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REPORT OF TOPOGRAPHIC SURVEY

Sarasota County, Florida

May 15, 2004

Prepared for

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TOPOGRAPHIC SURVEY

This topographic survey for Sarasota County covering 572 square miles consists of the following:

1. Acquisition of lidar data for this area was acquired using a Leica ALS-40 Airborne Laser Scanner with the following parameters:
    a. 2-meter nominal post spacing
    b. Altitude of 6,000' AMT
    c. 25° sensor field of view
    d. 20% sidelap
    e. ~3.04 billion first return data points

The lidar data was acquired in a two lift acquisition. Lift 1 was on February 28, 2004 and lift 2 was on March 4, 2004. The original lidar data had gaps in the coverage and the areas were flown on May 15, 2004.

2. Acquisition of digital imagery to support the production of digital orthophotography for this area was acquired using a Leica ADS-40 Airborne Digital Sensor with the following parameters:
    a. Color
    b. 30-cm GSD
    c. Altitude of 9,450' AMT

The ADS-40 imagery was collected in a two lift acquisition. Lift 1 was on February 3, 2004 and lift 2 was on February 8, 2004.

This report and the digital data that were produced for this project or the copies thereof are not valid without the signature and the original raised seal of a Florida licensed surveyor and mapper, which can be found at the end of this report. Additions or deletions to this report or the delivered data by other than the signing party are prohibited without the consent of the signing party. The data and report are not full and completed without the other.

METHODS

Photogrammetric methods were used for this topographic survey. Photogrammetry is a means of surveying and mapping that involves making precise measurements from a combination of ground control, aerial photographs, and elevation data sets. There are many pieces of equipment and many programs/software used to perform the various tasks for this project.

The technical method used to produce hydro-breaklines for use in this project only included water features and they should not be confused with traditional stereo-graphic or field survey derived breaklines. Watershed Concepts and EarthData utilized techniques developed for FEMA floodmap modernization projects to synthesize 3D break lines using digital orthophotos and lidar data.

For larger streams (widths greater than 50 feet), breaklines were collected on the left and right water edge lines. The 2D lines defining streams and other water bodies were manually digitized into ArcView shape file format from the ADS-40 digital imagery. Flat water bodies such as ponds were

collected. By examining points near the edge of water, a low point could be quickly identified. This allowed the operators to draw an even-elevation breakline at that elevation around the water body's perimeter. A bounding polygon, created from the edge of bank lines, was used to remove all lidar points from within the channels of streams and bodies of water. This step ensures that the lidar bare-earth point files match the breaklines.

The elevation component of the 3D streamlines (breaklines) was derived from the lowest adjacent bare earth lidar point and was adjusted to ensure that the streams flow downstream. The best elevation that can be derived for the 3D streamlines will be the water surface elevation on the date that the lidar data was acquired. Automatic processes assigned elevations to the vertices of the centerline based on surrounding lidar points. The lines were then smoothed to ensure a continuous downhill flow. Edge-of-bank vertices were adjusted vertically to match the stream centerline vertices.

The new 3D lines were then viewed in profile to correct any anomalous vertices or remove errant points from the lidar DTM, which cause unrealistic "spikes" or "dips" in the breaklines. For this project, hydro breaklines were generated in the matter described above for all streams and water bodies. New TINs were then created from the remaining lidar points and newly created breaklines.

The following is the specific technical method used to produce lidar bare-earth data:

Data Preprocessing

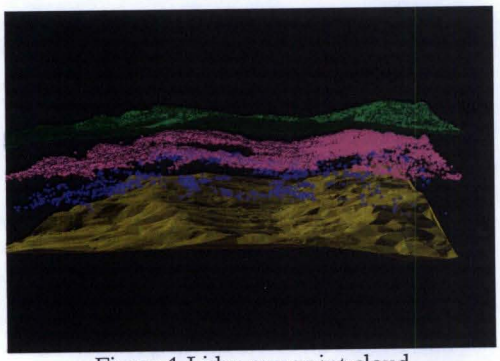

Figure 1 Lidar raw point cloud

Preprocessing is the reduction of raw lidar, IMU, and GPS data into XYZ points. This is a hardware-specific, vendor-proprietary process. Data preprocessing algorithms use a complex set of electronic timing signals and to compute ranges or distances to a reflective surface. The ranges must be combined with positional information from the GPS/IMU system to orient those ranges in 3D space and to produce XYZ points. As with any such electronic measuring system, systematic errors can be introduced from a variety of internal and external sources – instrument timing errors, effects of the atmosphere, initialization errors and so on.

Each flight mission was archived with a unique set of calibration parameters using the most optimally located GPS base station for that mission. During preprocessing, the entire flight mission was processed using this established calibration solution. All returns (1st, 2nd, 3rd, single, final, and last) were then extracted as separate sets of XYZ points.

At this point, the project cross flight lines, flown perpendicular to all mission flight lines, were used to detect and eliminate any lingering systematic errors in the preprocessed data. Ensuring consistency between overlapping and crossing flight lines constituted quality control for the preprocessing phase. Parameters used in preprocessing and the results of quality control checks were archived in the project database for future reference. The overlapping preprocessed data was merged and clipped into a seamless coverage for DTM production in the given area of interest.

Automated Data Post-Processing

Multiple-return lidar units such as the Leica ALS Airborne Laser Scanners contain measurements to the first vegetation canopy and building rooftops, as well as to intermediate levels of vegetation and bare ground. In this project, the number of lidar points totaled over 3.59 billion. Interpreting the bare earth surface from the vast multitude of lidar points must be automated as much as possible to be of any practical value.

Automated data processing depends on mathematical filters to evaluate the lidar return data, removing points that are most likely to be non-bare earth points. Parameters were set in the software to control the size of the filter neighborhood and the aggressiveness with which it removed points appearing mathematically to be above the bare ground. The filter settings were optimized for the particular terrain type and land cover found in the flight line being processed.

Determination of filter parameters was automated to some extent by statistically characterizing the lidar data itself. A skilled operator contributed his own judgment and experience by testing small samples before letting the filters run on each entire flight line. The lidar analyst selected representative areas and established the appropriate parameters for effective processing based on terrain and vegetation type. For example, very aggressive parameters were applied to vegetated areas with thick under story; moderate parameters for vegetated areas with clear ground, and very conservative parameters for relatively clear areas.

Interactive Data Post Processing

Vegetation and artifacts remaining after automatic data post-processing were removed manually through interactive editing. These artifacts are often difficult to interpret based only on a TIN or shaded relief view of the lidar data. For example, a lone high point in the TIN could either be a tree or a rock outcrop in rugged terrain. For this reason, it is considered "best practice" to refer to aerial photography for resolution of ambiguous artifacts in the post-processed terrain model. Our experience on similar project indicates that monoscopic viewing of digital orthophotography is a cost-effective way to ensure the most accurate interpretation and editing of the lidar data. This step also affords the opportunity to visually check the final DTM quality before delivery. For this project, the digital imagery flown was used in this step.

Software visualization tools enabled the analyst to quickly scan through a deliverable sector, identify areas where additional points or artifacts needed to be removed and be reclassified in the database. The surface was then redrawn allowing the analyst to immediately see the result of the edit and make further corrections, including 'undoing' previous steps. Removed points were stored in the database where they may be retrieved at a later date, if necessary. The final result of interactive data post-processing was the bare earth point file deliverables required for this project.

Quality Review and Corrections

In response to feedback from SWFWMD, EarthData International conducted a thorough quality check of the project area to identify and correct problems with the linework originally collected for the project.

This quality review involved the visual scanning of 100% of the tiles in the project area by a single, senior technician. This approach was taken to ensure that the review would not suffer potential

ambiguities that could be caused by differing interpretations from several technicians in areas such as obscured areas or areas where water bodies are not clearly defined in the imagery or lidar.

The following methodology was used to review the entire breakline dataset, and to make corrections to any problems found:

1. The original hydrography dataset containing water bodies, streams and canals was opened in Microstation along with the corresponding orthophotography. The hydrography data set was then visually scanned at a scale of 1:2000 to identify any quality issues. Any missing hydro features identified during the review process were then digitized into an updated data set.

2. An automated routine was then run to check the dataset for closure of water bodies.

3. Water bodies, islands and canals were then converted into Arc/Info coverage format.

4. Routines were then run to calculate elevations of water bodies, islands and canals using the lidar mass point data.

5. Water bodies, islands and canal coverages were clipped to create individual coverages for each township/range tile.

6. An "evaporation" routine was run to remove lidar mass points inside water bodies.

7. A routine was then run to convert township/range water body, island, canal, and mass point tiles into the Arc/Info ASCII generate format.

8. A final, quality check routine was run to check the generate file TINs for anomalies including data outside township/range boundary and elevation extremes.

Data Sources

The ground control used for this project was collected by Terra Surveys. A singed and sealed copy of their report is attached as part of this report.

Datum

All data for this project has been collected and provided in the Florida State Plane Coordinate System, West Zone in units of U.S. Survey Feet. The horizontal datum is North American Datum 1983 (NAD 83) HARN. The vertical datum is North American Vertical Datum 1988 (NAVD 88).

Accuracies

The raw lidar DEM will have a nominal post spacing of 2 meters. The vertical accuracy of the DEM data will be +/- 18 cm RMSE. Contours will not meet published accuracy standards because of the method of collection and use and will be delivered as is. The digital orthophotography will meet national mapping accuracy standards and be within +/- 5 feet in the horizontal. The breaklines do not meet National Map Accuracy Standards because of their method of collection and intended use as explained previously in this report.

Deliverables

The deliverables for this project include:

1) **Ground Control report:** A signed and sealed copy is attached to this report. This lists the ground control points and coordinates used in the collection, rectification and geo-referencing of the data.

2) **TINs**: ESRI TINs were created from spot elevations and break lines of "bare earth". The geographic area covered by each TIN are by section, township and range. All were delivered in ArcInfo ASCII generate input file format together with accompanying ArcInfo Macro Language files for automating the TIN creation process.

The technical approach to producing breaklines for the Pasco County project was based on a technique used to generate hydro breaklines for flood map modernization programs such as the North Carolina Floodplain Mapping Program. The technical approach to producing these breakline is included in this report. Because of the nature of this process, only the following files were included in the TIN deliverable, as agreed upon:

File Name	Description
(STR) SP.PNT	Mass points for non-obscured areas. Feature ID of 1, MASSPOINT
(STR) W.POL	Break lines defined the land water boundary for lakes or other closed water bodies. These break lines must be assigned the elevation of the water surface. These break lines shall be closed polygons. Feature ID of 5, HARDREPLACE
(STR) V.POL	Define the boundaries of vegetated areas that are considered to be obscured to the extent that adequate vertical data cannot clearly be determined to the extent to accurate defined the DTM. These break lines shall be closed polygons. Feature ID of 9, HARDERASE
(STR) BR.LIN	Break lines defining overpasses and bridges. Feature ID of 3, HARDLINE

3. **Contours:** Digital, 1' contours were created from the TINs referenced above and produced as ArcInfo coverage's (point and line) in ArcInfo Export format (*.e00). Due to the technical approach used to generate breakline data (as described under deliverable 1) the 1' contours in the Paso & Sarasota County areas do not meet National Map Accuracy Standards which would have required ***detailed*** breaklines collected via the traditional photogrammetric methods used for the Braden River portion of the project. The contour coverage meets the following criteria:
    a. Contour interval of one foot (delivered "as is" with no accuracy specification)
    b. Fuzzy tolerance of 0.001 foot
    c. Coverage was fully built and contains no edit masks
    d. Contours were merged into a single line coverage
    e. Coverage Name: CONTOURS

Coverage Items: Item Descriptions

Column	Item Name	Width	Output	Type	N.DEC
1	FNODE#	4	5	B	
5	TNODE#	4	5	B	
9	LPOLY#	4	5	B	
13	RPOLY#	4	5	B	
17	LENGTH	8	18	F	5
25	CONTOURS#	4	5	B	
29	CONTOURSID	4	5	B	
33	C2TYPE	1	1	I	
34	C2DESC1	1	1	I	
35	C2DESC2	1	1	I	
36	C2CONT	3	3	I	
39	C2ELEV	4	12	F	2
43	C2LOW	4	12	F	2
47	C2INT	2	5	B	

CONTOURS.AAT attribute descriptions

C2TYPE	Contour type: 1-Normal, 2-Carrying, 3-Supplemtary
C2DESC1	Contour description: 1-Depression, 2-Approximate
C2DESC2	Contour description: 1-Depression, 2-Approximate
C2CONT	Elevation of contour in integer format.
C2ELEV	Elevation of contour in decimal format
C2LOW	Used only for carrying contours.
C2INT	Contour interval. Units are feet

4. **Spot Elevations:** All spot elevations were merged into a single point coverage. The coverage name item definitions for the spot elevations were defined as:
   a. Coverage Name – SPOT

Coverage Items: Item Descriptions

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N. DEC.
1	AREA	8	18	F	5
9	PERIMETER	8	18	F	5
17	SPOT#	4	5	B	
21	SPOT-ID	4	5	B	
25	C2SPOT	4	12	F	2

SPOT.PAT attribute descriptions

(Columns 1-21 are the Arc/Info coverage default items)

C2SPOT	Spot elevations

5. **Orthophotography:** Ground orthophotography was produced and delivered for this portion of the project, derived from a Leica ADS-40 Airborne Digital Sensor. The imagery was collected at a 30-cm GSD at 9,450' AMT. The final orthophoto products met the following specifications:
   a. Color imagery
   b. 1"=200' – scale
   c. 1' GSD
   d. Delivered in GeoTIFF format on hard drive.

Several qualified photogrammetrists accomplished the production of the products for this project. I as the signing surveyor and mapper have not done any of the production. I have supervised and checked the work produced. To the best of my knowledge and review, all of the products meet or exceed the accuracy and quality as required.

Notes:
To the best of my knowledge this survey and report meet all applicable requirements of the Florida Minimum Technical Standards as contained in Chapter 61G17-6 FAC.

