11'33"	0.376 sec	1 : 540579	1 : 542482
		ΔHt.	23.288 m	0.027 m		
		ΔElev.	23.222 m	0.027 m		

		Ellip Dist.	5589.329 m	0.010 m		
GCT-FL09	L 45	Az.	71°36'14"	0.020 sec	1 : 8164730	1 : 8170152
		ΔHt.	-2.282 m	0.008 m		
		ΔElev.	-2.162 m	0.008 m		
		Ellip Dist.	12341.033 m	0.002 m		
GCT-FL09	LC1-101	Az.	293°25'36"	0.080 sec	1 : 2820488	1 : 2836807
		ΔHt.	-4.123 m	0.025 m		
		ΔElev.	-4.287 m	0.025 m		
		Ellip Dist.	30183.748 m	0.011 m		
GCT-FL09	LC1-102	Az.	278°56'00"	0.084 sec	1 : 2598509	1 : 2595288
		ΔHt.	-4.738 m	0.029 m		
		ΔElev.	-4.964 m	0.029 m		
		Ellip Dist.	27391.787 m	0.011 m		
GCT-FL09	LC1-103	Az.	284°15'58"	0.224 sec	1 : 985790	1 : 987746
		ΔHt.	-0.993 m	0.041 m		
		ΔElev.	-1.164 m	0.041 m		
		Ellip Dist.	16052.676 m	0.016 m		
GCT-FL09	LC1-104	Az.	304°56'19"	0.123 sec	1 : 1735322	1 : 1740841
		ΔHt.	-0.820 m	0.034 m		
		ΔElev.	-0.933 m	0.034 m		
		Ellip Dist.	19950.141 m	0.011 m		
GCT-FL09	LC1-105	Az.	340°43'27"	0.110 sec	1 : 1280175	1 : 1279231
		ΔHt.	17.159 m	0.021 m		
		ΔElev.	17.157 m	0.021 m		
		Ellip Dist.	12253.879 m	0.010 m		
GCT-FL09	LC1-106	Az.	287°10'49"	0.397 sec	1 : 509384	1 : 511492

		ΔHt.	24.083 m	0.029 m		
		ΔElev.	24.016 m	0.029 m		
		Ellip Dist.	5628.054 m	0.011 m		
GCT-FL09	LC2-101	Az.	293°31'58"	0.105 sec	1 : 1867756	1 : 1872636
		ΔHt.	-4.715 m	0.034 m		
		ΔElev.	-4.879 m	0.034 m		
		Ellip Dist.	30191.531 m	0.016 m		
GCT-FL09	LC2-104	Az.	296°46'53"	0.114 sec	1 : 1891944	1 : 1901124
		ΔHt.	13.087 m	0.031 m		
		ΔElev.	12.940 m	0.031 m		
		Ellip Dist.	21283.904 m	0.011 m		
GCT-FL09	LC2-105	Az.	340°57'21"	0.139 sec	1 : 1037403	1 : 1037162
		ΔHt.	17.798 m	0.026 m		
		ΔElev.	17.796 m	0.026 m		
		Ellip Dist.	12262.920 m	0.012 m		
GCT-FL09	LC2-106	Az.	331°51'54"	0.352 sec	1 : 483718	1 : 487366
		ΔHt.	27.303 m	0.033 m		
		ΔElev.	27.285 m	0.033 m		
		Ellip Dist.	6285.738 m	0.013 m		
GCT-FL09	LC3-101	Az.	292°57'18"	0.081 sec	1 : 2704722	1 : 2716858
		ΔHt.	-5.126 m	0.025 m		
		ΔElev.	-5.291 m	0.025 m		
		Ellip Dist.	29009.166 m	0.011 m		
GCT-FL09	LC3-102	Az.	275°48'40"	0.086 sec	1 : 2506135	1 : 2510520
		ΔHt.	-6.753 m	0.026 m		
		ΔElev.	-6.991 m	0.026 m		
		Ellip	28102.940 m	0.011 m		

		Dist.				
GCT-FL09	LC3-103	Az.	284°19'59"	0.396 sec	1 : 551192	1 : 545043
		ΔHt.	-1.755 m	0.065 m		
		ΔElev.	-1.927 m	0.065 m		
		Ellip Dist.	16012.184 m	0.029 m		
GCT-FL09	LC3-104	Az.	304°46'53"	0.123 sec	1 : 1799132	1 : 1802952
		ΔHt.	-2.578 m	0.035 m		
		ΔElev.	-2.691 m	0.035 m		
		Ellip Dist.	19963.671 m	0.011 m		
GCT-FL09	LC3-105	Az.	323°20'49"	0.125 sec	1 : 1129006	1 : 1131641
		ΔHt.	0.788 m	0.028 m		
		ΔElev.	0.743 m	0.028 m		
		Ellip Dist.	14520.713 m	0.013 m		
GCT-FL09	LC3-106	Az.	288°22'39"	0.445 sec	1 : 529573	1 : 532676
		ΔHt.	21.867 m	0.030 m		
		ΔElev.	21.803 m	0.030 m		
		Ellip Dist.	5463.692 m	0.010 m		
GCT-FL09	LC4-101	Az.	293°03'36"	0.079 sec	1 : 2815048	1 : 2823439
		ΔHt.	-4.376 m	0.023 m		
		ΔElev.	-4.540 m	0.023 m		
		Ellip Dist.	28429.037 m	0.010 m		
GCT-FL09	LC4-102	Az.	281°33'43"	0.111 sec	1 : 2098448	1 : 2091231
		ΔHt.	-2.995 m	0.041 m		
		ΔElev.	-3.208 m	0.041 m		
		Ellip Dist.	26062.787 m	0.012 m		
GCT-FL09	LC4-104	Az.	302°47'37"	0.134 sec	1 : 1927378	1 : 1939549
		ΔHt.	3.035 m	0.032 m		

		ΔElev.	2.914 m	0.032 m		
		Ellip Dist.	19867.150 m	0.010 m		
GCT-FL09	LC4-105	Az.	342°41'54"	0.146 sec	1 : 987982	1 : 984721
		ΔHt.	4.939 m	0.034 m		
		ΔElev.	4.942 m	0.034 m		
		Ellip Dist.	12064.841 m	0.012 m		
GCT-FL09	LC4-106	Az.	330°50'36"	0.424 sec	1 : 465472	1 : 469530
		ΔHt.	26.375 m	0.034 m		
		ΔElev.	26.355 m	0.034 m		
		Ellip Dist.	6360.117 m	0.014 m		
GCT-FL09	PRRY	Az.	203°26'09"	0.008 sec	1 : 27882318	1 : 28019579
		ΔHt.	-15.416 m	0.011 m		
		ΔElev.	-15.551 m	0.011 m		
		Ellip Dist.	36945.194 m	0.001 m		
GCT-FL10	FLGPS 15	Az.	329°15'15"	0.014 sec	1 : 18220774	1 : 18195817
		ΔHt.	34.023 m	0.009 m		
		ΔElev.	34.109 m	0.009 m		
		Ellip Dist.	24405.151 m	0.001 m		
GCT-FL10	FLGPS 16	Az.	239°24'37"	0.008 sec	1 : 21223207	1 : 21242765
		ΔHt.	-16.400 m	0.009 m		
		ΔElev.	-16.512 m	0.009 m		
		Ellip Dist.	34637.490 m	0.002 m		
GCT-FL10	FVA-101	Az.	12°40'41"	0.120 sec	1 : 1455381	1 : 1451635
		ΔHt.	3.980 m	0.019 m		
		ΔElev.	4.084 m	0.019 m		
		Ellip Dist.	13008.705 m	0.009 m		

GCT-FL10	FVA-102	Az.	35°07'16"	0.483 sec	1 : 474247	1 : 472960
		ΔHt.	2.151 m	0.022 m		
		ΔElev.	2.182 m	0.022 m		
		Ellip Dist.	4402.435 m	0.009 m		
GCT-FL10	FVA-103	Az.	80°56'12"	0.266 sec	1 : 1138528	1 : 1141953
		ΔHt.	6.239 m	0.036 m		
		ΔElev.	6.310 m	0.036 m		
		Ellip Dist.	14053.029 m	0.012 m		
GCT-FL10	FVA-104	Az.	47°09'40"	0.113 sec	1 : 1755856	1 : 1751878
		ΔHt.	8.589 m	0.029 m		
		ΔElev.	8.753 m	0.029 m		
		Ellip Dist.	19148.064 m	0.011 m		
GCT-FL10	FVA-105	Az.	64°52'26"	0.081 sec	1 : 3456976	1 : 3436566
		ΔHt.	26.032 m	0.025 m		
		ΔElev.	26.299 m	0.025 m		
		Ellip Dist.	29239.569 m	0.008 m		
GCT-FL10	FVA-106	Az.	84°28'37"	0.084 sec	1 : 2458147	1 : 2457269
		ΔHt.	30.906 m	0.027 m		
		ΔElev.	31.108 m	0.027 m		
		Ellip Dist.	25306.430 m	0.010 m		
GCT-FL10	GCT-FL09	Az.	88°30'07"	0.009 sec	1 : 18914588	1 : 18864857
		ΔHt.	7.618 m	0.008 m		
		ΔElev.	7.887 m	0.008 m		
		Ellip Dist.	30543.573 m	0.002 m		
GCT-FL10	GCT-FL12	Az.	10°00'03"	0.020 sec	1 : 11519648	1 : 11574310
		ΔHt.	2.697 m	0.008 m		
		ΔElev.	2.828 m	0.008 m		

		Ellip Dist.	17237.056 m	0.001 m		
GCT-FL10	LC1-101	Az.	12°25'47"	0.161 sec	1 : 1074592	1 : 1070204
		ΔHt.	3.495 m	0.024 m		
		ΔElev.	3.600 m	0.024 m		
		Ellip Dist.	13026.388 m	0.012 m		
GCT-FL10	LC1-102	Az.	34°49'31"	0.355 sec	1 : 536076	1 : 536269
		ΔHt.	2.879 m	0.029 m		
		ΔElev.	2.922 m	0.029 m		
		Ellip Dist.	6061.860 m	0.011 m		
GCT-FL10	LC1-104	Az.	49°16'36"	0.132 sec	1 : 1621525	1 : 1615733
		ΔHt.	6.797 m	0.034 m		
		ΔElev.	6.954 m	0.034 m		
		Ellip Dist.	18666.387 m	0.012 m		
GCT-FL10	LC1-105	Az.	64°58'07"	0.067 sec	1 : 4419077	1 : 4403539
		ΔHt.	24.777 m	0.021 m		
		ΔElev.	25.044 m	0.021 m		
		Ellip Dist.	29197.866 m	0.007 m		
GCT-FL10	LC2-101	Az.	12°26'33"	0.249 sec	1 : 828867	1 : 826066
		ΔHt.	2.903 m	0.034 m		
		ΔElev.	3.008 m	0.034 m		
		Ellip Dist.	13082.727 m	0.016 m		
GCT-FL10	LC2-104	Az.	48°03'59"	0.161 sec	1 : 1418500	1 : 1411863
		ΔHt.	20.705 m	0.031 m		
		ΔElev.	20.826 m	0.031 m		
		Ellip Dist.	15466.028 m	0.011 m		
GCT-FL10	LC2-105	Az.	64°57'38"	0.083 sec	1 : 3488583	1 : 3473744

		ΔHt.	25.415 m	0.026 m		
		ΔElev.	25.683 m	0.026 m		
		Ellip Dist.	29248.121 m	0.008 m		
GCT-FL10	LC2-106	Az.	77°03'19"	0.097 sec	1 : 2713741	1 : 2708575
		ΔHt.	34.921 m	0.033 m		
		ΔElev.	35.172 m	0.033 m		
		Ellip Dist.	28272.027 m	0.010 m		
GCT-FL10	LC3-101	Az.	17°28'29"	0.172 sec	1 : 1083022	1 : 1078738
		ΔHt.	2.492 m	0.025 m		
		ΔElev.	2.596 m	0.025 m		
		Ellip Dist.	12619.771 m	0.012 m		
GCT-FL10	LC3-102	Az.	35°44'57"	0.551 sec	1 : 389964	1 : 389226
		ΔHt.	0.865 m	0.026 m		
		ΔElev.	0.895 m	0.026 m		
		Ellip Dist.	4393.317 m	0.011 m		
GCT-FL10	LC3-104	Az.	49°16'44"	0.127 sec	1 : 1600546	1 : 1595829
		ΔHt.	5.040 m	0.035 m		
		ΔElev.	5.196 m	0.035 m		
		Ellip Dist.	18609.916 m	0.012 m		
GCT-FL10	LC3-105	Az.	60°21'28"	0.107 sec	1 : 2909255	1 : 2902361
		ΔHt.	8.406 m	0.028 m		
		ΔElev.	8.629 m	0.028 m		
		Ellip Dist.	25119.457 m	0.009 m		
GCT-FL10	LC3-106	Az.	84°21'06"	0.096 sec	1 : 2472541	1 : 2466833
		ΔHt.	29.484 m	0.031 m		
		ΔElev.	29.689 m	0.031 m		
		Ellip	25466.928 m	0.010 m		

		Dist.				
GCT-FL10	LC4-101	Az.	20°07'04"	0.163 sec	1 : 1161282	1 : 1157968
		ΔHt.	3.242 m	0.023 m		
		ΔElev.	3.347 m	0.023 m		
		Ellip Dist.	12631.280 m	0.011 m		
GCT-FL10	LC4-104	Az.	50°10'10"	0.131 sec	1 : 1494707	1 : 1484565
		ΔHt.	10.653 m	0.032 m		
		ΔElev.	10.801 m	0.032 m		
		Ellip Dist.	17972.926 m	0.012 m		
GCT-FL10	LC4-105	Az.	65°25'30"	0.086 sec	1 : 3538481	1 : 3550576
		ΔHt.	12.557 m	0.034 m		
		ΔElev.	12.828 m	0.034 m		
		Ellip Dist.	29593.352 m	0.008 m		
GCT-FL10	LC4-106	Az.	76°58'21"	0.107 sec	1 : 2324592	1 : 2309969
		ΔHt.	33.992 m	0.034 m		
		ΔElev.	34.241 m	0.034 m		
		Ellip Dist.	28143.267 m	0.012 m		
GCT-FL10	PRRY	Az.	154°19'17"	0.009 sec	1 : 27545335	1 : 27529787
		ΔHt.	-7.798 m	0.011 m		
		ΔElev.	-7.665 m	0.011 m		
		Ellip Dist.	36771.636 m	0.001 m		
GCT-FL11	FLGPS 15	Az.	276°47'35"	0.006 sec	1 : 29043551	1 : 28959032
		ΔHt.	18.545 m	0.007 m		
		ΔElev.	18.312 m	0.007 m		
		Ellip Dist.	43235.882 m	0.001 m		
GCT-FL11	FVA-101	Az.	263°22'01"	0.067 sec	1 : 3785218	1 : 3783272
		ΔHt.	-11.498 m	0.019 m		

		ΔElev.	-11.713 m	0.019 m		
		Ellip Dist.	27810.166 m	0.007 m		
GCT-FL11	FVA-102	Az.	246°15'36"	0.071 sec	1 : 3384036	1 : 3388079
		ΔHt.	-13.327 m	0.022 m		
		ΔElev.	-13.615 m	0.022 m		
		Ellip Dist.	30557.569 m	0.009 m		
GCT-FL11	FVA-103	Az.	230°28'34"	0.166 sec	1 : 1610469	1 : 1596752
		ΔHt.	-9.238 m	0.036 m		
		ΔElev.	-9.487 m	0.036 m		
		Ellip Dist.	21560.575 m	0.013 m		
GCT-FL11	FVA-104	Az.	259°56'28"	0.137 sec	1 : 1624061	1 : 1620874
		ΔHt.	-6.889 m	0.029 m		
		ΔElev.	-7.044 m	0.029 m		
		Ellip Dist.	16694.137 m	0.010 m		
GCT-FL11	FVA-105	Az.	228°25'26"	0.420 sec	1 : 582934	1 : 578923
		ΔHt.	10.554 m	0.024 m		
		ΔElev.	10.502 m	0.024 m		
		Ellip Dist.	5356.648 m	0.009 m		
GCT-FL11	FVA-106	Az.	201°27'35"	0.147 sec	1 : 1428910	1 : 1428370
		ΔHt.	15.428 m	0.027 m		
		ΔElev.	15.311 m	0.027 m		
		Ellip Dist.	14538.811 m	0.010 m		
GCT-FL11	GCT-FL09	Az.	179°55'20"	0.020 sec	1 : 12501667	1 : 12529573
		ΔHt.	-7.860 m	0.007 m		
		ΔElev.	-7.910 m	0.007 m		
		Ellip Dist.	15183.029 m	0.001 m		

GCT-FL11	GCT-FL10	Az.	242°29'02"	0.008 sec	1 : 21255924	1 : 21269307
		ΔHt.	-15.478 m	0.008 m		
		ΔElev.	-15.797 m	0.008 m		
		Ellip Dist.	34406.765 m	0.002 m		
GCT-FL11	GCT-FL12	Az.	272°13'56"	0.008 sec	1 : 18178903	1 : 18150131
		ΔHt.	-12.781 m	0.006 m		
		ΔElev.	-12.969 m	0.006 m		
		Ellip Dist.	27494.466 m	0.002 m		
GCT-FL11	L 45	Az.	133°53'55"	0.018 sec	1 : 12514588	1 : 12454663
		ΔHt.	-10.142 m	0.007 m		
		ΔElev.	-10.072 m	0.007 m		
		Ellip Dist.	16280.119 m	0.001 m		
GCT-FL11	LC1-101	Az.	263°26'23"	0.093 sec	1 : 2887008	1 : 2890287
		ΔHt.	-11.983 m	0.024 m		
		ΔElev.	-12.197 m	0.024 m		
		Ellip Dist.	27857.539 m	0.010 m		
GCT-FL11	LC1-102	Az.	247°59'27"	0.076 sec	1 : 2660772	1 : 2657511
		ΔHt.	-12.599 m	0.028 m		
		ΔElev.	-12.874 m	0.028 m		
		Ellip Dist.	29164.321 m	0.011 m		
GCT-FL11	LC1-103	Az.	234°08'52"	0.188 sec	1 : 1181582	1 : 1178854
		ΔHt.	-8.853 m	0.041 m		
		ΔElev.	-9.075 m	0.041 m		
		Ellip Dist.	19169.022 m	0.016 m		
GCT-FL11	LC1-104	Az.	257°02'41"	0.154 sec	1 : 1545728	1 : 1543186
		ΔHt.	-8.681 m	0.033 m		
		ΔElev.	-8.843 m	0.033 m		

		Ellip Dist.	16760.505 m	0.011 m		
GCT-FL11	LC1-105	Az.	228°03'39"	0.348 sec	1 : 765785	1 : 760645
		ΔHt.	9.299 m	0.020 m		
		ΔElev.	9.247 m	0.020 m		
		Ellip Dist.	5410.543 m	0.007 m		
GCT-FL11	LC1-106	Az.	201°36'42"	0.157 sec	1 : 1342835	1 : 1342677
		ΔHt.	16.223 m	0.029 m		
		ΔElev.	16.105 m	0.029 m		
		Ellip Dist.	14542.949 m	0.011 m		
GCT-FL11	LC2-104	Az.	253°34'55"	0.131 sec	1 : 1921555	1 : 1920124
		ΔHt.	5.227 m	0.031 m		
		ΔElev.	5.029 m	0.031 m		
		Ellip Dist.	19787.080 m	0.010 m		
GCT-FL11	LC2-105	Az.	227°56'41"	0.432 sec	1 : 594747	1 : 590969
		ΔHt.	9.938 m	0.025 m		
		ΔElev.	9.886 m	0.025 m		
		Ellip Dist.	5361.321 m	0.009 m		
GCT-FL11	LC2-106	Az.	196°58'46"	0.224 sec	1 : 788958	1 : 785074
		ΔHt.	19.443 m	0.033 m		
		ΔElev.	19.375 m	0.033 m		
		Ellip Dist.	10079.381 m	0.013 m		
GCT-FL11	LC3-101	Az.	261°45'07"	0.093 sec	1 : 2727260	1 : 2728853
		ΔHt.	-12.986 m	0.025 m		
		ΔElev.	-13.201 m	0.025 m		
		Ellip Dist.	26970.371 m	0.010 m		
GCT-FL11	LC3-102	Az.	246°10'25"	0.081 sec	1 : 2790813	1 : 2791228

		ΔHt.	-14.613 m	0.026 m		
		ΔElev.	-14.901 m	0.026 m		
		Ellip Dist.	30540.866 m	0.011 m		
GCT-FL11	LC3-103	Az.	234°05'26"	0.227 sec	1 : 522257	1 : 522679
		ΔHt.	-9.616 m	0.065 m		
		ΔElev.	-9.837 m	0.065 m		
		Ellip Dist.	19128.705 m	0.037 m		
GCT-FL11	LC3-104	Az.	256°57'12"	0.148 sec	1 : 1534100	1 : 1530294
		ΔHt.	-10.438 m	0.035 m		
		ΔElev.	-10.601 m	0.035 m		
		Ellip Dist.	16810.242 m	0.011 m		
GCT-FL11	LC3-105	Az.	247°46'29"	0.286 sec	1 : 1085604	1 : 1087177
		ΔHt.	-7.072 m	0.028 m		
		ΔElev.	-7.168 m	0.028 m		
		Ellip Dist.	9341.886 m	0.009 m		
GCT-FL11	LC3-106	Az.	200°59'26"	0.148 sec	1 : 1227008	1 : 1224438
		ΔHt.	14.006 m	0.030 m		
		ΔElev.	13.892 m	0.030 m		
		Ellip Dist.	14417.202 m	0.012 m		
GCT-FL11	LC4-101	Az.	261°11'50"	0.087 sec	1 : 2748550	1 : 2747442
		ΔHt.	-12.236 m	0.023 m		
		ΔElev.	-12.450 m	0.023 m		
		Ellip Dist.	26448.383 m	0.010 m		
GCT-FL11	LC4-102	Az.	248°40'36"	0.096 sec	1 : 1991858	1 : 1986011
		ΔHt.	-10.855 m	0.041 m		
		ΔElev.	-11.118 m	0.041 m		
		Ellip	27388.293 m	0.014 m		

		Dist.				
GCT-FL11	LC4-104	Az.	255°09'01"	0.153 sec	1 : 1656625	1 : 1645675
		ΔHt.	-4.825 m	0.032 m		
		ΔElev.	-4.996 m	0.032 m		
		Ellip Dist.	17256.631 m	0.010 m		
GCT-FL11	LC4-105	Az.	224°14'06"	0.492 sec	1 : 599174	1 : 595193
		ΔHt.	-2.921 m	0.033 m		
		ΔElev.	-2.969 m	0.033 m		
		Ellip Dist.	5113.977 m	0.009 m		
GCT-FL11	LC4-106	Az.	197°43'40"	0.233 sec	1 : 672741	1 : 671508
		ΔHt.	18.515 m	0.034 m		
		ΔElev.	18.444 m	0.034 m		
		Ellip Dist.	10108.823 m	0.015 m		
GCT-FL12	FLGPS 15	Az.	284°30'43"	0.019 sec	1 : 9527935	1 : 9492355
		ΔHt.	31.326 m	0.009 m		
		ΔElev.	31.281 m	0.009 m		
		Ellip Dist.	15978.764 m	0.002 m		
GCT-FL12	FLGPS 16	Az.	223°29'38"	0.007 sec	1 : 28497188	1 : 28618059
		ΔHt.	-19.097 m	0.009 m		
		ΔElev.	-19.340 m	0.009 m		
		Ellip Dist.	47684.456 m	0.002 m		
GCT-FL12	FVA-101	Az.	181°51'57"	0.355 sec	1 : 474319	1 : 473967
		ΔHt.	1.282 m	0.018 m		
		ΔElev.	1.256 m	0.018 m		
		Ellip Dist.	4285.844 m	0.009 m		
GCT-FL12	FVA-102	Az.	181°59'19"	0.146 sec	1 : 1329384	1 : 1325207
		ΔHt.	-0.546 m	0.022 m		

		ΔElev.	-0.646 m	0.022 m		
		Ellip Dist.	13382.164 m	0.010 m		
GCT-FL12	FVA-103	Az.	143°36'47"	0.148 sec	1 : 1044365	1 : 1049643
		ΔHt.	3.542 m	0.036 m		
		ΔElev.	3.482 m	0.036 m		
		Ellip Dist.	18340.256 m	0.018 m		
GCT-FL12	FVA-104	Az.	109°42'59"	0.197 sec	1 : 1156765	1 : 1157009
		ΔHt.	5.892 m	0.029 m		
		ΔElev.	5.925 m	0.029 m		
		Ellip Dist.	11734.075 m	0.010 m		
GCT-FL12	FVA-105	Az.	101°00'20"	0.097 sec	1 : 2716377	1 : 2737513
		ΔHt.	23.335 m	0.025 m		
		ΔElev.	23.471 m	0.025 m		
		Ellip Dist.	23917.984 m	0.009 m		
GCT-FL12	FVA-106	Az.	123°14'35"	0.079 sec	1 : 2559093	1 : 2557199
		ΔHt.	28.209 m	0.027 m		
		ΔElev.	28.280 m	0.027 m		
		Ellip Dist.	26533.685 m	0.010 m		
GCT-FL12	GCT-FL09	Az.	120°26'43"	0.010 sec	1 : 21495466	1 : 21396865
		ΔHt.	4.921 m	0.007 m		
		ΔElev.	5.058 m	0.007 m		
		Ellip Dist.	31939.272 m	0.001 m		
GCT-FL12	LC1-101	Az.	182°34'02"	0.475 sec	1 : 343842	1 : 343084
		ΔHt.	0.798 m	0.024 m		
		ΔElev.	0.772 m	0.024 m		
		Ellip Dist.	4258.313 m	0.012 m		

GCT-FL12	LC1-102	Az.	177°46'49"	0.183 sec	1 : 1090057	1 : 1091933
		ΔHt.	0.182 m	0.028 m		
		ΔElev.	0.094 m	0.028 m		
		Ellip Dist.	12008.125 m	0.011 m		
GCT-FL12	LC1-103	Az.	135°42'34"	0.198 sec	1 : 992318	1 : 994701
		ΔHt.	3.928 m	0.041 m		
		ΔElev.	3.894 m	0.041 m		
		Ellip Dist.	17138.344 m	0.017 m		
GCT-FL12	LC1-104	Az.	113°17'19"	0.208 sec	1 : 1087645	1 : 1090586
		ΔHt.	4.100 m	0.033 m		
		ΔElev.	4.126 m	0.033 m		
		Ellip Dist.	12141.144 m	0.011 m		
GCT-FL12	LC1-105	Az.	101°09'28"	0.077 sec	1 : 3224891	1 : 3256099
		ΔHt.	22.080 m	0.021 m		
		ΔElev.	22.216 m	0.021 m		
		Ellip Dist.	23912.772 m	0.007 m		
GCT-FL12	LC1-106	Az.	123°16'08"	0.084 sec	1 : 2399092	1 : 2396098
		ΔHt.	29.003 m	0.029 m		
		ΔElev.	29.074 m	0.029 m		
		Ellip Dist.	26496.836 m	0.011 m		
GCT-FL12	LC2-101	Az.	182°23'47"	0.753 sec	1 : 260686	1 : 259940
		ΔHt.	0.206 m	0.033 m		
		ΔElev.	0.180 m	0.033 m		
		Ellip Dist.	4203.328 m	0.016 m		
GCT-FL12	LC2-104	Az.	127°58'16"	0.215 sec	1 : 924808	1 : 927644
		ΔHt.	18.008 m	0.031 m		
		ΔElev.	17.998 m	0.031 m		

		Ellip Dist.	10795.376 m	0.012 m		
GCT-FL12	LC2-105	Az.	101°04'45"	0.096 sec	1 : 2618973	1 : 2641680
		ΔHt.	22.718 m	0.026 m		
		ΔElev.	22.855 m	0.026 m		
		Ellip Dist.	23950.966 m	0.009 m		
GCT-FL12	LC2-106	Az.	113°26'34"	0.096 sec	1 : 2372683	1 : 2383181
		ΔHt.	32.224 m	0.033 m		
		ΔElev.	32.344 m	0.033 m		
		Ellip Dist.	26766.569 m	0.011 m		
GCT-FL12	LC3-101	Az.	170°51'25"	0.408 sec	1 : 410837	1 : 410659
		ΔHt.	-0.206 m	0.025 m		
		ΔElev.	-0.232 m	0.025 m		
		Ellip Dist.	5001.542 m	0.012 m		
GCT-FL12	LC3-102	Az.	181°50'18"	0.171 sec	1 : 1134904	1 : 1133258
		ΔHt.	-1.832 m	0.026 m		
		ΔElev.	-1.933 m	0.026 m		
		Ellip Dist.	13416.393 m	0.012 m		
GCT-FL12	LC3-103	Az.	135°35'07"	0.435 sec	1 : 790630	1 : 783994
		ΔHt.	3.165 m	0.065 m		
		ΔElev.	3.132 m	0.065 m		
		Ellip Dist.	17163.087 m	0.022 m		
GCT-FL12	LC3-104	Az.	113°31'48"	0.206 sec	1 : 1113135	1 : 1114745
		ΔHt.	2.343 m	0.035 m		
		ΔElev.	2.368 m	0.035 m		
		Ellip Dist.	12117.128 m	0.011 m		
GCT-FL12	LC3-105	Az.	103°35'54"	0.121 sec	1 : 1828450	1 : 1847204

		ΔHt.	5.709 m	0.028 m		
		ΔElev.	5.801 m	0.028 m		
		Ellip Dist.	19380.673 m	0.011 m		
GCT-FL12	LC3-106	Az.	122°56'00"	0.089 sec	1 : 2508209	1 : 2513242
		ΔHt.	26.787 m	0.031 m		
		ΔElev.	26.861 m	0.031 m		
		Ellip Dist.	26624.337 m	0.011 m		
GCT-FL12	LC4-101	Az.	165°13'03"	0.376 sec	1 : 473085	1 : 473477
		ΔHt.	0.545 m	0.023 m		
		ΔElev.	0.519 m	0.023 m		
		Ellip Dist.	5289.996 m	0.011 m		
GCT-FL12	LC4-102	Az.	169°46'39"	0.244 sec	1 : 848376	1 : 852042
		ΔHt.	1.926 m	0.041 m		
		ΔElev.	1.850 m	0.041 m		
		Ellip Dist.	11202.908 m	0.013 m		
GCT-FL12	LC4-104	Az.	116°49'46"	0.224 sec	1 : 1208446	1 : 1214602
		ΔHt.	7.956 m	0.032 m		
		ΔElev.	7.972 m	0.032 m		
		Ellip Dist.	12110.919 m	0.010 m		
GCT-FL12	LC4-105	Az.	101°03'28"	0.091 sec	1 : 2345430	1 : 2369094
		ΔHt.	9.860 m	0.034 m		
		ΔElev.	10.000 m	0.034 m		
		Ellip Dist.	24370.471 m	0.010 m		
I75 H 1	GNVL	Az.	123°47'14"	0.032 sec	1 : 6960899	1 : 6954355
		ΔHt.	-1.498 m	0.010 m		
		ΔElev.	-1.506 m	0.010 m		
		Ellip	14700.656 m	0.002 m		

		Dist.				
I75 H 1	XCTY	Az.	258°18'27"	0.006 sec	1 : 30405595	1 : 30375422
		ΔHt.	-39.142 m	0.000 m		
		ΔElev.	-39.291 m	0.000 m		
		Ellip Dist.	69723.881 m	0.002 m		
L 45	PRRY	Az.	215°00'09"	0.000 sec	1 : 0	1 : 10774196445
		ΔHt.	-13.134 m	0.011 m		
		ΔElev.	-13.390 m	0.011 m		
		Ellip Dist.	46102.336 m	0.000 m		
LAFAY 14	GCT-FL07	Az.	273°17'14"	0.023 sec	1 : 10287649	1 : 10263967
		ΔHt.	6.636 m	0.013 m		
		ΔElev.	6.593 m	0.013 m		
		Ellip Dist.	24260.817 m	0.002 m		
LAFAY 14	SUWA 23	Az.	358°05'14"	0.037 sec	1 : 5083414	1 : 5096707
		ΔHt.	-4.673 m	0.012 m		
		ΔElev.	-4.626 m	0.012 m		
		Ellip Dist.	10829.438 m	0.002 m		
LAFAY 14	SUWA 26	Az.	60°37'54"	0.020 sec	1 : 9415743	1 : 9388704
		ΔHt.	6.929 m	0.011 m		
		ΔElev.	6.996 m	0.011 m		
		Ellip Dist.	19968.656 m	0.002 m		
LAFAY 14	XCTY	Az.	186°36'36"	0.010 sec	1 : 18926461	1 : 18963227
		ΔHt.	-4.443 m	0.011 m		
		ΔElev.	-4.604 m	0.011 m		
		Ellip Dist.	41079.859 m	0.002 m		
LAFAY 3	FLGPS 19	Az.	55°42'38"	0.000 sec	1 : 0	1 : 1659458660