Surveyor and Mapper in Responsible Charge:
Brian A. Wegner
Professional Surveyor and Mapper
License Number LS 5422

Signed: Brian A. Wegner Seal:

REPORT OF GPS SURVEY SARASOTA COUNTY, FLORIDA

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July 2004

REPORT OF SURVEY
SARASOTA COUNTY, FLORIDA

INTRODUCTION

Earthdata International was contracted to provide mapping services in Sarasota County, Florida. Digital aerial photography (ADS-40) observations were made. Earthdata subcontracted the ground survey tasks to Terrasurv. Terrasurv utilized the Global Positioning System (GPS) to establish the control network.

CONTROL

The control for this project consisted of several stations of the National Spatial Reference System (NSRS). This project was combined with an adjacent project covering the Bradenton area for control purposes. The stations from the Bradenton project are discussed in a separate report. A combination of benchmarks (i.e. vertical control only), High Accuracy Reference Network (HARN) stations, and a Continuously Operating Reference Station (CORS).

The following list summarizes the NSRS control used for this project:

Station Name	PID	H Order	V Order	Comments
HAVOLINE 2	AG1868	B	2	HARN/BM
VERNA	AG1968	B	2	HARN/BM
I75 83 A14	AG8099	1	2	GPS/BM
I75 83 A54 RM 1	AG8311	2*	2	BM
SCHROEDER	AG8478	1	2	BM
FLGPS 48	AG9362	B	GPS	HARN
PUNTA GORDA CORS ARP	DE9130	A	-	CORS

Note that **I75 83 A54 RM 1** and **SCHROEDER** were used only as benchmarks, as their published horizontal positions in the NSRS were not derived by GPS methods, and are therefore not strictly compatible with the HARN/CORS.

The horizontal datum was the North American Datum of 1983, 1999 adjustment (NAD 1983 1999). The vertical datum was the North American Vertical Datum of 1988 (NAVD 1988).

NEW STATIONS

There were a total of 15 new photo identities established, designated SARASOTA-01 through SARASOTA-15. There were six temporary base points. Due to the stringent vertical accuracy requirements (0.05 m), all newly established control points were occupied two times, as were the existing NSRS monuments. The following is a listing of the newly established control:

Station Name	GPSID	USGS Quad	Description
BASE1	04057D	MURDOCK	Temporary base point
BASE2	04057A	BEE RIDGE	Temporary base point
BASE3	04057C	BRADENTON	Temporary base point
BASE4	04057F	MYAKKA RIVER	Temporary base point
BASE5	04058Y	MURDOCK SE	Temporary base point

Station Name	GPSID	USGS Quad	Description
BASE6	04057B	OLD MYAKKA	Temporary base point
SARASOTA-01	04058A	BRADENTON	ID=NE corner of concrete sidewalk in median of Eastchester Drive
SARASOTA-02	04058B	LORRAINE	ID=SE corner of concrete walk N of Bob Evans parking lot, S of Lowes parking lot
SARASOTA-03	04058C	VERNA	ID=NE corner of concrete driveway on south side of 61st Avenue East
SARASOTA-04	04058D	SARASOTA	ID=north edge of southerly entrance to semi-circular concrete driveway at east edge of concrete sidewalk
SARASOTA-05	04058E	OLD MYAKKA	ID=center of west end of stop bar for Cowpen Lane on north side of Fruitville Road
SARASOTA-06	04058F	OLD MYAKKA	ID=SE corner of stop bar for Deer Hammock Lane on south side of Fruitville Road
SARASOTA-07	04058G	MYAKKA CITY	ID=NE corner of concrete driveway at south edge of road, just east of 90 curve in road
SARASOTA-08	04058H	LOWER MYAKKA LAKE	ID=SW corner of concrete sidewalk at end on west side of entrance to school, north side of SR 72
SARASOTA-09	04058I	LAUREL	ID=NW corner of asphalt driveway to the NE off of Knights Trail Road
SARASOTA-10	04058J	MURDOCK	ID=SW corner of concrete frieveway at east edge of North Salford Boulevard
SARASOTA-11	04058K	MURDOCK SE	ID=north edge of concrete drain to the west at west edge of concrete bridge sidewalk, north side of road, west side of bridge
SARASOTA-12	04058L	ENGLEWOOD	ID=south edge of concrete sidewalk at west edge of concrete driveway on north side of Green Street
SARASOTA-13	04058M	MYAKKA RIVER	ID=north edge of concrete sidewalk at east edge of concrete driveway (4th driveway from the west) on south side of Wexford Drive
SARASOTA-14	04058N	MURDOCK	ID=NE corner of concrete parking lot in SW quadrant of intersection of US 41 and Adalia Terrace
SARASOTA-15	04058O	MURDOCK NE	ID=SE corner of darker pavement at south edge of pavement, on county line, south side of SR 72

Because this survey was done post-flight, all of the stations were chosen as photo identities. No permanent marks were set.

The map below in figure 1 shows the distribution of the control stations. The combined LIDAR/photo control points are shown as yellow squares. The LIDAR check points are shown as blue circles. The existing control are displayed as green stars.

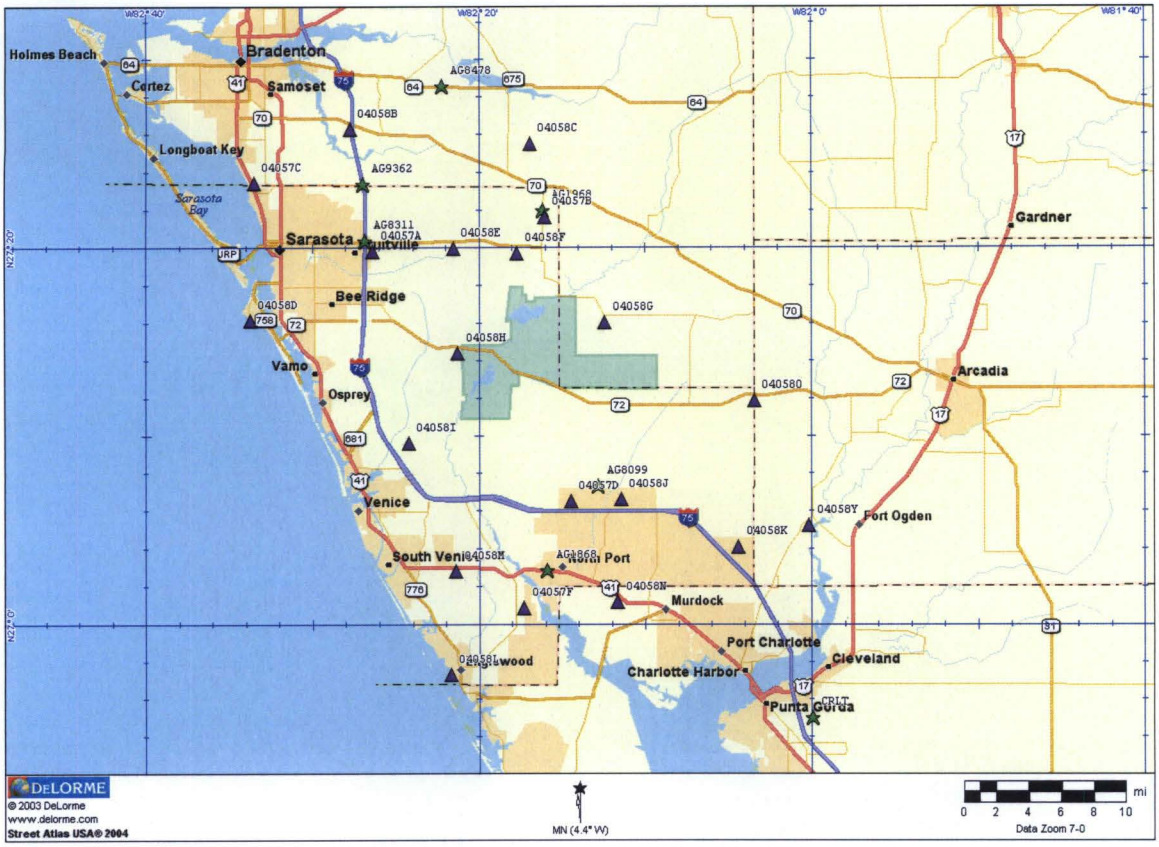


Figure 1 - Project Location

GPS OBSERVATIONS

The network was observed in a radial configuration. Base receivers (2) were established on random points, and run throughout the observations in each area. The observations were made on days 097 through 099 of 2004, using four Trimble dual frequency receivers. The table below summarizes the occupations:

GPSID	start	duration	Filename	HI
04057A	04/07/2004 12:17:30	592	99810980.DAT	0
04057A	04/06/2004 15:28:30	519	97570970.DAT	0
04057B	04/07/2004 14:53:00	528	97570980.DAT	0
04057C	04/07/2004 16:07:15	31	36650987.dat	2
04057D	04/07/2004 23:00:30	105	99810981.DAT	0
04057D	04/08/2004 12:01:00	193	99810990.DAT	0
04057F	04/08/2004 16:11:00	198	99810992.DAT	0
04058A	04/07/2004 17:35:00	15	36650989.dat	2
04058A	04/07/2004 15:22:00	15	36650986.dat	2
04058B	04/07/2004 12:40:30	15	36650980.dat	2
04058B	04/06/2004 21:54:45	16	3665097e.dat	2
04058C	04/06/2004 20:18:30	20	37950979.DAT	2.25
04058C	04/07/2004 18:51:15	15	3795098b.dat	2.25
04058D	04/07/2004 20:32:45	16	3665098c.dat	2
04058D	04/07/2004 18:30:15	16	3665098a.dat	2
04058E	04/06/2004 17:01:30	15	37950972.DAT	2.25

GPSID	start	duration	Filename	HI
04058E	04/07/2004 13:57:00	15	37950984.dat	2.25
04058E	04/08/2004 19:47:00	15	37950997.dat	2.25
04058F	04/06/2004 17:27:00	15	37950973.DAT	2.25
04058F	04/07/2004 14:20:00	15	37950985.dat	2.25
04058G	04/07/2004 22:43:15	17	3795098j.dat	2.25
04058G	04/07/2004 21:20:00	15	3795098h.dat	2.25
04058H	04/08/2004 13:42:30	20	37950991.dat	2.25
04058H	04/07/2004 22:02:45	15	3795098i.dat	2.25
04058I	04/07/2004 19:36:45	21	3665098b.dat	2
04058I	04/07/2004 21:28:00	19	3665098d.dat	2
04058J	04/07/2004 23:14:00	15	3665098e.dat	2
04058J	04/08/2004 12:43:15	16	36650991.dat	2
04058K	04/08/2004 17:55:15	14	37950996.dat	2.25
04058K	04/08/2004 15:39:00	17	37950993.dat	2.25
04058L	04/08/2004 17:00:30	18	36650995.dat	2
04058L	04/08/2004 18:17:00	18	36650997.dat	2
04058M	04/08/2004 17:39:15	17	36650996.dat	2
04058M	04/08/2004 14:03:15	17	36650993.dat	2
04058N	04/08/2004 17:23:00	15	37950995.dat	2.25
04058N	04/08/2004 13:16:45	16	36650992.dat	2
04058O	04/08/2004 12:47:00	15	37950990.dat	2.25
04058O	04/08/2004 14:28:15	17	37950992.dat	2.25
04058Y	04/08/2004 12:15:00	377	97570990.dat	0
AG1868	04/08/2004 16:51:30	15	37950994.dat	2.25
AG1868	04/08/2004 18:57:30	15	36650998.dat	2
AG1968	04/07/2004 14:46:15	22	37950986.dat	2.25
AG1968	04/07/2004 23:13:15	26	3795098k.dat	2.25
AG8099	04/08/2004 12:13:30	21	36650990.dat	2
AG8099	04/08/2004 14:49:00	19	36650994.dat	2
AG8311	04/06/2004 23:04:30	16	3795097e.dat	1.75
AG8311	04/07/2004 12:55:15	15	37950981.dat	1.75
AG8478	04/07/2004 19:39:00	15	3795098d.dat	2.25
AG8478	04/07/2004 17:11:15	14	37950988.dat	2.25
AG9362	04/07/2004 12:27:45	15	37950980.dat	2.25
AG9362	04/06/2004 23:29:15	21	3795097f.dat	2.25
CRLT	04/06/2004 15:28:00	451	CRLT097.04O	0
CRLT	04/07/2004 12:17:00	748	CRLT098.04O	0
CRLT	04/08/2004 12:01:00	418	CRLT099.04O	0

The redundant occupation on each point was done at a different time of day from the first. The intent was to have at least 90 minutes of difference between the occupations, but several stations had less than 90 minutes difference. A single station, BRAD-12, was not double occupied due to difficulty of access. BRAD-10 was occupied a third time to resolve a difference in the vertical component. The following table lists the differences in occupation for each of the repeat occupations:

Station	GPSID	Occupation 1	Occupation 2	Delta T (minutes)
SARASOTA-01	04058A	04/07/2004 15:22:00	04/07/2004 17:35:00	133

Station	GPSID	Occupation 1	Occupation 2	Delta T (minutes)
SARASOTA-02	04058B	04/06/2004 21:54:45	04/07/2004 12:40:30	886
SARASOTA-03	04058C	04/06/2004 20:18:30	04/07/2004 18:51:15	87
SARASOTA-04	04058D	04/07/2004 18:30:15	04/07/2004 20:32:45	123
SARASOTA-05	04058E	04/06/2004 17:01:30	04/07/2004 13:57:00	185
SARASOTA-06	04058F	04/06/2004 17:27:00	04/07/2004 14:20:00	187
SARASOTA-07	04058G	04/07/2004 21:20:00	04/07/2004 22:43:15	84
SARASOTA-08	04058H	04/07/2004 22:02:45	04/08/2004 13:42:30	500
SARASOTA-09	04058I	04/07/2004 19:36:45	04/07/2004 21:28:00	111
SARASOTA-10	04058J	04/07/2004 23:14:00	04/08/2004 12:43:15	631
SARASOTA-11	04058K	04/08/2004 15:39:00	04/08/2004 17:55:15	136
SARASOTA-12	04058L	04/08/2004 17:00:30	04/08/2004 18:17:00	77
SARASOTA-13	04058M	04/08/2004 14:03:15	04/08/2004 17:39:15	216
SARASOTA-14	04058N	04/08/2004 13:16:45	04/08/2004 17:23:00	246
SARASOTA-15	04058O	04/08/2004 12:47:00	04/08/2004 14:28:15	101
VERNA	AG1968	04/07/2004 14:46:15	04/07/2004 23:13:15	507
I75 83 A54 RM 1	AG8311	04/06/2004 23:04:30	04/07/2004 12:55:15	831
SCHROEDER	AG8478	04/07/2004 17:11:15	04/07/2004 19:39:00	148
FLGPS 48	AG9362	04/06/2004 23:29:15	04/07/2004 12:27:45	779