		ΔHt.	-2.513 m	0.013 m		
		ΔElev.	-2.451 m	0.013 m		
		Ellip Dist.	8166.566 m	0.000 m		
LAFAY 3	FVA-111	Az.	133°48'02"	0.201 sec	1 : 1186765	1 : 1184937
		ΔHt.	-2.941 m	0.037 m		
		ΔElev.	-2.918 m	0.037 m		
		Ellip Dist.	12586.579 m	0.011 m		
LAFAY 3	FVA-112	Az.	111°48'34"	0.137 sec	1 : 1268582	1 : 1270226
		ΔHt.	-3.825 m	0.032 m		
		ΔElev.	-3.768 m	0.032 m		
		Ellip Dist.	19345.478 m	0.015 m		
LAFAY 3	FVA-113	Az.	109°28'09"	0.093 sec	1 : 2235563	1 : 2252483
		ΔHt.	-9.055 m	0.030 m		
		ΔElev.	-9.005 m	0.030 m		
		Ellip Dist.	25166.611 m	0.011 m		
LAFAY 3	FVA-131	Az.	121°48'50"	0.136 sec	1 : 1573805	1 : 1580204
		ΔHt.	-3.640 m	0.036 m		
		ΔElev.	-3.608 m	0.036 m		
		Ellip Dist.	20270.681 m	0.013 m		
LAFAY 3	GCT-FL07	Az.	159°26'14"	0.028 sec	1 : 7759104	1 : 7779286
		ΔHt.	-2.645 m	0.012 m		
		ΔElev.	-2.663 m	0.012 m		
		Ellip Dist.	13927.555 m	0.002 m		
LAFAY 3	L 45	Az.	10°18'13"	0.000 sec	1 : 0	1 : 11489625661
		ΔHt.	0.292 m	0.013 m		
		ΔElev.	0.451 m	0.013 m		

		Ellip Dist.	32638.400 m	0.000 m		
LAFAY 3	LC1-112	Az.	111°36'19"	0.141 sec	1 : 1328926	1 : 1328948
		ΔHt.	-3.953 m	0.033 m		
		ΔElev.	-3.896 m	0.033 m		
		Ellip Dist.	19337.360 m	0.015 m		
LAFAY 3	LC1-113	Az.	109°16'28"	0.406 sec	1 : 1186497	1 : 1212000
		ΔHt.	-9.033 m	0.058 m		
		ΔElev.	-8.982 m	0.058 m		
		Ellip Dist.	25330.154 m	0.021 m		
LAFAY 3	LC1-131	Az.	120°31'16"	0.119 sec	1 : 1935477	1 : 1948430
		ΔHt.	-3.640 m	0.027 m		
		ΔElev.	-3.605 m	0.027 m		
		Ellip Dist.	20301.987 m	0.010 m		
LAFAY 3	LC2-112	Az.	111°37'06"	0.163 sec	1 : 1210954	1 : 1216903
		ΔHt.	-4.117 m	0.041 m		
		ΔElev.	-4.059 m	0.041 m		
		Ellip Dist.	19374.039 m	0.016 m		
LAFAY 3	LC2-113	Az.	109°07'43"	0.108 sec	1 : 1921577	1 : 1937240
		ΔHt.	-8.818 m	0.036 m		
		ΔElev.	-8.767 m	0.036 m		
		Ellip Dist.	25368.315 m	0.013 m		
LAFAY 3	LC2-131	Az.	115°21'02"	0.144 sec	1 : 1468823	1 : 1477390
		ΔHt.	-4.166 m	0.036 m		
		ΔElev.	-4.118 m	0.036 m		
		Ellip Dist.	19786.119 m	0.013 m		
LAFAY 3	LC3-111	Az.	134°57'05"	0.207 sec	1 : 1099007	1 : 1100488

		ΔHt.	-3.025 m	0.031 m		
		ΔElev.	-3.004 m	0.031 m		
		Ellip Dist.	12726.153 m	0.012 m		
LAFAY 3	LC3-113	Az.	107°10'14"	0.092 sec	1 : 2253359	1 : 2260947
		ΔHt.	-11.900 m	0.035 m		
		ΔElev.	-11.848 m	0.035 m		
		Ellip Dist.	26775.691 m	0.012 m		
LAFAY 3	LC3-131	Az.	121°51'03"	0.148 sec	1 : 1648092	1 : 1655570
		ΔHt.	-3.868 m	0.034 m		
		ΔElev.	-3.836 m	0.034 m		
		Ellip Dist.	20317.796 m	0.012 m		
LAFAY 3	LC4-111	Az.	123°31'34"	0.230 sec	1 : 1008079	1 : 1010278
		ΔHt.	-3.380 m	0.032 m		
		ΔElev.	-3.341 m	0.032 m		
		Ellip Dist.	12547.735 m	0.012 m		
LAFAY 3	LC4-112	Az.	111°43'20"	0.139 sec	1 : 1331980	1 : 1329355
		ΔHt.	-4.470 m	0.034 m		
		ΔElev.	-4.412 m	0.034 m		
		Ellip Dist.	19303.287 m	0.014 m		
LAFAY 3	LC4-113	Az.	107°16'17"	0.089 sec	1 : 2264275	1 : 2275010
		ΔHt.	-11.621 m	0.034 m		
		ΔElev.	-11.569 m	0.034 m		
		Ellip Dist.	26721.347 m	0.012 m		
LAFAY 3	LC4-131	Az.	124°29'27"	0.157 sec	1 : 1199653	1 : 1202191
		ΔHt.	-4.120 m	0.053 m		
		ΔElev.	-4.094 m	0.053 m		
		Ellip	20223.890 m	0.017 m		

		Dist.				
LAFAY 3	PRRY	Az.	254°36'43"	0.000 sec	1 : 0	1 : 2004924691
		ΔHt.	-12.842 m	0.017 m		
		ΔElev.	-12.939 m	0.017 m		
		Ellip Dist.	21352.106 m	0.000 m		
LAFAY 3	SALEM NW BASE	Az.	190°18'42"	0.015 sec	1 : 11272324	1 : 11294848
		ΔHt.	-15.458 m	0.014 m		
		ΔElev.	-15.548 m	0.014 m		
		Ellip Dist.	27403.759 m	0.002 m		
LC1-107	GCT-FL08	Az.	74°35'05"	0.172 sec	1 : 1300343	1 : 1294585
		ΔHt.	10.745 m	0.028 m		
		ΔElev.	10.773 m	0.028 m		
		Ellip Dist.	15002.471 m	0.012 m		
LC1-107	U 355	Az.	213°22'44"	0.153 sec	1 : 1127618	1 : 1126075
		ΔHt.	3.697 m	0.028 m		
		ΔElev.	3.634 m	0.028 m		
		Ellip Dist.	14710.324 m	0.013 m		
LC1-131	XCTY	Az.	171°13'03"	0.042 sec	1 : 3579408	1 : 3582247
		ΔHt.	-10.084 m	0.027 m		
		ΔElev.	-10.255 m	0.027 m		
		Ellip Dist.	45419.748 m	0.013 m		
N 369	FLGPS 21	Az.	337°08'58"	0.029 sec	1 : 8790358	1 : 8817465
		ΔHt.	-2.712 m	0.000 m		
		ΔElev.	-2.709 m	0.000 m		
		Ellip Dist.	27291.689 m	0.003 m		
N 369	LAKEPORT AZ	Az.	100°32'06"	0.025 sec	1 : 6677375	1 : 6657994

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		ΔHt.	1.698 m	0.016 m		
		ΔElev.	1.761 m	0.016 m		
		Ellip Dist.	24616.218 m	0.004 m		
SALEM NW BASE	PRRY	Az.	323°36'27"	0.018 sec	1 : 13025507	1 : 13091972
		ΔHt.	2.616 m	0.016 m		
		ΔElev.	2.609 m	0.016 m		
		Ellip Dist.	26445.961 m	0.002 m		
SALEM NW BASE	XCTY	Az.	133°48'27"	0.012 sec	1 : 20845510	1 : 20925219
		ΔHt.	1.734 m	0.013 m		
		ΔElev.	1.688 m	0.013 m		
		Ellip Dist.	40755.880 m	0.002 m		
SUWA 23	FLGPS 19	Az.	290°29'07"	0.000 sec	1 : 0	1 : 3884208207
		ΔHt.	11.441 m	0.011 m		
		ΔElev.	11.431 m	0.011 m		
		Ellip Dist.	23440.022 m	0.000 m		
SUWA 23	FVA-111	Az.	255°24'42"	0.109 sec	1 : 1665525	1 : 1663414
		ΔHt.	11.013 m	0.037 m		
		ΔElev.	10.964 m	0.037 m		
		Ellip Dist.	20310.060 m	0.012 m		
SUWA 23	FVA-112	Az.	251°27'28"	0.261 sec	1 : 822718	1 : 825886
		ΔHt.	10.130 m	0.032 m		
		ΔElev.	10.114 m	0.032 m		
		Ellip Dist.	11364.885 m	0.014 m		
SUWA 23	FVA-113	Az.	226°03'22"	0.381 sec	1 : 734999	1 : 730939

		ΔHt.	4.899 m	0.029 m		
		ΔElev.	4.878 m	0.029 m		
		Ellip Dist.	6959.944 m	0.009 m		
SUWA 23	FVA-131	Az.	238°18'49"	0.212 sec	1 : 1098621	1 : 1095397
		ΔHt.	10.314 m	0.036 m		
		ΔElev.	10.274 m	0.036 m		
		Ellip Dist.	13537.529 m	0.012 m		
SUWA 23	LC1-111	Az.	259°55'34"	0.202 sec	1 : 1135418	1 : 1133909
		ΔHt.	10.504 m	0.042 m		
		ΔElev.	10.471 m	0.042 m		
		Ellip Dist.	18537.380 m	0.016 m		
SUWA 23	LC1-112	Az.	251°45'00"	0.250 sec	1 : 805682	1 : 807547
		ΔHt.	10.001 m	0.033 m		
		ΔElev.	9.986 m	0.033 m		
		Ellip Dist.	11326.545 m	0.014 m		
SUWA 23	LC1-131	Az.	239°05'58"	0.190 sec	1 : 1305771	1 : 1298562
		ΔHt.	10.314 m	0.027 m		
		ΔElev.	10.277 m	0.027 m		
		Ellip Dist.	13116.678 m	0.010 m		
SUWA 23	LC2-112	Az.	251°36'48"	0.318 sec	1 : 826268	1 : 828288
		ΔHt.	9.838 m	0.041 m		
		ΔElev.	9.823 m	0.041 m		
		Ellip Dist.	11301.319 m	0.014 m		
SUWA 23	LC2-113	Az.	225°05'40"	0.464 sec	1 : 616170	1 : 612330
		ΔHt.	5.136 m	0.035 m		
		ΔElev.	5.115 m	0.035 m		
		Ellip	6736.246 m	0.011 m		

		Dist.				
SUWA 23	LC2-131	Az.	245°43'12"	0.265 sec	1 : 1018314	1 : 1017153
		ΔHt.	9.788 m	0.036 m		
		ΔElev.	9.764 m	0.036 m		
		Ellip Dist.	11911.930 m	0.012 m		
SUWA 23	LC3-111	Az.	254°42'39"	0.123 sec	1 : 1679701	1 : 1676477
		ΔHt.	10.930 m	0.032 m		
		ΔElev.	10.878 m	0.032 m		
		Ellip Dist.	20458.115 m	0.012 m		
SUWA 23	LC3-113	Az.	215°56'51"	0.479 sec	1 : 474800	1 : 473475
		ΔHt.	2.054 m	0.034 m		
		ΔElev.	2.034 m	0.034 m		
		Ellip Dist.	5374.944 m	0.011 m		
SUWA 23	LC3-131	Az.	238°06'36"	0.210 sec	1 : 1023330	1 : 1018584
		ΔHt.	10.086 m	0.034 m		
		ΔElev.	10.046 m	0.034 m		
		Ellip Dist.	13528.456 m	0.013 m		
SUWA 23	LC4-111	Az.	259°38'59"	0.154 sec	1 : 1478606	1 : 1475790
		ΔHt.	10.574 m	0.032 m		
		ΔElev.	10.541 m	0.032 m		
		Ellip Dist.	18577.132 m	0.013 m		
SUWA 23	LC4-112	Az.	251°42'29"	0.233 sec	1 : 776218	1 : 777573
		ΔHt.	9.485 m	0.035 m		
		ΔElev.	9.470 m	0.035 m		
		Ellip Dist.	11378.049 m	0.015 m		
SUWA 23	LC4-113	Az.	216°19'55"	0.478 sec	1 : 508491	1 : 506542
		ΔHt.	2.333 m	0.033 m		

		ΔElev.	2.313 m	0.033 m		
		Ellip Dist.	5437.104 m	0.011 m		
SUWA 23	LC4-131	Az.	236°53'34"	0.245 sec	1 : 955610	1 : 955818
		ΔHt.	9.834 m	0.053 m		
		ΔElev.	9.788 m	0.053 m		
		Ellip Dist.	14418.921 m	0.015 m		
SUWA 23	U 355	Az.	320°34'29"	0.015 sec	1 : 15557149	1 : 15568604
		ΔHt.	10.739 m	0.011 m		
		ΔElev.	10.797 m	0.011 m		
		Ellip Dist.	21442.745 m	0.001 m		
SUWA 26	FVA-114	Az.	133°53'20"	0.166 sec	1 : 979154	1 : 979799
		ΔHt.	-8.342 m	0.053 m		
		ΔElev.	-8.373 m	0.053 m		
		Ellip Dist.	17269.232 m	0.018 m		
SUWA 26	FVA-115	Az.	105°00'09"	0.152 sec	1 : 1322060	1 : 1320705
		ΔHt.	0.633 m	0.020 m		
		ΔElev.	0.653 m	0.020 m		
		Ellip Dist.	11751.758 m	0.009 m		
SUWA 26	FVA-116	Az.	100°12'41"	0.138 sec	1 : 1854744	1 : 1869268
		ΔHt.	0.307 m	0.035 m		
		ΔElev.	0.363 m	0.035 m		
		Ellip Dist.	23417.017 m	0.013 m		
SUWA 26	FVA-117	Az.	112°01'30"	0.082 sec	1 : 3206278	1 : 3217755
		ΔHt.	3.884 m	0.022 m		
		ΔElev.	3.921 m	0.022 m		
		Ellip Dist.	27658.873 m	0.009 m		

SUWA 26	FVA-118	Az.	132°05'13"	0.069 sec	1 : 2425928	1 : 2426476
		ΔHt.	-2.603 m	0.028 m		
		ΔElev.	-2.615 m	0.028 m		
		Ellip Dist.	23723.351 m	0.010 m		
SUWA 26	FVA-119	Az.	143°52'31"	0.074 sec	1 : 3004740	1 : 3020532
		ΔHt.	-10.163 m	0.037 m		
		ΔElev.	-10.124 m	0.037 m		
		Ellip Dist.	33384.233 m	0.011 m		
SUWA 26	FVA-132	Az.	119°30'46"	0.131 sec	1 : 1926800	1 : 1930043
		ΔHt.	-1.780 m	0.031 m		
		ΔElev.	-1.788 m	0.031 m		
		Ellip Dist.	18835.491 m	0.010 m		
SUWA 26	LAKEPORT AZ MK	Az.	70°31'13"	0.015 sec	1 : 10800074	1 : 10798653
		ΔHt.	32.956 m	0.015 m		
		ΔElev.	33.147 m	0.015 m		
		Ellip Dist.	31400.351 m	0.003 m		
SUWA 26	LC1-115	Az.	105°08'12"	0.258 sec	1 : 1032772	1 : 1028095
		ΔHt.	0.212 m	0.043 m		
		ΔElev.	0.231 m	0.043 m		
		Ellip Dist.	11795.265 m	0.011 m		
SUWA 26	LC1-116	Az.	100°08'59"	0.102 sec	1 : 2320630	1 : 2323559
		ΔHt.	3.048 m	0.023 m		
		ΔElev.	3.105 m	0.023 m		
		Ellip Dist.	23322.395 m	0.010 m		
SUWA 26	LC1-117	Az.	112°12'16"	0.079 sec	1 : 3170536	1 : 3181072
		ΔHt.	5.104 m	0.021 m		

		ΔElev.	5.141 m	0.021 m		
		Ellip Dist.	27670.000 m	0.009 m		
SUWA 26	LC1-118	Az.	131°51'26"	0.071 sec	1 : 2327801	1 : 2329955
		ΔHt.	-4.387 m	0.028 m		
		ΔElev.	-4.399 m	0.028 m		
		Ellip Dist.	23684.224 m	0.010 m		
SUWA 26	LC1-132	Az.	119°34'46"	0.129 sec	1 : 1817164	1 : 1825480
		ΔHt.	-1.159 m	0.028 m		
		ΔElev.	-1.167 m	0.028 m		
		Ellip Dist.	18744.557 m	0.010 m		
SUWA 26	LC2-114	Az.	135°27'09"	0.219 sec	1 : 1077724	1 : 1077096
		ΔHt.	-13.399 m	0.048 m		
		ΔElev.	-13.433 m	0.048 m		
		Ellip Dist.	15629.184 m	0.015 m		
SUWA 26	LC2-115	Az.	109°54'39"	0.442 sec	1 : 613493	1 : 610497
		ΔHt.	-3.036 m	0.060 m		
		ΔElev.	-3.029 m	0.060 m		
		Ellip Dist.	8899.425 m	0.015 m		
SUWA 26	LC2-117	Az.	110°25'18"	0.062 sec	1 : 3480860	1 : 3475540
		ΔHt.	-0.259 m	0.023 m		
		ΔElev.	-0.207 m	0.023 m		
		Ellip Dist.	29019.632 m	0.008 m		
SUWA 26	LC2-118	Az.	138°52'50"	0.078 sec	1 : 2317756	1 : 2324262
		ΔHt.	-4.030 m	0.030 m		
		ΔElev.	-4.042 m	0.030 m		
		Ellip Dist.	24209.748 m	0.010 m		

SUWA 26	LC2-132	Az.	119°38'34"	0.133 sec	1 : 1906430	1 : 1914163
		ΔHt.	-0.592 m	0.029 m		
		ΔElev.	-0.600 m	0.029 m		
		Ellip Dist.	18823.474 m	0.010 m		
SUWA 26	LC3-114	Az.	133°45'38"	0.108 sec	1 : 1505559	1 : 1504729
		ΔHt.	-1.157 m	0.042 m		
		ΔElev.	-1.183 m	0.042 m		
		Ellip Dist.	20311.937 m	0.013 m		
SUWA 26	LC3-115	Az.	105°51'56"	0.217 sec	1 : 1054987	1 : 1053196
		ΔHt.	-0.383 m	0.033 m		
		ΔElev.	-0.365 m	0.033 m		
		Ellip Dist.	11846.549 m	0.011 m		
SUWA 26	LC3-116	Az.	101°17'19"	0.133 sec	1 : 2080001	1 : 2082907
		ΔHt.	-3.978 m	0.028 m		
		ΔElev.	-3.931 m	0.028 m		
		Ellip Dist.	22060.783 m	0.011 m		
SUWA 26	LC3-117	Az.	112°13'17"	0.069 sec	1 : 3029441	1 : 3036635
		ΔHt.	7.917 m	0.020 m		
		ΔElev.	7.953 m	0.020 m		
		Ellip Dist.	27570.663 m	0.009 m		
SUWA 26	LC3-118	Az.	131°41'31"	0.071 sec	1 : 2529653	1 : 2527967
		ΔHt.	-3.461 m	0.029 m		
		ΔElev.	-3.471 m	0.029 m		
		Ellip Dist.	24121.010 m	0.010 m		
SUWA 26	LC3-119	Az.	144°01'48"	0.085 sec	1 : 2703100	1 : 2720583
		ΔHt.	-11.410 m	0.042 m		
		ΔElev.	-11.372 m	0.042 m		

		Ellip Dist.	33334.384 m	0.012 m		
SUWA 26	LC3-132	Az.	119°56'33"	0.153 sec	1 : 1689102	1 : 1695092
		ΔHt.	-0.184 m	0.033 m		
		ΔElev.	-0.193 m	0.033 m		
		Ellip Dist.	18821.913 m	0.011 m		
SUWA 26	LC4-115	Az.	103°24'15"	0.206 sec	1 : 1124442	1 : 1123060
		ΔHt.	-1.867 m	0.039 m		
		ΔElev.	-1.842 m	0.039 m		
		Ellip Dist.	12989.305 m	0.012 m		
SUWA 26	LC4-116	Az.	105°58'25"	0.093 sec	1 : 2339933	1 : 2338706
		ΔHt.	0.439 m	0.026 m		
		ΔElev.	0.474 m	0.026 m		
		Ellip Dist.	23638.323 m	0.010 m		
SUWA 26	LC4-117	Az.	117°14'54"	0.062 sec	1 : 3702267	1 : 3702015
		ΔHt.	25.717 m	0.024 m		
		ΔElev.	25.750 m	0.024 m		
		Ellip Dist.	28742.394 m	0.008 m		
SUWA 26	LC4-118	Az.	131°10'52"	0.072 sec	1 : 2909148	1 : 2903931
		ΔHt.	-0.213 m	0.027 m		
		ΔElev.	-0.211 m	0.027 m		
		Ellip Dist.	25930.462 m	0.009 m		
SUWA 26	LC4-119	Az.	142°30'42"	0.117 sec	1 : 2406437	1 : 2429112
		ΔHt.	-10.545 m	0.039 m		
		ΔElev.	-10.507 m	0.039 m		
		Ellip Dist.	32391.753 m	0.013 m		
SUWA 26	LC4-132	Az.	123°17'12"	0.119 sec	1 : 1847302	1 : 1857761

		ΔHt.	0.346 m	0.028 m		
		ΔElev.	0.332 m	0.028 m		
		Ellip Dist.	19764.766 m	0.011 m		
SUWA 26	N 369	Az.	19°50'45"	0.036 sec	1 : 6215900	1 : 6246663
		ΔHt.	31.258 m	0.009 m		
		ΔElev.	31.386 m	0.009 m		
		Ellip Dist.	15904.675 m	0.003 m		
SUWA 26	XCTY	Az.	203°42'49"	0.000 sec	1 : 0	1 : 16555424340
		ΔHt.	-11.372 m	0.009 m		
		ΔElev.	-11.600 m	0.009 m		
		Ellip Dist.	55227.984 m	0.000 m		
U 151	FLGPS 21	Az.	2°36'14"	0.028 sec	1 : 6345347	1 : 6375150
		ΔHt.	21.471 m	0.000 m		
		ΔElev.	21.490 m	0.000 m		
		Ellip Dist.	18984.997 m	0.003 m		
U 151	FVA-107	Az.	297°08'21"	0.124 sec	1 : 1877230	1 : 1877970
		ΔHt.	-5.487 m	0.033 m		
		ΔElev.	-5.499 m	0.033 m		
		Ellip Dist.	20419.662 m	0.011 m		
U 151	FVA-108	Az.	329°51'27"	0.162 sec	1 : 1048758	1 : 1047545
		ΔHt.	14.330 m	0.031 m		
		ΔElev.	14.341 m	0.031 m		
		Ellip Dist.	11407.501 m	0.011 m		
U 151	FVA-109	Az.	296°48'43"	0.246 sec	1 : 1049695	1 : 1051556
		ΔHt.	-1.710 m	0.026 m		
		ΔElev.	-1.717 m	0.026 m		

		Ellip Dist.	12168.755 m	0.012 m		
U 151	FVA-110	Az.	275°26'25"	0.330 sec	1 : 841687	1 : 838523
		ΔHt.	-3.189 m	0.033 m		
		ΔElev.	-3.212 m	0.033 m		
		Ellip Dist.	8504.061 m	0.010 m		
U 151	GCT-FL08	Az.	348°05'03"	0.026 sec	1 : 7999237	1 : 8018674
		ΔHt.	-0.891 m	0.007 m		
		ΔElev.	-0.873 m	0.007 m		
		Ellip Dist.	13006.722 m	0.002 m		
U 151	LC1-107	Az.	297°03'17"	0.141 sec	1 : 1787893	1 : 1789976
		ΔHt.	-11.635 m	0.028 m		
		ΔElev.	-11.646 m	0.028 m		
		Ellip Dist.	19262.420 m	0.011 m		
U 151	LC1-109	Az.	296°43'57"	0.235 sec	1 : 1083415	1 : 1085067
		ΔHt.	-1.623 m	0.025 m		
		ΔElev.	-1.631 m	0.025 m		
		Ellip Dist.	12145.022 m	0.011 m		
U 151	LC1-110	Az.	274°58'01"	0.311 sec	1 : 835776	1 : 834437
		ΔHt.	-3.069 m	0.032 m		
		ΔElev.	-3.092 m	0.032 m		
		Ellip Dist.	8480.621 m	0.010 m		
U 151	LC2-109	Az.	296°40'09"	0.167 sec	1 : 1457487	1 : 1455369
		ΔHt.	-4.234 m	0.028 m		
		ΔElev.	-4.242 m	0.028 m		
		Ellip Dist.	15510.925 m	0.011 m		
U 151	LC2-110	Az.	280°42'47"	0.396 sec	1 : 780147	1 : 780375

		ΔHt.	-1.501 m	0.029 m		
		ΔElev.	-1.518 m	0.029 m		
		Ellip Dist.	7323.453 m	0.009 m		
U 151	LC3-109	Az.	296°58'11"	0.209 sec	1 : 1166860	1 : 1167097
		ΔHt.	-5.153 m	0.025 m		
		ΔElev.	-5.160 m	0.025 m		
		Ellip Dist.	12774.592 m	0.011 m		
U 151	LC3-110	Az.	281°13'52"	0.359 sec	1 : 785017	1 : 785919
		ΔHt.	-1.757 m	0.027 m		
		ΔElev.	-1.774 m	0.027 m		
		Ellip Dist.	7307.774 m	0.009 m		
U 151	LC4-108	Az.	329°44'17"	0.164 sec	1 : 977397	1 : 977763
		ΔHt.	14.233 m	0.032 m		
		ΔElev.	14.244 m	0.032 m		
		Ellip Dist.	11399.031 m	0.012 m		
U 151	LC4-109	Az.	296°37'40"	0.144 sec	1 : 1468125	1 : 1468766
		ΔHt.	-4.183 m	0.028 m		
		ΔElev.	-4.192 m	0.028 m		
		Ellip Dist.	15491.525 m	0.011 m		
U 151	N 369	Az.	118°15'15"	0.042 sec	1 : 4958502	1 : 4934017
		ΔHt.	24.183 m	0.000 m		
		ΔElev.	24.199 m	0.000 m		
		Ellip Dist.	13040.798 m	0.003 m		
U 151	SUWAPORT AZ MK	Az.	290°23'49"	0.000 sec	1 : 0	1 : 0
		ΔHt.	-1.680 m	0.000 m		
		ΔElev.	-1.691 m	0.000 m		

		Ellip Dist.	7735.875 m	0.000 m		
U 151	U 355	Az.	262°05'30"	0.012 sec	1 : 16979733	1 : 16940420
		ΔHt.	-7.938 m	0.000 m		
		ΔElev.	-8.012 m	0.000 m		
		Ellip Dist.	25509.676 m	0.002 m		
U 355	FLGPS 19	Az.	224°51'34"	0.024 sec	1 : 7451558	1 : 7450383
		ΔHt.	0.702 m	0.000 m		
		ΔElev.	0.634 m	0.000 m		
		Ellip Dist.	11808.872 m	0.002 m		
U 355	FVA-107	Az.	28°49'23"	0.153 sec	1 : 1189317	1 : 1188746
		ΔHt.	2.451 m	0.033 m		
		ΔElev.	2.513 m	0.033 m		
		Ellip Dist.	14656.441 m	0.012 m		
U 355	FVA-108	Az.	55°28'30"	0.095 sec	1 : 2640813	1 : 2640409
		ΔHt.	22.268 m	0.031 m		
		ΔElev.	22.353 m	0.031 m		
		Ellip Dist.	23678.033 m	0.009 m		
U 355	FVA-109	Az.	57°52'39"	0.157 sec	1 : 1273063	1 : 1267253
		ΔHt.	6.229 m	0.026 m		
		ΔElev.	6.295 m	0.026 m		
		Ellip Dist.	16986.056 m	0.013 m		
U 355	FVA-110	Az.	75°27'38"	0.151 sec	1 : 1545798	1 : 1535674
		ΔHt.	4.750 m	0.033 m		
		ΔElev.	4.800 m	0.033 m		
		Ellip Dist.	17346.834 m	0.011 m		
U 355	L 45	Az.	334°19'39"	0.015 sec	1 : 15121943	1 : 15153724

		ΔHt.	3.508 m	0.000 m		
		ΔElev.	3.536 m	0.000 m		
		Ellip Dist.	21238.427 m	0.001 m		
U 355	LC1-108	Az.	59°47'14"	0.094 sec	1 : 2340268	1 : 2342938
		ΔHt.	14.020 m	0.034 m		
		ΔElev.	14.106 m	0.034 m		
		Ellip Dist.	24301.617 m	0.010 m		
U 355	LC1-109	Az.	57°58'32"	0.151 sec	1 : 1329042	1 : 1323462
		ΔHt.	6.315 m	0.025 m		
		ΔElev.	6.381 m	0.025 m		
		Ellip Dist.	16983.975 m	0.013 m		
U 355	LC1-110	Az.	75°42'17"	0.147 sec	1 : 1620821	1 : 1613869
		ΔHt.	4.870 m	0.032 m		
		ΔElev.	4.920 m	0.032 m		
		Ellip Dist.	17345.532 m	0.011 m		
U 355	LC2-107	Az.	28°44'15"	0.191 sec	1 : 1018704	1 : 1018874
		ΔHt.	2.464 m	0.045 m		
		ΔElev.	2.526 m	0.045 m		
		Ellip Dist.	14618.749 m	0.014 m		
U 355	LC2-108	Az.	59°40'17"	0.091 sec	1 : 2268627	1 : 2269469
		ΔHt.	14.622 m	0.035 m		
		ΔElev.	14.708 m	0.035 m		
		Ellip Dist.	24274.101 m	0.011 m		
U 355	LC2-109	Az.	47°18'49"	0.142 sec	1 : 1230980	1 : 1229873
		ΔHt.	3.705 m	0.028 m		
		ΔElev.	3.770 m	0.028 m		
		Ellip	15484.207 m	0.013 m		

		Dist.				
U 355	LC2-110	Az.	74°46'55"	0.147 sec	1 : 1807689	1 : 1794165
		ΔHt.	6.437 m	0.029 m		
		ΔElev.	6.494 m	0.029 m		
		Ellip Dist.	18716.277 m	0.010 m		
U 355	LC3-107	Az.	32°19'53"	0.186 sec	1 : 821569	1 : 819903
		ΔHt.	-0.920 m	0.030 m		
		ΔElev.	-0.858 m	0.030 m		
		Ellip Dist.	14727.695 m	0.018 m		
U 355	LC3-109	Az.	56°02'18"	0.142 sec	1 : 1345869	1 : 1342319
		ΔHt.	2.786 m	0.025 m		
		ΔElev.	2.852 m	0.025 m		
		Ellip Dist.	16710.913 m	0.012 m		
U 355	LC3-110	Az.	74°37'17"	0.136 sec	1 : 1907320	1 : 1897399
		ΔHt.	6.181 m	0.027 m		
		ΔElev.	6.238 m	0.027 m		
		Ellip Dist.	18759.493 m	0.010 m		
U 355	LC4-107	Az.	34°41'49"	0.203 sec	1 : 751656	1 : 749880
		ΔHt.	-2.504 m	0.037 m		
		ΔElev.	-2.441 m	0.037 m		
		Ellip Dist.	14712.906 m	0.020 m		
U 355	LC4-108	Az.	55°29'28"	0.101 sec	1 : 2573413	1 : 2562842
		ΔHt.	22.171 m	0.032 m		
		ΔElev.	22.256 m	0.032 m		
		Ellip Dist.	23653.664 m	0.009 m		
U 355	LC4-109	Az.	47°23'44"	0.143 sec	1 : 1449337	1 : 1447992
		ΔHt.	3.755 m	0.028 m		

		ΔElev.	3.820 m	0.028 m		
		Ellip Dist.	15480.607 m	0.011 m		
U 355	N 369	Az.	94°00'45"	0.015 sec	1 : 11874975	1 : 11835002
		ΔHt.	32.121 m	0.000 m		
		ΔElev.	32.211 m	0.000 m		
		Ellip Dist.	36850.501 m	0.003 m		
U 355	SUWAPORT AZ MK	Az.	70°51'38"	0.015 sec	1 : 12376547	1 : 12350373
		ΔHt.	6.258 m	0.000 m		
		ΔElev.	6.321 m	0.000 m		
		Ellip Dist.	19055.138 m	0.002 m		
XCTY	GNVL	Az.	85°25'12"	0.000 sec	1 : 0	1 : 14734605580
		ΔHt.	37.644 m	0.010 m		
		ΔElev.	37.785 m	0.010 m		
		Ellip Dist.	80714.854 m	0.000 m		

Date: 2/13/2013 2:26:07 PM	Project: N:\TBC\USGS\T12-017_2013.vce	Trimble Business Center
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USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



NGS DATA SHEETS

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.00

```
1      National Geodetic Survey,      Retrieval Date = FEBRUARY  8, 2013
AR1936 *****
AR1936 DESIGNATION -   31 92 GPS 3
AR1936 PID          -   AR1936
AR1936 STATE/COUNTY-   FL/GILCHRIST
AR1936 COUNTRY       -   US
AR1936 USGS QUAD      -   BELL (1988)
AR1936
AR1936                                *CURRENT SURVEY CONTROL
AR1936
AR1936* NAD 83(2011) POSITION- 29 49 47.56721(N) 082 52 02.97518(W) ADJUSTED
AR1936* NAD 83(2011) ELLIP HT-  -12.440 (meters)                (06/27/12) ADJUSTED
AR1936* NAD 83(2011) EPOCH   - 2010.00
AR1936* NAVD 88 ORTHO HEIGHT - 15.4 (meters)                    51. (feet) GPS OBS
AR1936
AR1936 NAD 83(2011) X - 687,579.387 (meters) COMP
AR1936 NAD 83(2011) Y - -5,494,798.323 (meters) COMP
AR1936 NAD 83(2011) Z - 3,154,022.068 (meters) COMP
AR1936 LAPLACE CORR - -0.97 (seconds) DEFLEC12A
AR1936 GEOID HEIGHT - -27.83 (meters) GEOID12A
AR1936
AR1936 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
AR1936 Type Horiz Ellip Dist(km)
AR1936 -----
AR1936 NETWORK 0.84 1.57
AR1936 -----
AR1936 MEDIAN LOCAL ACCURACY AND DIST (011 points) 0.85 1.51 10.15
AR1936 -----
AR1936 NOTE: Click here for information on individual local accuracy
AR1936 values and other accuracy information.
AR1936
AR1936
AR1936.The horizontal coordinates were established by GPS observations
AR1936.and adjusted by the National Geodetic Survey in June 2012.
AR1936
AR1936.NAD 83(2011) refers to NAD 83 coordinates where the reference
AR1936.frame has been affixed to the stable North American tectonic plate. See
AR1936.NA2011 for more information. for more information.
AR1936
AR1936.The horizontal coordinates are valid at the epoch date displayed above
AR1936.which is a decimal equivalence of Year/Month/Day.
AR1936
AR1936.The orthometric height was determined by GPS observations and a
AR1936.high-resolution geoid model.
AR1936
AR1936.The X, Y, and Z were computed from the position and the ellipsoidal ht.
```



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AR1936

AR1936.The Laplace correction was computed from DEFLEC12A derived deflections.

AR1936

AR1936.The ellipsoidal height was determined by GPS observations

AR1936.and is referenced to NAD 83.

AR1936

AR1936. The following values were computed from the NAD 83(2011) position.

AR1936

AR1936;		North	East	Units	Scale Factor	Converg.
AR1936;SPC FL N	-	93,119.525	757,771.674	MT	0.99996566	+0 49 13.4
AR1936;SPC FL N	-	305,509.64	2,486,122.57	sFT	0.99996566	+0 49 13.4
AR1936;UTM 17	-	3,301,397.953	319,561.939	MT	1.00000172	-0 55 45.1

AR1936

AR1936! - Elev Factor x Scale Factor = Combined Factor

AR1936!SPC FL N - 1.00000195 x 0.99996566 = 0.99996761

AR1936!UTM 17 - 1.00000195 x 1.00000172 = 1.00000367

AR1936

AR1936:		Primary Azimuth Mark	Grid Az
AR1936:SPC FL N	-	31 92 GPS 4	002 03 10.7
AR1936:UTM 17	-	31 92 GPS 4	003 48 09.2

AR1936

AR1936	PID	Reference Object	Distance	Geod. Az ddmmss.s
AR1936	AR1937	31 92 GPS 4	APPROX. 0.5 KM	0025224.1

AR1936

AR1936

SUPERSEDED SURVEY CONTROL

AR1936

AR1936	NAD 83(2007)-	29 49 47.56736(N)	082 52 02.97594(W)	AD() 0
AR1936	ELLIP H (02/10/07)	-12.389 (m)		GP()
AR1936	NAD 83(1999)-	29 49 47.56753(N)	082 52 02.97586(W)	AD() 1
AR1936	ELLIP H (05/31/01)	-12.418 (m)		GP() 4 1
AR1936	NAD 83(1990)-	29 49 47.56633(N)	082 52 02.97634(W)	AD() 1
AR1936	ELLIP H (11/22/93)	-12.342 (m)		GP() 4 1
AR1936	NGVD 29 (11/22/93)	15.7 (m)	GEOID93 model used	GPS OBS

AR1936

AR1936.Superseded values are not recommended for survey control.

AR1936

AR1936.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AR1936.[See file dsdata.txt](#) to determine how the superseded data were derived.

AR1936

AR1936_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP1956101397(NAD 83)

AR1936

AR1936_MARKER: DD = SURVEY DISK

AR1936_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AR1936_SP_SET: CONCRETE POST

AR1936_STAMPING: 31 92 GPS 3

AR1936_MARK LOGO: FLDT

AR1936_MAGNETIC: N = NO MAGNETIC MATERIAL

AR1936_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AR1936+STABILITY: SURFACE MOTION

AR1936_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AR1936+SATELLITE: SATELLITE OBSERVATIONS - June 06, 1996

AR1936



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AR1936	HISTORY	- Date	Condition	Report By
AR1936	HISTORY	- 1992	MONUMENTED	FLDT
AR1936	HISTORY	- 19960606	GOOD	DCJOHN

AR1936

AR1936 STATION DESCRIPTION

AR1936

AR1936'DESCRIBED BY FLORIDA DEPARTMENT OF TRANSPORTATION 1992

AR1936'STATION IS LOCATED ABOUT 15 MILES (24.1 KM) NORTH NORTHWEST OF TRENTON
AR1936'AND 5.35 MILES (8.61 KM) NORTH OF BELL.

AR1936'FROM THE POST OFFICE AT BELL, GO NORTH ALONG U.S. 129 FOR ABOUT 5.35
AR1936'MILES (8.61 KM) TO THE STATION, ABOUT 0.15 MILE (0.24 KM) SOUTH OF A
AR1936'STONE/GRATED DRIVE TO A HORSE RANCH, SET IN THE TOP OF A ROUND
AR1936'CONCRETE MONUMENT FLUSH WITH THE GROUND, 104 FEET (31.7 M) (31.7 MT)
AR1936'NORTH OF A FENCE JUNCTION, 55.0 FEET (16.8 M) (16.8 MT) WEST OF THE
AR1936'CENTER OF U.S. 129 AND 7.0 FEET (2.1 M) (2.1 MT) EAST OF A METAL
AR1936'WITNESS POST AT THE FENCE.

AR1936

AR1936 STATION RECOVERY (1996)

AR1936

AR1936'RECOVERY NOTE BY DC JOHNSON ASSOC 1996 (CX)

AR1936'THE STATION WAS RECOVERED IN GOOD CONDITION AS PREVIOUSLY DESCRIBED

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

AC5883 *****

AC5883 DESIGNATION - A 302

AC5883 PID - AC5883

AC5883 STATE/COUNTY- FL/ALACHUA

AC5883 COUNTRY - US

AC5883 USGS QUAD - HIGH SPRINGS (1993)

AC5883

AC5883 *CURRENT SURVEY CONTROL

AC5883

AC5883* NAD 83(2011) POSITION- 29 52 25.62858(N) 082 32 34.03968(W) ADJUSTED

AC5883* NAD 83(2011) ELLIP HT- 16.623 (meters) (06/27/12) ADJUSTED

AC5883* NAD 83(2011) EPOCH - 2010.00

AC5883* [NAVD 88](#) ORTHO HEIGHT - 44.7 (meters) 147. (feet) GPS OBS

AC5883

AC5883 NAVD 88 orthometric height was determined with geoid model GEOID93

AC5883 GEOID HEIGHT - -28.61 (meters) GEOID93

AC5883 GEOID HEIGHT - -28.04 (meters) GEOID12A

AC5883 NAD 83(2011) X - 718,396.932 (meters) COMP

AC5883 NAD 83(2011) Y - -5,488,436.391 (meters) COMP

AC5883 NAD 83(2011) Z - 3,158,257.735 (meters) COMP

AC5883 LAPLACE CORR - 0.16 (seconds) DEFLEC12A

AC5883

AC5883 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

AC5883 Type Horiz Ellip Dist(km)

AC5883

AC5883 NETWORK 0.37 0.74

AC5883

AC5883 MEDIAN LOCAL ACCURACY AND DIST (015 points) 0.54 1.14 18.95

AC5883

AC5883 NOTE: Click [here](#) for information on individual local accuracy
AC5883 values and other accuracy information.

AC5883

AC5883



AC5883.The horizontal coordinates were established by GPS observations
AC5883.and adjusted by the National Geodetic Survey in June 2012.
AC5883
AC5883.NAD 83(2011) refers to NAD 83 coordinates where the reference
AC5883.frame has been affixed to the stable North American tectonic plate. See
AC5883.[NA2011](#) for more information. for more information.
AC5883
AC5883.The horizontal coordinates are valid at the epoch date displayed above
AC5883.which is a decimal equivalence of Year/Month/Day.
AC5883
AC5883.The orthometric height was determined by GPS observations and a
AC5883.high-resolution geoid model.
AC5883
AC5883.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AC5883
AC5883.The Laplace correction was computed from DEFLEC12A derived deflections.
AC5883
AC5883.The ellipsoidal height was determined by GPS observations
AC5883.and is referenced to NAD 83.
AC5883
AC5883. The following values were computed from the NAD 83(2011) position.

AC5883;		North	East	Units	Scale Factor	Converg.
AC5883;SPC FL N	-	98,479.599	789,065.966	MT	0.99996147	+0 59 00.8
AC5883;SPC FL N	-	323,095.15	2,588,793.92	sFT	0.99996147	+0 59 00.8
AC5883;UTM 17	-	3,305,799.236	351,004.520	MT	0.99987390	-0 46 06.9
AC5883						
AC5883!	-	Elev Factor	x	Scale Factor	=	Combined Factor
AC5883!SPC FL N	-	0.99999739	x	0.99996147	=	0.99995886
AC5883!UTM 17	-	0.99999739	x	0.99987390	=	0.99987129

SUPERSEDED SURVEY CONTROL

AC5883	NAD 83 (2007)-	29 52	25.62856 (N)	082 32	34.04032 (W)	AD (	)	0
AC5883	ELLIP H (02/10/07)		16.649 (m)			GP (	)	
AC5883	NAD 83 (1999)-	29 52	25.62901 (N)	082 32	34.04047 (W)	AD (	)	1
AC5883	ELLIP H (05/31/01)		16.625 (m)			GP (	)	4 1
AC5883	NAD 83 (1990)-	29 52	25.62770 (N)	082 32	34.04009 (W)	AD (	)	1
AC5883	ELLIP H (01/28/97)		16.681 (m)			GP (	)	3 1

AC5883.Superseded values are not recommended for survey control.
AC5883
AC5883.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC5883.[See file dsdata.txt](#) to determine how the superseded data were derived.

AC5883 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP5100405799 (NAD 83)

AC5883_MARKER: DD = SURVEY DISK
AC5883_SETTING: 36 = SET IN A MASSIVE STRUCTURE
AC5883_SP_SET: SET IN A MASSIVE STRUCTURE
AC5883_STAMPING: A 302 1996
AC5883_MARK LOGO: NGS
AC5883_MAGNETIC: O = OTHER; SEE DESCRIPTION
AC5883_STABILITY: B = PROBABLY HOLD POSITION/EL
AC5883_SATELLITE: THE SITE LOCATION WAS REPORTE



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AC5883+SATELLITE: SATELLITE OBSERVATIONS - May 02, 1997

AC5883

AC5883	HISTORY	- Date	Condition	Report By
AC5883	HISTORY	- 1996	MONUMENTED	DCJOHN
AC5883	HISTORY	- 19970502	GOOD	DCJOHN

AC5883

AC5883 STATION DESCRIPTION

AC5883

AC5883'DESCRIBED BY DC JOHNSON ASSOC 1996 (DS)

AC5883'THE STATION IS LOCATED APPROXIMATELY 6.5 MI (10.5 KM) NORTH NORTHWEST

AC5883'OF ALACHUA, 16.5 MI (26.6 KM) NORTH NORTHEAST OF NEWBERRY AND 5 MI

AC5883'(8.0 KM) NORTHEAST OF HIGH SPRINGS.-- THE STATION IS LOCATED IN THE

AC5883'SOUTHWEST CORNER OF THE OVERPASS BRIDGE AT THE JUNCTIONM OF INTERSTATE

AC5883'75 AND COUNTY ROAD 236, A BRASS NATIONAL GEODETIC SURVEY DISC SET IN

AC5883'THE WEST CONCRETE WINGWALL OF SAID OVERPASS BRIDGE. THE STATION IS

AC5883'16.9 FT (5.2 M) SOUTH-SOUTHEAST OF THE CENTERLINE OF STATE ROAD 236

AC5883'AND 2.8 FT (0.9 M) NORTHEAST OF A WITNESS POST.- REFERENCES--

AC5883'BENCHMARK (I75 U1) , SET IN CONCRETE GUARDRAIL, NORTH 40 DEGREES EAST

AC5883'AT 6.7 FT (2.0 M) - SOUTH 20 DEGREES WEST AT 2.0 FT,TO WEST END OF

AC5883'CONCRETE GUARDRAIL - SOUTH 35 DEGREES WEST AT 63.5 FT,TO A STORM WATER

AC5883'MAN HOLE -

AC5883

AC5883 STATION RECOVERY (1997)

AC5883

AC5883'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)

AC5883'RECOVERY NOTE BY DC JOHNSON ASSOC (CHX) THE STATION WAS RECOVERED AS

AC5883'PREVIOUSLY DESCRIBED.

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

DG4685 *****

DG4685 CORs - This is a GPS Continuously Operating Reference Station.

DG4685 DESIGNATION - CROSS CITY CORs ARP

DG4685 CORs_ID - XCTY

DG4685 PID - DG4685

DG4685 STATE/COUNTY- FL/DIXIE

DG4685 COUNTRY - US

DG4685 USGS QUAD - CROSS CITY EAST (1993)

DG4685

DG4685 *CURRENT SURVEY CONTROL

DG4685

DG4685* NAD 83(2011) POSITION- 29 37 51.61280(N) 083 06 29.33703(W) ADJUSTED

DG4685* NAD 83(2011) ELLIP HT- -13.820 (meters) (08/??/11) ADJUSTED

DG4685* NAD 83(2011) EPOCH - 2010.00

DG4685* [NAVD 88](#) ORTHO HEIGHT - 13.948 (meters) 45.76 (feet) ADJUSTED

DG4685

DG4685 NAD 83(2011) X - 665,805.627 (meters) COMP

DG4685 NAD 83(2011) Y - -5,508,490.199 (meters) COMP

DG4685 NAD 83(2011) Z - 3,134,878.244 (meters) COMP

DG4685 GEOID HEIGHT - -27.74 (meters) GEOID12A

DG4685 HORZ ORDER - SPECIAL (CORS)

DG4685 VERT ORDER - FIRST CLASS II

DG4685 ELLP ORDER - SPECIAL (CORS)

DG4685

DG4685 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

DG4685 Type Horiz Ellip Dist(km)

DG4685 -----



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



DG4685 NETWORK 0.51 1.81
DG4685 -----
DG4685 NOTE: Click [here](#) for information on individual local accuracy
DG4685 values and other accuracy information.
DG4685
DG4685
DG4685.The coordinates were established by GPS observations
DG4685.and adjusted by the National Geodetic Survey in August 2011.
DG4685
DG4685.NAD 83(2011) refers to NAD 83 coordinates where the reference
DG4685.frame has been affixed to the stable North American Tectonic Plate.
DG4685
DG4685.The coordinates are valid at the epoch date displayed above
DG4685.which is a decimal equivalence of Year/Month/Day.
DG4685
DG4685.The orthometric height was determined by differential leveling and
DG4685.adjusted by the NATIONAL GEODETIC SURVEY
DG4685.in August 2010.
DG4685
DG4685.No vertical observational check was made to the station.
DG4685
DG4685.The PID for the CORS L1 Phase Center is DG4686.
DG4685
DG4685.The XYZ, and position/ellipsoidal ht. are equivalent.
DG4685
DG4685.The ellipsoidal height was determined by GPS observations
DG4685.and is referenced to NAD 83.
DG4685
DG4685. The following values were computed from the NAD 83(2011) position.
DG4685
DG4685;
DG4685;SPC FL N - North East Units Scale Factor Converg.
DG4685;SPC FL N - 70,768.173 734,784.115 MT 0.999999193 +0 41 58.0
DG4685;SPC FL N - 232,178.58 2,410,704.22 sFT 0.999999193 +0 41 58.0
DG4685
DG4685! - Elev Factor x Scale Factor = Combined Factor
DG4685!SPC FL N - 1.00000217 x 0.999999193 = 0.999999410
DG4685
DG4685 SUPERSEDED SURVEY CONTROL
DG4685
DG4685 NAD 83(CORS)- 29 37 51.61310(N) 083 06 29.33781(W) AD(2002.00) c
DG4685 ELLIP H (03/??/04) -13.811 (m) GP(2002.00) c c
DG4685 NAVD 88 (02/17/10) 13.96 (m) 45.8 (f) LEVELING 3
DG4685
DG4685.Superseded values are not recommended for survey control.
DG4685
DG4685.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
DG4685.[See file dsdata.txt](#) to determine how the superseded data were derived.
DG4685
DG4685_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKN9590279755(NAD 83)
DG4685
DG4685_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DG4685_MAGNETIC: O = OTHER; SEE DESCRIPTION
DG4685
DG4685 STATION DESCRIPTION
DG4685



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



DG4685'DESCRIBED BY NATIONAL GEODETIC SURVEY 2011
DG4685'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG4685'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG4685'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG4685' ftp://cors.ngs.noaa.gov/cors/README.txt
DG4685' ftp://cors.ngs.noaa.gov/cors/coord/coord_08
DG4685' ftp://cors.ngs.noaa.gov/cors/station_log
DG4685' http://geodesy.noaa.gov/CORS
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
BD2704 *****
BD2704 CBN - This is a Cooperative Base Network Control Station.
BD2704 DESIGNATION - FLGPS 15
BD2704 PID - BD2704
BD2704 STATE/COUNTY- FL/JEFFERSON
BD2704 COUNTRY - US
BD2704 USGS QUAD - MONTICELLO (1993)
BD2704
BD2704 *CURRENT SURVEY CONTROL
BD2704
BD2704* NAD 83(2011) POSITION- 30 33 57.58771(N) 083 52 11.78396(W) ADJUSTED
BD2704* NAD 83(2011) ELLIP HT- 28.930 (meters) (06/27/12) ADJUSTED
BD2704* NAD 83(2011) EPOCH - 2010.00
BD2704* [NAVD 88](#) ORTHO HEIGHT - 56.643 (meters) 185.84 (feet) ADJUSTED
BD2704
BD2704 NAD 83(2011) X - 586,962.862 (meters) COMP
BD2704 NAD 83(2011) Y - -5,465,211.773 (meters) COMP
BD2704 NAD 83(2011) Z - 3,224,571.209 (meters) COMP
BD2704 LAPLACE CORR - 0.04 (seconds) DEFLEC12A
BD2704 GEOID HEIGHT - -27.72 (meters) GEOID12A
BD2704 DYNAMIC HEIGHT - 56.569 (meters) 185.59 (feet) COMP
BD2704 MODELED GRAVITY - 979,346.8 (mgal) NAVD 88
BD2704
BD2704 VERT ORDER - SECOND CLASS I
BD2704
BD2704 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
BD2704 Type Horiz Ellip Dist(km)
BD2704 -----
BD2704 NETWORK 0.73 1.41
BD2704 -----
BD2704 MEDIAN LOCAL ACCURACY AND DIST (030 points) 1.17 1.71 22.08
BD2704 -----
BD2704 NOTE: Click [here](#) for information on individual local accuracy
BD2704 values and other accuracy information.
BD2704
BD2704
BD2704.The horizontal coordinates were established by GPS observations
BD2704.and adjusted by the National Geodetic Survey in June 2012.
BD2704
BD2704.NAD 83(2011) refers to NAD 83 coordinates where the reference
BD2704.frame has been affixed to the stable North American tectonic plate. See
BD2704.[NA2011](#) for more information. for more information.
BD2704
BD2704.The horizontal coordinates are valid at the epoch date displayed above
BD2704.which is a decimal equivalence of Year/Month/Day.
BD2704



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2704.The orthometric height was determined by differential leveling and
BD2704.adjusted by the NATIONAL GEODETIC SURVEY
BD2704.in July 2004.

BD2704

BD2704.No vertical observational check was made to the station.

BD2704

BD2704.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BD2704

BD2704.The Laplace correction was computed from DEFLEC12A derived deflections.

BD2704

BD2704.The ellipsoidal height was determined by GPS observations

BD2704.and is referenced to NAD 83.

BD2704

BD2704.The dynamic height is computed by dividing the NAVD 88

BD2704.geopotential number by the normal gravity value computed on the

BD2704.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

BD2704.degrees latitude (g = 980.6199 gals.).

BD2704

BD2704.The modeled gravity was interpolated from observed gravity values.

BD2704

BD2704. The following values were computed from the NAD 83(2011) position.

BD2704

BD2704;		North	East	Units	Scale Factor	Converg.
BD2704;SPC FL N	-	173,756.175	660,442.244	MT	0.99997256	+0 18 59.8
BD2704;SPC FL N	-	570,065.05	2,166,800.93	sFT	0.99997256	+0 18 59.8
BD2704;UTM 17	-	3,385,012.791	224,729.176	MT	1.00053488	-1 27 37.3

BD2704

BD2704! Elev Factor x Scale Factor = Combined Factor

BD2704!SPC FL N - 0.99999546 x 0.99997256 = 0.99996802

BD2704!UTM 17 - 0.99999546 x 1.00053488 = 1.00053033

BD2704

BD2704: Primary Azimuth Mark

Grid Az

BD2704:SPC FL N - FLGPS 15 AZ MK 359 14 08.5

BD2704:UTM 17 - FLGPS 15 AZ MK 001 00 45.6

BD2704

BD2704	PID	Reference Object	Distance	Geod. Az
BD2704				ddmmss.s
BD2704	BD2715	FLGPS 15 AZ MK	APPROX. 1.7 KM	3593308.3

BD2704

BD2704

BD2704

SUPERSEDED SURVEY CONTROL

BD2704

BD2704	NAD 83(2007) -	30 33 57.58770 (N)	083 52 11.78458 (W)	AD ()	0
BD2704	ELLIP H (02/10/07)	28.953 (m)		GP ()	
BD2704	NAD 83(1999) -	30 33 57.58791 (N)	083 52 11.78477 (W)	AD ()	B
BD2704	ELLIP H (05/31/01)	28.934 (m)		GP ()	5 1
BD2704	NAD 83(1990) -	30 33 57.58749 (N)	083 52 11.78447 (W)	AD ()	B
BD2704	ELLIP H (09/13/90)	29.035 (m)		GP ()	4 1
BD2704	NAVD 88 (04/12/04)	56.7 (m)	UNKNOWN model used	GPS OBS	
BD2704	NAVD 88 (02/28/94)	56.7 (m)	UNKNOWN model used	GPS OBS	
BD2704	NGVD 29 (09/13/90)	57.0 (m)	FFT MET model used	GPS OBS	

BD2704

BD2704.Superseded values are not recommended for survey control.

BD2704



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothern & Tucker, Inc. (GCT)



BD2704.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BD2704.[See file dsdata.txt](#) to determine how the superseded data were derived.

BD2704

BD2704_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP2472985012(NAD 83)

BD2704

BD2704_MARKER: DD = SURVEY DISK

BD2704_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

BD2704_SP SET: STAINLESS STEEL ROD IN SLEEVE

BD2704_STAMPING: FLGPS 15 1988

BD2704_MARK LOGO: NGS

BD2704_PROJECTION: FLUSH

BD2704_MAGNETIC: N = NO MAGNETIC MATERIAL

BD2704_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

BD2704_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BD2704+SATELLITE: SATELLITE OBSERVATIONS - March 31, 2003

BD2704_ROD/PIPE-DEPTH: 8.70 meters

BD2704_SLEEVE-DEPTH : 0.91 meters

BD2704

BD2704	HISTORY	- Date	Condition	Report By
BD2704	HISTORY	- 1988	MONUMENTED	NGS
BD2704	HISTORY	- 19890301	GOOD	
BD2704	HISTORY	- 19890502	GOOD	
BD2704	HISTORY	- 19921112	GOOD	FLDT
BD2704	HISTORY	- 19930121	GOOD	FLDNR
BD2704	HISTORY	- 19930616	GOOD	LOCSUR
BD2704	HISTORY	- 19990115	GOOD	DCJOHN
BD2704	HISTORY	- 20030331	GOOD	CREEI

BD2704

STATION DESCRIPTION

BD2704

BD2704'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988

BD2704'THE STATION IS LOCATED ABOUT 43.93 KM (27.30 MI) EAST-NORTHEAST OF
BD2704'TALLAHASSEE, 2.41 KM (1.50 MI) NORTH OF MONTICELLO, IN THE MEDIAN OF
BD2704'U.S. HIGHWAY 19. OWNERSHIP--HIGHWAY RIGHT-OF-WAY.

BD2704'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAYS 19 AND 90
BD2704'IN MONTICELLO, GO NORTH FOR 2.25 KM (1.40 MI) ON HIGHWAY 19 TO THE
BD2704'STATION ON LEFT.

BD2704'THE STATION IS RECESSED 11 CM BELOW GROUND. LOCATED 15.91 M
BD2704'(52.2 FT) EAST FROM THE APPROXIMATE CENTER OF THE SOUTHBOUND LANE OF
BD2704'HIGHWAY, 6.77 M (22.2 FT) NORTH FROM THE APPROXIMATE CENTER OF AN
BD2704'ASPHALT TURNAROUND IN HIGHWAY MEDIAN, 6.10 M (20.0 FT) EAST FROM A
BD2704'CARSONITE WITNESS POST AND 5.85 M (19.2 FT) WEST FROM THE APPROXIMATE
BD2704'CENTER OF THE NORTHBOUND LANE OF HIGHWAY. NOTE--ACCESS TO DATUM POINT
BD2704'IS HAD THROUGH A 5-INCH LOGO CAP.

BD2704'DESCRIBED BY R.L. MALLOY.

BD2704

STATION RECOVERY (1989)

BD2704

BD2704'RECOVERED 1989

BD2704'RECOVERED IN GOOD CONDITION.

BD2704

STATION RECOVERY (1989)

BD2704

BD2704'RECOVERED 1989

BD2704'RECOVERED IN GOOD CONDITION.



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2704
BD2704 STATION RECOVERY (1992)
BD2704
BD2704 'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1992
BD2704 'RECOVERED IN GOOD CONDITION.
BD2704
BD2704 STATION RECOVERY (1993)
BD2704
BD2704 'RECOVERY NOTE BY FL DEPT OF NAT RES 1993 (PBM)
BD2704 'THE STATION IS LOCATED ABOUT 27.3 MI (43.9 KM) EAST-NORTHEAST OF
BD2704 'TALLAHASSEE, 1.5 MI (2.4 KM) NORTH OF MONTICELLO, IN THE MEDIAN OF
BD2704 'U.S. HIGHWAY 19, IN SECTION 18, TOWNSHIP 2 NORTH, RANGE 5 EAST. TO
BD2704 'REACH THE STATION FROM THE COURTHOUSE AT THE INTERSECTION OF U.S.
BD2704 'HIGHWAY 19 AND U.S. HIGHWAY 90 IN MONTICELLO, GO NORTH ON HIGHWAY 19
BD2704 'FOR 1.4 MI (2.3 KM) TO THE STATION ON LEFT. LOCATED 52.2 FT (15.9 M)
BD2704 'EAST OF THE CENTERLINE OF THE SOUTHBOUND LANE OF HIGHWAY 19, 22.2 FT
BD2704 '(6.8 M) NORTH OF THE CENTERLINE OF A ASPHALT TURN AROUND IN HIGHWAY
BD2704 'MEDIAN, 20.0 FT (6.1 M) EAST OF A CARSONITE WITNESS POST, 19.2 FT (5.9
BD2704 'M) WEST OF THE CENTERLINE OF THE NORTHBOUND LANE OF THE HIGHWAY, THE
BD2704 'STATION IS RECESSED 0.35 FT (10.67 CM) BELOW THE LEVEL OF THE GROUND.
BD2704
BD2704 STATION RECOVERY (1993)
BD2704
BD2704 'RECOVERY NOTE BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1993
BD2704 'THE EXISTING DESCRIPTION IS CLEAR AND GOOD.
BD2704
BD2704 STATION RECOVERY (1999)
BD2704
BD2704 'RECOVERY NOTE BY DC JOHNSON ASSOC 1999 (DS)
BD2704 'RECOVERED AS DESCRIBED (AG) .
BD2704
BD2704 STATION RECOVERY (2003)
BD2704
BD2704 'RECOVERY NOTE BY CREECH ENGINEERS INC 2003 (DTB)
BD2704 'RECOVERY NOTE BY CREECH ENGINEERS, INC. 2003
BD2704 'RECOVERED AS DESCRIBED.
BD2704 'SET MAG NAIL AND ---ALLEN NOBLES AND ASSOC. LB 3293--- DISK IN WEST
BD2704 'FACE OF A WOOD POWER POLE ---1XX3295R--- ON A MAGNETIC AZIMUTH OF 25
BD2704 'DEGREES AT 213.27 FT (65.00 M).SET MAG NAIL AND ---ALLEN NOBLES AND
BD2704 'ASSOC. LB 3293--- DISK IN NORTHWEST FACE OF A WOOD POWER POLE
BD2704 '---1XX3294R--- ON A MAGNETIC AZIMUTH OF 120 DEGREES AT 73.68 FT (22.46
BD2704 'M).SET MAG NAIL AND ---ALLEN NOBLES AND ASSOC. LB 3293--- DISK IN
BD2704 'SOUTHEAST FACE OF A WOOD GUY POLE ON A MAGNETIC AZIMUTH OF 262 DEGREES
BD2704 'AT 123.56 FT (37.66 M) .
BD2704 '
BD2704 '
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
BE3940 *****
BE3940 CBN - This is a Cooperative Base Network Control Station.
BE3940 DESIGNATION - FLGPS 16
BE3940 PID - BE3940
BE3940 STATE/COUNTY- FL/JEFFERSON
BE3940 COUNTRY - US
BE3940 USGS QUAD - ST MARKS NE (1982)
BE3940



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BE3940 *CURRENT SURVEY CONTROL

BE3940

BE3940*	NAD 83 (2011)	POSITION-	30 13 02.97025(N)	084 02 58.53235(W)	ADJUSTED
BE3940*	NAD 83 (2011)	ELLIP HT-	-21.495 (meters)	(06/27/12)	ADJUSTED
BE3940*	NAD 83 (2011)	EPOCH	- 2010.00		
BE3940*	NAVD 88	ORTHO HEIGHT	- 6.022 (meters)	19.76 (feet)	ADJUSTED

BE3940

BE3940	NAD 83 (2011)	X	- 571,845.451 (meters)	COMP
BE3940	NAD 83 (2011)	Y	- 5,486,422.524 (meters)	COMP
BE3940	NAD 83 (2011)	Z	- 3,191,219.764 (meters)	COMP
BE3940	LAPLACE CORR	-	0.40 (seconds)	DEFLEC12A
BE3940	GEOID HEIGHT	-	-27.53 (meters)	GEOID12A
BE3940	DYNAMIC HEIGHT	-	6.014 (meters)	19.73 (feet) COMP
BE3940	MODELED GRAVITY	-	979,339.9 (mgal)	NAVD 88

BE3940

BE3940 VERT ORDER - SECOND CLASS I

BE3940

BE3940 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

BE3940 Type Horiz Ellip Dist(km)

BE3940 -----

BE3940	NETWORK	0.75	1.53	
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BE3940 -----

BE3940	MEDIAN LOCAL ACCURACY AND DIST (019 points)	0.80	1.49	16.87
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BE3940 -----

BE3940 NOTE: Click [here](#) for information on individual local accuracy values and other accuracy information.