DATA PROCESSING

The GPS data collected was downloaded to a PC and processed using the *WAVE* (Weighted Ambiguity Vector Estimator) processor in Trimble Geomatics Office (TGO) version 1.6. The single baseline method was used. In general, all lines radiating from the base receivers to the nearby stations were processed. In addition, the baselines between the bases and the CORS were processed and included to strengthen the network. The precise ephemeris was used. All solutions utilized the integer bias fixed solution. The table below summarizes the processing results:

From	To	UTC Start	Dur.	Length	Ratio	Var.	RMS
04057A	04058A	04/07/2004 17:35:00	15	12772	7.67	1.3	0.013
04057A	04058A	04/07/2004 15:22:00	15	12772	13.81	1.7	0.016
04057A	04058B	04/06/2004 21:54:45	16	12112	17.13	1.1	0.015
04057A	04058B	04/07/2004 12:40:30	15	12112	36.46	1.1	0.012
04057A	04058C	04/06/2004 20:18:30	20	18849	11.27	1.6	0.016
04057A	04058D	04/07/2004 20:32:45	16	13844	3.84	1.8	0.013
04057A	04058D	04/07/2004 18:30:15	16	13844	21.62	1.4	0.013
04057A	04058E	04/07/2004 13:57:00	15	8049	10.54	1.1	0.012
04057A	04058E	04/06/2004 17:01:30	15	8049	12.91	1.1	0.012
04057A	04058F	04/06/2004 17:27:00	15	14391	12.39	1.2	0.013
04057A	04058F	04/07/2004 14:20:00	15	14391	18.07	1.3	0.012
04057A	04058I	04/07/2004 19:36:45	21	19093	19.31	1.4	0.013

From	To	UTC Start	Dur.	Length	Ratio	Var.	RMS
04057A	04058I	04/07/2004 21:28:00	19	19093	29.99	1.1	0.011
04057A	AG8311	04/06/2004 23:04:30	16	692	37.62	1.6	0.004
04057A	AG8311	04/07/2004 12:55:15	15	692	36.67	1.1	0.004
04057A	CRLT	04/06/2004 15:28:30	451	63893	2.37	1.2	0.014
04057A	CRLT	04/07/2004 12:17:30	592	63893	13.67	2.1	0.017
04057AJ	04058E	04/08/2004 19:47:00	15	3230	11.93	6.4	0.01
04057B	04057D	04/07/2004 23:00:30	41	27912	53.24	0.5	0.007
04057B	04058C	04/07/2004 18:51:15	15	7298	14.17	0.7	0.01
04057B	04058G	04/07/2004 22:43:15	17	11792	11.15	1	0.012
04057B	04058G	04/07/2004 21:20:00	15	11792	29.15	0.9	0.01
04057B	04058H	04/07/2004 22:02:45	15	15918	8.34	2	0.018
04057B	AG1968	04/07/2004 23:13:15	26	124	75.61	1.1	0.003
04057B	AG1968	04/07/2004 14:53:00	15	124	22.71	1.5	0.005
04057B	AG8478	04/07/2004 19:39:00	15	15810	11.27	1.6	0.01
04057B	CRLT	04/07/2004 14:53:00	528	56498	13.79	1.6	0.015
04057D	04058J	04/07/2004 23:14:00	15	4945	23.07	3.4	0.006
04057D	04058J	04/08/2004 12:43:15	16	4945	27.16	2.5	0.006
04057D	04058M	04/08/2004 14:03:15	17	13439	26.02	1.1	0.012
04057D	04058N	04/08/2004 13:16:45	16	10939	19.14	1	0.011
04057D	04058Y	04/08/2004 12:15:00	179	23744	8.16	1	0.013
04057D	AG8099	04/08/2004 12:13:30	21	2890	33.12	1.6	0.004
04057D	AG8099	04/08/2004 14:49:00	19	2890	45.97	5.6	0.009
04057D	CRLT	04/08/2004 12:01:00	193	32671	21.09	1	0.011
04057D	CRLT	04/07/2004 23:00:30	105	32671	13.04	0.8	0.011
04057F	04058L	04/08/2004 18:17:00	18	9831	4.46	2	0.014
04057F	04058L	04/08/2004 17:00:30	18	9831	12.81	1.3	0.013
04057F	04058M	04/08/2004 17:39:15	17	7740	10.66	1.5	0.014
04057F	04058N	04/08/2004 17:23:00	15	9239	31.69	1.9	0.016
04057F	AG1868	04/08/2004 18:57:30	15	3738	12.46	6	0.008
04057F	AG1868	04/08/2004 16:51:30	15	3738	14.43	3.1	0.007
04057F	CRLT	04/08/2004 16:11:00	168	31017	17.52	1.6	0.013
04058H	04057D	04/08/2004 13:42:30	20	18377	10.33	1.4	0.014
04058Y	04057F	04/08/2004 16:11:00	141	29397	7.5	1.8	0.017
04058Y	04058O	04/08/2004 12:47:00	15	13349	28.7	0.8	0.011
04058Y	04058O	04/08/2004 14:28:15	17	13349	10.57	1.4	0.015
04058Y	CRLT	04/08/2004 12:15:00	377	19580	11.57	1.3	0.014
AG9362	04057A	04/06/2004 23:29:15	21	5948	32.88	0.9	0.009
AG9362	04057A	04/07/2004 12:27:45	15	5948	25.24	0.6	0.009

In general, there are several indicators of baseline quality. For integer bias fixed solutions, the ratio should be larger than 3.0, the rms should be below 0.02, and the variance should be near unity. All of the baselines had acceptable results.

There were a number of repeat baselines, which are baselines which have been measured in more than one independent session. The Earth Centered Earth Fixed vector differences were rotated into a local horizon system for analysis (all values in meters):

From	To	Delta N	Delta E	Delta U	Length
04057A	AG9362	-0.008	-0.009	-0.005	5948
04057A	04058B	-0.008	0.005	0.014	12113
04057A	04058E	0.008	-0.012	0.019	8050
04057A	04058F	-0.013	0.007	0.000	14392
04057A	AG8311	-0.009	0.006	-0.011	693
04057A	CRLT	0.004	0.005	-0.013	63893
04057B	AG8478	-0.023	-0.008	0.027	15810
04057B	AG1968	0.004	0.005	-0.003	124
04057B	04058G	-0.010	0.010	-0.016	11792
04057A	04058A	0.005	0.007	0.022	12772
04057A	04058D	0.013	-0.006	0.001	13844
04057A	04058I	0.003	-0.005	0.053	19094
04057D	04058J	-0.003	-0.004	-0.008	4945
04057D	CRLT	-0.005	0.008	-0.019	32672
04058O	04058Y	0.013	-0.013	0.010	13350
04057D	AG8099	-0.002	0.004	0.000	2891
04057F	04058L	-0.014	0.001	0.016	9832
04057F	AG1868	-0.005	0.000	0.010	3739

One of the repeat baselines (from 04057A to 04058I) had a vertical difference greater than 0.05 m. However, this point had an additional baseline from a different station which resolved the differences.

LEAST SQUARES ADJUSTMENTS

The data was adjusted using GEOLAB, a least squares adjustment program from Microsearch Corp. The processed baselines were parsed to form an input file. No scaling of the apriori baseline statistics was done. Station errors (HI and centering) of 0.005 m were also included. Geoid separations for each station were interpolated using the GEOID03 model. As mentioned above, the adjustment combined the Bradenton network with an adjacent network to the south, covering Sarasota County.

The first adjustment was a minimally constrained adjustment which held the CORS **CRLT** fixed horizontally, and **I75 83 A54 RM 1** fixed in orthometric height. The estimated variance factor was 2.62. The graph below in figure 2 shows the horizontal and vertical residuals versus baseline length for this adjustment.

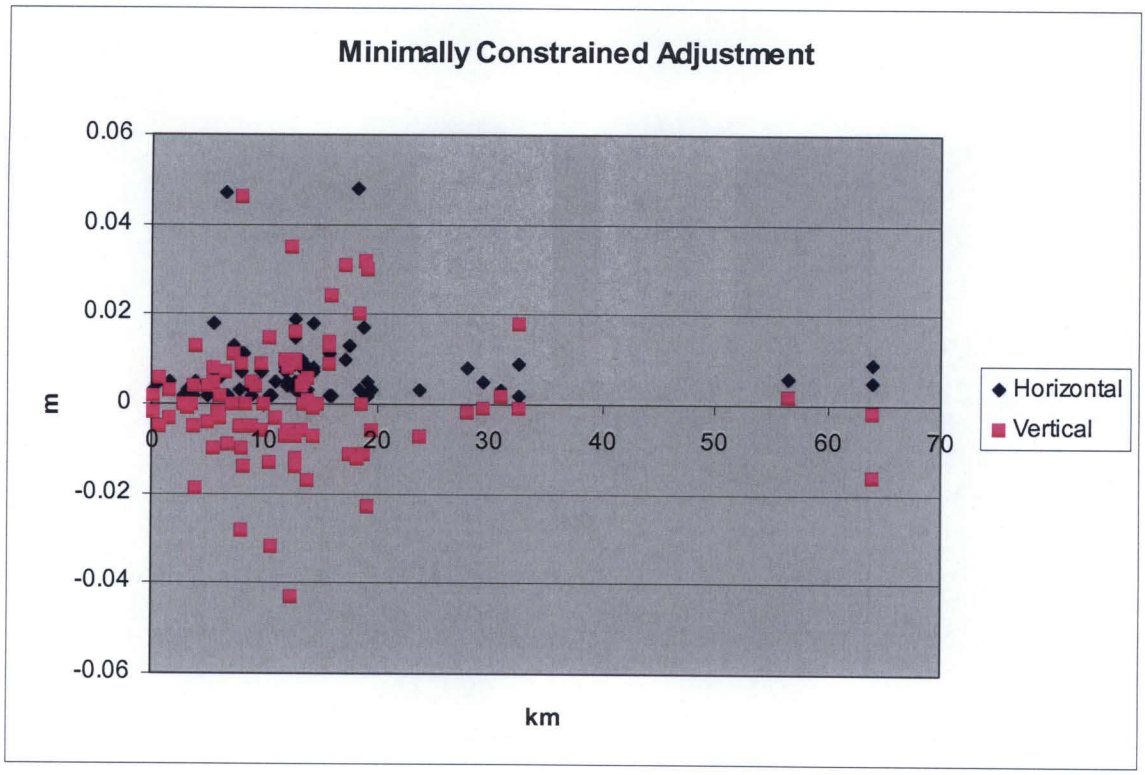


Figure 2 - residuals

As can be seen, the vertical residuals are within the range of –0.05 m to +0.05 m. The horizontal residuals are in the range of 0.000 to 0.05 m. The misclosures at the other control stations were as follows:

PID	Azimuth	Distance	Δ Ortho H	Δ Ellip H
AG1868	293°	0.008 m	+0.033 m	+0.073 m
AG1968	19°	0.018 m	-0.034 m	+0.035 m
AG8099	294°	0.005 m	+0.025 m	+0.037 m
AG8311	238°	0.064 m	HELD	
AG8478	217°	0.018 m	+0.027 m	+0.031 m
AG9362	314°	0.010 m	+0.021 m	-0.012 m
CRLT	********HELD*******			+0.058 m

All of the control checked well within expected tolerances with the exception of the horizontal position at AG8311 (benchmark **I75 83 A54 RM 1**), and the orthometric height at AG1968 (triangulation station **VERNA)**. As mentioned above in the control section, **I75 83 A54 RM 1** does not have a published position determined by GPS. Station **VERNA** appears to have been slightly disturbed in the vertical direction. Historical recovery notes report changing distances above ground for the top of the monument. The output from this adjustment is included in appendix A.

The final adjustment fixed the CORS **CRLT** and the HARN **VERNA** horizontally (latitude and longitude). **I75 83 A54 RM 1** was fixed vertically. The other NSRS stations were fixed in all three dimensions. The estimated variance factor for this adjustment was 2.57. The graph below in figure 3 shows the horizontal and vertical residuals for this adjustment.