BE3940

BE3940

BE3940.The horizontal coordinates were established by GPS observations

BE3940.and adjusted by the National Geodetic Survey in June 2012.

BE3940

BE3940.NAD 83(2011) refers to NAD 83 coordinates where the reference

BE3940.frame has been affixed to the stable North American tectonic plate. See

BE3940.[NA2011](#) for more information. for more information.

BE3940

BE3940.The horizontal coordinates are valid at the epoch date displayed above

BE3940.which is a decimal equivalence of Year/Month/Day.

BE3940

BE3940.The orthometric height was determined by differential leveling and

BE3940.adjusted by the NATIONAL GEODETIC SURVEY

BE3940.in July 2004.

BE3940

BE3940.No vertical observational check was made to the station.

BE3940

BE3940.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BE3940

BE3940.The Laplace correction was computed from DEFLEC12A derived deflections.

BE3940

BE3940.The ellipsoidal height was determined by GPS observations

BE3940.and is referenced to NAD 83.

BE3940

BE3940.The dynamic height is computed by dividing the NAVD 88

BE3940.geopotential number by the normal gravity value computed on the

BE3940.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

BE3940.degrees latitude (g = 980.6199 gals.).

BE3940

BE3940.The modeled gravity was interpolated from observed gravity values.

BE3940

BE3940. The following values were computed from the NAD 83(2011) position.

BE3940

		North	East	Units	Scale Factor	Converg.
BE3940;						
BE3940;SPC FL N	-	135,041.530	643,360.753	MT	0.99994882	+0 13 34.8
BE3940;SPC FL N	-	443,048.75	2,110,759.40	sFT	0.99994882	+0 13 34.8
BE3940;UTM 16	-	3,346,567.755	783,999.819	MT	1.00059519	+1 29 09.2
BE3940;UTM 17	-	3,346,819.693	206,448.477	MT	1.00066327	-1 32 09.3

BE3940

BE3940!	-	Elev Factor	x	Scale Factor	=	Combined Factor
BE3940!SPC FL N	-	1.00000338	x	0.99994882	=	0.99995220
BE3940!UTM 16	-	1.00000338	x	1.00059519	=	1.00059857
BE3940!UTM 17	-	1.00000338	x	1.00066327	=	1.00066665

BE3940

		Primary Azimuth Mark	Grid Az
BE3940:SPC FL N	-	FLGPS 16 AZ MK	181 08 55.0
BE3940:UTM 16	-	FLGPS 16 AZ MK	179 53 20.6
BE3940:UTM 17	-	FLGPS 16 AZ MK	182 54 39.1

BE3940

PID	Reference Object	Distance	Geod. Az ddmmss.s
BE3950	FLGPS 16 AZ MK	APPROX. 0.7 KM	1812229.8

BE3940

BE3940

BE3940

SUPERSEDED SURVEY CONTROL

BE3940	NAD 83(2007)-	30 13 02.97031(N)	084 02 58.53290(W)	AD() 0
BE3940	ELLIP H (02/10/07)	-21.473 (m)		GP()
BE3940	NAD 83(1999)-	30 13 02.97065(N)	084 02 58.53312(W)	AD() B
BE3940	ELLIP H (05/31/01)	-21.453 (m)		GP() 5 1
BE3940	NAD 83(1990)-	30 13 02.97026(N)	084 02 58.53280(W)	AD() B
BE3940	ELLIP H (09/13/90)	-21.348 (m)		GP() 4 1
BE3940	NAVD 88 (06/02/94)	6.1 (m)	GEOID93 model used	GPS OBS
BE3940	NGVD 29 (09/13/90)	6.4 (m)	FFT MET model used	GPS OBS

BE3940

BE3940.Superseded values are not recommended for survey control.

BE3940

BE3940.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

 BE3940.[See file dsdata.txt](#) to determine how the superseded data were derived.

BE3940

BE3940_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RGU8399946567(NAD 83)

BE3940

BE3940_MARKER: I = METAL ROD

BE3940_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

BE3940_SP_SET: STAINLESS STEEL ROD IN SLEEVE

BE3940_STAMPING: FLGPS 16 1988

BE3940_MARK LOGO: NGS

BE3940_PROJECTION: FLUSH

BE3940_MAGNETIC: N = NO MAGNETIC MATERIAL

BE3940_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

BE3940_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BE3940+SATELLITE: SATELLITE OBSERVATIONS - May , 2003



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BE3940_ROD/PIPE-DEPTH: 5.9 meters

BE3940_SLEEVE-DEPTH : 0.91 meters

BE3940

BE3940	HISTORY	- Date	Condition	Report By
BE3940	HISTORY	- 1988	MONUMENTED	NGS
BE3940	HISTORY	- 19890330	GOOD	
BE3940	HISTORY	- 19890428	GOOD	
BE3940	HISTORY	- 19930203	GOOD	FLDNR
BE3940	HISTORY	- 19990115	GOOD	DCJOHN
BE3940	HISTORY	- 200305	GOOD	CREEI

BE3940

STATION DESCRIPTION

BE3940

BE3940'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988

BE3940'THE STATION IS LOCATED ABOUT 34.92 KM (21.70 MI) SOUTHEAST OF

BE3940'TALLAHASSEE, 16.58 KM (10.30 MI) SOUTH-SOUTHWEST OF WACISSA, 3.06 KM

BE3940'(1.90 MI) NORTH OF U.S. HIGHWAY 98, ALONG STATE ROAD 59. 1.95 KM

BE3940'(1.20 MI) NORTH OF THE JUNCTION OF U.S. HIGHWAY 98 AND 0.89 KM

BE3940'(0.55 MI) NORTH OF THE JUNCTION OF A DIRT-SAND ROAD LEADING EAST.

BE3940'OWNERSHIP--HIGHWAY RIGHT-OF-WAY.

BE3940'TO REACH THE STATION FROM THE INTERSECTION OF COUNTY ROAD 259 AND

BE3940'STATE ROAD 59 IN WACISSA, GO SOUTH FOR 1.13 KM (0.70 MI) ON STATE ROAD

BE3940'59 TO A POINT WHERE STATE ROAD 59 TURNS SHARP RIGHT. TURN RIGHT AND

BE3940'CONTINUE AHEAD FOR 18.27 KM (11.35 MI) ON STATE ROAD 59 TO THE STATION

BE3940'ON RIGHT.

BE3940'STATION CAN ALSO BE REACHED FROM THE JUNCTION OF U.S. HIGHWAY 98 AND

BE3940'STATE ROAD 59, ABOUT 19.31 KM (12.00 MI) SOUTH-SOUTHEAST OF WACISSA,

BE3940'BY GOING NORTH ON STATE ROAD 59 FOR 2.25 KM (1.40 MI) TO A DIRT ROAD

BE3940'RIGHT. CONTINUE AHEAD, NORTH, ON STATE ROAD 59 FOR 0.48 KM (0.30 MI)

BE3940'TO A SET OF 2 30-INCH CONCRETE CULVERTS UNDER THE HIGHWAY WITH 3.04 M

BE3940'(10.0 FT) HEADWALL. CONTINUE AHEAD NORTH, ON STATE ROAD 59 FOR 0.40

BE3940'KM (0.25 MI) TO THE STATION ON THE LEFT.

BE3940'THE STATION IS RECESSED 8 CM BELOW GROUND. LOCATED 8.44 M (27.7 FT)

BE3940'EAST FROM UTILITY POLE NUMBER 5-27386, 8.23 M (27.0 FT) EAST FROM A

BE3940'CARSONITE WITNESS POST AND 5.18 M (17.0 FT) WEST FROM THE APPROXIMATE

BE3940'CENTER OF STATE ROAD 59. NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A

BE3940'5-INCH LOGO CAP.

BE3940'DESCRIBED BY R.L. MALLOY.

BE3940

STATION RECOVERY (1989)

BE3940

BE3940'RECOVERED 1989

BE3940'RECOVERED IN GOOD CONDITION.

BE3940

STATION RECOVERY (1989)

BE3940

BE3940'RECOVERED 1989

BE3940'RECOVERED IN GOOD CONDITION.

BE3940

STATION RECOVERY (1993)

BE3940

BE3940'RECOVERY NOTE BY FL DEPT OF NAT RES 1993 (PBM)

BE3940'THE STATION IS LOCATED ABOUT 31 MI (49.9 KM) WEST OF PERRY AND 8 MI

BE3940'(12.9 KM) EAST OF NEWPORT IN SECTION 17 TOWNSHIP 3 SOUTH RANGE 3 EAST,

BE3940'1.95 MI (3.14 KM) NORTH OF U.S. HIGHWAY 98 ALONG STATE HIGHWAY 59. TO



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BE3940'REACH THE STATION FROM THE U.S. HIGHWAY 98 BRIDGE OVER THE ST. MARKS
BE3940'RIVER AT NEWPORT GO EAST ON U.S. HIGHWAY 98 FOR 7.65 MI (12.31 KM) TO
BE3940'THE JUNCTION OF U.S. HIGHWAY 98 AND STATE HIGHWAY 59, TURN RIGHT AND
BE3940'GO NORTH ON STATE HIGHWAY 59 FOR 1.95 MI (3.14 KM) TO THE STATION ON
BE3940'THE LEFT. THE STATION MAY ALSO BE REACHED FROM THE THE INTERSECTION OF
BE3940'COUNTY ROAD 259 AND STATE HIGHWAY 59 IN WACISSA, GO SOUTH ON STATE
BE3940'HIGHWAY 59 FOR 0.7 MI (1.1 KM) TO A POINT WHERE STATE HIGHWAY 59 TURNS
BE3940'SHARP RIGHT, CONTINUE ON STATE HIGHWAY 59 FOR 10.80 MI (17.38 KM) TO
BE3940'THE STATION ON THE RIGHT. LOCATED 27.7 FT (8.4 M) EAST OF A UTILITY
BE3940'POLE, 27.0 FT (8.2 M) EAST OF A CARSONITE WITNESS POST AND 17.0 FT
BE3940'(5.2 M) WEST OF THE CENTERLINE OF STATE HIGHWAY 59, THE STATION IS
BE3940'RECESSED 0.25 FT (7.62 CM) BELOW GROUND LEVEL.

BE3940

STATION RECOVERY (1999)

BE3940

BE3940'RECOVERY NOTE BY DC JOHNSON ASSOC 1999 (DS)

BE3940'RECOVERED AS DESCRIBED (AG) .

BE3940

STATION RECOVERY (2003)

BE3940

BE3940'RECOVERY NOTE BY CREECH ENGINEERS INC 2003 (DTB)

BE3940'RECOVERY NOTE BY CREECH ENGINEERS, INC. 2003

BE3940'STATION WAS NOT RECOVERED.

BE3940'

BE3940'

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

BD2707 *****

BD2707 CBN - This is a Cooperative Base Network Control Station.

BD2707 DESIGNATION - FLGPS 19

BD2707 PID - BD2707

BD2707 STATE/COUNTY- FL/LAFAYETTE

BD2707 COUNTRY - US

BD2707 USGS QUAD - DAY (1993)

BD2707

*CURRENT SURVEY CONTROL

BD2707

BD2707* NAD 83(2011) POSITION- 30 10 14.08835(N) 083 17 27.72173(W) ADJUSTED

BD2707* NAD 83(2011) ELLIP HT- -2.566 (meters) (06/27/12) ADJUSTED

BD2707* NAD 83(2011) EPOCH - 2010.00

BD2707* [NAVD 88](#) ORTHO HEIGHT - 25.357 (meters) 83.19 (feet) ADJUSTED

BD2707

BD2707 NAD 83(2011) X - 644,737.309 (meters) COMP

BD2707 NAD 83(2011) Y - -5,480,984.846 (meters) COMP

BD2707 NAD 83(2011) Z - 3,186,734.425 (meters) COMP

BD2707 LAPLACE CORR - -0.96 (seconds) DEFLEC12A

BD2707 GEOID HEIGHT - -27.94 (meters) GEOID12A

BD2707 DYNAMIC HEIGHT - 25.323 (meters) 83.08 (feet) COMP

BD2707 MODELED GRAVITY - 979,321.9 (mgal) NAVD 88

BD2707

BD2707 VERT ORDER - SECOND CLASS I

BD2707

BD2707 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

BD2707 Type Horiz Ellip Dist(km)

BD2707 -----

BD2707 NETWORK 0.58 1.14



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2707 -----
BD2707 MEDIAN LOCAL ACCURACY AND DIST (027 points) 0.69 1.23 12.30
BD2707 -----
BD2707 NOTE: Click [here](#) for information on individual local accuracy
BD2707 values and other accuracy information.
BD2707
BD2707
BD2707.The horizontal coordinates were established by GPS observations
BD2707.and adjusted by the National Geodetic Survey in June 2012.
BD2707
BD2707.NAD 83(2011) refers to NAD 83 coordinates where the reference
BD2707.frame has been affixed to the stable North American tectonic plate. See
BD2707.[NA2011](#) for more information. for more information.
BD2707
BD2707.The horizontal coordinates are valid at the epoch date displayed above
BD2707.which is a decimal equivalence of Year/Month/Day.
BD2707
BD2707.The orthometric height was determined by differential leveling and
BD2707.adjusted by the NATIONAL GEODETIC SURVEY
BD2707.in July 2004.
BD2707
BD2707.No vertical observational check was made to the station.
BD2707
BD2707.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BD2707
BD2707.The Laplace correction was computed from DEFLEC12A derived deflections.
BD2707
BD2707.The ellipsoidal height was determined by GPS observations
BD2707.and is referenced to NAD 83.
BD2707
BD2707.The dynamic height is computed by dividing the NAVD 88
BD2707.geopotential number by the normal gravity value computed on the
BD2707.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BD2707.degrees latitude (g = 980.6199 gals.).
BD2707
BD2707.The modeled gravity was interpolated from observed gravity values.
BD2707
BD2707. The following values were computed from the NAD 83(2011) position.
BD2707
BD2707;
BD2707;SPC FL N - North East Units Scale Factor Converg.
BD2707;SPC FL N - 130,373.072 716,440.450 MT 0.99994843 +0 36 27.1
BD2707;SPC FL N - 427,732.32 2,350,521.71 sFT 0.99994843 +0 36 27.1
BD2707;UTM 17 - 3,339,904.748 279,384.665 MT 1.00020051 -1 09 06.8
BD2707
BD2707!
BD2707!SPC FL N - Elev Factor x Scale Factor = Combined Factor
BD2707!SPC FL N - 1.00000040 x 0.99994843 = 0.99994883
BD2707!UTM 17 - 1.00000040 x 1.00020051 = 1.00020091
BD2707
BD2707:
BD2707:SPC FL N - Primary Azimuth Mark Grid Az
BD2707:SPC FL N - FLGPS 19 AZ MK 358 12 48.3
BD2707:UTM 17 - FLGPS 19 AZ MK 359 58 22.2
BD2707
BD2707|-----|
BD2707| PID Reference Object Distance Geod. Az |
BD2707| dddmmss.s |



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2707 | BD2718 FLGPS 19 AZ MK APPROX. 1.3 KM 3584915.4 |

BD2707 |-----|

BD2707

BD2707 SUPERSEDED SURVEY CONTROL

BD2707

BD2707 NAD 83(2007)- 30 10 14.08844(N) 083 17 27.72234(W) AD () 0

BD2707 ELLIP H (02/10/07) -2.542 (m) GP ()

BD2707 NAD 83(1999)- 30 10 14.08863(N) 083 17 27.72183(W) AD () B

BD2707 ELLIP H (05/31/01) -2.646 (m) GP () 5 1

BD2707 NAD 83(1990)- 30 10 14.08776(N) 083 17 27.72155(W) AD () B

BD2707 ELLIP H (09/13/90) -2.635 (m) GP () 4 1

BD2707 NAVD 88 (10/02/98) 25.36 (m) 83.2 (f) LEVELING 3

BD2707 NAVD 88 (02/28/94) 25.4 (m) GEOID93 model used GPS OBS

BD2707 NGVD 29 (09/13/90) 25.6 (m) FFT MET model used GPS OBS

BD2707

BD2707.Superseded values are not recommended for survey control.

BD2707

BD2707.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BD2707.[See file dsdata.txt](#) to determine how the superseded data were derived.

BD2707

BD2707_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP7938439904(NAD 83)

BD2707

BD2707_MARKER: DD = SURVEY DISK

BD2707_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

BD2707_SP_SET: STAINLESS STEEL ROD IN SLEEVE

BD2707_STAMPING: FLGPS 19 1988

BD2707_MARK LOGO: NGS

BD2707_PROJECTION: FLUSH

BD2707_MAGNETIC: N = NO MAGNETIC MATERIAL

BD2707_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

BD2707_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BD2707+SATELLITE: SATELLITE OBSERVATIONS - December 08, 2009

BD2707_ROD/PIPE-DEPTH: 7.7 meters

BD2707_SLEEVE-DEPTH : 0.9 meters

BD2707

BD2707	HISTORY	- Date	Condition	Report By
BD2707	HISTORY	- 1988	MONUMENTED	NGS
BD2707	HISTORY	- 19890406	GOOD	
BD2707	HISTORY	- 19890503	GOOD	
BD2707	HISTORY	- 19920301	GOOD	NGS
BD2707	HISTORY	- 19921112	GOOD	FLDT
BD2707	HISTORY	- 19971120	GOOD	DCJOHN
BD2707	HISTORY	- 19990115	GOOD	DCJOHN
BD2707	HISTORY	- 20091207	GOOD	INDIV
BD2707	HISTORY	- 20091208	GOOD	INDIV

BD2707

BD2707 STATION DESCRIPTION

BD2707

BD2707'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988

BD2707'THE STATION IS LOCATED ABOUT 37.82 KM (23.50 MI) SOUTHEAST OF MADISON,

BD2707'35.57 KM (22.10 MI) SOUTHWEST OF LIVE OAK, ALONG STATE ROAD 53.

BD2707'OWNERSHIP--STATE ROAD RIGHT-OF-WAY.

BD2707'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 27 AND

BD2707'STATE ROAD 51 IN MAYO, GO WEST FOR 14.08 KM (8.75 MI) ON HIGHWAY 27 TO

BD2707'THE INTERSECTION OF STATE ROAD 53. TURN RIGHT AND GO NORTH FOR 4.51



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2707'KM (2.80 MI) ON STATE ROAD 53 TO THE STATION ON RIGHT.
BD2707'THE STATION IS RECESSED 9 CM BELOW GROUND. LOCATED 33.56 M
BD2707'(110.1 FT) SOUTH FROM UTILITY POLE NUMBER G1-02-80-60 WITH TWO
BD2707'TRANSFORMERS, 13.44 M (44.1 FT) EAST FROM THE APPROXIMATE CENTER OF
BD2707'STATE ROAD 53, 3.11 M (10.2 FT) WEST FROM A FENCE LINE AND 1.83 M
BD2707'(6.0 FT) WEST FROM A CARSONITE WITNESS POST. NOTE--ACCESS TO DATUM
BD2707'POINT IS HAD THROUGH A 5-INCH LOGO CAP.
BD2707'DESCRIBED BY R.L. MALLOY.
BD2707
BD2707 STATION RECOVERY (1989)
BD2707
BD2707
BD2707'RECOVERED 1989
BD2707'RECOVERED IN GOOD CONDITION.
BD2707
BD2707 STATION RECOVERY (1989)
BD2707
BD2707
BD2707'RECOVERED 1989
BD2707'RECOVERED IN GOOD CONDITION.
BD2707
BD2707 STATION RECOVERY (1992)
BD2707
BD2707'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992 (RLT)
BD2707'THE STATION IS ABOUT 23.5 MI (37.8 KM) SOUTHEAST OF MADISON, 22.1 MI
BD2707'(35.6 KM) SOUTHWEST OF LIVE OAK ON STATE ROAD 53 IN SECTION 2, T 4 S,
BD2707'R 10 E. OWNERSHIP--STATE RIGHT-OF-WAY. TO REACH THE STATION FROM THE
BD2707'INTERSECTION OF U.S. HIGHWAY 27 AND STATE ROAD 51 IN MAYO, GO WEST ON
BD2707'U.S. HIGHWAY 27 FOR 8.75 MI (14.08 KM) TO THE INTERSECTION OF STATE
BD2707'ROAD 53, TURN RIGHT ON STATE ROAD 53 AND GO NORTH FOR 2.9 MI (4.7 KM)
BD2707'TO THE STATION ON THE RIGHT, RECESSED 9 CM BELOW THE GROUND. ALSO
BD2707'1.65 MI (2.66 KM) SOUTH FROM THE POST OFFICE IN DAY. LOCATED 110.1 FT
BD2707'(33.6 M) SOUTH OF A POWER POLE NUMBER G1-02-80-60 WITH THREE
BD2707'TRANSFORMERS AND A GUY WIRE ATTACHED, 44.1 FT (13.4 M) EAST OF THE
BD2707'CENTERLINE OF STATE ROAD 53, 10.2 FT (3.1 M) WEST OF THE FENCE LINE
BD2707'AND 6.0 FT (1.8 M) WEST OF A CARSONITE WITNESS POST. NOTE ACCESS TO
BD2707'DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
BD2707
BD2707 STATION RECOVERY (1992)
BD2707
BD2707'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1992
BD2707'RECOVERED IN GOOD CONDITION.
BD2707
BD2707 STATION RECOVERY (1997)
BD2707
BD2707
BD2707'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)
BD2707'RECOVERY NOTE BY DC JOHNSON AND ASSOC (CHX) .-- THE STATION WAS
BD2707'RECOVERED AS PREVIOUSLY DESCRIBED.
BD2707
BD2707 STATION RECOVERY (1999)
BD2707
BD2707
BD2707'RECOVERY NOTE BY DC JOHNSON ASSOC 1999 (DS)
BD2707'RECOVERED AS DESCRIBED (AG) .
BD2707
BD2707 STATION RECOVERY (2009)
BD2707
BD2707
BD2707'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2009 (JA)



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2707'RECOVERED IN GOOD CONDITION.

BD2707

BD2707

STATION RECOVERY (2009)

BD2707

BD2707'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2009 (JA)

BD2707'RECOVERED IN GOOD CONDITION.

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

BD2708 *****

BD2708 CBN - This is a Cooperative Base Network Control Station.

BD2708 DESIGNATION - FLGPS 21

BD2708 PID - BD2708

BD2708 STATE/COUNTY- FL/HAMILTON

BD2708 COUNTRY - US

BD2708 USGS QUAD - HILLCOAT (1993)

BD2708

BD2708 *CURRENT SURVEY CONTROL

BD2708

BD2708* NAD 83(2011) POSITION- 30 26 56.82711(N) 082 55 58.99251(W) ADJUSTED

BD2708* NAD 83(2011) ELLIP HT- 26.131 (meters) (06/27/12) ADJUSTED

BD2708* NAD 83(2011) EPOCH - 2010.00

BD2708* [NAVD 88](#) ORTHO HEIGHT - 54.225 (meters) 177.90 (feet) ADJUSTED

BD2708

BD2708 NAD 83(2011) X - 677,055.172 (meters) COMP

BD2708 NAD 83(2011) Y - -5,461,409.118 (meters) COMP

BD2708 NAD 83(2011) Z - 3,213,406.299 (meters) COMP

BD2708 LAPLACE CORR - -0.34 (seconds) DEFLEC12A

BD2708 GEOID HEIGHT - -28.10 (meters) GEOID12A

BD2708 DYNAMIC HEIGHT - 54.155 (meters) 177.67 (feet) COMP

BD2708 MODELED GRAVITY - 979,346.1 (mgal) NAVD 88

BD2708

BD2708 VERT ORDER - SECOND CLASS I

BD2708

BD2708 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

BD2708 Type Horiz Ellip Dist(km)

BD2708 -----

BD2708 NETWORK 0.59 1.29

BD2708 -----

BD2708 MEDIAN LOCAL ACCURACY AND DIST (027 points) 0.60 1.20 18.64

BD2708 -----

BD2708 NOTE: Click [here](#) for information on individual local accuracy

BD2708 values and other accuracy information.

BD2708

BD2708

BD2708.The horizontal coordinates were established by GPS observations

BD2708.and adjusted by the National Geodetic Survey in June 2012.

BD2708

BD2708.NAD 83(2011) refers to NAD 83 coordinates where the reference

BD2708.frame has been affixed to the stable North American tectonic plate. See

BD2708.[NA2011](#) for more information. for more information.

BD2708

BD2708.The horizontal coordinates are valid at the epoch date displayed above

BD2708.which is a decimal equivalence of Year/Month/Day.

BD2708

BD2708.The orthometric height was determined by differential leveling and

BD2708.adjusted by the NATIONAL GEODETIC SURVEY



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2708.in July 2004.

BD2708

BD2708.[Photographs](#) are available for this station.

BD2708

BD2708.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BD2708

BD2708.The Laplace correction was computed from DEFLEC12A derived deflections.

BD2708

BD2708.The ellipsoidal height was determined by GPS observations

BD2708.and is referenced to NAD 83.

BD2708

BD2708.The dynamic height is computed by dividing the NAVD 88

BD2708.geopotential number by the normal gravity value computed on the

BD2708.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

BD2708.degrees latitude (g = 980.6199 gals.).

BD2708

BD2708.The modeled gravity was interpolated from observed gravity values.

BD2708

BD2708. The following values were computed from the NAD 83(2011) position.

BD2708

BD2708;		North	East	Units	Scale Factor	Converg.
BD2708;SPC FL N	-	161,666.545	750,492.737	MT	0.99996048	+0 47 14.8
BD2708;SPC FL N	-	530,400.99	2,462,241.59	sFT	0.99996048	+0 47 14.8
BD2708;UTM 17	-	3,370,140.165	314,389.437	MT	1.00002502	-0 58 47.6
BD2708!	-	Elev Factor	x	Scale Factor	=	Combined Factor
BD2708!SPC FL N	-	0.99999590	x	0.99996048	=	0.99995638
BD2708!UTM 17	-	0.99999590	x	1.00002502	=	1.00002092

BD2708

SUPERSEDED SURVEY CONTROL

BD2708

BD2708	NAD 83(2007)-	30 26 56.82708(N)	082 55 58.99320(W)	AD(	)	0
BD2708	ELLIP H (02/10/07)	26.158 (m)		GP(	)	
BD2708	NAD 83(1999)-	30 26 56.82696(N)	082 55 58.99253(W)	AD(	)	B
BD2708	ELLIP H (05/31/01)	26.080 (m)		GP(	)	5 1
BD2708	NAD 83(1990)-	30 26 56.82623(N)	082 55 58.99240(W)	AD(	)	B
BD2708	ELLIP H (09/13/90)	26.105 (m)		GP(	)	4 1
BD2708	NAVD 88 (03/20/98)	54.22 (m)	177.9 (f)	LEVELING		3
BD2708	NAVD 88 (06/02/94)	54.3 (m)	GEOID93 model used	GPS OBS		
BD2708	NGVD 29 (09/13/90)	54.5 (m)	FFT MET model used	GPS OBS		

BD2708

BD2708.Superseded values are not recommended for survey control.

BD2708

BD2708.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BD2708.[See file dsdata.txt](#) to determine how the superseded data were derived.

BD2708

BD2708_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP1438970140(NAD 83)

BD2708

BD2708_MARKER: F = FLANGE-ENCASED ROD

BD2708_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

BD2708_SP_SET: STAINLESS STEEL ROD IN SLEEVE

BD2708_STAMPING: FLGPS 21 1988

BD2708_MARK LOGO: NGS

BD2708_PROJECTION: FLUSH

BD2708_MAGNETIC: N = NO MAGNETIC MATERIAL



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Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2708_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BD2708_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BD2708+SATELLITE: SATELLITE OBSERVATIONS - November 19, 2008
BD2708_ROD/PIPE-DEPTH: 18.3 meters
BD2708_SLEEVE-DEPTH : 0.9 meters

BD2708

BD2708	HISTORY	- Date	Condition	Report By
BD2708	HISTORY	- 1988	MONUMENTED	NGS
BD2708	HISTORY	- 19890406	GOOD	
BD2708	HISTORY	- 19890512	GOOD	
BD2708	HISTORY	- 19920110	GOOD	FLDNR
BD2708	HISTORY	- 19930403	GOOD	NGS
BD2708	HISTORY	- 19970502	GOOD	DCJOHN
BD2708	HISTORY	- 19971120	GOOD	DCJOHN
BD2708	HISTORY	- 20081119	GOOD	JCLS

BD2708

BD2708

STATION DESCRIPTION

BD2708

BD2708'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988
BD2708'THE STATION IS LOCATED ABOUT 44.26 KM (27.50 MI) EAST OF MADISON, 9.49
BD2708'KM (5.90 MI) SOUTH OF JASPER, AT THE NORTHWEST EDGE OF THE U.S.
BD2708'HIGHWAY 129 OVERPASS OF INTERSTATE HIGHWAY 75. OWNERSHIP--HIGHWAY
BD2708'RIGHT-OF-WAY.
BD2708'TO REACH THE STATION FROM THE CENTERLINE INTERSECTION OF U.S. HIGHWAY
BD2708'129 AND INTERSTATE HIGHWAY 75, ABOUT 9.49 KM (5.90 MI) SOUTH OF
BD2708'JASPER, GO NORTH FOR 0.08 KM (0.05 MI) ON HIGHWAY 129 TO THE EDGE OF
BD2708'OVERPASS AND THE STATION ON LEFT.
BD2708'THE STATION IS RECESSED 10 CM BELOW GROUND. LOCATED 6.98 M (22.9 FT)
BD2708'WEST FROM THE APPROXIMATE CENTER OF HIGHWAY 129, 4.21 M (13.8 FT)
BD2708'NORTH FROM FLDT BENCH MARK I75 P7 IN THE NORTHWEST EDGE OF HEADWALL OF
BD2708'OVERPASS BRIDGE AND 0.91 M (3.0 FT) WEST FROM THE CURB. NOTE--ACCESS
BD2708'TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
BD2708'DESCRIBED BY R.L. MALLOY.

BD2708

BD2708

STATION RECOVERY (1989)

BD2708

BD2708'RECOVERED 1989
BD2708'RECOVERED IN GOOD CONDITION.

BD2708

BD2708

STATION RECOVERY (1989)

BD2708

BD2708'RECOVERED 1989
BD2708'RECOVERED IN GOOD CONDITION.

BD2708

BD2708

STATION RECOVERY (1992)

BD2708

BD2708'RECOVERY NOTE BY FL DEPT OF NAT RES 1992 (VAC)
BD2708'THE STATION IS LOCATED ABOUT 27.5 MI (44.3 KM) EAST OF MADISON, 5.9 MI
BD2708'(9.5 KM) SOUTH OF JASPER, AT THE NORTHWEST END OF THE U.S. HIGHWAY 129
BD2708'OVERPASS OVER INTERSTATE HIGHWAY 75. OWNERSHIP HIGHWAY RIGHT OF WAY.
BD2708'THE STATION IS LOCATED AT THE INTERSECTION OF U.S. 129 AND INTERSTATE
BD2708'HIGHWAY 75 AT THE NORTHERN END OF THE BRIDGE, WEST OF U.S. HIGHWAY
BD2708'129. THE STATION IS RECESSED BELOW THE LEVEL OF THE GROUND. 22.9 FT
BD2708'(7.0 M) WEST OF THE CENTERLINE OF U.S. HIGHWAY 129, 13.8 FT (4.2 M)
BD2708'NORTH OF FLDT BENCH MARK I75 P7 WHICH IS IN THE NORTHWEST CORNER OF



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2708'THE HEADWALL OF THE OVERPASS BRIDGE, 3.0 FT (0.9 M) WEST OF THE CURB
BD2708'AND 6.0 FT (1.8 M) NORTHEAST OF A CARSONITE WITNESS POST.

BD2708

BD2708

STATION RECOVERY (1993)

BD2708

BD2708'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993

BD2708'THE STATION IS LOCATED ABOUT 44.26 KM (27.50 MI) EAST OF MADISON, 9.49

BD2708'KM (5.90 MI) SOUTH OF JASPER, AT THE NORTHWEST EDGE OF THE U.S.

BD2708'HIGHWAY 129 OVERPASS OF INTERSTATE HIGHWAY 75. OWNERSHIP--HIGHWAY

BD2708'RIGHT-OF-WAY.

BD2708'TO REACH THE STATION FROM THE CENTER OF THE INTERSECTION (OVERPASS)OF

BD2708'U.S. HIGHWAY 129 AND INTERSTATE HIGHWAY 75, ABOUT 9.49 KM (5.90 MI)

BD2708'SOUTH OF JASPER, GO NORTH FOR 0.08 KM (0.05 MI) ON HIGHWAY 129 TO THE

BD2708'EDGE OF THE OVERPASS AND THE STATION ON THE LEFT.

BD2708'THE STATION IS RECESSED 10 CM BELOW GROUND. LOCATED 6.98 M

BD2708'(22.90 FT) WEST FROM THE APPROXIMATE CENTERLINE OF U.S. HIGHWAY 129,

BD2708'4.21 M (13.81 FT) NORTH FROM FLORIDA DEPARTMENT OF TRANSPORTATION

BD2708'MARK STAMPED I 75 P7 SET IN THE NORTHWEST EDGE OF CONCRETE GUARDRAIL

BD2708'OF OVERPASS BRIDGE, 0.91 M (2.99 FT) WEST FROM THE CURB.

BD2708'DESCRIBED BY RONNIE L. TAYLOR.

BD2708

BD2708

STATION RECOVERY (1997)

BD2708

BD2708'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)

BD2708'RECOVERY NOTE BY DC JOHNSON ASSOC (CHX) THE STATION WAS RECOVERED AS

BD2708'PREVIOUSLY DESCRIBED.

BD2708

BD2708

STATION RECOVERY (1997)

BD2708

BD2708'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)

BD2708'RECOVERY NOTE BY DC JOHNSON AND ASSOC (CHX) .-- THE STATION WAS

BD2708'RECOVERED AS PREVIOUSLY DESCRIBED.

BD2708

BD2708

STATION RECOVERY (2008)

BD2708

BD2708'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2008 (MRY)

BD2708'RECOVERED IN GOOD CONDITION.

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

BD2753 *****

BD2753 DESIGNATION - FLGPS 71

BD2753 PID - BD2753

BD2753 STATE/COUNTY- FL/MADISON

BD2753 COUNTRY - US

BD2753 USGS QUAD - PINETTA (1993)

BD2753

BD2753 *CURRENT SURVEY CONTROL

BD2753

BD2753* NAD 83(2011) POSITION- 30 33 31.11332(N) 083 21 58.64735(W) ADJUSTED

BD2753* NAD 83(2011) ELLIP HT- 0.943 (meters) (06/27/12) ADJUSTED

BD2753* NAD 83(2011) EPOCH - 2010.00

BD2753* [NAVD 88](#) ORTHO HEIGHT - 28.952 (meters) 94.99 (feet) ADJUSTED

BD2753

BD2753 NAD 83(2011) X - 635,025.710 (meters) COMP

BD2753 NAD 83(2011) Y - -5,460,228.930 (meters) COMP

BD2753 NAD 83(2011) Z - 3,223,854.959 (meters) COMP



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2753 LAPLACE CORR - -1.18 (seconds) DEFLEC12A
BD2753 GEOID HEIGHT - -28.02 (meters) GEOID12A
BD2753 DYNAMIC HEIGHT - 28.914 (meters) 94.86 (feet) COMP
BD2753 MODELED GRAVITY - 979,344.6 (mgal) NAVD 88
BD2753
BD2753 VERT ORDER - SECOND CLASS I
BD2753
BD2753 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
BD2753 Type Horiz Ellip Dist(km)
BD2753 -----
BD2753 NETWORK 0.58 1.10
BD2753 -----
BD2753 MEDIAN LOCAL ACCURACY AND DIST (025 points) 0.69 1.20 16.87
BD2753 -----
BD2753 NOTE: Click [here](#) for information on individual local accuracy
BD2753 values and other accuracy information.
BD2753
BD2753
BD2753.The horizontal coordinates were established by GPS observations
BD2753.and adjusted by the National Geodetic Survey in June 2012.
BD2753
BD2753.NAD 83(2011) refers to NAD 83 coordinates where the reference
BD2753.frame has been affixed to the stable North American tectonic plate. See
BD2753.[NA2011](#) for more information. for more information.
BD2753
BD2753.The horizontal coordinates are valid at the epoch date displayed above
BD2753.which is a decimal equivalence of Year/Month/Day.
BD2753
BD2753.The orthometric height was determined by differential leveling and
BD2753.adjusted by the NATIONAL GEODETIC SURVEY
BD2753.in May 2001.
BD2753
BD2753.No vertical observational check was made to the station.
BD2753
BD2753.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BD2753
BD2753.The Laplace correction was computed from DEFLEC12A derived deflections.
BD2753
BD2753.The ellipsoidal height was determined by GPS observations
BD2753.and is referenced to NAD 83.
BD2753
BD2753.The dynamic height is computed by dividing the NAVD 88
BD2753.geopotential number by the normal gravity value computed on the
BD2753.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BD2753.degrees latitude (g = 980.6199 gals.).
BD2753
BD2753.The modeled gravity was interpolated from observed gravity values.
BD2753
BD2753. The following values were computed from the NAD 83(2011) position.
BD2753
BD2753;
BD2753; North East Units Scale Factor Converg.
BD2753;SPC FL N - 173,314.667 708,764.636 MT 0.99997168 +0 34 11.0
BD2753;SPC FL N - 568,616.54 2,325,338.64 sFT 0.99997168 +0 34 11.0
BD2753;UTM 17 - 3,383,073.824 273,034.414 MT 1.00023553 -1 12 12.9
BD2753



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2753! - Elev Factor x Scale Factor = Combined Factor
BD2753!SPC FL N - 0.99999985 x 0.99997168 = 0.99997153
BD2753!UTM 17 - 0.99999985 x 1.00023553 = 1.00023538

BD2753

BD2753 SUPERSEDED SURVEY CONTROL

BD2753

BD2753 NAD 83(2007) - 30 33 31.11334(N) 083 21 58.64803(W) AD () 0
BD2753 ELLIP H (02/10/07) 0.969 (m) GP ()
BD2753 NAD 83(1999) - 30 33 31.11285(N) 083 21 58.64685(W) AD () B
BD2753 ELLIP H (05/31/01) 0.909 (m) GP () 5 1
BD2753 NAD 83(1994) - 30 33 31.11262(N) 083 21 58.64588(W) AD () B
BD2753 ELLIP H (03/09/95) 0.972 (m) GP () 1 1
BD2753 NAD 83(1990) - 30 33 31.11196(N) 083 21 58.64674(W) AD () B
BD2753 ELLIP H (06/02/94) 0.954 (m) GP () 3 1
BD2753 NAVD 88 (10/02/98) 28.9 (m) GEOID96 model used GPS OBS
BD2753 NAVD 88 (03/09/95) 29.0 (m) UNKNOWN model used GPS OBS
BD2753 NAVD 88 (06/02/94) 28.9 (m) GEOID93 model used GPS OBS

BD2753

BD2753.Superseded values are not recommended for survey control.

BD2753

BD2753.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BD2753.[See file dsdata.txt](#) to determine how the superseded data were derived.

BD2753

BD2753_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP7303483073(NAD 83)

BD2753

BD2753_MARKER: I = METAL ROD

BD2753_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

BD2753_SP_SET: STAINLESS STEEL ROD IN SLEEVE

BD2753_STAMPING: FLGPS 71 1993

BD2753_MARK LOGO: NGS

BD2753_PROJECTION: FLUSH

BD2753_MAGNETIC: 0 = OTHER; SEE DESCRIPTION

BD2753_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD

BD2753+STABILITY: POSITION/ELEVATION WELL

BD2753_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BD2753+SATELLITE: SATELLITE OBSERVATIONS - April 01, 2011

BD2753_ROD/PIPE-DEPTH: 30.2 meters

BD2753_SLEEVE-DEPTH : 1.6 meters

BD2753

BD2753	HISTORY	- Date	Condition	Report By
BD2753	HISTORY	- 1993	MONUMENTED	NGS
BD2753	HISTORY	- 19930313	GOOD	FLDEP
BD2753	HISTORY	- 19940415	GOOD	NGS
BD2753	HISTORY	- 19971120	GOOD	DCJOHN
BD2753	HISTORY	- 19990115	GOOD	DCJOHN
BD2753	HISTORY	- 20090728	GOOD	FLDT
BD2753	HISTORY	- 20110401	GOOD	INDIV

BD2753

BD2753 STATION DESCRIPTION

BD2753

BD2753'DESCRIBED BY NATIONAL GEODETIC SURVEY 1993

BD2753'THE STATION IS LOCATED ABOUT 9.25 KM (5.75 MI) NORTHEAST OF MADISON,

BD2753'6.52 KM (4.05 MI) SOUTHWEST OF PINETTA ALONG STATE HIGHWAY 145, IN

BD2753'SECTION 12, T 1 N, R 9 E. OWNERSHIP--HIGHWAY RIGHT-OF-WAY.

BD2753'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 90 (BASE



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2753'STREET) AND STATE HIGHWAY 145 (DUVAL STREET) IN MADISON, GO NORTH
BD2753'0.30 KM (0.20 MI) ON STATE HIGHWAY 145 TO A STOP SIGN AND A
BD2753'CROSSROAD, TURN RIGHT AND CONTINUE NORTHEAST ALONG STATE HIGHWAY 145
BD2753'FOR FOR 11.91 KM (7.40 MI) TO A DIRT ROAD WEST AND THE STATION ON THE
BD2753'LEFT.

BD2753'THE STATION IS LOCATED 34.4 M (112.9 FT) WEST-NORTHWEST OF THE
BD2753'CENTERLINE OF THE HIGHWAY, 18.6 M (61.0 FT) WEST-NORTHWEST OF A STOP
BD2753'SIGN, 10.9 M (35.8 FT) SOUTHWEST OF THE APPROXIMATE CENTER OF THE
BD2753'DIRT ROAD, 6.2 M (20.3 FT) SOUTH-SOUTHWEST OF A FENCE CORNER, 0.5 M
BD2753'(1.6 FT) EAST-SOUTHEAST OF THE FENCELINE AND 0.5 M (1.6 FT)
BD2753'EAST-SOUTHEAST OF A CARSONITE WITNESS POST.

BD2753

BD2753

STATION RECOVERY (1993)

BD2753

BD2753'RECOVERY NOTE BY FL DEPT OF ENV PRO 1993 (PBM)

BD2753'THE STATION IS ABOUT 5.75 MI (9.25 KM) NORTH OF MADISON, 4.05 MI (6.52
BD2753'KM) SOUTH OF PILNETTA ON STATE HIGHWAY 145 IN SECTION 12, T 1 N, R 9
BD2753'E. TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 90 (BASE
BD2753'STREET) AND STATE HIGHWAY 145 (DUVAL STREET) IN MADISON, GO NORTH ON
BD2753'STATE HIGHWAY 145 FOR 0.2 MI (0.3 KM) TO A SHARP RIGHT TURN, TURN
BD2753'RIGHT AND CONTINUE AHEAD ON STATE HIGHWAY 145 FOR 7.20 MI (11.59 KM)
BD2753'TO A DIRT ROAD WEST AND THE STATION ON THE LEFT. LOCATED 113.0 FT
BD2753'(34.4 M) WEST-NORTHWEST OF THE CENTERLINE OF STATE ROAD 145, 61.0 FT
BD2753'(18.6 M) WEST-NORTHWEST OF A STOP SIGN, 35.7 FT (10.9 M) SOUTHWEST OF
BD2753'THE CENTERLINE OF A DIRT ROAD, 20.4 FT (6.2 M) SOUTH-SOUTHWEST OF A
BD2753'FENCE CORNER, 1.8 FT (0.5 M) EAST-SOUTHEAST OF THE FENCE LINE AND 1.8
BD2753'FT (0.5 M) EAST-SOUTHEAST OF A CARSONITE WITNESS POST. NOTE ACCESS
BD2753'TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.

BD2753

BD2753

STATION RECOVERY (1994)

BD2753

BD2753'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (CFS)

BD2753'THE STATION IS LOCATED ABOUT 9.25 KM (5.75 MI) NORTHEAST OF MADISON,
BD2753'6.52 KM (4.05 MI) SOUTHWEST OF PINETTA ALONG STATE HIGHWAY 145, IN
BD2753'SECTION 12, T 1 N, R 9 E. OWNERSHIP--HIGHWAY RIGHT-OF-WAY. TO REACH
BD2753'THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 90 (BASE STREET) AND
BD2753'STATE HIGHWAY 145 (DUVAL STREET) IN MADISON, GO NORTH 0.30 KM (0.20
BD2753'MI) ON STATE HIGHWAY 145 TO A STOP SIGN AND A CROSSROAD, TURN RIGHT
BD2753'AND CONTINUE NORTHEAST ALONG STATE HIGHWAY 145 FOR FOR 11.91 KM (7.40
BD2753'MI) TO A DIRT ROAD WEST AND THE STATION ON THE LEFT. THE STATION IS
BD2753'LOCATED 34.4 M (112.9 FT) WEST-NORTHWEST OF THE CENTERLINE OF THE
BD2753'HIGHWAY, 18.6 M (61.0 FT) WEST-NORTHWEST OF A STOP SIGN, 10.9 M (35.8
BD2753'FT) SOUTHWEST OF THE APPROXIMATE CENTER OF THE DIRT ROAD, 6.2 M (20.3
BD2753'FT) SOUTH-SOUTHWEST OF A FENCE CORNER, 0.5 M (1.6 FT) EAST-SOUTHEAST
BD2753'OF THE FENCELINE AND 0.5 M (1.6 FT) EAST-SOUTHEAST OF A CARSONITE
BD2753'WITNESS POST.

BD2753

BD2753

STATION RECOVERY (1997)

BD2753

BD2753'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)

BD2753'RECOVERY NOTE BY DC JOHNSON AND ASSOC (CHX) .-- THE STATION WAS
BD2753'RECOVERED AS PREVIOUSLY DESCRIBED.

BD2753

BD2753

STATION RECOVERY (1999)

BD2753



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2753'RECOVERY NOTE BY DC JOHNSON ASSOC 1999 (DS)
BD2753'RECOVERED AS DESCRIBED (AG) .
BD2753
BD2753 STATION RECOVERY (2009)
BD2753
BD2753'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 2009 (JDO)
BD2753'RECOVERED IN GOOD CONDITION.
BD2753
BD2753 STATION RECOVERY (2011)
BD2753
BD2753'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (GDS)
BD2753'RECOVERED BY DEWBERRY
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
AR0299 *****
AR0299 DESIGNATION - I75 H 1
AR0299 PID - AR0299
AR0299 STATE/COUNTY- FL/ALACHUA
AR0299 COUNTRY - US
AR0299 USGS QUAD - ALACHUA (1993)
AR0299
AR0299 *CURRENT SURVEY CONTROL
AR0299
AR0299* NAD 83(1986) POSITION- 29 45 35. (N) 082 24 09. (W) SCALED
AR0299* NAVD 88 ORTHO HEIGHT - 53.239 (meters) 174.67 (feet) ADJUSTED
AR0299
AR0299 GEOID HEIGHT - -27.91 (meters) GEOID12A
AR0299 DYNAMIC HEIGHT - 53.167 (meters) 174.43 (feet) COMP
AR0299 MODELED GRAVITY - 979,295.6 (mgal) NAVD 88
AR0299
AR0299 VERT ORDER - SECOND CLASS 0
AR0299
AR0299.The horizontal coordinates were scaled from a topographic map and have
AR0299.an estimated accuracy of +/- 6 seconds.
AR0299.
AR0299.The orthometric height was determined by differential leveling and
AR0299.adjusted by the NATIONAL GEODETIC SURVEY
AR0299.in June 1991.
AR0299
AR0299.The dynamic height is computed by dividing the NAVD 88
AR0299.geopotential number by the normal gravity value computed on the
AR0299.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AR0299.degrees latitude (g = 980.6199 gals.).
AR0299
AR0299.The modeled gravity was interpolated from observed gravity values.
AR0299
AR0299;
AR0299;SPC FL N - North East Units Estimated Accuracy
AR0299; 86,080. 802,850. MT (+/- 180 meters Scaled)
AR0299
AR0299 SUPERSEDED SURVEY CONTROL
AR0299
AR0299 NGVD 29 (??/??/92) 53.474 (m) 175.44 (f) ADJ UNCH 2 0
AR0299
AR0299.Superseded values are not recommended for survey control.
AR0299
AR0299.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AR0299.[See file dsdata.txt](#) to determine how the superseded data were derived.

AR0299

AR0299_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLN644929(NAD 83)

AR0299

AR0299_MARKER: DD = SURVEY DISK

AR0299_SETTING: 30 = SET IN A LIGHT STRUCTURE

AR0299_SP_SET: CULVERT

AR0299_STAMPING: BM I-75 H1

AR0299_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

AR0299

AR0299 HISTORY - Date Condition Report By

AR0299 HISTORY - UNK MONUMENTED FLDT

AR0299 HISTORY - 1971 GOOD FLDT

AR0299

AR0299 STATION DESCRIPTION

AR0299

AR0299'DESCRIBED BY FLORIDA DEPARTMENT OF TRANSPORTATION 1971

AR0299'2 MI SE FROM HAGUE.

AR0299'ABOUT 1.3 MILES SOUTHEAST ALONG U.S. ROUTE 441 AND 41 FROM THE

AR0299'INTERSECTION OF STATE ROUTE 237 AND U.S. 441 AND 41 AT HAGUE,

AR0299'IN MEDIAN OF U.S. 441 AND 41. 36 FEET WEST OF CENTERLINE OF

AR0299'U.S. 441 AND 41 NORTHBOUND LANE, 44.4 FEET EAST OF U.S. 441 AND

AR0299'41 SOUTHBOUND LANE AND 117 FEET SOUTH OF A METAL POST WITH

AR0299'S-25A RIGHT LANE SIGN. A BRASS DISK SET IN SOUTHEAST CORNER OF

AR0299'CONCRETE HEADWALL FOR DROP INLET IN MEDIAN OF U.S. 441 AND 41.

AR0299'SECTION 27, T 8 S, R 19 E.

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

BD0640 *****

BD0640 DESIGNATION - L 45

BD0640 PID - BD0640

BD0640 STATE/COUNTY- FL/MADISON

BD0640 COUNTRY - US

BD0640 USGS QUAD - LEE (1993)

BD0640

BD0640 *CURRENT SURVEY CONTROL

BD0640

BD0640* NAD 83(2011) POSITION- 30 25 07.50816(N) 083 18 01.15894(W) ADJUSTED

BD0640* NAD 83(2011) ELLIP HT- 0.231 (meters) (06/27/12) ADJUSTED

BD0640* NAD 83(2011) EPOCH - 2010.00

BD0640* [NAVD 88](#) ORTHO HEIGHT - 28.259 (meters) 92.71 (feet) ADJUSTED

BD0640

BD0640 NAD 83(2011) X - 642,229.968 (meters) COMP

BD0640 NAD 83(2011) Y - -5,467,308.258 (meters) COMP

BD0640 NAD 83(2011) Z - 3,210,490.608 (meters) COMP

BD0640 LAPLACE CORR - -0.63 (seconds) DEFLEC12A

BD0640 GEOID HEIGHT - -28.04 (meters) GEOID12A

BD0640 DYNAMIC HEIGHT - 28.222 (meters) 92.59 (feet) COMP

BD0640 MODELED GRAVITY - 979,339.2 (mgal) NAVD 88

BD0640

BD0640 VERT ORDER - FIRST CLASS II

BD0640

BD0640 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

BD0640 Type Horiz Ellip Dist(km)

BD0640 -----

BD0640 NETWORK 1.54 2.29



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD0640 -----
BD0640 MEDIAN LOCAL ACCURACY AND DIST (005 points) 1.10 1.57 7.08
BD0640 -----
BD0640 NOTE: Click [here](#) for information on individual local accuracy
BD0640 values and other accuracy information.
BD0640
BD0640
BD0640.The horizontal coordinates were established by GPS observations
BD0640.and adjusted by the National Geodetic Survey in June 2012.
BD0640
BD0640.NAD 83(2011) refers to NAD 83 coordinates where the reference
BD0640.frame has been affixed to the stable North American tectonic plate. See
BD0640.[NA2011](#) for more information. for more information.
BD0640
BD0640.The horizontal coordinates are valid at the epoch date displayed above
BD0640.which is a decimal equivalence of Year/Month/Day.
BD0640
BD0640.The orthometric height was determined by differential leveling and
BD0640.adjusted by the NATIONAL GEODETIC SURVEY
BD0640.in June 1991.
BD0640
BD0640.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BD0640
BD0640.The Laplace correction was computed from DEFLEC12A derived deflections.
BD0640
BD0640.The ellipsoidal height was determined by GPS observations
BD0640.and is referenced to NAD 83.
BD0640
BD0640.The dynamic height is computed by dividing the NAVD 88
BD0640.geopotential number by the normal gravity value computed on the
BD0640.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BD0640.degrees latitude (g = 980.6199 gals.).
BD0640
BD0640.The modeled gravity was interpolated from observed gravity values.
BD0640
BD0640. The following values were computed from the NAD 83(2011) position.
BD0640
BD0640;
BD0640;SPC FL N - North East Units Scale Factor Converg.
BD0640;SPC FL N - 157,872.498 715,256.447 MT 0.99995803 +0 36 10.3
BD0640;SPC FL N - 517,953.35 2,346,637.19 sFT 0.99995803 +0 36 10.3
BD0640;UTM 17 - 3,367,434.461 279,047.513 MT 1.00020231 -1 09 54.6
BD0640
BD0640!
BD0640!SPC FL N - Elev Factor x Scale Factor = Combined Factor
BD0640!SPC FL N - 0.99999996 x 0.99995803 = 0.99995799
BD0640!UTM 17 - 0.99999996 x 1.00020231 = 1.00020227
BD0640
BD0640
BD0640 SUPERSEDED SURVEY CONTROL
BD0640
BD0640 NAD 83(2007)- 30 25 07.50816(N) 083 18 01.15952(W) AD () 0
BD0640 ELLIP H (02/10/07) 0.251 (m) GP ()
BD0640 NAD 83(1999)- 30 25 07.50789(N) 083 18 01.15874(W) AD () 1
BD0640 ELLIP H (07/06/01) 0.205 (m) GP () 4 2
BD0640 NAD 83(1990)- 30 25 07.50806(N) 083 18 01.15996(W) AD () 1
BD0640 ELLIP H (02/28/94) 0.359 (m) GP () 3 2
BD0640 NAVD 88 (02/28/94) 28.26 (m) 92.7 (f) LEVELING 3



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD0640 NGVD 29 (??/??/92) 28.477 (m) 93.43 (f) ADJ UNCH 1 2
BD0640
BD0640.Superseded values are not recommended for survey control.
BD0640
BD0640.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BD0640.[See file dsdata.txt](#) to determine how the superseded data were derived.
BD0640
BD0640_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP7904767434 (NAD 83)
BD0640
BD0640_MARKER: DB = BENCH MARK DISK
BD0640_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
BD0640_SP_SET: CONCRETE POST
BD0640_STAMPING: L 45
BD0640_MARK LOGO: CGS
BD0640_MAGNETIC: O = OTHER; SEE DESCRIPTION
BD0640_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
BD0640+STABILITY: SURFACE MOTION
BD0640_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BD0640+SATELLITE: SATELLITE OBSERVATIONS - November 09, 1992
BD0640
BD0640 HISTORY - Date Condition Report By
BD0640 HISTORY - 1992 MONUMENTED NGS
BD0640 HISTORY - 1954 GOOD CGS
BD0640 HISTORY - 19921109 GOOD FLDT
BD0640
BD0640 STATION DESCRIPTION
BD0640
BD0640'DESCRIBED BY COAST AND GEODETIC SURVEY 1954
BD0640'7.4 MI SE FROM MADISON.
BD0640'ABOUT 7.45 MILES SOUTHEAST ALONG THE SEABOARD AIR LINE RAILWAY
BD0640'FROM THE STATION AT MADISON, AT LEE, 15 1/2 FEET NORTH OF NORTH
BD0640'RAIL OF MAIN TRACK, 48 FEET EAST-NORTHEAST OF CENTER OF CROSSING
BD0640'OF MAIN TRACK AND STATE HIGHWAY 255, 47 1/2 FEET EAST OF CENTER
BD0640'LINE OF HIGHWAY, 12 1/2 FEET WEST OF SOUTHWEST CORNER OF STATION,
BD0640'21 FEET EAST OF EAST EDGE OF A SIDE WALK, ABOUT 1 FOOT BELOW
BD0640'LEVEL OF TRACK AND SET IN THE TOP OF A CONCRETE POST ABOUT 2
BD0640'INCHES UNDERGROUND.
BD0640
BD0640 STATION RECOVERY (1992)
BD0640
BD0640'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1992
BD0640'RECOVERED IN GOOD CONDITION.
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
AH3820 *****
AH3820 DESIGNATION - LAFAY 3
AH3820 PID - AH3820
AH3820 STATE/COUNTY- FL/LAFAYETTE
AH3820 COUNTRY - US
AH3820 USGS QUAD - DAY (1993)
AH3820
AH3820 *CURRENT SURVEY CONTROL
AH3820
AH3820* NAD 83(2011) POSITION- 30 07 44.74389(N) 083 21 39.89986(W) ADJUSTED
AH3820* NAD 83(2011) ELLIP HT- -0.087 (meters) (06/27/12) ADJUSTED
AH3820* NAD 83(2011) EPOCH - 2010.00



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothern & Tucker, Inc. (GCT)



AH3820* [NAVD 88](#) ORTHO HEIGHT - 27.8 (meters) 91. (feet) GPS OBS
AH3820
AH3820 NAVD 88 orthometric height was determined with geoid model GEOID99
AH3820 GEOID HEIGHT - -27.84 (meters) GEOID99
AH3820 GEOID HEIGHT - -27.87 (meters) GEOID12A
AH3820 NAD 83 (2011) X - 638,303.097 (meters) COMP
AH3820 NAD 83 (2011) Y - -5,484,065.435 (meters) COMP
AH3820 NAD 83 (2011) Z - 3,182,759.045 (meters) COMP
AH3820 LAPLACE CORR - -0.94 (seconds) DEFLEC12A
AH3820
AH3820 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
AH3820 Type Horiz Ellip Dist(km)
AH3820 -----
AH3820 NETWORK 0.64 1.18
AH3820 -----
AH3820 MEDIAN LOCAL ACCURACY AND DIST (009 points) 0.61 1.10 8.97
AH3820 -----
AH3820 NOTE: Click [here](#) for information on individual local accuracy
AH3820 values and other accuracy information.
AH3820
AH3820
AH3820.The horizontal coordinates were established by GPS observations
AH3820.and adjusted by the National Geodetic Survey in June 2012.
AH3820
AH3820.NAD 83(2011) refers to NAD 83 coordinates where the reference
AH3820.frame has been affixed to the stable North American tectonic plate. See
AH3820.[NA2011](#) for more information. for more information.
AH3820
AH3820.The horizontal coordinates are valid at the epoch date displayed above
AH3820.which is a decimal equivalence of Year/Month/Day.
AH3820
AH3820.The orthometric height was determined by GPS observations and a
AH3820.high-resolution geoid model.
AH3820
AH3820.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AH3820
AH3820.The Laplace correction was computed from DEFLEC12A derived deflections.
AH3820
AH3820.The ellipsoidal height was determined by GPS observations
AH3820.and is referenced to NAD 83.
AH3820
AH3820. The following values were computed from the NAD 83(2011) position.
AH3820
AH3820;
AH3820;SPC FL N - North East Units Scale Factor Converg.
AH3820;SPC FL N - 125,705.301 709,739.866 MT 0.99994865 +0 34 20.4
AH3820;SPC FL N - 412,418.14 2,328,538.21 SFT 0.99994865 +0 34 20.4
AH3820;UTM 17 - 3,335,443.612 272,542.128 MT 1.00023834 -1 11 08.4
AH3820
AH3820!
AH3820!SPC FL N - Elev Factor x Scale Factor = Combined Factor
AH3820!SPC FL N - 1.00000001 x 0.99994865 = 0.99994866
AH3820!UTM 17 - 1.00000001 x 1.00023834 = 1.00023835
AH3820
AH3820:
AH3820:SPC FL N - Primary Azimuth Mark Grid Az
AH3820:SPC FL N - LAFAY 4 109 41 18.3
AH3820:UTM 17 - LAFAY 4 111 26 47.1



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothern & Tucker, Inc. (GCT)



AH3820

AH3820

PID	Reference Object	Distance	Geod. Az ddmmss.s
AH3821	LAFAY 4	APPROX. 0.7 KM	1101538.7

AH3820

AH3820

AH3820

SUPERSEDED SURVEY CONTROL

NAD 83 (2007) -	30 07 44.74391 (N)	083 21 39.90052 (W)	AD () 0
ELLIP H (02/10/07)	-0.060 (m)		GP ()
NAD 83 (1999) -	30 07 44.74422 (N)	083 21 39.90046 (W)	AD () 1
ELLIP H (05/31/01)	-0.103 (m)		GP () 4 1
NAD 83 (1990) -	30 07 44.74308 (N)	083 21 39.90012 (W)	AD () 1
ELLIP H (10/02/98)	-0.045 (m)		GP () 3 1
NAVD 88 (10/02/98)	27.8 (m)	GEOID96 model used	GPS OBS

AH3820

AH3820.Superseded values are not recommended for survey control.

AH3820

AH3820.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AH3820.[See file dsdata.txt](#) to determine how the superseded data were derived.

AH3820

AH3820_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP7254235443 (NAD 83)

AH3820

AH3820_MARKER: DD = SURVEY DISK

AH3820_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AH3820_STAMPING: LAFAY 3 1997

AH3820_MARK LOGO: NGS

AH3820_PROJECTION: FLUSH

AH3820_MAGNETIC: N = NO MAGNETIC MATERIAL

AH3820_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AH3820_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AH3820+SATELLITE: SATELLITE OBSERVATIONS - January 15, 1999

AH3820

HISTORY	- Date	Condition	Report By
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HISTORY	- 1997	MONUMENTED	DCJOHN
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HISTORY	- 19990115	GOOD	DCJOHN
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AH3820

AH3820

STATION DESCRIPTION

AH3820

AH3820'DESCRIBED BY DC JOHNSON ASSOC 1997 (CHX)

AH3820'THE STATION IS APPROXIMATELY 3.9 MI (6.3 KM) WEST OF BUCKVILLE, 6.0 MI

AH3820'(9.7 KM) SOUTHWEST OF DAY AND 12.0 MI (19.3 KM) EAST OF PERRY.-- FROM

AH3820'THE INTERSECTION OF US HIGHWAY 27 AND LAFAYETTE COUNTY ROADS 53 AND

AH3820'534, PROCEED WEST ON US HIGHWAY 27 FOR 2.75 MI (4.43 KM) TO AN

AH3820'INTERSECTION WITH LAFAYETTE COUNTY ROAD 348. CONTINUE WESTERLY ON US

AH3820'HIGHWAY 27 FOR 1.3 MI (2.1 KM) TO THE STATION ON THE RIGHT, A BRASS

AH3820'NATIONAL GEODETIC SURVEY DISC SET IN THE TOP OF A 12-INCH DIAMETER

AH3820'CONCRETE MONUMENT RECESSED 0.3 FT (9.1 CM) BELOW THE GROUND. THE

AH3820'STATION IS 35.3 FT (10.8 M) NORTHEAST OF THE CENTERLINE OF US HIGHWAY

AH3820'27 AND 20 FT (6.1 M) SOUTHWEST OF A CARSONITE WITNESS POST.--

AH3820'REFERENCES-- NAIL AND DISC (LB 4514) , SET IN THE EDGE OF PAVEMENT OF

AH3820'US HIGHWAY 27, SOUTH 78 DEGREES WEST AT 40.09 FT (12.22 M) ,-- NORTH

AH3820'84 DEGREES EAST AT 34.82 FT (10.61 M) TO THE NORTHWEST CORNER OF A

AH3820'CONCRETE HEADWALL,-- NAIL AND DISC (LB 4514) , SET IN EDGE OF



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AH3820'PAVEMENT OF US HIGHWAY 27, SOUTH 30 DEGREES EAST AT 25.21 FT (7.68 M)
AH3820'.