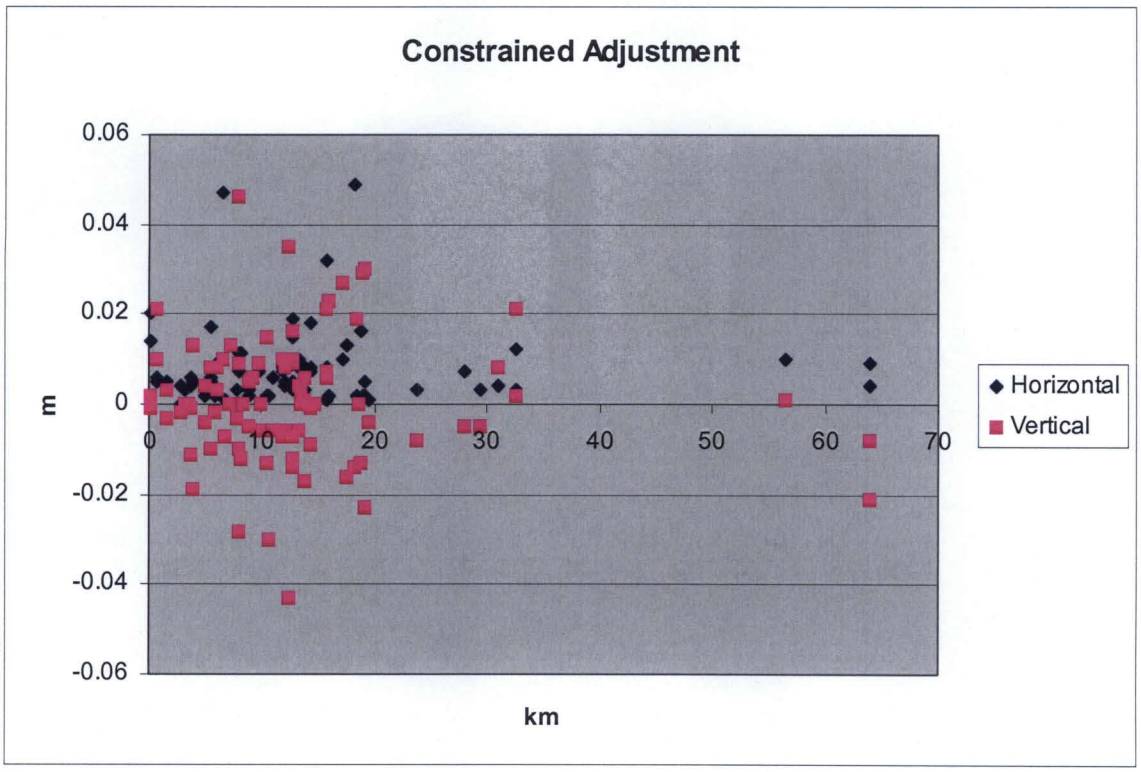


Figure 3 - residuals

The residuals from this adjustment were similar to the free adjustment. The output from this adjustment is included in appendix B. This adjustment provided the final adjusted coordinates for the network.

The table below shows the 2-D and 1-D Station Confidence Regions (95.000 percent, in meters) for the stations in the network:

STATION	MAJOR SEMI-AXIS	AZ	MINOR SEMI-AXIS	VERTICAL
04057A	0.011	163	0.011	0.011
04057AA	0.024	130	0.023	0.026
04057AB	0.025	164	0.024	0.023
04057AC	0.024	165	0.023	0.021
04057AD	0.024	161	0.024	0.030
04057AE	0.024	170	0.024	0.022
04057AF	0.024	156	0.024	0.024
04057AG	0.025	171	0.024	0.027
04057AH	0.023	174	0.023	0.023
04057AI	0.023	35	0.023	0.021
04057AJ	0.026	147	0.025	0.023
04057AK	0.025	51	0.024	0.024
04057AL	0.033	6	0.032	0.054

STATION	MAJOR SEMI-AXIS	AZ	MINOR SEMI-AXIS	VERTICAL
04057AM	0.023	130	0.023	0.022
04057AN	0.023	169	0.023	0.026
04057AO	0.023	1	0.023	0.025
04057AP	0.024	172	0.022	0.022
04057AQ	0.024	167	0.023	0.023
04057B	0.010	176	0.010	0.013
04057C	0.031	180	0.031	0.034
04057CA	0.033	94	0.032	0.034
04057CB	0.031	173	0.031	0.042
04057CC	0.031	7	0.031	0.029
04057CD	0.033	169	0.031	0.031
04057CE	0.032	77	0.031	0.030
04057CG	0.033	117	0.032	0.059
04057CH	0.031	172	0.031	0.037
04057CJ	0.033	46	0.031	0.028
04057D	0.011	153	0.011	0.012
04057F	0.014	156	0.014	0.014
04058A	0.024	3	0.024	0.023
04058B	0.024	96	0.024	0.023
04058C	0.023	172	0.022	0.023
04058D	0.024	171	0.024	0.025
04058E	0.022	149	0.022	0.020
04058F	0.024	150	0.024	0.023
04058G	0.023	26	0.023	0.025
04058H	0.023	121	0.023	0.022
04058I	0.024	15	0.024	0.025
04058J	0.023	126	0.023	0.022
04058L	0.025	37	0.025	0.025
04058M	0.023	147	0.023	0.021
04058N	0.023	136	0.023	0.023
04058O	0.027	126	0.027	0.028
04058Y	0.018	148	0.018	0.019
AG1968	0.000	0	0.000	0.021
AG8311	0.023	148	0.023	0.000
BRAD-11	0.047	40	0.046	0.040
BRAD-12	0.052	2	0.042	0.063

STATION	MAJOR SEMI-AXIS	AZ	MINOR SEMI-AXIS	VERTICAL
CRLT	0.000	0	0.000	0.013

SUMMARY

A geodetic control network was established in Sarasota County, Florida for the purpose of controlling digital aerial photography and LIDAR. The accuracy of the adjusted coordinates is ±0.05 m. The network configuration is shown in figure 4.

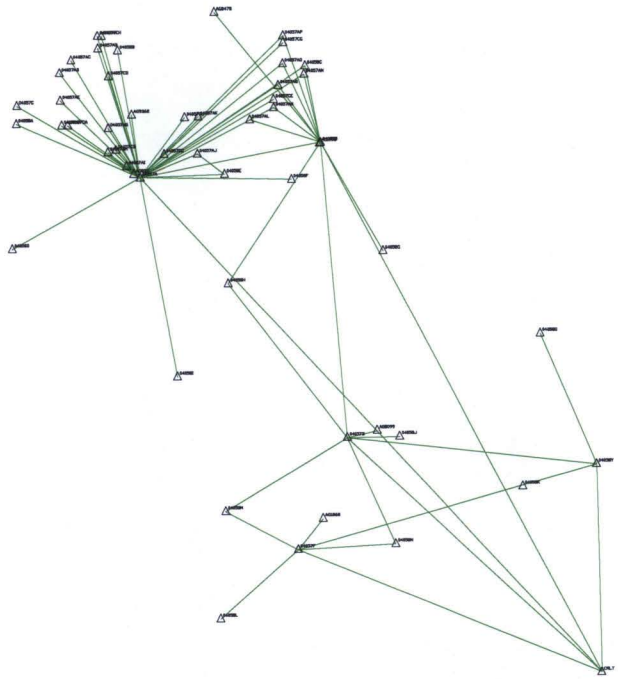


Figure 4 - network diagram

ADJUSTED COORDINATES – NAD 1983 1999/NAVD 1988 meters

Station Name	GPSID	USGS Quad	Latitude	Longitude	Ortho H	Ellip H
BASE1	04057A	BEE RIDGE	27°20'09.04929" N	82°26'25.65935" W	7.081	-17.243
BASE2	04057B	OLD MYAKKA	27°21'57.64633" N	82°16'02.14645" W	28.564	4.003
BASE3	04057C	BRADENTON	27°23'46.52976" N	82°33'31.50611" W	6.001	-18.359
BASE4	04057D	MURDOCK	27°06'54.65359" N	82°14'28.86812" W	7.738	-16.314
BASE5	04057F	MYAKKA RIVER	27°01'13.61485" N	82°17'17.14942" W	2.738	-21.108
BASE6	04058Y	MURDOCK SE	27°05'35.86059" N	82°00'11.36140" W	9.006	-15.262
BRAD-01	04057AA	LORRAINE	27°27'19.84354" N	82°28'53.72130" W	4.962	-19.561
BRAD-02	04057AB	LORRAINE	27°26'42.27645" N	82°28'52.07655" W	5.204	-19.307
BRAD-03	04057AC	BRADENTON	27°26'05.56341" N	82°30'24.75482" W	5.993	-18.475
BRAD-04	04057AD	BRADENTON	27°25'26.34442" N	82°31'04.35043" W	4.369	-20.072
BRAD-05	04057AE	BRADENTON	27°24'03.40056" N	82°31'01.47501" W	7.469	-16.943
BRAD-06	04057AF	BRADENTON	27°22'47.33551" N	82°30'56.05661" W	12.102	-12.281
BRAD-07	04057AG	LORRAINE	27°22'39.81170" N	82°28'16.10290" W	8.066	-16.356
BRAD-08	04057AH	BEE RIDGE	27°21'25.55471" N	82°28'17.23093" W	8.210	-16.179
BRAD-09	04057AI	BEE RIDGE	27°20'43.94383" N	82°27'12.69000" W	9.229	-15.157
BRAD-10	04057AJ	BEE RIDGE	27°21'21.17642" N	82°23'08.00889" W	12.094	-12.368
BRAD-11	BRAD-11	LORRAINE	27°23'15.26829" N	82°23'05.61318" W	15.187	-9.332
BRAD-12	BRAD-12	VERNA	27°23'05.25700" N	82°20'05.80194" W	18.321	-6.230
BRAD-13	04057AM	VERNA	27°23'42.56495" N	82°18'43.68540" W	23.159	-1.422
BRAD-14	04057AN	VERNA	27°25'24.26685" N	82°16'59.35268" W	31.079	6.435
BRAD-15	04057AO	VERNA	27°25'56.41715" N	82°18'12.96731" W	26.758	2.110
BRAD-16	04057AP	VERNA	27°27'21.32868" N	82°18'12.10654" W	23.103	-1.584
BRAD-17	04057AQ	VERNA	27°24'50.46602" N	82°18'28.37988" W	25.619	1.004
BRAD-QC-01	04057CA	BRADENTON	27°22'47.26432" N	82°30'35.10971" W	11.313	-13.076
BRAD-QC-02	04057CB	BEE RIDGE	27°21'33.01476" N	82°27'49.84043" W	9.104	-15.296
BRAD-QC-03	04057CC	BEE RIDGE	27°21'20.16766" N	82°25'03.16575" W	10.200	-14.235
BRAD-QC-04	04057CD	LORRAINE	27°25'16.71681" N	82°28'15.42237" W	4.554	-19.936
BRAD-QC-05	04057CE	VERNA	27°24'07.35792" N	82°18'44.01815" W	23.683	-0.910
BRAD-QC-07	04057CG	VERNA	27°26'59.86138" N	82°18'11.78504" W	23.553	-1.125
BRAD-QC-08	04057CH	LORRAINE	27°27'19.97389" N	82°28'40.17581" W	6.186	-18.342
BRAD-QC-10	04057CJ	LORRAINE	27°23'12.33317" N	82°23'52.69790" W	14.767	-9.739
CRLT	CRLT	CLEVELAND	26°54'59.90383" N	81°59'52.62224" W	11.134	-12.933
ECC	04057AK	LORRAINE	27°23'15.24979" N	82°23'05.61210" W	15.187	-9.332
ECC	04057AL	VERNA	27°23'05.24401" N	82°20'05.80220" W	18.321	-6.230
FLGPS 48	AG9362	LORRAINE	27°23'20.37543" N	82°26'56.06202" W	14.930	-9.533
HAVOLINE 2	AG1868	MYAKKA RIVER	27°02'48.34214" N	82°15'52.23382" W	1.994	-21.910

Station Name	GPSID	USGS Quad	Latitude	Longitude	Ortho H	Ellip H
I75 83 A14	AG8099	MURDOCK	27°07'16.60160" N	82°12'46.82396" W	7.456	-16.638
I75 83 A54 RM 1	AG8311	BEE RIDGE	27°20'19.30350" N	82°26'48.09119" W	16.513	-7.867
SARASOTA-01	04058A	BRADENTON	27°22'51.67123" N	82°33'33.21758" W	5.493	-18.846
SARASOTA-02	04058B	LORRAINE	27°26'36.21278" N	82°27'44.56224" W	9.087	-15.443
SARASOTA-03	04058C	VERNA	27°25'49.90169" N	82°16'55.74055" W	30.364	5.707
SARASOTA-04	04058D	SARASOTA	27°16'29.48546" N	82°33'45.09113" W	0.697	-23.478
SARASOTA-05	04058E	OLD MYAKKA	27°20'19.36966" N	82°21'33.03843" W	11.363	-13.092
SARASOTA-06	04058F	OLD MYAKKA	27°20'04.25033" N	82°17'42.12480" W	15.742	-8.753
SARASOTA-07	04058G	MYAKKA CITY	27°16'26.22670" N	82°12'26.98086" W	12.710	-11.736
SARASOTA-08	04058H	LOWER MYAKKA LAKE	27°14'45.25759" N	82°21'19.74238" W	8.691	-15.582
SARASOTA-09	04058I	LAUREL	27°09'59.72114" N	82°24'15.51805" W	5.451	-18.607
SARASOTA-10	04058J	MURDOCK	27°06'58.77185" N	82°11'29.37761" W	7.457	-16.647
SARASOTA-11	04058K	MURDOCK SE	27°04'27.73904" N	82°04'23.93205" W	12.333	-11.825
SARASOTA-12	04058L	ENGLEWOOD	26°57'40.86893" N	82°21'43.14332" W	2.001	-21.772
SARASOTA-13	04058M	MYAKKA RIVER	27°03'09.16704" N	82°21'26.61003" W	4.099	-19.750
SARASOTA-14	04058N	MURDOCK	27°01'31.90846" N	82°11'42.59389" W	3.692	-20.254
SARASOTA-15	04058O	MURDOCK NE	27°12'13.87832" N	82°03'23.99480" W	13.307	-11.092
SCHROEDER	AG8478	VERNA	27°28'32.15308" N	82°22'10.75067" W	20.294	-4.376
VERNA	AG1968	OLD MYAKKA	27°21'55.10750" N	82°16'05.66506" W	27.254	2.695

Note: Ellipsoidal heights are based on NAVD 1988 GPS derived orthometric heights plus GEOID03.