AH3820

AH3820

STATION RECOVERY (1999)

AH3820

AH3820'RECOVERY NOTE BY DC JOHNSON ASSOC 1999 (DS)

AH3820'RECOVERED AS DESCRIBED (AG) .

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

AH3809 *****

AH3809 DESIGNATION - LAFAY 14

AH3809 PID - AH3809

AH3809 STATE/COUNTY- FL/LAFAYETTE

AH3809 COUNTRY - US

AH3809 USGS QUAD - MALLORY SWAMP NE (1993)

AH3809

AH3809 *CURRENT SURVEY CONTROL

AH3809

AH3809* NAD 83(2011) POSITION- 29 59 56.90722(N) 083 03 33.54949(W) ADJUSTED

AH3809* NAD 83(2011) ELLIP HT- -9.330 (meters) (06/27/12) ADJUSTED

AH3809* NAD 83(2011) EPOCH - 2010.00

AH3809* [NAVD 88](#) ORTHO HEIGHT - 18.6 (meters) 61. (feet) GPS OBS

AH3809

AH3809 NAVD 88 orthometric height was determined with geoid model GEOID96

AH3809 GEOID HEIGHT - -27.86 (meters) GEOID96

AH3809 GEOID HEIGHT - -27.90 (meters) GEOID12A

AH3809 NAD 83(2011) X - 668,048.588 (meters) COMP

AH3809 NAD 83(2011) Y - -5,487,783.677 (meters) COMP

AH3809 NAD 83(2011) Z - 3,170,286.595 (meters) COMP

AH3809 LAPLACE CORR - -0.07 (seconds) DEFLEC12A

AH3809

AH3809 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

AH3809 Type Horiz Ellip Dist(km)

AH3809 -----

AH3809 NETWORK 0.53 1.02

AH3809 -----

AH3809 MEDIAN LOCAL ACCURACY AND DIST (016 points) 0.57 1.06 11.31

AH3809 -----

AH3809 NOTE: Click [here](#) for information on individual local accuracy

AH3809 values and other accuracy information.

AH3809

AH3809

AH3809.The horizontal coordinates were established by GPS observations

AH3809.and adjusted by the National Geodetic Survey in June 2012.

AH3809

AH3809.NAD 83(2011) refers to NAD 83 coordinates where the reference

AH3809.frame has been affixed to the stable North American tectonic plate. See

AH3809.[NA2011](#) for more information. for more information.

AH3809

AH3809.The horizontal coordinates are valid at the epoch date displayed above

AH3809.which is a decimal equivalence of Year/Month/Day.

AH3809

AH3809.The orthometric height was determined by GPS observations and a

AH3809.high-resolution geoid model.

AH3809

AH3809.The X, Y, and Z were computed from the position and the ellipsoidal ht.



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AH3809

AH3809.The Laplace correction was computed from DEFLEC12A derived deflections.

AH3809

AH3809.The ellipsoidal height was determined by GPS observations

AH3809.and is referenced to NAD 83.

AH3809

AH3809. The following values were computed from the NAD 83(2011) position.

AH3809

AH3809;		North	East	Units	Scale Factor	Converg.
AH3809;SPC FL N	-	111,630.162	738,996.847	MT	0.99995271	+0 43 26.3
AH3809;SPC FL N	-	366,239.96	2,424,525.49	sFT	0.99995271	+0 43 26.3
AH3809;UTM 17	-	3,320,475.469	301,360.165	MT	1.00008684	-1 01 47.9

AH3809

AH3809! - Elev Factor x Scale Factor = Combined Factor

AH3809!SPC FL N - 1.00000147 x 0.99995271 = 0.99995418

AH3809!UTM 17 - 1.00000147 x 1.00008684 = 1.00008831

AH3809

AH3809:		Primary Azimuth Mark	Grid Az
AH3809:SPC FL N	-	LAFAY 13	268 11 29.2
AH3809:UTM 17	-	LAFAY 13	269 56 43.4

AH3809

AH3809	PID	Reference Object	Distance	Geod. Az ddmmss.s
AH3809	AH3808	LAFAY 13	APPROX. 1.1 KM	2685455.5

AH3809

AH3809

SUPERSEDED SURVEY CONTROL

AH3809

AH3809	NAD 83(2007)-	29 59 56.90722(N)	083 03 33.55016(W)	AD() 0
AH3809	ELLIP H (02/10/07)	-9.304 (m)		GP()
AH3809	NAD 83(1999)-	29 59 56.90787(N)	083 03 33.54982(W)	AD() 1
AH3809	ELLIP H (05/31/01)	-9.356 (m)		GP() 4 1
AH3809	NAD 83(1990)-	29 59 56.90674(N)	083 03 33.54947(W)	AD() 1
AH3809	ELLIP H (10/02/98)	-9.314 (m)		GP() 3 1

AH3809

AH3809.Superseded values are not recommended for survey control.

AH3809

AH3809.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AH3809.[See file dsdata.txt](#) to determine how the superseded data were derived.

AH3809

AH3809_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP0136020475(NAD 83)

AH3809

AH3809_MARKER: DD = SURVEY DISK

AH3809_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AH3809_STAMPING: LAFAY 14 1997

AH3809_MARK LOGO: NGS

AH3809_PROJECTION: FLUSH

AH3809_MAGNETIC: N = NO MAGNETIC MATERIAL

AH3809_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AH3809_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AH3809+SATELLITE: SATELLITE OBSERVATIONS - 1997

AH3809

AH3809	HISTORY	- Date	Condition	Report By
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AH3809	HISTORY	- 1997	MONUMENTED	DCJOHN
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USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AH3809

AH3809

STATION DESCRIPTION

AH3809

AH3809'DESCRIBED BY DC JOHNSON ASSOC 1997 (CHX)

AH3809'THE STATION IS APPROXIMATELY 1.2 MI (1.9 KM) SOUTHEAST OF MIDWAY, 7.9

AH3809'MI (12.7 KM) SOUTHEAST OF MAYO AND 8.4 MI (13.5 KM) NORTHWEST OF

AH3809'BRANFORD.-- FROM THE INTERSECTION OF LAFAYETTE COUNTY ROADS 354 AND

AH3809'355, PROCEED EAST ON LAFAYETTE COUNTY ROAD 354 FOR 1.15 MI (1.85 KM)

AH3809'TO THE STATION ON THE LEFT, A BRASS NATIONAL GEODETIC SURVEY DISC SET

AH3809'IN THE TOP OF A 12-INCH DIAMETER CONCRETE MONUMENT RECESSED 0.2 FT

AH3809'(6.1 CM) BELOW THE GROUND. THE STATION IS 0.1 MI (0.2 KM) WEST OF A

AH3809'FIRE TOWER, 39 FT (11.9 M) NORTH OF THE CENTERLINE OF LAFAYETTE COUNTY

AH3809'ROAD 354, 16.9 FT (5.2 M) SOUTH OF A BARBED WIRE FENCE AND 16 FT (4.9

AH3809'M) SOUTH OF A CARSONITE WITNESS POST.-- REFERENCES-- NAIL AND DISC

AH3809'(LB 4514) , SET IN A 8-INCH OAK TREE, SOUTH 39 DEGREES WEST AT 108.79

AH3809'FT (33.16 M) ,-- NAIL AND DISC (LB 4514) , SET IN A 8-INCH PINE TREE,

AH3809'NORTH 57 DEGREES WEST AT 79.96 FT (24.37 M) ,-- NAIL AND DISC (LB

AH3809'4514) , SET IN A 7-INCH PINE TREE, NORTH 50 DEGREES EAST AT 42.25 FT

AH3809'(12.88 M) .

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

BD2726 *****

BD2726 SACS - This is a Secondary Airport Control Station.

BD2726 DESIGNATION - LAKEPORT AZ MK

BD2726 PID - BD2726

BD2726 STATE/COUNTY- FL/COLUMBIA

BD2726 COUNTRY - US

BD2726 USGS QUAD - LAKE CITY EAST (1993)

BD2726

*CURRENT SURVEY CONTROL

BD2726

BD2726* NAD 83(2011) POSITION- 30 10 53.25077(N) 082 34 17.14076(W) ADJUSTED

BD2726* NAD 83(2011) ELLIP HT- 30.509 (meters) (06/27/12) ADJUSTED

BD2726* NAD 83(2011) EPOCH - 2010.00

BD2726* [NAVD 88](#) ORTHO HEIGHT - 58.70 (meters) 192.6 (feet) GPS OBS

BD2726

BD2726 NAD 83(2011) X - 713,448.354 (meters) COMP

BD2726 NAD 83(2011) Y - -5,471,882.471 (meters) COMP

BD2726 NAD 83(2011) Z - 3,187,793.566 (meters) COMP

BD2726 LAPLACE CORR - -0.57 (seconds) DEFLEC12A

BD2726 GEOID HEIGHT - -28.15 (meters) GEOID12A

BD2726

BD2726 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

BD2726 Type Horiz Ellip Dist(km)

BD2726 -----

BD2726 NETWORK 0.40 0.98

BD2726 -----

BD2726 MEDIAN LOCAL ACCURACY AND DIST (010 points) 0.44 0.97 9.91

BD2726 -----

BD2726 NOTE: Click [here](#) for information on individual local accuracy

BD2726 values and other accuracy information.

BD2726

BD2726

BD2726.This mark is at Lake City Airport (31J)

BD2726

BD2726.The horizontal coordinates were established by GPS observations



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2726.and adjusted by the National Geodetic Survey in June 2012.

BD2726

BD2726.NAD 83(2011) refers to NAD 83 coordinates where the reference

BD2726.frame has been affixed to the stable North American tectonic plate. See

BD2726.[NA2011](#) for more information. for more information.

BD2726

BD2726.The horizontal coordinates are valid at the epoch date displayed above

BD2726.which is a decimal equivalence of Year/Month/Day.

BD2726

BD2726.The orthometric height was determined by GPS observations and a

BD2726.high-resolution geoid model.

BD2726

BD2726.GPS derived orthometric heights for airport stations designated as

BD2726.PACS or SACS are published to 2 decimal places. This maintains

BD2726.centimeter relative accuracy between the PACS and SACS. It does

BD2726.not indicate centimeter accuracy relative to other marks which are

BD2726.part of the NAVD 88 network.

BD2726

BD2726.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BD2726

BD2726.The Laplace correction was computed from DEFLEC12A derived deflections.

BD2726

BD2726.The ellipsoidal height was determined by GPS observations

BD2726.and is referenced to NAD 83.

BD2726

BD2726. The following values were computed from the NAD 83(2011) position.

BD2726

BD2726;		North	East	Units	Scale Factor	Converg.
BD2726;SPC FL N	-	132,532.387	785,722.841	MT	0.99994846	+0 58 09.0
BD2726;SPC FL N	-	434,816.67	2,577,825.69	sFT	0.99994846	+0 58 09.0
BD2726;UTM 17	-	3,339,935.924	348,706.451	MT	0.99988240	-0 47 24.6

BD2726

BD2726! Elev Factor x Scale Factor = Combined Factor

BD2726!SPC FL N - 0.99999521 x 0.99994846 = 0.99994367

BD2726!UTM 17 - 0.99999521 x 0.99988240 = 0.99987761

BD2726

BD2726: Primary Azimuth Mark

Grid Az

BD2726:SPC FL N - LAKEPORT 275 33 45.7

BD2726:UTM 17 - LAKEPORT 277 19 19.3

BD2726

BD2726	PID	Reference Object	Distance	Geod. Az
BD2726				dddmss.s
BD2726	BD2712	LAKEPORT	APPROX. 1.2 KM	2763154.7

BD2726

BD2726

BD2726

SUPERSEDED SURVEY CONTROL

BD2726

BD2726 NAD 83(2007) - 30 10 53.25076(N) 082 34 17.14145(W) AD () 0

BD2726 ELLIP H (02/10/07) 30.534 (m) GP ()

BD2726 NAD 83(1999) - 30 10 53.25096(N) 082 34 17.14154(W) AD () 1

BD2726 ELLIP H (05/31/01) 30.542 (m) GP () 4 1

BD2726 ELLIP H (03/27/98) 30.488 (m) GP () 4 2

BD2726 ELLIP H (03/20/98) 30.503 (m) GP () 3 1

BD2726 NAD 83(1990) - 30 10 53.24993(N) 082 34 17.14170(W) AD () 1



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2726 NAVD 88 (03/20/98) 58.67 (m) GEOID96 model used GPS OBS
BD2726 NGVD 29 (02/04/91) 58.96 (m) RAPSU86 model used GPS OBS
BD2726
BD2726.Superseded values are not recommended for survey control.
BD2726
BD2726.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BD2726.[See file dsdata.txt](#) to determine how the superseded data were derived.
BD2726
BD2726_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP4870639935(NAD 83)
BD2726
BD2726_MARKER: I = METAL ROD
BD2726_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+))
BD2726_SP_SET: STAINLESS STEEL ROD IN SLEEVE
BD2726_STAMPING: LAKEPORT AZ MK 1988
BD2726_MARK LOGO: NGS
BD2726_PROJECTION: FLUSH
BD2726_MAGNETIC: I = MARKER IS A STEEL ROD
BD2726_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BD2726_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BD2726+SATELLITE: SATELLITE OBSERVATIONS - May 02, 1997
BD2726_ROD/PIPE-DEPTH: 17.1 meters
BD2726_SLEEVE-DEPTH : 0.9 meters
BD2726
BD2726 HISTORY - Date Condition Report By
BD2726 HISTORY - 1988 MONUMENTED NGS
BD2726 HISTORY - 19890510 GOOD
BD2726 HISTORY - 19951129 GOOD NGS
BD2726 HISTORY - 19970502 GOOD DCJOHN
BD2726
BD2726 STATION DESCRIPTION
BD2726
BD2726'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988
BD2726'THE STATION IS LOCATED ABOUT 6.12 KM (3.80 MI) EAST OF LAKE CITY, AT
BD2726'THE LAKE CITY MUNICIPAL AIRPORT, IN SECTION 36, T 3 S, R 17 E, ON THE
BD2726'SOUTH SIDE OF RUNWAY 10-28, IN THE GRASS MEDIAN BETWEEN RUNWAY 05-23
BD2726'AND AN OLD TAXIWAY. OWNERSHIP--CITY OF LAKE CITY, P.O. BOX 1687, LAKE
BD2726'CITY FL 32056-1687, MRS. BARBARA K. MOORE - AIRPORT AND DOWNTOWN
BD2726'MANAGER, PHONE 904-752-2031. NOTE--PERMISSION MUST BE OBTAINED BEFORE
BD2726'ENTERING AIRPORT.
BD2726'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 90 (DUVAL
BD2726'ST) AND U.S. HIGHWAY 441 (MARION ST) IN LAKE CITY, GO EASTERLY FOR
BD2726'3.22 KM (2.00 MI) ON HIGHWAY 90 TO A FORK. FOLLOW THE LEFT FORK AND
BD2726'GO EAST FOR 2.25 KM (1.40 MI) ON HIGHWAY 90 TO A PAVED DRIVE RIGHT.
BD2726'TURN RIGHT AND GO SOUTH FOR 0.08 KM (0.05 MI) ON THE PAVED DRIVE TO A
BD2726'LOCKED GATE ON THE EAST SIDE OF THE TERMINAL BUILDING. PASS THROUGH
BD2726'GATE, TURN RIGHT AND GO SOUTHWEST FOR 0.56 KM (0.35 MI) ON THE TAXIWAY
BD2726'TO RUNWAY 10-28. CROSS RUNWAY, TURN LEFT AND GO EAST FOR 0.97 KM
BD2726'(0.60 MI) ALONG EDGE OF RUNWAY TO THE NORTHWEST EDGE OF RUNWAY 05-23.
BD2726'CONTINUE STRAIGHT AHEAD AND GO EAST FOR 0.24 KM (0.15 MI) ALONG EDGE
BD2726'OF RUNWAY TO THE STATION ON RIGHT, JUST BEFORE AN OLD TAXIWAY.
BD2726'THE STATION IS RECESSED 11 CM BELOW GROUND. LOCATED 65.23 M
BD2726'(214.0 FT) SOUTH-SOUTHWEST FROM THE APPROXIMATE CENTER OF RUNWAY
BD2726'10-28, 53.74 M (176.3 FT) SOUTHWEST FROM A WHITE RUNWAY LIGHT ON THE
BD2726'WEST SIDE OF OLD TAXIWAY, 44.65 M (146.5 FT) EAST-SOUTHEAST FROM THE
BD2726'SOUTHEAST CORNER OF THE SOUTH ONE OF TWO 1.98 M (6.5 FT) BY 2.74 M



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2726' (9.0 FT) CONCRETE SLABS FLUSH WITH GROUND, 44.20 M (145.0 FT)
BD2726'SOUTH-SOUTHEAST FROM THE THIRD WHITE RUNWAY LIGHT THAT IS EAST FROM
BD2726'RUNWAY 05-23, 34.50 M (113.2 FT) NORTH-NORTHWEST FROM THE APPROXIMATE
BD2726'CENTER OF OLD TAXIWAY, 28.65 M (94.0 FT) SOUTH-SOUTHWEST FROM A BLACK
BD2726'TRIANGULAR METAL SIGN NUMBERED 2 ON THE WEST SIDE AND 6 ON THE EAST
BD2726'SIDE AND 1.83 M (6.0 FT) NORTH FROM A CARSONITE WITNESS POST.
BD2726'NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
BD2726'DESCRIBED BY D.F. CALLAHAN.
BD2726
BD2726 STATION RECOVERY (1989)
BD2726
BD2726
BD2726'RECOVERED 1989
BD2726'RECOVERED IN GOOD CONDITION.
BD2726
BD2726 STATION RECOVERY (1995)
BD2726
BD2726'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (MLB)
BD2726'THE STATION IS LOCATED ABOUT 3.10 MI (4.99 KM) EAST OF LAKE CITY, AT
BD2726'THE LAKE CITY MUNICIPAL AIRPORT, ON THE SOUTH SIDE OF RUNWAY 10-28, IN
BD2726'THE GRASS MEDIAN BETWEEN RUNWAY 05-23 AND AN OLD TAXIWAY.
BD2726'OWNERSHIP--CITY OF LAKE CITY, P.O. BOX 1687, LAKE CITY, FL
BD2726'32056-1687. AIRPORT MANAGER IS FAYE BOWLING, PHONE 904-752-2031.
BD2726'NOTE--PERMISSION MUST BE OBTAINED BEFORE ENTERING AIRPORT. TO REACH
BD2726'THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 90 (DUVAL ST) AND
BD2726'U.S. HIGHWAY 441 (MARION ST) IN LAKE CITY, GO EASTERLY FOR 2.00 MI
BD2726'(3.22 KM) ON HIGHWAY 90 TO A FORK. FOLLOW THE LEFT FORK AND GO EAST
BD2726'FOR 1.40 MI (2.25 KM) ON HIGHWAY 90 TO A PAVED DRIVE RIGHT. TURN
BD2726'RIGHT AND GO SOUTH FOR 0.05 MI (0.08 KM) ON PAVED DRIVE TO A LOCKED
BD2726'GATE ON THE EAST SIDE OF THE TERMINAL BUILDING. PASS THROUGH GATE,
BD2726'TURN RIGHT, AND GO SOUTHWEST FOR 0.35 MI (0.56 KM) ON THE TAXIWAY TO
BD2726'RUNWAY 10-28. CROSS RUNWAY, TURN LEFT AND GO EAST FOR 0.60 MI (0.97
BD2726'KM) PARALLEL WITH RUNWAY 10-28 TO THE NORTHWEST EDGE OF RUNWAY 05-23.
BD2726'CONTINUE AHEAD, CROSSING RUNWAY 05-23, AND GO EAST FOR 0.15 MI, (0.24
BD2726'KM) PARALLELING RUNWAY 10-28, TO THE STATION JUST BEFORE AN OLD
BD2726'TAXIWAY. THE STATION IS 214.0 FT (65.2 M) SOUTH-SOUTHWEST OF THE
BD2726'APPROXIMATE CENTER OF RUNWAY 10-28, 176.3 FT (53.7 M) SOUTHWEST OF A
BD2726'RUNWAY LIGHT ON THE WEST SIDE OF OLD TAXIWAY, 146.5 FT (44.7 M)
BD2726'EAST-SOUTHEAST OF THE SOUTHEAST CORNER OF THE SOUTH ONE OF TWO 6.5 FT
BD2726'(2.0 M) BY 9.0 FT (2.7 M) CONCRETE SLABS FLUSH WITH THE GROUND, 145.0
BD2726'FT (44.2 M) SOUTH-SOUTHEAST OF THE THIRD RUNWAY LIGHT THAT IS EAST OF
BD2726'RUNWAY 05-23, 113.2 FT (34.5 M) NORTH-NORTHWEST OF THE APPROXIMATE
BD2726'CENTER OF OLD TAXIWAY, 94.0 FT (28.7 M) SOUTH-SOUTHWEST OF A BLACK
BD2726'TRIANGULAR METAL SIGN NUMBERED 2 ON THE WEST SIDE AND 6 ON THE EAST
BD2726'SIDE, AND 6.0 FT (1.8 M) NORTH OF A WITNESS POST. NOTE--ACCESS TO
BD2726'DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP. THE STATION IS A
BD2726'SECONDARY AIRPORT CONTROL STATION.
BD2726
BD2726 STATION RECOVERY (1997)
BD2726
BD2726
BD2726'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)
BD2726'RECOVERY NOTE BY DC JOHNSON ASSOC (CHX) THE STATION WAS RECOVERED
BD2726'ASPREVIOUSLY DESCRIBED.
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
BD2291 *****
BD2291 DESIGNATION - N 369



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2291 PID - BD2291
BD2291 STATE/COUNTY- FL/SUWANNEE
BD2291 COUNTRY - US
BD2291 USGS QUAD - WELLBORN (1969)
BD2291
BD2291 *CURRENT SURVEY CONTROL
BD2291
BD2291* NAD 83(1986) POSITION- 30 13 19. (N) 082 49 21. (W) SCALED
BD2291* [NAVD 88](#) ORTHO HEIGHT - 56.934 (meters) 186.79 (feet) ADJUSTED
BD2291
BD2291 GEOID HEIGHT - -28.09 (meters) GEOID12A
BD2291 DYNAMIC HEIGHT - 56.858 (meters) 186.54 (feet) COMP
BD2291 MODELED GRAVITY - 979,318.2 (mgal) NAVD 88
BD2291 OBS GRAVITY - 979,318.1 (mgal) GRAV_OBS
BD2291
BD2291 VERT ORDER - FIRST CLASS II
BD2291
BD2291.The horizontal coordinates were scaled from a topographic map and have
BD2291.an estimated accuracy of +/- 6 seconds.
BD2291.
BD2291.The orthometric height was determined by differential leveling and
BD2291.adjusted by the NATIONAL GEODETIC SURVEY
BD2291.in June 1991.
BD2291
BD2291.The dynamic height is computed by dividing the NAVD 88
BD2291.geopotential number by the normal gravity value computed on the
BD2291.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BD2291.degrees latitude (g = 980.6199 gals.).
BD2291
BD2291.The modeled gravity was interpolated from observed gravity values.
BD2291
BD2291.The observed gravity was obtained from relative gravimeter ties
BD2291.to the IGSN71 gravity network.
BD2291
BD2291;
BD2291;SPC FL N - North East Units Estimated Accuracy
BD2291; 136,640. 761,480. MT (+/- 180 meters Scaled)
BD2291
BD2291 SUPERSEDED SURVEY CONTROL
BD2291
BD2291.No superseded survey control is available for this station.
BD2291
BD2291_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP246447(NAD 83)
BD2291
BD2291_MARKER: DB = BENCH MARK DISK
BD2291_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
BD2291_SP_SET: STAINLESS STEEL ROD
BD2291_STAMPING: N 369 1979
BD2291_PROJECTION: RECESSED 10 CENTIMETERS
BD2291_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BD2291_ROD/PIPE-DEPTH: 4.88 meters
BD2291
BD2291 HISTORY - Date Condition Report By
BD2291 HISTORY - 1979 MONUMENTED NGS
BD2291
BD2291 STATION DESCRIPTION



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2291
BD2291'DESCRIBED BY NATIONAL GEODETIC SURVEY 1979
BD2291'IN WELLBORN.
BD2291'IN WELLBORN SET IN THE NORTHEAST CORNER OF THE JUNCTION OF U.S.
BD2291'HIGHWAY 90 AND COUNTY ROAD 137, 2 FEET SOUTH OF POWER POLE NUMBER
BD2291'B 11, 32.8 FEET EAST OF THE CENTERLINE OF COUNTY ROAD 137, 132 FEET
BD2291'NORTH OF THE CENTERLINE OF THE HIGHWAY.
BD2291'THE MARK IS 2 FT S FROM A WITNESS POST.
BD2291'THE MARK IS ABOVE LEVEL WITH ROAD.

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

DE9140 *****

DE9140 CORs - This is a GPS Continuously Operating Reference Station.
DE9140 DESIGNATION - PERRY CORs ARP
DE9140 CORs_ID - PRRY
DE9140 PID - DE9140
DE9140 STATE/COUNTY- FL/TAYLOR
DE9140 COUNTRY - US
DE9140 USGS QUAD - PERRY (1993)

DE9140
DE9140 *CURRENT SURVEY CONTROL
DE9140

DE9140*	NAD 83(2011) POSITION-	30 04 40.11914(N) 083 34 28.60935(W)	ADJUSTED
DE9140*	NAD 83(2011) ELLIP HT-	-12.931 (meters) (08/??/11)	ADJUSTED
DE9140*	NAD 83(2011) EPOCH	- 2010.00	
DE9140*	NAVD 88 ORTHO HEIGHT	- ** (meters) ** (feet)	
DE9140			
DE9140	NAD 83(2011) X	- 618,178.507 (meters)	COMP
DE9140	NAD 83(2011) Y	- -5,489,228.667 (meters)	COMP
DE9140	NAD 83(2011) Z	- 3,177,834.292 (meters)	COMP
DE9140	GEOID HEIGHT	- -27.77 (meters)	GEOID12A
DE9140	HORZ ORDER	- SPECIAL (CORs)	
DE9140	ELLP ORDER	- SPECIAL (CORs)	
DE9140			
DE9140	FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)		
DE9140	Type	Horiz Ellip Dist(km)	
DE9140	-----		
DE9140	NETWORK	1.93 7.22	
DE9140	-----		
DE9140	NOTE: Click here for information on individual local accuracy		
DE9140	values and other accuracy information.		
DE9140			
DE9140			
DE9140	The coordinates were established by GPS observations		
DE9140	and adjusted by the National Geodetic Survey in August 2011.		
DE9140			
DE9140	NAD 83(2011) refers to NAD 83 coordinates where the reference		
DE9140	frame has been affixed to the stable North American Tectonic Plate.		
DE9140			
DE9140	The coordinates are valid at the epoch date displayed above		
DE9140	which is a decimal equivalence of Year/Month/Day.		
DE9140			
DE9140	The PID for the CORs L1 Phase Center is DI6490.		
DE9140			
DE9140	The XYZ, and position/ellipsoidal ht. are equivalent.		
DE9140			



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



DE9140.The ellipsoidal height was determined by GPS observations
DE9140.and is referenced to NAD 83.
DE9140
DE9140. The following values were computed from the NAD 83(2011) position.
DE9140
DE9140;
DE9140;SPC FL N - North 119,834.402 East 689,211.871 Units MT Scale Factor 0.99994964 Converg. +0 27 54.1
DE9140;SPC FL N - 393,156.70 2,261,189.28 sFT 0.99994964 +0 27 54.1
DE9140
DE9140! - Elev Factor x Scale Factor = Combined Factor
DE9140!SPC FL N - 1.00000203 x 0.99994964 = 0.99995167
DE9140
DE9140 SUPERSEDED SURVEY CONTROL
DE9140
DE9140 NAD 83(CORS)- 30 04 40.11920(N) 083 34 28.60998(W) AD(2002.00) c
DE9140 ELLIP H (12/??/02) -12.951 (m) GP(2002.00) c c
DE9140
DE9140.Superseded values are not recommended for survey control.
DE9140
DE9140.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
DE9140.[See file dsdata.txt](#) to determine how the superseded data were derived.
DE9140
DE9140_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP5183630203(NAD 83)
DE9140
DE9140_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DE9140
DE9140 STATION DESCRIPTION
DE9140
DE9140'DESCRIBED BY NATIONAL GEODETIC SURVEY 2011
DE9140'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DE9140'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DE9140'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DE9140' ftp://cors.ngs.noaa.gov/cors/README.txt
DE9140' ftp://cors.ngs.noaa.gov/cors/coord/coord_08
DE9140' ftp://cors.ngs.noaa.gov/cors/station_log
DE9140' http://geodesy.noaa.gov/CORS
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
AR0022 *****
AR0022 FBN - This is a Federal Base Network Control Station.
AR0022 DESIGNATION - SALEM NW BASE
AR0022 PID - AR0022
AR0022 STATE/COUNTY- FL/TAYLOR
AR0022 COUNTRY - US
AR0022 USGS QUAD - SALEM (1993)
AR0022
AR0022 *CURRENT SURVEY CONTROL
AR0022
AR0022* NAD 83(2011) POSITION- 29 53 09.13038(N) 083 24 42.71870(W) ADJUSTED
AR0022* NAD 83(2011) ELLIP HT- -15.505 (meters) (06/27/12) ADJUSTED
AR0022* NAD 83(2011) EPOCH - 2010.00
AR0022* [NAVD 88](#) ORTHO HEIGHT - 12.294 (meters) 40.33 (feet) ADJUSTED
AR0022
AR0022 NAD 83(2011) X - 634,987.673 (meters) COMP
AR0022 NAD 83(2011) Y - -5,498,010.859 (meters) COMP
AR0022 NAD 83(2011) Z - 3,159,403.171 (meters) COMP



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



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AR0022 LAPLACE CORR      -          0.36  (seconds)                DEFLEC12A
AR0022 GEOID HEIGHT      -          -27.78 (meters)                GEOID12A
AR0022 DYNAMIC HEIGHT    -          12.278 (meters)              40.28  (feet) COMP
AR0022 MODELED GRAVITY    -          979,307.8 (mgal)              NAVD 88
AR0022
AR0022 VERT ORDER        -   FIRST      CLASS I
AR0022
AR0022 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
AR0022 Type                                     Horiz  Ellip  Dist(km)
AR0022 -----
AR0022 NETWORK                                     0.35   0.88
AR0022 -----
AR0022 MEDIAN LOCAL ACCURACY AND DIST (139 points)  0.54   1.33   260.83
AR0022 -----
AR0022 NOTE: Click here for information on individual local accuracy
AR0022 values and other accuracy information.
AR0022
AR0022
AR0022.The horizontal coordinates were established by GPS observations
AR0022.and adjusted by the National Geodetic Survey in June 2012.
AR0022
AR0022.NAD 83(2011) refers to NAD 83 coordinates where the reference
AR0022.frame has been affixed to the stable North American tectonic plate. See
AR0022.NA2011 for more information. for more information.
AR0022
AR0022.The horizontal coordinates are valid at the epoch date displayed above
AR0022.which is a decimal equivalence of Year/Month/Day.
AR0022
AR0022.The orthometric height was determined by differential leveling and
AR0022.adjusted by the NATIONAL GEODETIC SURVEY
AR0022.in June 1991.
AR0022
AR0022.WARNING-GPS observations at this control monument resulted in a GPS
AR0022.derived orthometric height which differed from the leveled height by
AR0022.more than one decimeter (0.1 meter).
AR0022
AR0022.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AR0022
AR0022.The Laplace correction was computed from DEFLEC12A derived deflections.
AR0022
AR0022.The ellipsoidal height was determined by GPS observations
AR0022.and is referenced to NAD 83.
AR0022
AR0022.The dynamic height is computed by dividing the NAVD 88
AR0022.geopotential number by the normal gravity value computed on the
AR0022.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AR0022.degrees latitude (g = 980.6199 gals.).
AR0022
AR0022.The modeled gravity was interpolated from observed gravity values.
AR0022
AR0022. The following values were computed from the NAD 83(2011) position.
AR0022
AR0022;
AR0022;          North          East          Units Scale Factor Converg.
AR0022;SPC FL N      -      98,697.781    705,104.145    MT    0.99996042    +0 32 48.5
AR0022;SPC FL N      -      323,810.97    2,313,329.18    sFT    0.99996042    +0 32 48.5

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USGS – Suwannee River Water Management District

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AR0022;UTM 17 - 3,308,582.522 267,080.474 MT 1.00026940 -1 12 08.3

AR0022

AR0022! - Elev Factor x Scale Factor = Combined Factor

AR0022!SPC FL N - 1.00000244 x 0.99996042 = 0.99996286

AR0022!UTM 17 - 1.00000244 x 1.00026940 = 1.00027184

AR0022

AR0022: Primary Azimuth Mark Grid Az

AR0022:SPC FL N - SALEM NW BASE AZ MK 139 43 49.5

AR0022:UTM 17 - SALEM NW BASE AZ MK 141 28 46.3

AR0022

PID	Reference Object	Distance	Geod. Az ddmmss.s
AR0023	SALEM NW BASE AZ MK		1401638.0
CW5029	SALEM NW BASE RM 2	47.442 METERS	22402
AR0021	SALEM NW BASE RM 1	93.391 METERS	35652

AR0022

AR0022

AR0022 SUPERSEDED SURVEY CONTROL

AR0022

AR0022 NAD 83(2007) - 29 53 09.13038(N) 083 24 42.71937(W) AD () 0

AR0022 ELLIP H (02/10/07) -15.478 (m) GP ()

AR0022 NAD 83(1999) - 29 53 09.13054(N) 083 24 42.71943(W) AD () A

AR0022 ELLIP H (04/12/01) -15.469 (m) GP () 4 1

AR0022 NAD 83(1990) - 29 53 09.12929(N) 083 24 42.71878(W) AD () B

AR0022 ELLIP H (09/13/90) -15.546 (m) GP () 4 1

AR0022 NAD 83(1986) - 29 53 09.14012(N) 083 24 42.72733(W) AD () 1

AR0022 NAD 27 - 29 53 08.35100(N) 083 24 43.21900(W) AD () 1

AR0022 NAVD 88 (07/14/97) 12.29 (m) 40.3 (f) LEVELING 3

AR0022 NAVD 88 (06/02/94) 12.2 (m) GEOID93 model used GPS OBS

AR0022 NAVD 88 (12/19/91) 12.29 (m) 40.3 (f) LEVELING 3

AR0022 NGVD 29 (??/??/92) 12.497 (m) 41.00 (f) ADJ UNCH 1 1

AR0022

AR0022.Superseded values are not recommended for survey control.