Florida West State Plane Coordinates – meters & US Survey FT
UTM Zone 17 Coordinates – meters

Station Name	SPC N m	SPC E m	SPC N ft	SPC E ft	UTM N	UTM E
BASE1	332692.716	156415.037	1091509.352	513171.667	3024456.943	357502.672
BASE2	335986.583	173560.774	1102315.981	569423.973	3027612.765	374671.958
BASE3	339433.507	144739.617	1113624.764	474866.560	3031290.528	345882.882
BASE4	308188.898	176070.430	1011116.410	577657.736	2999800.328	376959.066
BASE5	297702.348	171411.742	976711.787	562373.357	2989352.739	372217.966
BASE6	305740.887	199687.034	1003084.893	655139.877	2997165.078	400550.966
BRAD-01	345967.306	152396.494	1135061.070	499987.497	3037761.930	353591.317
BRAD-02	344810.833	152437.179	1131266.875	500120.978	3036605.288	353622.690
BRAD-03	343690.935	149887.589	1127592.676	491756.198	3035506.049	351064.434
BRAD-04	342488.272	148795.150	1123646.939	488172.088	3034312.326	349962.464
BRAD-05	339934.974	148863.517	1115269.994	488396.389	3031758.806	350010.303
BRAD-06	337593.122	149002.676	1107586.768	488852.946	3029416.136	350130.637
BRAD-07	337344.140	153396.776	1106769.899	503269.256	3029131.914	354522.151
BRAD-08	335058.690	153357.135	1099271.719	503139.200	3026847.099	354464.177
BRAD-09	333771.367	155126.197	1095048.227	508943.198	3025545.770	356222.665
BRAD-10	334894.724	161854.762	1098733.774	531018.498	3026614.998	362959.222
BRAD-11	338406.152	161931.448	1110254.184	531270.092	3030125.250	363064.074
BRAD-12	338083.740	166870.816	1109196.404	547475.335	3029763.234	368000.035
BRAD-13	339226.178	169129.844	1112944.552	554886.830	3030887.334	370267.842
BRAD-14	342349.606	172003.233	1123191.999	564313.940	3033987.109	373165.806
BRAD-15	343343.930	169983.795	1126454.210	557688.501	3034997.488	371154.729
BRAD-16	345957.377	170013.812	1135028.494	557786.982	3037610.224	371205.764
BRAD-17	341315.057	169555.492	1119797.816	556283.310	3032972.421	370710.195
BRAD-QC-01	337588.562	149578.216	1107571.807	490741.197	3029406.956	350706.067
BRAD-QC-02	335285.480	154110.738	1100015.779	505611.646	3027067.812	355219.494
BRAD-QC-03	334873.868	158689.888	1098665.349	520635.074	3026619.529	359794.673
BRAD-QC-04	342173.500	153433.743	1122614.225	503390.538	3033960.305	354597.907
BRAD-QC-05	339989.303	169122.616	1115448.238	554863.116	3031650.381	370266.744
BRAD-QC-07	345296.609	170021.027	1132860.625	557810.653	3036949.517	371207.661
BRAD-QC-08	345969.883	152768.438	1135069.524	501207.784	3037761.513	353963.231
BRAD-QC-10	338319.877	160637.534	1109971.130	527024.976	3030049.378	361769.673
CRLT	286168.064	200203.549	938869.723	656834.477	2977593.075	400912.260
ECC	338405.583	161931.475	1110252.317	531270.181	3030124.680	363064.097
ECC	338083.340	166870.808	1109195.091	547475.309	3029762.834	368000.023
FLGPS 48	338584.538	155600.557	1110839.438	510499.494	3030354.444	356735.579

Station Name	SPC N m	SPC E m	SPC N ft	SPC E ft	UTM N	UTM E
HAVOLINE 2	300612.669	173758.506	986260.065	570072.698	2992243.908	374587.384
I75 83 A14	308859.326	178881.989	1013315.972	586881.992	3000448.257	379775.407
I75 83 A54 RM 1	333010.523	155799.577	1092552.024	511152.446	3024779.636	356889.849
SARASOTA-01	337745.200	144685.017	1108085.710	474687.427	3029602.858	345814.730
SARASOTA-02	344617.161	154290.451	1130631.469	506201.255	3036396.733	355474.147
SARASOTA-03	343138.396	172104.232	1125779.888	564645.301	3034774.942	373273.127
SARASOTA-04	325983.278	144305.752	1069496.805	473443.121	3017845.351	345341.249
SARASOTA-05	332984.590	164459.281	1092466.942	539563.491	3024684.291	365548.001
SARASOTA-06	332502.596	170805.156	1090885.600	560383.249	3024151.517	371888.912
SARASOTA-07	325774.735	179456.462	1068812.610	588766.742	3017355.683	380484.697
SARASOTA-08	322700.051	164795.486	1058725.084	540666.524	3014398.767	365801.840
SARASOTA-09	313926.403	159931.664	1029940.207	524709.134	3005665.337	360868.782
SARASOTA-10	308307.138	181013.998	1011504.335	593876.758	2999879.219	381902.591
SARASOTA-11	303646.402	192728.401	996213.237	632309.762	2995126.389	393577.377
SARASOTA-12	291173.507	164060.990	955291.748	538256.765	2982883.249	364816.760
SARASOTA-13	301276.348	164545.581	988437.485	539846.627	2992980.596	365381.347
SARASOTA-14	298247.705	180634.416	978501.012	592631.413	2989824.857	381443.189
SARASOTA-15	317992.181	194386.207	1043279.347	637748.747	3009455.587	395348.990
SCHROEDER	348155.051	163467.751	1142238.696	536310.446	3039860.216	364678.520
VERNA	335908.649	173463.916	1102060.293	569106.198	3027535.622	374574.493

Input file: c:\projects\04057\adjust\04057.iob
Output file: c:\projects\04057\adjust\04057.lst
Options file: C:\Program Files\Microsearch\GeoLab\default.gpj

Geoid File: C:\geoids\geoid03\g2003u07.gsp

PARAMETERS		OBSERVATIONS	
Description	Number	Description	Number
No. of Stations	53	Directions	0
Coord Parameters	153	Distances	0
Free Latitudes	51	Azimuths	0
Free Longitudes	51	Vertical Angles	0
Free Heights	51	Zenithal Angles	0
Fixed Coordinates	6	Angles	0
Astro. Latitudes	0	Heights	0
Astro. Longitudes	0	Height Differences	0
Geoid Records	0	Auxiliary Params.	0
All Aux. Pars.	0	2-D Coords.	0
Direction Pars.	0	2-D Coord. Diffs.	0
Scale Parameters	0	3-D Coords.	0
Constant Pars.	0	3-D Coord. Diffs.	279
Rotation Pars.	0		
Translation Pars.	0		
Total Parameters	153	Total Observations	279
Degrees of Freedom = 126			

SUMMARY OF SELECTED OPTIONS

OPTION	SELECTION
Computation Mode	Adjustment
Maximum Iterations	31
Convergence Criterion	0.00100
Angular Misclosure Limit Factor	2.00
Linear Misclosure Limit Factor	2.00
Residual Rejection Criterion	Tau Max
Confidence Region Types	1D 2D Station
Variance Factor (VF) Known	Yes
Scale Covariance Matrix With VF	Yes
Scale Residual Variances With VF	Yes
Force Convergence in Max Iters	No
Distances Contribute To Heights	No
Compute Full Inverse	Yes
Optimize Band Width	Yes

Generate Initial Coordinates	Yes
Re-Transform Obs After 1st Pass	Yes
Geoid Interpolation Method	Bi-Quadratic

Input Station Data:

FFF	STATION	ELIP-LATITUDE / ASTRO-LATITUDE / N/S DEFLECTION	ELIP-LONGITUDE / ASTRO-LONGITUDE / N/S DEFLECTION	ELIP-HEIGHT / ORTHO-HEIGHT / GEOID-HEIGHT
000	04057A	N 27 20 33.84738	W 82 31 4.54590	-20.612
		N 27 20 36.76738	W 82 31 2.49699	3.712
		0 0 2.92	0 0 1.82	-24.324
000	04057AA	N 27 27 19.89095	W 82 28 53.69771	-22.591
		N 27 27 22.11095	W 82 28 51.01562	1.933
		0 0 2.22	0 0 2.38	-24.524
000	04057AB	N 27 26 42.36305	W 82 28 52.08379	-18.848
		N 27 26 44.69305	W 82 28 49.45830	5.663
		0 0 2.33	0 0 2.33	-24.511
000	04057AC	N 27 26 5.62089	W 82 30 24.75156	-17.453
		N 27 26 7.95089	W 82 30 21.96857	7.015
		0 0 2.33	0 0 2.47	-24.468
000	04057AD	N 27 25 26.42282	W 82 31 4.35591	-15.437
		N 27 25 28.78282	W 82 31 1.53940	9.004
		0 0 2.36	0 0 2.50	-24.441
000	04057AE	N 27 24 3.48386	W 82 31 1.48658	-14.167
		N 27 24 6.00386	W 82 30 58.96351	10.245
		0 0 2.52	0 0 2.24	-24.412
000	04057AF	N 27 22 47.48628	W 82 30 56.06311	-11.548
		N 27 22 50.28628	W 82 30 53.77701	12.835
		0 0 2.80	0 0 2.03	-24.383
000	04057AG	N 27 22 39.94043	W 82 28 16.10394	-15.131
		N 27 22 42.91043	W 82 28 13.86293	9.291
		0 0 2.97	0 0 1.99	-24.422
000	04057AH	N 27 21 25.62137	W 82 28 17.23861	-18.732
		N 27 21 28.59137	W 82 28 15.12187	5.657
		0 0 2.97	0 0 1.88	-24.389
000	04057AI	N 27 20 44.04034	W 82 27 12.66393	-15.536
		N 27 20 47.14034	W 82 27 10.59245	8.851
		0 0 3.10	0 0 1.84	-24.387
000	04057AJ	N 27 21 21.25248	W 82 23 7.99786	-12.904
		N 27 21 24.48248	W 82 23 6.05003	11.558
		0 0 3.23	0 0 1.73	-24.462
000	04057AK	N 27 23 15.29929	W 82 23 5.58262	-9.365
		N 27 23 18.49929	W 82 23 3.64550	15.154
		0 0 3.20	0 0 1.72	-24.519
000	04057AL	N 27 23 5.30283	W 82 20 5.83722	-2.961
		N 27 23 8.38283	W 82 20 4.35063	21.590
		0 0 3.08	0 0 1.32	-24.551
000	04057AM	N 27 23 42.72389	W 82 18 43.68422	-0.425
		N 27 23 45.75389	W 82 18 42.35517	24.157
		0 0 3.03	0 0 1.18	-24.582
000	04057AN	N 27 25 24.33472	W 82 16 59.35327	6.201
		N 27 25 27.39472	W 82 16 58.03515	30.846
		0 0 3.06	0 0 1.17	-24.645
000	04057AO	N 27 25 56.48784	W 82 18 12.97318	5.323
		N 27 25 59.57784	W 82 18 11.68875	29.971
		0 0 3.09	0 0 1.14	-24.648

Input Station Data:

FFF	STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
000	04057AP	N 27 27 21.39486 N 27 27 24.46486 0 0 3.07	W 82 18 12.10200 W 82 18 10.77222 0 0 1.18	-0.602 24.086 -24.688
000	04057AQ	N 27 24 50.54879 N 27 24 53.58879 0 0 3.04	W 82 18 28.38971 W 82 18 27.10550 0 0 1.14	4.067 28.682 -24.615
000	04057B	N 27 21 57.75550 N 27 22 0.52550 0 0 2.77	W 82 16 2.13670 W 82 16 0.66162 0 0 1.31	2.691 27.252 -24.561
000	04057C	N 27 23 46.59612 N 27 23 48.73612 0 0 2.14	W 82 33 31.53218 W 82 33 28.90785 0 0 2.33	-15.378 8.981 -24.359
000	04057CA	N 27 22 47.38446 N 27 22 50.20446 0 0 2.82	W 82 30 35.14030 W 82 30 32.86547 0 0 2.02	-10.625 13.764 -24.389
000	04057CB	N 27 21 33.09185 N 27 21 36.09185 0 0 3.00	W 82 27 49.82639 W 82 27 47.68709 0 0 1.90	-14.757 9.643 -24.400
000	04057CC	N 27 21 20.26484 N 27 21 23.50484 0 0 3.24	W 82 25 3.13603 W 82 25 1.15443 0 0 1.76	-14.703 9.732 -24.435
000	04057CD	N 27 25 16.79598 N 27 25 19.43598 0 0 2.64	W 82 28 15.43337 W 82 28 12.94363 0 0 2.21	-19.959 4.531 -24.490
000	04057CE	N 27 24 7.46942 N 27 24 10.50942 0 0 3.04	W 82 18 44.01411 W 82 18 42.69624 0 0 1.17	-0.771 23.822 -24.593
000	04057CG	N 27 26 59.90640 N 27 27 2.95640 0 0 3.05	W 82 18 11.76601 W 82 18 10.44757 0 0 1.17	-3.517 21.161 -24.678
000	04057CH	N 27 27 20.02596 N 27 27 22.26596 0 0 2.24	W 82 28 40.16273 W 82 28 37.49191 0 0 2.37	-19.534 4.994 -24.528
000	04057CJ	N 27 23 12.39155 N 27 23 15.56155 0 0 3.17	W 82 23 52.66637 W 82 23 50.67295 0 0 1.77	-9.708 14.798 -24.506
000	04057D	N 27 6 54.71137 N 27 6 59.02137 0 0 4.31	W 82 14 28.87237 W 82 14 26.62541 0 0 2.00	-19.989 4.062 -24.052
000	04057F	N 27 1 13.73671 N 27 1 16.02671 0 0 2.29	W 82 17 17.13670 W 82 17 15.25085 0 0 1.68	-20.858 2.989 -23.847
000	04058A	N 27 22 51.70508 N 27 22 54.19508 0 0 2.49	W 82 33 33.24137 W 82 33 30.70749 0 0 2.25	-15.121 9.219 -24.340
000	04058B	N 27 26 36.25192 N 27 26 38.66192 0 0 2.41	W 82 27 44.53062 W 82 27 41.97278 0 0 2.27	-15.968 8.562 -24.530

Input Station Data:

FFF STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
000 04058C	N 27 25 49.98788	W 82 16 55.75133	5.990
	N 27 25 53.06788	W 82 16 54.45566	30.647
	0 0 3.08	0 0 1.15	-24.657
000 04058D	N 27 16 29.53888	W 82 33 45.07140	-23.544
	N 27 16 32.52888	W 82 33 43.62004	0.631
	0 0 2.99	0 0 1.29	-24.175
000 04058E	N 27 20 19.44758	W 82 21 33.04284	-15.781
	N 27 20 22.64758	W 82 21 31.07280	8.674
	0 0 3.20	0 0 1.75	-24.455
000 04058F	N 27 20 4.41252	W 82 17 42.11960	-7.300
	N 27 20 7.36252	W 82 17 40.52111	17.195
	0 0 2.95	0 0 1.42	-24.495
000 04058G	N 27 16 26.30513	W 82 12 26.97844	-11.068
	N 27 16 29.84513	W 82 12 25.58334	13.379
	0 0 3.54	0 0 1.24	-24.447
000 04058H	N 27 14 45.34632	W 82 21 19.74656	-14.035
	N 27 14 49.47632	W 82 21 17.80066	10.238
	0 0 4.13	0 0 1.73	-24.273
000 04058I	N 27 9 59.79374	W 82 24 15.46685	-16.829
	N 27 10 3.79374	W 82 24 14.27541	7.229
	0 0 4.00	0 0 1.06	-24.058
000 04058J	N 27 6 58.82864	W 82 11 29.38979	-17.639
	N 27 7 2.94864	W 82 11 26.98552	6.466
	0 0 4.12	0 0 2.14	-24.105
111 04058K	N 27 4 27.73904	W 82 4 23.93205	-11.825
	N 27 4 30.62904	W 82 4 21.25914	12.333
	0 0 2.89	0 0 2.38	-24.158
000 04058L	N 26 57 41.01047	W 82 21 43.15372	-19.080
	N 26 57 41.44047	W 82 21 43.45664	4.693
	0 0 0.43 -	0 0 0.27	-23.773
000 04058M	N 27 3 9.22884	W 82 21 26.62816	-18.829
	N 27 3 11.88884	W 82 21 25.93199	5.020
	0 0 2.66	0 0 0.62	-23.849
000 04058N	N 27 1 31.95391	W 82 11 42.61530	-21.020
	N 27 1 34.31391	W 82 11 40.11194	2.926
	0 0 2.36	0 0 2.23	-23.946
000 04058O	N 27 12 13.93238	W 82 3 24.03585	-12.354
	N 27 12 17.08238	W 82 3 22.69785	12.046
	0 0 3.15	0 0 1.19	-24.399
000 04058Y	N 27 5 35.94804	W 82 0 11.37623	-16.398
	N 27 5 38.66804	W 82 0 8.64671	7.870
	0 0 2.72	0 0 2.43	-24.268
000 AG1868	N 27 2 48.45238	W 82 15 52.17273	-18.939
	N 27 2 51.11238	W 82 15 50.01697	4.965
	0 0 2.66	0 0 1.92	-23.904
000 AG1968	N 27 21 55.12052	W 82 16 5.65984	5.520
	N 27 21 57.88052	W 82 16 4.18477	30.079
	0 0 2.76	0 0 1.31	-24.559

Input Station Data:

FFF	STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
000	AG8099	N 27 7 16.67182	W 82 12 46.87822	-20.101
		N 27 7 20.89182	W 82 12 44.50755	3.993
		0 0 4.22	0 0 2.11	-24.094
001	AG8311	N 27 20 19.31438	W 82 26 48.01441	-7.867
		N 27 20 22.51438	W 82 26 46.05563	16.513
		0 0 3.20	0 0 1.74	-24.380
000	AG8478	N 27 28 32.23036	W 82 22 10.77976	-2.494
		N 27 28 34.86036	W 82 22 8.68329	22.176
		0 0 2.63	0 0 1.86	-24.670
000	AG9362	N 27 23 20.39067	W 82 26 56.01683	-14.148
		N 27 23 23.39067	W 82 26 53.73055	10.315
		0 0 3.00	0 0 2.03	-24.463
110	CRLT	N 26 54 59.90383	W 81 59 52.62224	-12.970
		N 26 55 1.58383	W 81 59 49.72878	11.097
		0 0 1.68	0 0 2.58	-24.067

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
GROUP: ID:108	RMS:0.009	Ratio:32.88	Variance:0.90	Duration:21 m	Da
DXCT	AG9362	04057A	1183.263	0.007	-7646.89
DYCT	AG9362	04057A	-2566.573	0.009	-657.303
DZCT	AG9362	04057A	-5233.731	0.008	678.193
GROUP: ID:109	RMS:0.007	Ratio:16.99	Variance:3.20	Duration:15 m	Da
DXCT	04057A	04057AI	-1346.123	0.007	7646.709
DYCT	04057A	04057AI	317.252	0.008	654.645
DZCT	04057A	04057AI	955.035	0.007	-674.019
GROUP: ID:110	RMS:0.007	Ratio:18.02	Variance:2.60	Duration:15 m	Da
DXCT	04057A	04057AI	-1346.115	0.007	7646.701
DYCT	04057A	04057AI	317.260	0.008	654.637
DZCT	04057A	04057AI	955.037	0.007	-674.020
GROUP: ID:111	RMS:0.009	Ratio:27.32	Variance:11.30	Duration:15 m	D
DXCT	04057A	04057CB	-2449.436	0.007	7646.521
DYCT	04057A	04057CB	871.349	0.012	653.518
DZCT	04057A	04057CB	2296.519	0.009	-674.129
GROUP: ID:112	RMS:0.012	Ratio:31.94	Variance:9.60	Duration:15 m	Da
DXCT	04057A	04057AH	-3181.976	0.007	7645.585
DYCT	04057A	04057AH	668.822	0.009	656.030
DZCT	04057A	04057AH	2092.188	0.008	-675.849
GROUP: ID:113	RMS:0.004	Ratio:41.41	Variance:2.50	Duration:14 m	Da
DXCT	04057A	04057AH	-3181.980	0.007	7645.589
DYCT	04057A	04057AH	668.846	0.008	656.006
DZCT	04057A	04057AH	2092.164	0.007	-675.825
GROUP: ID:114	RMS:0.017	Ratio:15.40	Variance:2.50	Duration:15 m	Da
DXCT	04057A	04057AG	-3288.928	0.008	7646.088
DYCT	04057A	04057AG	1714.693	0.010	653.591
DZCT	04057A	04057AG	4121.935	0.009	-672.410
GROUP: ID:115	RMS:0.012	Ratio:34.41	Variance:1.50	Duration:16 m	Da
DXCT	04057A	04057AG	-3288.938	0.007	7646.098
DYCT	04057A	04057AG	1714.703	0.010	653.580
DZCT	04057A	04057AG	4121.920	0.009	-672.395
GROUP: ID:116	RMS:0.020	Ratio:25.63	Variance:2.20	Duration:15 m	Da
DXCT	04057A	04057AF	-7659.878	0.008	7645.849
DYCT	04057A	04057AF	1242.513	0.009	654.302
DZCT	04057A	04057AF	4329.446	0.008	-672.026
GROUP: ID:117	RMS:0.015	Ratio:10.89	Variance:2.20	Duration:16 m	Da
DXCT	04057A	04057CA	-7089.176	0.008	7645.447
DYCT	04057A	04057CA	1317.208	0.010	652.280
DZCT	04057A	04057CA	4327.135	0.008	-672.074
GROUP: ID:118	RMS:0.009	Ratio:29.09	Variance:0.60	Duration:17 m	Da
DXCT	04057A	04057AE	-7948.307	0.007	7646.071
DYCT	04057A	04057AE	2295.184	0.009	651.532
DZCT	04057A	04057AE	6406.131	0.007	-672.926
GROUP: ID:120	RMS:0.013	Ratio:10.93	Variance:0.80	Duration:15 m	Da
DXCT	04057A	04057AC	-7174.100	0.007	7646.319
DYCT	04057A	04057AC	4144.712	0.008	652.768
DZCT	04057A	04057AC	9743.272	0.008	-674.432
GROUP: ID:121	RMS:0.016	Ratio:10.02	Variance:1.60	Duration:15 m	Da

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DXCT		04057A	04057AB	-4718.846	0.007	7645.916
DYCT		04057A	04057AB	4994.180	0.008	653.663
DZCT		04057A	04057AB	10745.798	0.009	-673.894
GROUP: ID:122	RMS:0.016	Ratio:44.90	Variance:1.30	Duration:17 m	Da	
DXCT		04057A	04057CD	-3562.030	0.007	7645.769
DYCT		04057A	04057CD	3923.685	0.009	653.954
DZCT		04057A	04057CD	8408.097	0.009	-674.332
GROUP: ID:123	RMS:0.013	Ratio:14.56	Variance:1.10	Duration:16 m	Da	
DXCT		04057A	04057CH	-4464.756	0.007	7646.339
DYCT		04057A	04057CH	5566.413	0.010	654.689
DZCT		04057A	04057CH	11775.965	0.008	-675.612
GROUP: ID:124	RMS:0.011	Ratio:25.50	Variance:1.00	Duration:17 m	Da	
DXCT		04057A	04057AA	-4833.395	0.008	7646.417
DYCT		04057A	04057AA	5516.958	0.013	656.293
DZCT		04057A	04057AA	11771.848	0.009	-676.592
GROUP: ID:125	RMS:0.015	Ratio:17.13	Variance:1.10	Duration:16 m	Da	
DXCT		04057A	04058B	-2869.055	0.007	7646.943
DYCT		04057A	04058B	5148.416	0.008	653.994
DZCT		04057A	04058B	10581.953	0.007	-675.657
GROUP: ID:126	RMS:0.007	Ratio:14.57	Variance:4.10	Duration:15 m	Da	
DXCT		04057A	04057CC	2115.512	0.007	7646.792
DYCT		04057A	04057CC	1292.880	0.009	654.743
DZCT		04057A	04057CC	1945.796	0.007	-674.043
GROUP: ID:128	RMS:0.012	Ratio:12.91	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058E	7954.093	0.007	7645.638
DYCT		04057A	04058E	1204.773	0.009	656.311
DZCT		04057A	04058E	284.101	0.008	-675.598
GROUP: ID:129	RMS:0.013	Ratio:12.39	Variance:1.20	Duration:15 m	Da	
DXCT		04057A	04058F	14273.714	0.007	7646.222
DYCT		04057A	04058F	1836.651	0.009	653.875
DZCT		04057A	04058F	-127.326	0.008	-671.377
GROUP: ID:130	RMS:0.019	Ratio:10.74	Variance:1.80	Duration:14 m	Da	
DXCT		04057A	04057AM	12184.388	0.008	7646.078
DYCT		04057A	04057AM	4664.579	0.009	654.235
DZCT		04057A	04057AM	5843.877	0.008	-671.674
GROUP: ID:131	RMS:0.010	Ratio:7.69	Variance:0.80	Duration:15 m	Day	
DXCT		04057A	04057CE	12128.419	0.007	7646.134
DYCT		04057A	04057CE	5010.945	0.009	654.319
DZCT		04057A	04057CE	6521.657	0.007	-673.374
GROUP: ID:132	RMS:0.010	Ratio:23.25	Variance:0.90	Duration:20 m	Da	
DXCT		04057A	04057AQ	12472.641	0.007	7646.160
DYCT		04057A	04057AQ	5672.060	0.009	651.286
DZCT		04057A	04057AQ	7700.484	0.008	-672.810
GROUP: ID:133	RMS:0.015	Ratio:7.14	Variance:1.70	Duration:21 m	Day	
DXCT		04057A	04057AO	12767.127	0.008	7646.301
DYCT		04057A	04057AO	6654.312	0.011	650.979
DZCT		04057A	04057AO	9502.891	0.009	-673.066
GROUP: ID:134	RMS:0.018	Ratio:12.64	Variance:1.50	Duration:19 m	Da	
DXCT		04057A	04057AP	12628.778	0.007	7646.338

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DYCT		04057A	04057AP	7854.455	0.008	652.919
DZCT		04057A	04057AP	11820.682	0.008	-674.210
GROUP: ID:135	RMS:0.016	Ratio:11.27	Variance:1.60	Duration:20 m	Da	
DXCT		04057A	04058C	14881.790	0.007	7645.803
DYCT		04057A	04058C	6844.006	0.008	653.790
DZCT		04057A	04058C	9326.572	0.009	-674.017
GROUP: ID:136	RMS:0.021	Ratio:7.09	Variance:2.90	Duration:20 m	Day	
DXCT		04057A	04057AN	14832.431	0.007	7645.996
DYCT		04057A	04057AN	6469.879	0.010	654.027
DZCT		04057A	04057AN	8626.524	0.009	-674.738
GROUP: ID:137	RMS:0.015	Ratio:11.85	Variance:2.00	Duration:18 m	Da	
DXCT		04057A	04057CG	12678.385	0.008	7646.366
DYCT		04057A	04057CG	7553.320	0.016	655.667
DZCT		04057A	04057CG	11234.538	0.010	-676.357
GROUP: ID:139	RMS:0.012	Ratio:28.38	Variance:0.70	Duration:15 m	Da	
DXCT		04057A	04057CJ	3825.778	0.007	7646.971
DYCT		04057A	04057CJ	3118.148	0.008	653.767
DZCT		04057A	04057CJ	5013.837	0.007	-674.874
GROUP: ID:140	RMS:0.004	Ratio:37.62	Variance:1.60	Duration:16 m	Da	
DXCT		04057A	AG8311	-629.216	0.007	7648.289
DYCT		04057A	AG8311	54.361	0.007	653.274
DZCT		04057A	AG8311	284.669	0.007	-676.173
GROUP: ID:141	RMS:0.012	Ratio:26.02	Variance:1.10	Duration:17 m	Da	
DXCT		04057D	04058M	-10982.097	0.007	0.167
DYCT		04057D	04058M	-4670.482	0.008	-4.055
DZCT		04057D	04058M	-6180.761	0.008	2.204
GROUP: ID:142	RMS:0.006	Ratio:27.16	Variance:2.50	Duration:16 m	Da	
DXCT		04057D	04058J	4890.198	0.007	0.104
DYCT		04057D	04058J	727.055	0.008	-2.409
DZCT		04057D	04058J	112.675	0.007	1.193
GROUP: ID:143	RMS:0.013	Ratio:8.16	Variance:1.00	Duration:179 m	Da	
DXCT		04057D	04058Y	23548.900	0.007	-0.053
DYCT		04057D	04058Y	2141.943	0.008	-1.864
DZCT		04057D	04058Y	-2158.362	0.007	1.967
GROUP: ID:144	RMS:0.004	Ratio:33.12	Variance:1.60	Duration:21 m	Da	
DXCT		04057D	AG8099	2742.976	0.007	-1.364
DYCT		04057D	AG8099	685.492	0.007	-0.200
DZCT		04057D	AG8099	601.131	0.007	0.437
GROUP: ID:145	RMS:0.009	Ratio:45.97	Variance:5.60	Duration:19 m	Da	
DXCT		04057D	AG8099	2742.972	0.007	-1.361
DYCT		04057D	AG8099	685.492	0.008	-0.200
DZCT		04057D	AG8099	601.133	0.007	0.435
GROUP: ID:146	RMS:0.011	Ratio:19.14	Variance:1.00	Duration:16 m	Da	
DXCT		04057D	04058N	5150.874	0.008	-0.091
DYCT		04057D	04058N	-3855.270	0.009	-2.798
DZCT		04057D	04058N	-8847.292	0.007	0.986
GROUP: ID:147	RMS:0.014	Ratio:10.33	Variance:1.40	Duration:20 m	Da	
DXCT		04058H	04057D	12094.559	0.008	-0.567
DYCT		04058H	04057D	-5040.623	0.008	4.151

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DZCT		04058H	04057D	-12885.729	0.007	-3.222
GROUP: ID:148	RMS:0.011	Ratio:28.70	Variance:0.80	Duration:15 m	Da	
DXCT		04058Y	04058O	-6027.379	0.007	-0.669
DYCT		04058Y	04058O	4796.891	0.008	-0.452
DZCT		04058Y	04058O	10902.909	0.007	-0.968
GROUP: ID:149	RMS:0.015	Ratio:10.57	Variance:1.40	Duration:17 m	Da	
DXCT		04058Y	04058O	-6027.391	0.007	-0.657
DYCT		04058Y	04058O	4796.886	0.009	-0.448
DZCT		04058Y	04058O	10902.926	0.008	-0.984
GROUP: ID:150	RMS:0.017	Ratio:7.50	Variance:1.80	Duration:141 m	Da	
DXCT		04058Y	04057F	-27501.221	0.007	0.861
DYCT		04058Y	04057F	-7494.882	0.009	-0.640
DZCT		04058Y	04057F	-7190.900	0.008	1.575
GROUP: ID:151	RMS:0.013	Ratio:12.81	Variance:1.30	Duration:18 m	Da	
DXCT		04057F	04058L	-6871.709	0.007	-0.379
DYCT		04057F	04058L	-3924.122	0.008	-1.965
DZCT		04057F	04058L	-5835.109	0.008	1.652
GROUP: ID:152	RMS:0.014	Ratio:4.46	Variance:2.00	Duration:18 m	Day	
DXCT		04057F	04058L	-6871.713	0.007	-0.375
DYCT		04057F	04058L	-3924.102	0.010	-1.985
DZCT		04057F	04058L	-5835.103	0.008	1.646
GROUP: ID:153	RMS:0.008	Ratio:12.46	Variance:6.00	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.057	0.007	1.670
DYCT		04057F	AG1868	1628.401	0.008	-2.370
DZCT		04057F	AG1868	2596.675	0.007	0.914
GROUP: ID:154	RMS:0.007	Ratio:14.43	Variance:3.10	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.056	0.007	1.672
DYCT		04057F	AG1868	1628.412	0.007	-2.381
DZCT		04057F	AG1868	2596.674	0.007	0.914
GROUP: ID:155	RMS:0.014	Ratio:10.66	Variance:1.50	Duration:17 m	Da	
DXCT		04057F	04058M	-7029.766	0.007	-0.651
DYCT		04057F	04058M	682.439	0.008	-1.533
DZCT		04057F	04058M	3168.505	0.007	-1.341
GROUP: ID:156	RMS:0.016	Ratio:31.69	Variance:1.90	Duration:15 m	Da	
DXCT		04057F	04058N	9103.213	0.007	-0.917
DYCT		04057F	04058N	1497.669	0.009	-0.294
DZCT		04057F	04058N	501.966	0.008	-2.552
GROUP: ID:157	RMS:0.010	Ratio:11.93	Variance:6.40	Duration:15 m	Da	
DXCT		04057AJ	04058E	2703.133	0.007	-0.678
DYCT		04057AJ	04058E	-519.095	0.008	1.867
DZCT		04057AJ	04058E	-1690.140	0.008	-0.937
GROUP: ID:158	RMS:0.017	Ratio:8.60	Variance:2.10	Duration:15 m	Day	
DXCT		04057A	04057AF	-7659.876	0.008	7645.847
DYCT		04057A	04057AF	1242.502	0.009	654.313
DZCT		04057A	04057AF	4329.446	0.008	-672.026
GROUP: ID:159	RMS:0.012	Ratio:23.19	Variance:1.00	Duration:15 m	Da	
DXCT		04057A	04057AE	-7948.306	0.007	7646.070
DYCT		04057A	04057AE	2295.157	0.008	651.558
DZCT		04057A	04057AE	6406.140	0.008	-672.935

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
GROUP: ID:161	RMS:0.012	Ratio:24.50	Variance:0.90	Duration:17 m	Da	
DXCT		04057A	04057AC	-7174.101	0.007	7646.320
DYCT		04057A	04057AC	4144.687	0.008	652.793
DZCT		04057A	04057AC	9743.291	0.007	-674.452
GROUP: ID:162	RMS:0.010	Ratio:23.20	Variance:0.90	Duration:15 m	Da	
DXCT		04057A	04057AB	-4718.843	0.008	7645.913
DYCT		04057A	04057AB	4994.209	0.009	653.634
DZCT		04057A	04057AB	10745.820	0.007	-673.916
GROUP: ID:163	RMS:0.010	Ratio:34.42	Variance:0.80	Duration:16 m	Da	
DXCT		04057A	04057AA	-4833.400	0.007	7646.422
DYCT		04057A	04057AA	5516.979	0.008	656.272
DZCT		04057A	04057AA	11771.841	0.007	-676.585
GROUP: ID:164	RMS:0.012	Ratio:36.46	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058B	-2869.061	0.008	7646.949
DYCT		04057A	04058B	5148.431	0.009	653.979
DZCT		04057A	04058B	10581.953	0.007	-675.657
GROUP: ID:165	RMS:0.011	Ratio:12.53	Variance:0.80	Duration:15 m	Da	
DXCT		04057A	04057AJ	5250.961	0.007	7646.314
DYCT		04057A	04057AJ	1723.872	0.008	654.441
DZCT		04057A	04057AJ	1974.231	0.007	-674.650
GROUP: ID:166	RMS:0.012	Ratio:10.54	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058E	7954.103	0.007	7645.628
DYCT		04057A	04058E	1204.788	0.008	656.296
DZCT		04057A	04058E	284.085	0.008	-675.582
GROUP: ID:167	RMS:0.012	Ratio:18.07	Variance:1.30	Duration:15 m	Da	
DXCT		04057A	04058F	14273.707	0.007	7646.229
DYCT		04057A	04058F	1836.656	0.008	653.870
DZCT		04057A	04058F	-127.314	0.008	-671.388
GROUP: ID:169	RMS:0.004	Ratio:36.67	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	AG8311	-629.222	0.007	7648.295
DYCT		04057A	AG8311	54.355	0.007	653.280
DZCT		04057A	AG8311	284.682	0.007	-676.186
GROUP: ID:172	RMS:0.016	Ratio:13.81	Variance:1.70	Duration:15 m	Da	
DXCT		04057A	04058A	-11950.392	0.007	7645.932
DYCT		04057A	04058A	748.268	0.010	649.981
DZCT		04057A	04058A	4444.938	0.008	-673.853
GROUP: ID:173	RMS:0.013	Ratio:7.67	Variance:1.30	Duration:15 m	Day	
DXCT		04057A	04058A	-11950.401	0.007	7645.942
DYCT		04057A	04058A	748.285	0.008	649.964
DZCT		04057A	04058A	4444.923	0.008	-673.838
GROUP: ID:174	RMS:0.010	Ratio:48.81	Variance:1.10	Duration:31 m	Da	
DXCT		04057A	04057C	-12004.310	0.007	7645.729
DYCT		04057A	04057C	1524.177	0.010	651.076
DZCT		04057A	04057C	5944.444	0.008	-673.299
GROUP: ID:175	RMS:0.013	Ratio:21.62	Variance:1.40	Duration:16 m	Da	
DXCT		04057A	04058D	-11575.372	0.007	7646.654
DYCT		04057A	04058D	-4644.962	0.010	653.733
DZCT		04057A	04058D	-6007.995	0.008	-675.058
GROUP: ID:176	RMS:0.013	Ratio:3.84	Variance:1.80	Duration:16 m	Day	

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DXCT		04057A	04058D	-11575.365	0.007	7646.648
DYCT		04057A	04058D	-4644.966	0.009	653.738
DZCT		04057A	04058D	-6008.007	0.009	-675.046
GROUP: ID:179	RMS:0.009	Ratio:25.24	Variance:0.60	Duration:15 m	Da	
DXCT		AG9362	04057A	1183.255	0.007	-7646.88
DYCT		AG9362	04057A	-2566.573	0.008	-657.303
DZCT		AG9362	04057A	-5233.740	0.007	678.202
GROUP: ID:182	RMS:0.005	Ratio:22.71	Variance:1.50	Duration:15 m	Da	
DXCT		04057B	AG1968	-91.130	0.007	0.545
DYCT		04057B	AG1968	-47.443	0.007	-5.016
DZCT		04057B	AG1968	-69.988	0.007	-0.741
GROUP: ID:183	RMS:0.003	Ratio:75.61	Variance:1.10	Duration:26 m	Da	
DXCT		04057B	AG1968	-91.134	0.007	0.549
DYCT		04057B	AG1968	-47.448	0.007	-5.011
DZCT		04057B	AG1968	-69.990	0.007	-0.739
GROUP: ID:184	RMS:0.022	Ratio:11.10	Variance:5.10	Duration:29 m	Da	
DXCT		04057B	04057AL	-6764.367	0.008	-0.578
DYCT		04057B	04057AL	60.163	0.016	-4.901
DZCT		04057B	04057AL	1842.968	0.009	0.730
GROUP: ID:185	RMS:0.010	Ratio:29.15	Variance:0.90	Duration:15 m	Da	
DXCT		04057B	04058G	6491.688	0.007	0.092
DYCT		04057B	04058G	-3826.155	0.011	-2.212
DZCT		04057B	04058G	-9070.510	0.008	0.079
GROUP: ID:186	RMS:0.012	Ratio:11.15	Variance:1.00	Duration:17 m	Da	
DXCT		04057B	04058G	6491.679	0.007	0.101
DYCT		04057B	04058G	-3826.166	0.008	-2.201
DZCT		04057B	04058G	-9070.494	0.008	0.063
GROUP: ID:187	RMS:0.018	Ratio:8.34	Variance:2.00	Duration:15 m	Day	
DXCT		04057B	04058H	-7839.527	0.008	0.005
DYCT		04057B	04058H	-7201.540	0.009	-2.881
DZCT		04057B	04058H	-11834.924	0.008	0.764
GROUP: ID:188	RMS:0.007	Ratio:53.24	Variance:0.50	Duration:41 m	Da	
DXCT		04057B	04057D	4255.044	0.007	-0.576
DYCT		04057B	04057D	-12242.203	0.008	1.310
DZCT		04057B	04057D	-24720.634	0.007	-2.477
GROUP: ID:189	RMS:0.014	Ratio:81.34	Variance:1.20	Duration:16 m	Da	
DXCT		04057B	04057AM	-4598.438	0.007	-0.061
DYCT		04057B	04057AM	881.065	0.008	-1.377
DZCT		04057B	04057AM	2865.163	0.007	2.413
GROUP: ID:190	RMS:0.010	Ratio:14.17	Variance:0.70	Duration:15 m	Da	
DXCT		04057B	04058C	-1901.037	0.007	-0.333
DYCT		04057B	04058C	3060.477	0.009	-1.808
DZCT		04057B	04058C	6347.810	0.007	0.118
GROUP: ID:191	RMS:0.012	Ratio:14.43	Variance:1.30	Duration:15 m	Da	
DXCT		04057B	04057AN	-1950.512	0.007	-0.026
DYCT		04057B	04057AN	2686.349	0.010	-1.569
DZCT		04057B	04057AN	5647.794	0.008	-0.635
GROUP: ID:192	RMS:0.012	Ratio:23.28	Variance:1.20	Duration:15 m	Da	
DXCT		04057B	04057AQ	-4310.199	0.007	0.037