AR0022

AR0022.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AR0022.[See file dsdata.txt](#) to determine how the superseded data were derived.

AR0022

AR0022_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RKP6708008582(NAD 83)

AR0022

AR0022_MARKER: DS = TRIANGULATION STATION DISK

AR0022_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AR0022_SP_SET: CONCRETE POST

AR0022_STAMPING: SALEM NORTH WEST BASE 1933

AR0022_MARK LOGO: CGS

AR0022_PROJECTION: FLUSH

AR0022_MAGNETIC: N = NO MAGNETIC MATERIAL

AR0022_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AR0022+STABILITY: SURFACE MOTION

AR0022_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AR0022+SATELLITE: SATELLITE OBSERVATIONS - April 23, 2002

AR0022

AR0022 HISTORY - Date Condition Report By

AR0022 HISTORY - 1933 MONUMENTED CGS

AR0022 HISTORY - 1933 GOOD CGS



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

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AR0022	HISTORY	- 1934	GOOD	FLGS
AR0022	HISTORY	- 1940	GOOD	CGS
AR0022	HISTORY	- 1963	GOOD	CGS
AR0022	HISTORY	- 1967	GOOD	CGS
AR0022	HISTORY	- 1967	GOOD	CGS
AR0022	HISTORY	- 1977	GOOD	NGS
AR0022	HISTORY	- 19881017	GOOD	NGS
AR0022	HISTORY	- 19890414	GOOD	
AR0022	HISTORY	- 19900326	GOOD	FLDT
AR0022	HISTORY	- 19930303	GOOD	NGS
AR0022	HISTORY	- 19951130	SEE DESCRIPTION	NGS
AR0022	HISTORY	- 19971120	GOOD	DCJOHN
AR0022	HISTORY	- 19990115	GOOD	DCJOHN
AR0022	HISTORY	- 19990405	GOOD	FLDT
AR0022	HISTORY	- 20020423	GOOD	DCJOHN

AR0022

AR0022 STATION DESCRIPTION

AR0022

AR0022'DESCRIBED BY COAST AND GEODETIC SURVEY 1933 (HCW)

AR0022'THIS STATION IS ABOUT 19 MILES SE OF PERRY, ABOUT 100 YARDS

AR0022'SE OF SALEM ATLANTIC COAST LINE RAILROAD STATION. IT IS ON THE

AR0022'EXTENSION OF THE NE RAIL FROM THE SE, ABOUT 230 PACES FROM THE

AR0022'POINT OF TANGENCY. THE MARK IS 62.4 FEET WSW OF THE SW RAIL,

AR0022'60 FEET ENE OF THE NEW HIGHWAY GRADE, AND 119 FEET S OF THE E

AR0022'CORNER OF THE FENCE AROUND THE SECTION HOUSES. THE MARK

AR0022'PROJECTS 7 INCHES.

AR0022'

AR0022'SURFACE, UNDERGROUND, REFERENCE, AND AZIMUTH MARKS ARE STANDARD

AR0022'BRONZE DISKS SET IN CONCRETE.

AR0022'

AR0022'REFERENCE MARK NO.1 IS N OF THE STATION, AT THE E CORNER OF THE

AR0022'SECTION TOOL-HOUSE, 46 FEET E OF THE NE RAIL. THE MARK PROJECTS

AR0022'7 INCHES.

AR0022'

AR0022'REFERENCE MARK NO.2 IS WSW OF THE STATION, AND 65 FEET WSW OF

AR0022'THE NEW GRADE. IT PROJECTS 7 INCHES.

AR0022'

AR0022'THE AZIMUTH MARK IS SE OF THE STATION ON THE RAILROAD

AR0022'RIGHT-OF-WAY. TO REACH FROM THE STATION, GO SE ON HIGHWAY 0.5 MILE

AR0022'TO A TRAIL LEADING ACROSS THE RAILROAD. THE MARK IS 55 FEET NW OF

AR0022'THIS ROAD, AND 47.2 FEET NE OF THE NE RAIL. IT PROJECTS 7 INCHES.

AR0022'

AR0022'TO REACH FROM THE COURTHOUSE IN PERRY, GO SE ON U.S. HIGHWAY 19,

AR0022'19.6 MILES TO SALEM, AND THE STATION. THIS DISTANCE WILL BE

AR0022'SOMEWHAT LESS WHEN THE NEW HIGHWAY IS COMPLETED.

AR0022

AR0022 STATION RECOVERY (1933)

AR0022

AR0022'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1933 (CIA)

AR0022'RECOVERED AS DESCRIBED, AND IS 201 METERS (659 FEET) NW OF THE

AR0022'POINT OF TANGENCY, 25.3 METERS (83 FEET) ENE OF NEW GRADED FILL.

AR0022'

AR0022'REFERENCE MARK NO.1, LOCATED AS DESCRIBED, 2 FEET E OF THE SE

AR0022'CORNER OF THE SECTION TOOL-HOUSE.

AR0022'

AR0022'REFERENCE MARK NO.2, RECOVERED AS DESCRIBED, MARK IS 65 FEET
AR0022'INSTEAD OF 96 FEET WSW OF NEW GRADED FILL, AND IS 101 FEET ESE OF
AR0022'STATE HIGHWAY 19.
AR0022'
AR0022'AZIMUTH MARK, RECOVERED AS DESCRIBED, AND IS 785 METERS (2,575
AR0022'FEET) SE OF THE TRIANGULATION STATION.
AR0022'
AR0022'ALL MARKS FOUND TO BE IN EXCELLENT CONDITION.
AR0022
AR0022 STATION RECOVERY (1934)
AR0022
AR0022'RECOVERY NOTE BY FLORIDA GEODETIC SURVEY 1934
AR0022'STATION WAS RECOVERED ACCORDING TO DESCRIPTION GIVEN.
AR0022'
AR0022'REFERENCE AND AZIMUTH MARKS WERE ALL RECOVERED AS DESCRIBED.
AR0022'
AR0022'NOTE--WHERE DESCRIPTION MENTIONS NEW HIGHWAY GRADE THE
AR0022'NEW HIGHWAY HAS BEEN INSTALLED AND OLD HIGHWAY 19 HAS BEEN
AR0022'DISCONTINUED AT THIS LOCATION.
AR0022
AR0022 STATION RECOVERY (1940)
AR0022
AR0022'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1940 (GLA)
AR0022'THE STATION AND ALL MARKS WERE RECOVERED AND FOUND IN GOOD
AR0022'CONDITION. THE NEW DESCRIPTION FOLLOWS--THE STATION IS ABOUT 19
AR0022'MILES SE OF PERRY AND 445 FEET S OF THE S GABLE OF THE ATLANTIC
AR0022'COAST LINE RAILROAD STATION AT SALEM. THE CARBUR POST OFFICE HAS
AR0022'BEEEN MOVED TO THIS TOWN AND IS STILL KNOWN AS THE CARBUR POST
AR0022'OFFICE BUT THE REST OF THE TOWN GOES BY THE NAME OF SALEM. THE
AR0022'MARK IS ON EXTENSION OF THE NE RAIL FROM THE SE, ABOUT 200
AR0022'YARDS FROM THE POINT OF TANGENCY. IT IS 62.3 FEET WSW OF THE
AR0022'SW RAIL, 86 FEET ENE OF THE CENTER OF U.S. PAVED HIGHWAY 19,
AR0022'119 FEET S OF THE E CORNER OF THE FENCE AROUND THE SECTION
AR0022'HOUSES. THE STATION MAR PROJECTS ABOUT 7 INCHES
AR0022'ABOVE THE GROUND AND IS STAMPED SALEM NORTHWEST BASE 1933.
AR0022'
AR0022'REFERENCE MARK NO. 1 IS 306.40 FEET N OF THE STATION, AT
AR0022'THE E CORNER OF THE FENCE AROUND THE SECTION TOOL-HOUSE, AND 46 FEET
AR0022'E OF NE RAIL, IT PROJECTS ABOUT 7 INCHES ABOVE THE GROUND AND IS
AR0022'STAMPED SALEM NORTHWEST BASE NO.1 1933.
AR0022'
AR0022'REFERENCE MARK NO.2 IS 155.65 FEET WSW OF THE STATION
AR0022'AND 65 FEET SW OF U.S. PAVED HIGHWAY 19, IT PROJECTS 7 INCHES
AR0022'ABOVE THE GROUND AND IS STAMPED SALEM NORTHWEST BASE NO.2 1933.
AR0022'
AR0022'THE AZIMUTH MARK IS 0.5 MILE SE OF THE STATION AT THE
AR0022'FIRST SAND ROAD CROSSING THE RAILROAD TRACKS. IT IS 43.2 FEET
AR0022'(NOT 47.2) NE OF THE NE RAIL AND 57 FEET NW OF THE CENTER OF THE
AR0022'SAND ROAD, IT PROJECTS ABOUT 9 INCHES ABOVE THE GROUND AND IS
AR0022'STAMPED SALEM NORTHWEST BASE 1933 AZIMUTH.
AR0022'
AR0022'A 116-FOOT TOWER WAS BUILT AT THIS STATION IN 1933.
AR0022'
AR0022'THE DIRECTIONS WERE NOT CHECKED.
AR0022



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AR0022 STATION RECOVERY (1963)

AR0022

AR0022'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1963 (VRS)

AR0022'STATION MARK, REFERENCE MARKS AND THE AZIMUTH MARK WERE RECOVERED

AR0022'AND FOUND IN GOOD CONDITION. THE CARBOR POST OFFICE AND RAILROAD

AR0022'STATION HAVE BEEN REMOVED.

AR0022'

AR0022'STATION IS LOCATED IN THE COMMUNITY OF SALEM ABOUT 500 FEET

AR0022'SOUTHEAST OF THE SALEM SCHOOL, OPPOSITE THE ROAD LEADING TO THE

AR0022'SALEM LOOKOUT TOWER.

AR0022'

AR0022'STATION MARK IS A STANDARD DISK STAMPED SALEM NORTHWEST BASE

AR0022'1933 SET IN THE TOP OF A CONCRETE MONUMENT PROJECTING 6 INCHES,

AR0022'82 FEET NORTHEAST OF THE CENTER OF U.S. HIGHWAY 19, 63.5 FEET

AR0022'SOUTHWEST OF THE SOUTHWEST RAIL OF THE RAILROAD TRACKS, 87.5 FEET

AR0022'SOUTH OF CONCRETE POST NUMBER 770 ON THE EAST SIDE OF THE TRACKS

AR0022'AND PROJECTING ABOUT 4 FEET, 38 FEET NORTHEAST OF A POWER POLE

AR0022'AND 1.5 FEET NORTHEAST OF A WITNESS SIGN.

AR0022'

AR0022'REFERENCE MARK 1 IS A STANDARD DISK STAMPED SALEM NORTHWEST BASE

AR0022'NO 1 1933, SET IN THE TOP OF A ROUND CONCRETE MONUMENT PROJECTING

AR0022'6 INCHES, 46 FEET EAST OF THE EAST RAIL OF THE RAILROAD.

AR0022'

AR0022'REFERENCE MARK 2 IS A STANDARD DISK STAMPED SALEM NORTHWEST BASE

AR0022'NO 2 1933 SET IN THE TOP OF A ROUND CONCRETE MONUMENT PROJECTING

AR0022'8 INCHES, 65 FEET SOUTHWEST OF THE CENTER OF HIGHWAY 19, 110 FEET

AR0022'SOUTH OF A SIGN SALEM TOWER AND 1.5 FEET NORTHEAST OF A WITNESS

AR0022'SIGN.

AR0022'

AR0022'AZIMUTH MARK IS A STANDARD REFERENCE MARK DISK STAMPED SALEM

AR0022'NORTHWEST BASE 1933 AZIMUTH SET IN THE TOP OF A ROUND CONCRETE

AR0022'MONUMENT PROJECTING 4 INCHES, 43.2 FEET NORTHEAST OF THE NORTHEAST

AR0022'RAIL OF THE RAILROAD, 57 FEET NORTHWEST OF THE CENTER OF A SAND

AR0022'ROAD AND 1.5 FEET NORTH OF A WITNESS SIGN.

AR0022'

AR0022'TO REACH THE AZIMUTH MARK FROM THE STATION, GO SOUTHEAST ON

AR0022'U.S. HIGHWAY 19 FOR 0.5 MILE TO THE FIRST SAND ROAD, TURN LEFT

AR0022'AND GO EAST ON THE SAND ROAD FOR 0.1 MILE TO RAILROAD TRACKS AND

AR0022'THE MARK AS DESCRIBED.

AR0022

AR0022 STATION RECOVERY (1967)

AR0022

AR0022'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1967 (RRG)

AR0022'TO REACH FROM THE JUNCTION OF U.S. HIGHWAY 19 AND U.S. HIGHWAY

AR0022'221 AT PERRY, GO ABOUT 17.85 MILES SOUTHEAST ALONG U.S. HIGHWAY

AR0022'19, TO THE VILLAGE OF SALEM, AND THE STATION. NEAR THE JUNCTION OF

AR0022'A SAND ROAD LEADING TO THE NORTHEAST, 85 FEET NORTHEAST OF THE

AR0022'CENTER LINE OF THE NORTH BOUND LANE OF THE HIGHWAY, 64 FEET

AR0022'SOUTHWEST OF THE SOUTHWEST RAIL OF THE ATLANTIC COAST LINE

AR0022'RAILROAD, 86 FEET SOUTHWEST OF AND ACROSS THE TRACK FROM

AR0022'MILEPOST 770, 516 FEET SOUTHEAST OF THE CENTER LINE OF THE SAND

AR0022'ROAD, 39 FEET EAST OF A POWER LINE POLE, 2 FEET NORTHEAST OF A

AR0022'METAL WITNESS POST, ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE

AR0022'TOP OF A CONCRETE POST PROJECTING 3 INCHES ABOVE THE

AR0022'LEVEL OF THE GROUND. RM 1 IS 206.0 FEET NORTH OF AND



USGS – Suwannee River Water Management District

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AR0022'ACROSS TRACK FROM THE STATION. 253 FEET NORTHWEST OF
AR0022'MILEPOST 770, ABOUT LEVEL WITH THE TRACK AND SET IN THE TOP
AR0022'OF A CONCRETE POST. RM NO. 2 WAS FOUND DESTROYED. THE
AR0022'AZIMUTH MARK WAS FOUND AND IN GOOD CONDITION, IT IS LOCATED ABOUT
AR0022'0.5 MILE SOUTHEAST ALONG THE RAILROAD FROM THE STATION
AR0022'DESCRIBED, 42 FEET NORTHEAST OF THE NORTHEAST RAIL, 63 FEET
AR0022'NORTH OF THE CENTER OF A SAND ROAD CROSSING, 1.5 FEET
AR0022'NORTHWEST OF A METAL WITNESS POST, SET IN THE TOP OF A CONCRETE
AR0022'POST.

AR0022

AR0022 STATION RECOVERY (1967)

AR0022

AR0022'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1967

AR0022'17.8 MI SE FROM PERRY.

AR0022'ABOUT 17.85 MILES SOUTHEAST ALONG U.S. HIGHWAY 19 AND 98 FROM
AR0022'THE JUNCTION OF U.S. HIGHWAY 221 AT PERRY, IN SECTION 10, R 9
AR0022'E, T 7 S, AT THE SMALL VILLAGE OF SALEM, NEAR THE JUNCTION OF
AR0022'A SAND ROAD LEADING NORTHEAST, 85 FEET NORTHEAST OF THE CENTER
AR0022'LINE OF THE NORTHBOUND LANE OF THE HIGHWAY, 64 FEET SOUTHWEST
AR0022'OF THE SOUTHWEST RAIL OF THE ATLANTIC COAST LINE RAILROAD, 86
AR0022'FEET SOUTHWEST OF AND ACROSS THE TRACK FROM MILEPOST 770, 516
AR0022'FEET SOUTHEAST OF THE CENTER LINE OF THE SAND ROAD, 39 FEET
AR0022'EAST OF A POWER LINE POLE, 2 FEET NORTHEAST OF A METAL WITNESS
AR0022'POST, ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE TOP OF A CONCRETE
AR0022'POST PROJECTING 3 INCHES ABOVE THE LEVEL OF THE GROUND.

AR0022

AR0022 STATION RECOVERY (1977)

AR0022

AR0022'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977

AR0022'RECOVERED IN GOOD CONDITION.

AR0022

AR0022 STATION RECOVERY (1988)

AR0022

AR0022'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1988

AR0022'THE STATION WAS RECOVERED IN GOOD CONDITION. THE NORTH SIDE OF THE
AR0022'CONCRETE POST IS CHIPPED, BUT THE STATION DOES NOT APPEAR TO HAVE BEEN
AR0022'DISTURBED.

AR0022'THE STATION IS LOCATED ABOUT 30.58 KM (19.00 MI) SOUTHEAST OF PERRY,
AR0022'ON THE SOUTHEAST SIDE OF THE COMMUNITY OF SALEM, ON THE NORTHEAST SIDE
AR0022'OF U.S. HIGHWAY 19, 98, 27 ALTERNATE, IN SECTION 10, T 7 S, R 4 E.

AR0022'OWNERSHIP--BILL SHAW, SALEM FL 32356, PHONE 904-584-7398.

AR0022'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 19, 98, 27
AR0022'ALTERNATE (BYRON BUTLER PARKWAY) AND U.S. HIGHWAY 221 (JEFFERSON ST)
AR0022'IN PERRY, GO SOUTHEAST FOR 29.05 KM (18.05 MI) ON HIGHWAY 19, 98, 27
AR0022'ALTERNATE TO THE SALEM POST OFFICE ON LEFT. CONTINUE STRAIGHT AHEAD
AR0022'AND GO SOUTHEAST FOR 70 M (229.7 FT) ON HIGHWAY 19, 98, 27 ALTERNATE
AR0022'TO THE STATION ON LEFT.

AR0022'THE STATION PROJECTS 8 CM ABOVE GROUND. LOCATED 68.88 M (226.0 FT)
AR0022'SOUTH-SOUTHEAST FROM THE SOUTH CORNER OF THE POST OFFICE, 25.30 M
AR0022'(83.0 FT) EAST-NORTHEAST FROM THE APPROXIMATE CENTER OF THE NORTHBOUND
AR0022'LANES OF HIGHWAY, 11.89 M (39.0 FT) EAST FROM A JUNCTION UTILITY POLE
AR0022'WITH GUY WIRE, 0.52 M (1.7 FT) WEST-NORTHWEST FROM A CARSONITE WITNESS
AR0022'POST AND 0.46 M (1.5 FT) SOUTH-SOUTHWEST FROM A FLORIDA POWER
AR0022'CARSONITE POST.

AR0022'DESCRIBED BY D.F. CALLAHAN.



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AR0022
AR0022 STATION RECOVERY (1989)
AR0022
AR0022'RECOVERED 1989
AR0022'RECOVERED IN GOOD CONDITION.
AR0022
AR0022 STATION RECOVERY (1990)
AR0022
AR0022'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1990
AR0022'RECOVERED IN GOOD CONDITION.
AR0022
AR0022 STATION RECOVERY (1993)
AR0022
AR0022'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993
AR0022'THE STATION WAS RECOVERED IN GOOD CONDITION. THE NORTH SIDE OF THE
AR0022'CONCRETE POST IS CHIPPED, BUT THE STATION DOES NOT APPEAR TO HAVE
AR0022'BEEN DISTURBED.
AR0022'THE STATION IS LOCATED ABOUT 30.58 KM (19.00 MI) SOUTHEAST OF PERRY,
AR0022'ON THE SOUTHEAST SIDE OF THE COMMUNITY OF SALEM, ON THE NORTHEAST
AR0022'SIDE OF U.S. HIGHWAY 19, 98, 27 ALTERNATE, IN SECTION 10, T 7 S, R 4
AR0022'E. OWNERSHIP--BILL SHAW, SALEM FL 32356, PHONE 904-584-7398.
AR0022'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 19, 98, 27
AR0022'ALTERNATE (BYRON BUTLER PARKWAY) AND U.S. HIGHWAY 221 (JEFFERSON
AR0022'STREET) IN PERRY, GO SOUTHEAST FOR 29.05 KM (18.05 MI) ON HIGHWAY 19,
AR0022'98, 27 ALTERNATE TO THE SALEM POST OFFICE ON LEFT. CONTINUE STRAIGHT
AR0022'AHED AND GO SOUTHEAST FOR 70 M (229.7 FT) ON HIGHWAY 19, 98, 27
AR0022'ALTERNATE TO THE STATION ON LEFT.
AR0022'THE STATION PROJECTS 8 CM ABOVE GROUND. LOCATED 68.88 M (225.98 FT)
AR0022'SOUTH-SOUTHEAST FROM THE SOUTH CORNER OF THE POST OFFICE, 25.30 M
AR0022'(83.01 FT) EAST-NORTHEAST FROM THE APPROXIMATE CENTER OF THE
AR0022'NORTHBOUND LANES OF HIGHWAY, 11.89 M (39.01 FT) EAST FROM A JUNCTION
AR0022'UTILITY POLE WITH GUY WIRE, 0.52 M (1.71 FT) WEST-NORTHWEST FROM A
AR0022'CARSONITE WITNESS POST AND 0.46 M (1.51 FT) SOUTH-SOUTHWEST FROM A
AR0022'FLORIDA POWER CARSONITE POST.
AR0022
AR0022 STATION RECOVERY (1995)
AR0022
AR0022'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (CFS)
AR0022'THE STATION IS LOCATED ABOUT 19.0 MI (30.6 KM) SOUTHEAST OF PERRY, 9.0
AR0022'MI (14.5 KM) NORTH OF TENNILLE, AND ALONG THE EAST SIDE OF U.S.
AR0022'HIGHWAYS 19, ALTERNATE 27, AND 98 IN THE SMALL COMMUNITY OF SALEM AND
AR0022'JUST SOUTH-SOUTHEAST OF THE U.S. POST OFFICE IN SECTION 10, T 7 S, R 4
AR0022'E. OWNERSHIP -- MRS. BILL SHAW, POSTMASTER, P.O. BOX 226, SALEM FL
AR0022'32356. TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAYS 19,
AR0022'ALTERNATE 27, 98 AND U.S. HIGHWAY 221 IN PERRY, GO SOUTHEAST ON U.S.
AR0022'HIGHWAYS 19, ALTERNATE 27 AND 98 FOR 17.8 MI (28.6 KM) TO THE STATION
AR0022'ON THE LEFT ABOUT 70-METERS SOUTH-SOUTHEAST OF THE SOUTHWEST CORNER OF
AR0022'THE POST OFFICE. THE SOIL HAS BUILT UP AROUND THE MARK AND IT ONLY
AR0022'PROJECTS ABOUT 4 CM AT THIS TIME. IT HAS CHIPS OFF THE NORTH SIDE,
AR0022'BUT APPEARS TO BE SOLID. IT IS 68.88 M (225.98 FT) SOUTH-SOUTHEAST
AR0022'FROM THE SOUTHWEST CORNER OF THE POST OFFICE, 25.4 M (83.3 FT)
AR0022'EAST-NORTHEAST FROM THE CENTER OF THE NORTHBOUND LANES OF HIGHWAY,
AR0022'20.2 M (66.3 FT) WEST-SOUTHWEST OF CENTER OF TRACK ROAD IN OLD
AR0022'RAILROAD BED, 12.0 M (39.4 FT) EAST-NORTHEAST OF SOUTH LEG OF 4-FT BY
AR0022'4-FT WOODEN PUBLIC BULLETIN BOARD, 11.75 M (38.55 FT) EAST FROM A



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AR0022'JUNCTION UTILITY POLE WITH GUY WIRE, 0.52 M (1.71 FT) WEST-NORTHWEST
AR0022'FROM A WITNESS POST AND 0.46 M (1.51 FT) SOUTH-SOUTHEAST FROM A
AR0022'FLORIDA POWER WITNESS POST. WJR

AR0022

AR0022 STATION RECOVERY (1997)

AR0022

AR0022'RECOVERY NOTE BY DC JOHNSON ASSOC 1997 (CHX)

AR0022'RECOVERY NOTE BY DC JOHNSON AND ASSOC (CHX) .-- THE STATION WAS

AR0022'RECOVERED AS PREVIOUSLY DESCRIBED.

AR0022

AR0022 STATION RECOVERY (1999)

AR0022

AR0022'RECOVERY NOTE BY DC JOHNSON ASSOC 1999 (DS)

AR0022'RECOVERED AS DESCRIBED (AG) .

AR0022

AR0022 STATION RECOVERY (1999)

AR0022

AR0022'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1999

AR0022'RECOVERED AS DESCRIBED.

AR0022

AR0022 STATION RECOVERY (2002)

AR0022

AR0022'RECOVERY NOTE BY DC JOHNSON ASSOC 2002 (ARG)

AR0022'RECOVERED AS DESCRIBED. (ARG)

AR0022'

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

AH3847 *****

AH3847 DESIGNATION - SUWA 23

AH3847 PID - AH3847

AH3847 STATE/COUNTY- FL/SUWANNEE

AH3847 COUNTRY - US

AH3847 USGS QUAD - MAYO SE (1993)

AH3847

AH3847 *CURRENT SURVEY CONTROL

AH3847

AH3847* NAD 83 (2011) POSITION- 30 05 48.40118(N) 083 03 47.04935(W) ADJUSTED

AH3847* NAD 83 (2011) ELLIP HT- -13.996 (meters) (06/27/12) ADJUSTED

AH3847* NAD 83 (2011) EPOCH - 2010.00

AH3847* [NAVD 88](#) ORTHO HEIGHT - 13.9 (meters) 46. (feet) GPS OBS

AH3847

AH3847 NAVD 88 orthometric height was determined with geoid model GEOID96

AH3847 GEOID HEIGHT - -27.92 (meters) GEOID96

AH3847 GEOID HEIGHT - -27.94 (meters) GEOID12A

AH3847 NAD 83 (2011) X - 667,034.374 (meters) COMP

AH3847 NAD 83 (2011) Y - -5,482,443.517 (meters) COMP

AH3847 NAD 83 (2011) Z - 3,179,653.049 (meters) COMP

AH3847 LAPLACE CORR - 0.07 (seconds) DEFLEC12A

AH3847

AH3847 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)

AH3847 Type Horiz Ellip Dist(km)

AH3847

AH3847 NETWORK 0.58 1.10

AH3847

AH3847 MEDIAN LOCAL ACCURACY AND DIST (009 points) 0.54 0.94 10.87

AH3847



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AH3847

AH3847.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AH3847.[See file dsdata.txt](#) to determine how the superseded data were derived.

AH3847

AH3847_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP0119331304(NAD 83)

AH3847

AH3847_MARKER: DD = SURVEY DISK

AH3847_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AH3847_STAMPING: SUWA 23 1997

AH3847_MARK LOGO: NGS

AH3847_PROJECTION: FLUSH

AH3847_MAGNETIC: N = NO MAGNETIC MATERIAL

AH3847_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AH3847_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AH3847+SATELLITE: SATELLITE OBSERVATIONS - 1997

AH3847

AH3847	HISTORY	- Date	Condition	Report By
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AH3847	HISTORY	- 1997	MONUMENTED	DCJOHN
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AH3847

AH3847 STATION DESCRIPTION

AH3847

AH3847'DESCRIBED BY DC JOHNSON ASSOC 1997 (CHX)

AH3847'THE STATION IS APPROXIMATELY 6.6 MI (10.6 KM) NORTHEAST OF MAYO, 6.6

AH3847'MI (10.6 KM) EAST-SOUTHEAST OF LURAVILLE AND 7.5 MI (12.1 KM)

AH3847'SOUTHWEST OF MCALPIN.-- FROM THE INTERSECTION OF US HIGHWAY 129,

AH3847'SUWANNEE COUNTY ROAD 349 AND 226TH STREET IN ORIEN, PROCEED WESTERLY,

AH3847'THEN NORTHERLY ON SUWANNEE COUNTY ROAD 349 FOR 9.5 MI (15.3 KM) TO THE

AH3847'STATION ON THE LEFT, A BRASS NATIONAL GEODETIC SURVEY DISC SET IN THE

AH3847'TOP OF A 12-INCH DIAMETER CONCRETE MONUMENT RECESSED 0.2 FT (6.1 CM)

AH3847'BELOW THE GROUND. THE STATION IS 0.3 MI (0.5 KM) SOUTH OF THE

AH3847'CENTERLINE OF 192ND STREET, 33 FT (10.1 M) WEST OF THE CENTERLINE OF

AH3847'SUWANNEE COUNTY ROAD 349, 104 FT (31.7 M) NORTH OF THE CENTERLINE OF A

AH3847'DIRT DRIVE, 8.4 FT (2.6 M) EAST OF A BARBED WIRE FENCE AND 8 FT (2.4

AH3847'M) EAST OF A CARSONITE WITNESS POST.-- REFERENCES-- NAIL AND DISC

AH3847'(LB 4514) , SET IN A POWER POLE, SOUTH 6 DEGREES WEST AT 88.08 FT

AH3847'(26.85 M) ,-- NAIL AND DISC (LB 4514) , SET IN A 12-INCH PINE TREE,

AH3847'NORTH 60 DEGREES EAST AT 93.59 FT (28.53 M) ,-- NAIL AND DISC (LB

AH3847'4154) , SET IN A GUY POLE, SOUTH 40 DEGREES EAST AT 107.80 FT (32.86

AH3847'M) .

1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013

AH3850 *****

AH3850 DESIGNATION - SUWA 26

AH3850 PID - AH3850

AH3850 STATE/COUNTY- FL/SUWANNEE

AH3850 COUNTRY - US

AH3850 USGS QUAD - O'BRIEN (1993)

AH3850

AH3850 *CURRENT SURVEY CONTROL

AH3850

AH3850*	NAD 83(2011) POSITION-	30 05 14.49560(N)	082 52 43.67841(W)	ADJUSTED
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AH3850*	NAD 83(2011) ELLIP HT-	-2.415 (meters)	(06/27/12)	ADJUSTED
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AH3850*	NAD 83(2011) EPOCH	- 2010.00		
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AH3850*	NAVD 88 ORTHO HEIGHT	- 25.5 (meters)	84. (feet)	GPS OBS
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AH3850

AH3850	NAVD 88 orthometric height was determined with geoid model	GEOID96
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USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



AH3850	GEOID HEIGHT	-	-27.95	(meters)	GEOID96
AH3850	GEOID HEIGHT	-	-27.96	(meters)	GEOID12A
AH3850	NAD 83(2011) X	-	684,729.189	(meters)	COMP
AH3850	NAD 83(2011) Y	-	-5,480,799.290	(meters)	COMP
AH3850	NAD 83(2011) Z	-	3,178,755.525	(meters)	COMP
AH3850	LAPLACE CORR	-	-0.32	(seconds)	DEFLEC12A

AH3850

AH3850 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
AH3850 Type Horiz Ellip Dist(km)

AH3850

AH3850 NETWORK 0.82 1.29

AH3850

AH3850 MEDIAN LOCAL ACCURACY AND DIST (010 points) 0.87 1.28 9.23

AH3850

AH3850 NOTE: Click [here](#) for information on individual local accuracy
AH3850 values and other accuracy information.

AH3850

AH3850

AH3850.The horizontal coordinates were established by GPS observations

AH3850.and adjusted by the National Geodetic Survey in June 2012.

AH3850

AH3850.NAD 83(2011) refers to NAD 83 coordinates where the reference

AH3850.frame has been affixed to the stable North American tectonic plate. See

AH3850.[NA2011](#) for more information. for more information.

AH3850

AH3850.The horizontal coordinates are valid at the epoch date displayed above

AH3850.which is a decimal equivalence of Year/Month/Day.

AH3850

AH3850.The orthometric height was determined by GPS observations and a

AH3850.high-resolution geoid model.

AH3850

AH3850.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AH3850

AH3850.The Laplace correction was computed from DEFLEC12A derived deflections.

AH3850

AH3850.The ellipsoidal height was determined by GPS observations

AH3850.and is referenced to NAD 83.

AH3850

AH3850. The following values were computed from the NAD 83(2011) position.

AH3850

AH3850; North East Units Scale Factor Converg.

AH3850;SPC FL N - 121,641.908 756,273.238 MT 0.99994940 +0 48 52.9

AH3850;SPC FL N - 399,086.83 2,481,206.45 sFT 0.99994940 +0 48 52.9

AH3850;UTM 17 - 3,329,954.177 318,936.795 MT 1.00000448 -0 56 31.7

AH3850

AH3850! Elev Factor x Scale Factor = Combined Factor

AH3850!SPC FL N - 1.00000038 x 0.99994940 = 0.99994978

AH3850!UTM 17 - 1.00000038 x 1.00000448 = 1.00000486

AH3850

AH3850: Primary Azimuth Mark

Grid Az

AH3850:SPC FL N - SUWA 27 176 28 44.4

AH3850:UTM 17 - SUWA 27 178 14 09.0

AH3850

AH3850|-----|

AH3850| PID Reference Object Distance Geod. Az |



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



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AH3850| dddmmss.s |
AH3850| AH3851 SUWA 27 APPROX. 0.6 KM 1771737.3 |
AH3850|-----|
AH3850
AH3850 SUPERSEDED SURVEY CONTROL
AH3850
AH3850 NAD 83(2007)- 30 05 14.49559(N) 082 52 43.67908(W) AD( ) 0
AH3850 ELLIP H (02/10/07) -2.388 (m) GP( )
AH3850 NAD 83(1999)- 30 05 14.49595(N) 082 52 43.67885(W) AD( ) 1
AH3850 ELLIP H (05/31/01) -2.448 (m) GP( ) 4 1
AH3850 NAD 83(1990)- 30 05 14.49485(N) 082 52 43.67857(W) AD( ) 1
AH3850 ELLIP H (10/02/98) -2.412 (m) GP( ) 3 1
AH3850
AH3850.Superseded values are not recommended for survey control.
AH3850
AH3850.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AH3850.See file dsdata.txt to determine how the superseded data were derived.
AH3850
AH3850_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP1893629954(NAD 83)
AH3850
AH3850_MARKER: DD = SURVEY DISK
AH3850_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AH3850_STAMPING: SUWA 26 1997
AH3850_MARK LOGO: NGS
AH3850_PROJECTION: FLUSH
AH3850_MAGNETIC: N = NO MAGNETIC MATERIAL
AH3850_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AH3850_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AH3850+SATELLITE: SATELLITE OBSERVATIONS - 1997
AH3850
AH3850 HISTORY - Date Condition Report By
AH3850 HISTORY - 1997 MONUMENTED DCJOHN
AH3850
AH3850 STATION DESCRIPTION
AH3850
AH3850'DESCRIBED BY DC JOHNSON ASSOC 1997 (CHX)
AH3850'THE STATION IS APPROXIMATELY 4.8 MI (7.7 KM) NORTHEAST OF OBRIEN, 5.5
AH3850'MI (8.9 KM) SOUTHEAST OF MCALPIN AND 8.3 MI (13.4 KM) NORTHEAST OF
AH3850'BRANFORD.-- FROM THE INTERSECTION OF SUWANNEE COUNTY ROADS 49 AND
AH3850'240, AND 216TH STREET, PROCEED NORTH ON SUWANNEE COUNTY ROAD 49 FOR
AH3850'2.4 MI (3.9 KM) TO AN INTERSECTION WITH 200TH STREET AND THE STATION
AH3850'ON THE LEFT, A BRASS NATIONAL GEODETIC SURVEY DISC SET IN THE TOP OF A
AH3850'12-INCH DIAMETER CONCRETE MONUMENT RECESSED 0.2 FT (6.1 CM) BELOW THE
AH3850'GROUND. THE STATION IS IN THE SOUTHWEST QUADRANT OF THE INTERSECTION,
AH3850'40.9 FT (12.5 M) WEST OF THE CENTERLINE OF SUWANNEE COUNTY ROAD 49,
AH3850'37.8 FT (11.5 M) SOUTH OF THE CENTERLINE OF 200TH STREET, 12 FT (3.7
AH3850'M) EAST OF A BARBED WIRE FENCE AND A CARSONITE WITNESS POST.--
AH3850'REFERENCES-- NAIL AND DISC (LB 4514) , SET IN A POWER POLE, SOUTH 5
AH3850'DEGREES WEST AT 135.55 FT (41.32 M) ,-- NAIL AND DISC (LB 4514) , SET
AH3850'IN A POWER POLE, NORTH 5 DEGREES WEST AT 70.21 FT (21.40 M) ,-- NAIL
AH3850'AND DISC (LB 4514) , SET IN A 11-INCH CHERRY TREE, SOUTH 50 DEGREES
AH3850'EAST AT 115.25 FT (35.13 M) .
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
BD2735 *****
BD2735 DESIGNATION - SUWAPORT AZ MK
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USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2735 PID - BD2735
BD2735 STATE/COUNTY- FL/SUWANNEE
BD2735 COUNTRY - US
BD2735 USGS QUAD - LIVE OAK WEST (1993)
BD2735
BD2735 *CURRENT SURVEY CONTROL
BD2735
BD2735* NAD 83 (2011) POSITION- 30 18 08.42546(N) 083 01 02.68228(W) ADJUSTED
BD2735* NAD 83 (2011) ELLIP HT- 2.983 (meters) (06/27/12) ADJUSTED
BD2735* NAD 83 (2011) EPOCH - 2010.00
BD2735* [NAVD 88](#) ORTHO HEIGHT - 31.044 (meters) 101.85 (feet) ADJUSTED
BD2735
BD2735 NAD 83 (2011) X - 670,011.288 (meters) COMP
BD2735 NAD 83 (2011) Y - -5,470,547.278 (meters) COMP
BD2735 NAD 83 (2011) Z - 3,199,356.550 (meters) COMP
BD2735 LAPLACE CORR - -0.25 (seconds) DEFLEC12A
BD2735 GEOID HEIGHT - -28.06 (meters) GEOID12A
BD2735 DYNAMIC HEIGHT - 31.003 (meters) 101.72 (feet) COMP
BD2735 MODELED GRAVITY - 979,333.6 (mgal) NAVD 88
BD2735
BD2735 VERT ORDER - SECOND CLASS I
BD2735
BD2735 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
BD2735 Type Horiz Ellip Dist(km)
BD2735 -----
BD2735 NETWORK 1.46 2.06
BD2735 -----
BD2735 MEDIAN LOCAL ACCURACY AND DIST (001 points) 1.23 1.08 0.59
BD2735 -----
BD2735 NOTE: Click [here](#) for information on individual local accuracy
BD2735 values and other accuracy information.
BD2735
BD2735
BD2735.This mark is at Live Oak Airport (24J)
BD2735
BD2735.The horizontal coordinates were established by GPS observations
BD2735.and adjusted by the National Geodetic Survey in June 2012.
BD2735
BD2735.NAD 83(2011) refers to NAD 83 coordinates where the reference
BD2735.frame has been affixed to the stable North American tectonic plate. See
BD2735.[NA2011](#) for more information. for more information.
BD2735
BD2735.The horizontal coordinates are valid at the epoch date displayed above
BD2735.which is a decimal equivalence of Year/Month/Day.
BD2735
BD2735.The orthometric height was determined by differential leveling and
BD2735.adjusted by the NATIONAL GEODETIC SURVEY
BD2735.in July 2004.
BD2735
BD2735.No vertical observational check was made to the station.
BD2735
BD2735.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BD2735
BD2735.The Laplace correction was computed from DEFLEC12A derived deflections.
BD2735



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2735.The ellipsoidal height was determined by GPS observations
BD2735.and is referenced to NAD 83.

BD2735

BD2735.The dynamic height is computed by dividing the NAVD 88
BD2735.geopotential number by the normal gravity value computed on the
BD2735.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BD2735.degrees latitude (g = 980.6199 gals.).

BD2735

BD2735.The modeled gravity was interpolated from observed gravity values.

BD2735

BD2735. The following values were computed from the NAD 83(2011) position.

BD2735

BD2735;		North	East	Units	Scale Factor	Converg.
BD2735;SPC FL N	-	145,288.639	742,602.838	MT	0.99995120	+0 44 42.1
BD2735;SPC FL N	-	476,667.81	2,436,356.14	sFT	0.99995120	+0 44 42.1
BD2735;UTM 17	-	3,354,011.649	305,997.997	MT	1.00006434	-1 01 05.6

BD2735

BD2735!		Elev Factor	x	Scale Factor	=	Combined Factor
BD2735!SPC FL N	-	0.99999953	x	0.99995120	=	0.99995073
BD2735!UTM 17	-	0.99999953	x	1.00006434	=	1.00006387

BD2735

BD2735:		Primary Azimuth Mark	Grid Az
BD2735:SPC FL N	-	SUWAPORT	244 44 16.4
BD2735:UTM 17	-	SUWAPORT	246 30 04.1

BD2735

BD2735	PID	Reference Object	Distance	Geod. Az
BD2735				ddmmss.s
BD2735	BD2714	SUWAPORT	APPROX. 0.6 KM	2452858.5

BD2735

BD2735 SUPERSEDED SURVEY CONTROL

BD2735

BD2735	NAD 83(2007)-	30 18 08.42546(N)	083 01 02.68296(W)	AD()	0
BD2735	ELLIP H (02/10/07)	3.010 (m)		GP()	
BD2735	NAD 83(1999)-	30 18 08.42568(N)	083 01 02.68267(W)	AD()	1
BD2735	ELLIP H (12/13/01)	2.927 (m)		GP()	5 1
BD2735	NAD 83(1990)-	30 18 08.42482(N)	083 01 02.68247(W)	AD()	1
BD2735	NGVD 29 (02/04/91)	31.4 (m)	RAPSU86 model used	GPS OBS	

BD2735

BD2735.Superseded values are not recommended for survey control.

BD2735

BD2735.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BD2735.[See file dsdata.txt](#) to determine how the superseded data were derived.

BD2735

BD2735_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP0599754011(NAD 83)

BD2735

BD2735_MARKER: F = FLANGE-ENCASED ROD

BD2735_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

BD2735_SP_SET: STAINLESS STEEL ROD IN SLEEVE

BD2735_STAMPING: SUWAPORT AZ MK 1988

BD2735_MARK LOGO: NGS

BD2735_PROJECTION: FLUSH

BD2735_MAGNETIC: N = NO MAGNETIC MATERIAL

BD2735_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD2735_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BD2735+SATELLITE: SATELLITE OBSERVATIONS - April 08, 2012

BD2735_ROD/PIPE-DEPTH: 8.5 meters

BD2735_SLEEVE-DEPTH : 0.91 meters

BD2735

BD2735	HISTORY	- Date	Condition	Report By
BD2735	HISTORY	- 1988	MONUMENTED	NGS
BD2735	HISTORY	- 19890510	GOOD	
BD2735	HISTORY	- 19920123	GOOD	FLDNR
BD2735	HISTORY	- 20120408	GOOD	MAEC
BD2735	HISTORY	- 20120408	GOOD	MAEC

BD2735

BD2735 STATION DESCRIPTION

BD2735

BD2735'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988

BD2735'THE STATION IS LOCATED ABOUT 3.22 KM (2.00 MI) WEST OF LIVE OAK, AT
BD2735'THE SUWANNEE COUNTY AIRPORT, ON THE EASTERN PART OF AIRPORT PROPERTY.

BD2735'OWNERSHIP--COUNTY OF SUWANNEE, BOARD OF COUNTY COMMISSIONERS,
BD2735'COURTHOUSE, LIVE OAK FL 32060, DWIGHT STANSEL - AIRPORT MANAGER, ROUTE
BD2735'7 BOX 474, LIVE OAK FL 32060, PHONE 904-362-2617. NOTE--PERMISSION
BD2735'MUST BE OBTAINED BEFORE ENTERING AIRPORT.

BD2735'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 90 (HOWARD
BD2735'ST) AND U.S. HIGHWAY 129 (OHIO AVE) IN LIVE OAK, GO NORTHWEST FOR 3.86
BD2735'KM (2.40 MI) ON HIGHWAY 90 TO A PAVED ROAD LEFT. TURN LEFT AND GO
BD2735'SOUTHERLY FOR 0.80 KM (0.50 MI) ON THE PAVED ROAD TO A PAVED
BD2735'CROSSROAD. CONTINUE STRAIGHT AHEAD AND GO SOUTHERLY FOR 0.16 KM
BD2735'(0.10 MI) ON THE PAVED ROAD TO A CURVE RIGHT, SUWANNEE AVIATION
BD2735'STRAIGHT AHEAD. BEAR RIGHT AND GO WESTERLY FOR 0.08 KM (0.05 MI) ON
BD2735'THE PAVED ROAD TO A GATE. PASS THROUGH GATE AND CONTINUE WESTERLY FOR
BD2735'ABOUT 20 M (65.6 FT) ON THE PAVED ROAD, THEN TURN LEFT AND GO
BD2735'SOUTHERLY FOR 0.16 KM (0.10 MI) ON THE ASPHALT APRON AND RAMP TO
BD2735'RUNWAY 07-25. CROSS RUNWAY, TURN LEFT AND GO EAST-NORTHEAST FOR 0.48
BD2735'KM (0.30 MI) ALONG THE EDGE OF RUNWAY TO THE END OF RUNWAY. CONTINUE
BD2735'AHEAD AND GO EAST FOR 0.08 KM (0.05 MI) TO THE STATION.

BD2735'THE STATION IS RECESSED 11 CM BELOW GROUND. LOCATED 97.38 M
BD2735'(319.5 FT) EAST FROM THE EAST CORNER OF RUNWAY, 50.84 M (166.8 FT)
BD2735'SOUTH-SOUTHWEST FROM A BRACED FENCE POST IN BARBED WIRE FENCE LINE,
BD2735'39.32 M (129.0 FT) SOUTH-SOUTHEAST FROM THE PROLONGATION OF
BD2735'APPROXIMATE CENTER OF RUNWAY, 34.44 M (113.0 FT) NORTH-NORTHWEST FROM
BD2735'A MULTI-FORKED OAK TREE AND 10.66 M (35.0 FT) WEST FROM A CARSONITE
BD2735'WITNESS POST IN BARBED WIRE FENCE LINE. NOTE--ACCESS TO DATUM POINT
BD2735'IS HAD THROUGH A 5-INCH LOGO CAP.

BD2735'DESCRIBED BY D.F. CALLAHAN.

BD2735

BD2735 STATION RECOVERY (1989)

BD2735

BD2735'RECOVERED 1989

BD2735'RECOVERED IN GOOD CONDITION.

BD2735

BD2735 STATION RECOVERY (1992)

BD2735

BD2735'RECOVERY NOTE BY FL DEPT OF NAT RES 1992 (VAC)

BD2735'RECOVERED AS DESCRIBED.

BD2735

BD2735 STATION RECOVERY (2012)



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BD2735
BD2735'RECOVERY NOTE BY MA ENGINEERING CONSULT INC 2012
BD2735'RECOVERED AS DESCRIBED
BD2735
BD2735
STATION RECOVERY (2012)
BD2735
BD2735'RECOVERY NOTE BY MA ENGINEERING CONSULT INC 2012 (MAE)
BD2735'PART OF MONUMENT HAS BROKEN OFF, OTHERWISE RECOVERED AS DESCRIBED.
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2013
BD0832 *****
BD0832 CBN - This is a Cooperative Base Network Control Station.
BD0832 DESIGNATION - U 151
BD0832 PID - BD0832
BD0832 STATE/COUNTY- FL/SUWANNEE
BD0832 COUNTRY - US
BD0832 USGS QUAD - LIVE OAK EAST (1993)
BD0832
BD0832 *CURRENT SURVEY CONTROL
BD0832
BD0832*NAD 83(2011) POSITION- 30 16 40.94914(N) 082 56 31.31982(W) ADJUSTED
BD0832*NAD 83(2011) ELLIP HT- 4.656 (meters) (06/27/12) ADJUSTED
BD0832*NAD 83(2011) EPOCH - 2010.00
BD0832*NAVD 88 ORTHO HEIGHT - 32.735 (meters) 107.40 (feet) ADJUSTED
BD0832
BD0832 NAD 83(2011) X - 677,374.891 (meters) COMP
BD0832 NAD 83(2011) Y - -5,471,010.872 (meters) COMP
BD0832 NAD 83(2011) Z - 3,197,031.414 (meters) COMP
BD0832 LAPLACE CORR - -0.54 (seconds) DEFLEC12A
BD0832 GEOID HEIGHT - -28.08 (meters) GEOID12A
BD0832 DYNAMIC HEIGHT - 32.692 (meters) 107.26 (feet) COMP
BD0832 MODELED GRAVITY - 979,329.8 (mgal) NAVD 88
BD0832
BD0832 VERT ORDER - FIRST CLASS II
BD0832
BD0832 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
BD0832 Type Horiz Ellip Dist(km)
BD0832 -----
BD0832 NETWORK 0.49 0.98
BD0832 -----
BD0832 MEDIAN LOCAL ACCURACY AND DIST (019 points) 0.49 0.90 12.04
BD0832 -----
BD0832 NOTE: Click here for information on individual local accuracy
BD0832 values and other accuracy information.
BD0832
BD0832
BD0832.The horizontal coordinates were established by GPS observations
BD0832.and adjusted by the National Geodetic Survey in June 2012.
BD0832
BD0832.NAD 83(2011) refers to NAD 83 coordinates where the reference
BD0832.frame has been affixed to the stable North American tectonic plate. See
BD0832.NA2011 for more information. for more information.
BD0832
BD0832.The horizontal coordinates are valid at the epoch date displayed above
BD0832.which is a decimal equivalence of Year/Month/Day.
BD0832
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USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD0832.The orthometric height was determined by differential leveling and
BD0832.adjusted by the NATIONAL GEODETIC SURVEY
BD0832.in June 1991.

BD0832

BD0832.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BD0832

BD0832.The Laplace correction was computed from DEFLEC12A derived deflections.

BD0832

BD0832.The ellipsoidal height was determined by GPS observations

BD0832.and is referenced to NAD 83.

BD0832

BD0832.The dynamic height is computed by dividing the NAVD 88

BD0832.geopotential number by the normal gravity value computed on the

BD0832.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

BD0832.degrees latitude (g = 980.6199 gals.).

BD0832

BD0832.The modeled gravity was interpolated from observed gravity values.

BD0832

BD0832. The following values were computed from the NAD 83(2011) position.

BD0832

BD0832;		North	East	Units	Scale Factor	Converg.
BD0832;SPC FL N	-	142,691.978	749,889.484	MT	0.99995029	+0 46 58.5
BD0832;SPC FL N	-	468,148.60	2,460,262.42	sFT	0.99995029	+0 46 58.5
BD0832;UTM 17	-	3,351,191.792	313,202.012	MT	1.00003050	-0 58 46.0
BD0832!	-	Elev Factor	x	Scale Factor	=	Combined Factor
BD0832!SPC FL N	-	0.99999927	x	0.99995029	=	0.99994956
BD0832!UTM 17	-	0.99999927	x	1.00003050	=	1.00002977

BD0832

SUPERSEDED SURVEY CONTROL

BD0832

BD0832	NAD 83(2007)-	30 16 40.94914(N)	082 56 31.32049(W)	AD(	)	0
BD0832	ELLIP H (02/10/07)	4.684 (m)		GP(	)	
BD0832	NAD 83(1999)-	30 16 40.94951(N)	082 56 31.32005(W)	AD(	)	B
BD0832	ELLIP H (05/31/01)	4.563 (m)		GP(	)	5 1
BD0832	ELLIP H (06/02/94)	4.585 (m)		GP(	)	3 1
BD0832	NAD 83(1990)-	30 16 40.94818(N)	082 56 31.31980(W)	AD(	)	B
BD0832	ELLIP H (09/13/90)	4.548 (m)		GP(	)	4 1
BD0832	NAVD 88 (06/02/94)	32.74 (m)	107.4	(f)	LEVELING	3
BD0832	NGVD 29 (??/??/92)	32.951 (m)	108.11	(f)	ADJ UNCH	1 2

BD0832

BD0832.Superseded values are not recommended for survey control.

BD0832

BD0832.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BD0832.[See file dsdata.txt](#) to determine how the superseded data were derived.

BD0832

BD0832_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLP1320251191(NAD 83)

BD0832

BD0832_MARKER: DB = BENCH MARK DISK

BD0832_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BD0832_SP_SET: CONCRETE POST

BD0832_STAMPING: U 151 1954

BD0832_MARK LOGO: CGS

BD0832_PROJECTION: FLUSH

BD0832_MAGNETIC: O = OTHER; SEE DESCRIPTION



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BD0832_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
BD0832+STABILITY: SURFACE MOTION
BD0832_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BD0832+SATELLITE: SATELLITE OBSERVATIONS - April 02, 2011

BD0832

BD0832	HISTORY	- Date	Condition	Report By
BD0832	HISTORY	- 1954	MONUMENTED	CGS
BD0832	HISTORY	- 1958	GOOD	CGS
BD0832	HISTORY	- 1969	GOOD	CGS
BD0832	HISTORY	- 1979	GOOD	NGS
BD0832	HISTORY	- 1988	GOOD	NGS
BD0832	HISTORY	- 19890421	GOOD	
BD0832	HISTORY	- 19930403	GOOD	NGS
BD0832	HISTORY	- 19971120	GOOD	DCJOHN
BD0832	HISTORY	- 20110402	GOOD	INDIV

BD0832

BD0832 STATION DESCRIPTION

BD0832

BD0832'DESCRIBED BY COAST AND GEODETIC SURVEY 1958
BD0832'2.8 MI SE FROM LIVE OAK.
BD0832'2.75 MILES SOUTHEAST ALONG THE SEABOARD AIR LINE RAILROAD FROM
BD0832'THE STATION AT LIVE OAK, 150 YARDS NORTHWEST OF A POWER LINE
BD0832'CROSSING, 100 YARDS NORTH OF A FARMHOUSE, 71 FT. NORTHWEST OF
BD0832'THE CENTER LINE OF A PRIVATE DRIVEWAY LEADING TO THE FARMHOUSE,
BD0832'91 FT. SOUTHWEST OF THE CENTER LINE OF U.S. HIGHWAY 90, 179
BD0832'FT. SOUTHWEST OF THE SOUTHWEST RAIL, 10 FT. NORTHEAST OF A
BD0832'POWER POLE, 0.8 FT. NORTHEAST OF A FENCE, 14 POLES SOUTHEAST
BD0832'OF MILEPOST 713, SET IN THE TOP OF A CONCRETE POST WHICH PROJECTS
BD0832'0.1 FT. ABOVE THE GROUND. NOTE-- A STEEL WITNESS POST WAS
BD0832'SET 1.4 FT. NW OF THE MARK.

BD0832

BD0832 STATION RECOVERY (1969)

BD0832

BD0832'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1969
BD0832'RECOVERED IN GOOD CONDITION.

BD0832

BD0832 STATION RECOVERY (1979)

BD0832

BD0832'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1979
BD0832'RECOVERED IN GOOD CONDITION.

BD0832

BD0832 STATION RECOVERY (1988)

BD0832

BD0832'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1988
BD0832'THE STATION IS LOCATED ABOUT 15.37 KM (9.55 MI) NORTH OF MCALPIN,
BD0832'13.04 KM (8.10 MI) WEST OF WELLBORN, 4.51 KM (2.80 MI) EAST OF LIVE
BD0832'OAK AND 0.56 KM (0.35 MI) WEST OF A MICROWAVE TOWER.
BD0832'OWNERSHIP--HIGHWAY RIGHT-OF-WAY.
BD0832'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAYS 129 AND 90 IN
BD0832'LIVE OAK, GO EAST FOR 0.56 KM (0.35 MI) ON HIGHWAY 90 TO THE RAILROAD
BD0832'CROSSING. CONTINUE AHEAD FOR 2.09 KM (1.30 MI) ON HIGHWAY 90 TO A
BD0832'REVERSE FORK, COUNTY ROAD 10. CONTINUE AHEAD FOR 1.77 KM (1.10 MI) ON
BD0832'HIGHWAY 90 TO THE OPPORTUNITY STORE ON LEFT. CONTINUE AHEAD FOR 0.80
BD0832'KM (0.50 MI) ON HIGHWAY 90 TO THE STATION ON RIGHT, IN THE FENCE LINE,
BD0832'BETWEEN TWO POWERLINES PARALLEL TO HIGHWAY.



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



BD0832'LOCATED 25.60 M (84.0 FT) WEST FROM UTILITY POLE NUMBER 2 3883 3960 04
BD0832'WITH TRANSFORMER, 25.15 M (82.5 FT) WEST FROM TELEPHONE CABLE PEDESTAL
BD0832'NUMBER 001, 22.74 M (74.6 FT) SOUTH-SOUTHWEST FROM THE APPROXIMATE
BD0832'CENTER OF HIGHWAY 90, 3.35 M (11.0 FT) NORTH FROM A UTILITY POLE ON
BD0832'SOUTH SIDE OF FENCE LINE AND 0.37 M (1.2 FT) SOUTHEAST FROM A METAL
BD0832'WITNESS POST.

BD0832'DESCRIBED BY R.W. MCALLISTER.

BD0832

BD0832 STATION RECOVERY (1989)

BD0832

BD0832'RECOVERED 1989

BD0832'RECOVERED IN GOOD CONDITION.

BD0832

BD0832 STATION RECOVERY (1993)

BD0832

BD0832'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993

BD0832'THE STATION IS LOCATED ABOUT 15.37 KM (9.55 MI) NORTH OF MCALPIN,
BD0832'13.04 KM (8.10 MI) WEST OF WELLBORN, 4.51 KM (2.80 MI) EAST OF LIVE
BD0832'OAK AND 0.56 KM (0.35 MI) WEST OF A MICROWAVE TOWER.

BD0832'OWNERSHIP--HIGHWAY RIGHT-OF-WAY.

BD0832'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAYS 90 AND 129 IN
BD0832'LIVE OAK, GO EAST FOR 2.75 KM (1.70 MI) ON U.S. HIGHWAY 90 TO A
BD0832'REVERSE FORK, COUNTY ROAD 10 A, CONTINUE EAST 0.50 KM (0.30 MI) ALONG
BD0832'U.S. HIGHWAY 90 TO THE JUNCTION OF COUNTY ROAD 49, CONTINUE EAST 0.57
BD0832'KM (0.35 MI) ALONG U.S. HIGHWAY 90 TO THE OPPORTUNITY STORE ON THE
BD0832'LEFT, CONTINUE AHEAD FOR 0.80 KM (0.50 MI) ALONG U.S. HIGHWAY 90 TO
BD0832'THE STATION ON THE RIGHT IN A FENCE LINE BETWEEN TWO POWERLINES
BD0832'PARALLEL TO HIGHWAY AND NORTH OF A UTILITY POLE.

BD0832'LOCATED 25.15 M (82.51 FT) WEST FROM UTILITY POLE NUMBER 2 3883 3960
BD0832'04 WITH A TRANSFORMER, 25.60 M (83.99 FT) WEST FROM TELEPHONE CABLE
BD0832'PEDESTAL NUMBER 001, 22.74 M (74.61 FT) SOUTH-SOUTHWEST FROM THE
BD0832'APPROXIMATE CENTERLINE OF U.S. HIGHWAY 90, 3.35 M (10.99 FT) NORTH
BD0832'FROM A UTILITY POLE ON SOUTH SIDE OF FENCE LINE AND 0.37 M (1.21 FT)
BD0832'EAST-SOUTHEAST FROM A METAL WITNESS POST.

BD0832'DESCRIBED BY RONNIE L. TAYLOR.

BD0832

BD0832



USGS – Suwannee River Water Management District

Contract No.G10PC00093, Task Order No.G12PD00242

Prime Contractor: Digital Aerial Solutions (DAS)

Sub-Contractor: Gustin, Cothorn & Tucker, Inc. (GCT)



EQUIPMENT, PERSONNEL & SOFTWARE

Equipment

GPS

Trimble Model R7 GNSS	SN:5131K22021	Zephyr Geodetic Model II Antenna	SN:1441127110
Trimble Model R7 GNSS	SN:4815K31960	Zephyr Geodetic Model II Antenna	SN:1441021044
Trimble Model R7 GNSS	SN:5002K15774	Zephyr Geodetic Model II Antenna	SN:60130780
Trimble Model R7 GNSS	SN:4723K30231	Zephyr Geodetic Model II Antenna	SN:30403594
Trimble Model R8III GNSS	SN:5013421947		
Trimble Model R8II GNSS	SN:4629119319		

Total Stations

Topcon GPT3002LW SN:050655

Data Collectors

Trimble Model TSC2 SN:SS27A19162
Trimble Model TSC2 SN:SS27A19144

Cameras (Geo-Referenced)

Ricoh Model Caplio 500SE-W SN:23106851

Personnel

Wayne Walker, PLS – Project Manager
Mike Stone, CST III – Office Technician
David Ham, CST III – Party Chief
Jason Tucker – Party Chief
Brandon Gambill – Instrument Technician
Chad Downing – Instrument Technician

Software

Trimble Business Center
Google Earth Pro
Microsoft Word
Microsoft Excel

Horace "Wayne" Walker, Jr.
Vice President-Surveying
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(850) 685-0292 (Cell)

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