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DYCT		04057B	04057AQ	1888.504	0.008	-4.284
DZCT		04057B	04057AQ	4721.760	0.010	1.287
GROUP: ID:193	RMS:0.011	Ratio:28.80	Variance:0.80	Duration:14 m	Da	
DXCT		04057B	04057AO	-4015.731	0.007	0.195
DYCT		04057B	04057AO	2870.725	0.008	-4.560
DZCT		04057B	04057AO	6524.169	0.008	1.030
GROUP: ID:194	RMS:0.012	Ratio:12.12	Variance:1.20	Duration:15 m	Da	
DXCT		04057B	04057AP	-4154.057	0.007	0.208
DYCT		04057B	04057AP	4070.859	0.008	-2.611
DZCT		04057B	04057AP	8841.979	0.008	-0.134
GROUP: ID:195	RMS:0.006	Ratio:23.07	Variance:3.40	Duration:15 m	Da	
DXCT		04057D	04058J	4890.193	0.007	0.109
DYCT		04057D	04058J	727.060	0.008	-2.413
DZCT		04057D	04058J	112.669	0.008	1.200
GROUP: ID:196	RMS:0.023	Ratio:6.02	Variance:3.00	Duration:14 m	Day	
DXCT		AG8478	04057B	10782.245	0.008	0.608
DYCT		AG8478	04057B	-4196.019	0.010	3.361
DZCT		AG8478	04057B	-10774.974	0.009	-0.613
GROUP: ID:197	RMS:0.010	Ratio:11.27	Variance:1.60	Duration:15 m	Da	
DXCT		04057B	AG8478	-10782.241	0.008	-0.611
DYCT		04057B	AG8478	4196.055	0.010	-3.397
DZCT		04057B	AG8478	10774.982	0.010	0.606
GROUP: ID:198	RMS:0.013	Ratio:19.31	Variance:1.40	Duration:21 m	Da	
DXCT		04057A	04058I	4681.115	0.007	7647.690
DYCT		04057A	04058I	-8039.486	0.009	652.509
DZCT		04057A	04058I	-16673.921	0.008	-673.698
GROUP: ID:199	RMS:0.011	Ratio:29.99	Variance:1.10	Duration:19 m	Da	
DXCT		04057A	04058I	4681.114	0.007	7647.691
DYCT		04057A	04058I	-8039.440	0.011	652.463
DZCT		04057A	04058I	-16673.948	0.008	-673.671
GROUP: ID:205	RMS:0.017	Ratio:11.56	Variance:1.60	Duration:16 m	Da	
DXCT		04057A	04057AK	5102.682	0.008	7646.927
DYCT		04057A	04057AK	3329.988	0.009	653.719
DZCT		04057A	04057AK	5093.746	0.008	-675.156
GROUP: ID:206	RMS:0.023	Ratio:11.22	Variance:3.00	Duration:15 m	Da	
DXCT		04057A	04057AK	5102.686	0.008	7646.923
DYCT		04057A	04057AK	3330.061	0.011	653.647
DZCT		04057A	04057AK	5093.722	0.008	-675.132
GROUP: ID:214	RMS:0.014	Ratio:2.37	Variance:1.20	Duration:451 m	Da	
DXCT		04057A	CRLT	46335.537	0.007	7646.214
DYCT		04057A	CRLT	-15048.276	0.008	652.902
DZCT		04057A	CRLT	-41338.935	0.007	-676.502
GROUP: ID:215	RMS:0.017	Ratio:13.67	Variance:2.10	Duration:592 m	D	
DXCT		04057A	CRLT	46335.535	0.007	7646.217
DYCT		04057A	CRLT	-15048.290	0.008	652.916
DZCT		04057A	CRLT	-41338.932	0.007	-676.505
GROUP: ID:216	RMS:0.015	Ratio:13.79	Variance:1.60	Duration:528 m	D	
DXCT		04057B	CRLT	29552.702	0.007	0.086
DYCT		04057B	CRLT	-18831.812	0.008	-2.688

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DZCT		04057B	CRLT	-44317.670	0.007	-2.394
GROUP: ID:217	RMS:0.011	Ratio:13.04	Variance:0.80	Duration:105 m	D	
DXCT		04057D	CRLT	25297.665	0.007	0.654
DYCT		04057D	CRLT	-6589.594	0.008	-4.013
DZCT		04057D	CRLT	-19597.042	0.007	0.089
GROUP: ID:218	RMS:0.011	Ratio:21.09	Variance:1.00	Duration:193 m	D	
DXCT		04057D	CRLT	25297.659	0.007	0.660
DYCT		04057D	CRLT	-6589.609	0.009	-3.998
DZCT		04057D	CRLT	-19597.028	0.007	0.075
GROUP: ID:219	RMS:0.014	Ratio:11.57	Variance:1.30	Duration:377 m	D	
DXCT		04058Y	CRLT	1748.761	0.007	0.711
DYCT		04058Y	CRLT	-8731.563	0.008	-2.123
DZCT		04058Y	CRLT	-17438.660	0.007	-1.899
GROUP: ID:220	RMS:0.013	Ratio:17.52	Variance:1.60	Duration:168 m	D	
DXCT		04057F	CRLT	29249.988	0.007	-0.157
DYCT		04057F	CRLT	-1236.674	0.009	-1.490
DZCT		04057F	CRLT	-10247.764	0.008	-3.469
GROUP: ID:221	RMS:0.016	Ratio:12.24	Variance:1.60	Duration:436 m	D	
DXCT		04057A	04057B	16782.834	0.007	7646.130
DYCT		04057A	04057B	3783.529	0.008	655.598
DZCT		04057A	04057B	2978.738	0.007	-674.111
GROUP: ID:226	RMS:0.009	Ratio:23.96	Variance:0.80	Duration:16 m	Da	
DXCT		04057A	04057AD	-8180.051	0.008	7646.463
DYCT		04057A	04057AD	3453.061	0.010	649.838
DZCT		04057A	04057AD	8671.053	0.009	-672.183
GROUP: ID:227	RMS:0.011	Ratio:10.28	Variance:1.60	Duration:16 m	Da	
DXCT		04057A	04057AD	-8180.049	0.008	7646.462
DYCT		04057A	04057AD	3452.999	0.013	649.900
DZCT		04057A	04057AD	8671.102	0.009	-672.232

Solution (pass 1):

NAME	TYPE	OLD VALUE	CORRECTION	UPDATED VALUE
04057A	ELAT	N 27 20 33.84738	0 0 -24.79800	N 27 20 9.04938
04057A	ELON	W 82 31 4.54590	0 4 38.88645	W 82 26 25.65945
04057A	EHYT	-20.612	3.384	-17.228
04057AA	ELAT	N 27 27 19.89095	0 0 -0.04731	N 27 27 19.84364
04057AA	ELON	W 82 28 53.69771	0 0 -0.02369	W 82 28 53.72140
04057AA	EHYT	-22.591	3.045	-19.546
04057AB	ELAT	N 27 26 42.36305	0 0 -0.08650	N 27 26 42.27655
04057AB	ELON	W 82 28 52.08379	0 0 0.00713	W 82 28 52.07666
04057AB	EHYT	-18.848	-0.444	-19.292
04057AC	ELAT	N 27 26 5.62089	0 0 -0.05738	N 27 26 5.56351
04057AC	ELON	W 82 30 24.75156	0 0 -0.00336	W 82 30 24.75492
04057AC	EHYT	-17.453	-1.007	-18.460
04057AD	ELAT	N 27 25 26.42282	0 0 -0.07831	N 27 25 26.34451
04057AD	ELON	W 82 31 4.35591	0 0 0.00538	W 82 31 4.35053
04057AD	EHYT	-15.437	-4.620	-20.057
04057AE	ELAT	N 27 24 3.48386	0 0 -0.08320	N 27 24 3.40066
04057AE	ELON	W 82 31 1.48658	0 0 0.01146	W 82 31 1.47512
04057AE	EHYT	-14.167	-2.760	-16.927
04057AF	ELAT	N 27 22 47.48628	0 0 -0.15068	N 27 22 47.33560
04057AF	ELON	W 82 30 56.06311	0 0 0.00640	W 82 30 56.05671
04057AF	EHYT	-11.548	-0.718	-12.266
04057AG	ELAT	N 27 22 39.94043	0 0 -0.12863	N 27 22 39.81180
04057AG	ELON	W 82 28 16.10394	0 0 0.00094	W 82 28 16.10300
04057AG	EHYT	-15.131	-1.210	-16.341
04057AH	ELAT	N 27 21 25.62137	0 0 -0.06656	N 27 21 25.55481
04057AH	ELON	W 82 28 17.23861	0 0 0.00758	W 82 28 17.23103
04057AH	EHYT	-18.732	2.569	-16.163
04057AI	ELAT	N 27 20 44.04034	0 0 -0.09642	N 27 20 43.94392
04057AI	ELON	W 82 27 12.66393	0 0 -0.02617	W 82 27 12.69010
04057AI	EHYT	-15.536	0.394	-15.142
04057AJ	ELAT	N 27 21 21.25248	0 0 -0.07597	N 27 21 21.17651
04057AJ	ELON	W 82 23 7.99786	0 0 -0.01113	W 82 23 8.00899
04057AJ	EHYT	-12.904	0.551	-12.353
04057AK	ELAT	N 27 23 15.29929	0 0 -0.04940	N 27 23 15.24989
04057AK	ELON	W 82 23 5.58262	0 0 -0.02958	W 82 23 5.61220
04057AK	EHYT	-9.365	0.048	-9.317
04057AL	ELAT	N 27 23 5.30283	0 0 -0.05874	N 27 23 5.24409
04057AL	ELON	W 82 20 5.83722	0 0 0.03494	W 82 20 5.80228
04057AL	EHYT	-2.961	-3.249	-6.210
04057AM	ELAT	N 27 23 42.72389	0 0 -0.15886	N 27 23 42.56503
04057AM	ELON	W 82 18 43.68422	0 0 -0.00127	W 82 18 43.68549
04057AM	EHYT	-0.425	-0.979	-1.404
04057AN	ELAT	N 27 25 24.33472	0 0 -0.06779	N 27 25 24.26693
04057AN	ELON	W 82 16 59.35327	0 0 0.00050	W 82 16 59.35277
04057AN	EHYT	6.201	0.251	6.452
04057AO	ELAT	N 27 25 56.48784	0 0 -0.07060	N 27 25 56.41724
04057AO	ELON	W 82 18 12.97318	0 0 0.00578	W 82 18 12.96740
04057AO	EHYT	5.323	-3.194	2.129
04057AP	ELAT	N 27 27 21.39486	0 0 -0.06609	N 27 27 21.32877
04057AP	ELON	W 82 18 12.10200	0 0 -0.00463	W 82 18 12.10663

Solution (pass 1):

NAME	TYPE	OLD VALUE			CORRECTION		UPDATED VALUE	
04057AP	EHYT		-0.602			-0.965		-1.567
04057AQ	ELAT	N 27 24	50.54879	0	0 -0.08269	N 27 24	50.46610	
04057AQ	ELON	W 82 18	28.38971	0	0 0.00974	W 82 18	28.37997	
04057AQ	EHYT		4.067			-3.046		1.021
04057B	ELAT	N 27 21	57.75550	0	0 -0.10909	N 27 21	57.64641	
04057B	ELON	W 82 16	2.13670	0	0 -0.00983	W 82 16	2.14653	
04057B	EHYT		2.691			1.332		4.023
04057C	ELAT	N 27 23	46.59612	0	0 -0.06627	N 27 23	46.52985	
04057C	ELON	W 82 33	31.53218	0	0 0.02596	W 82 33	31.50622	
04057C	EHYT		-15.378			-2.965		-18.343
04057CA	ELAT	N 27 22	47.38446	0	0 -0.12004	N 27 22	47.26442	
04057CA	ELON	W 82 30	35.14030	0	0 0.03049	W 82 30	35.10981	
04057CA	EHYT		-10.625			-2.435		-13.060
04057CB	ELAT	N 27 21	33.09185	0	0 -0.07699	N 27 21	33.01486	
04057CB	ELON	W 82 27	49.82639	0	0 -0.01415	W 82 27	49.84054	
04057CB	EHYT		-14.757			-0.523		-15.280
04057CC	ELAT	N 27 21	20.26484	0	0 -0.09709	N 27 21	20.16775	
04057CC	ELON	W 82 25	3.13603	0	0 -0.02983	W 82 25	3.16586	
04057CC	EHYT		-14.703			0.483		-14.220
04057CD	ELAT	N 27 25	16.79598	0	0 -0.07907	N 27 25	16.71691	
04057CD	ELON	W 82 28	15.43337	0	0 0.01090	W 82 28	15.42247	
04057CD	EHYT		-19.959			0.038		-19.921
04057CE	ELAT	N 27 24	7.46942	0	0 -0.11141	N 27 24	7.35801	
04057CE	ELON	W 82 18	44.01411	0	0 -0.00414	W 82 18	44.01825	
04057CE	EHYT		-0.771			-0.123		-0.894
04057CG	ELAT	N 27 26	59.90640	0	0 -0.04492	N 27 26	59.86148	
04057CG	ELON	W 82 18	11.76601	0	0 -0.01913	W 82 18	11.78514	
04057CG	EHYT		-3.517			2.407		-1.110
04057CH	ELAT	N 27 27	20.02596	0	0 -0.05198	N 27 27	19.97398	
04057CH	ELON	W 82 28	40.16273	0	0 -0.01318	W 82 28	40.17591	
04057CH	EHYT		-19.534			1.207		-18.327
04057CJ	ELAT	N 27 23	12.39155	0	0 -0.05829	N 27 23	12.33326	
04057CJ	ELON	W 82 23	52.66637	0	0 -0.03164	W 82 23	52.69801	
04057CJ	EHYT		-9.708			-0.016		-9.724
04057D	ELAT	N 27 06	54.71137	0	0 -0.05773	N 27 06	54.65364	
04057D	ELON	W 82 14	28.87237	0	0 0.00417	W 82 14	28.86820	
04057D	EHYT		-19.989			3.698		-16.291
04057F	ELAT	N 27 01	13.73671	0	0 -0.12180	N 27 01	13.61491	
04057F	ELON	W 82 17	17.13670	0	0 -0.01285	W 82 17	17.14955	
04057F	EHYT		-20.858			-0.223		-21.081
04058A	ELAT	N 27 22	51.70508	0	0 -0.03376	N 27 22	51.67132	
04058A	ELON	W 82 33	33.24137	0	0 0.02369	W 82 33	33.21768	
04058A	EHYT		-15.121			-3.710		-18.831
04058B	ELAT	N 27 26	36.25192	0	0 -0.03905	N 27 26	36.21287	
04058B	ELON	W 82 27	44.53062	0	0 -0.03173	W 82 27	44.56235	
04058B	EHYT		-15.968			0.540		-15.428
04058C	ELAT	N 27 25	49.98788	0	0 -0.08610	N 27 25	49.90178	
04058C	ELON	W 82 16	55.75133	0	0 0.01069	W 82 16	55.74064	
04058C	EHYT		5.990			-0.266		5.724
04058D	ELAT	N 27 16	29.53888	0	0 -0.05333	N 27 16	29.48555	

Solution (pass 1):

NAME	TYPE	OLD VALUE	CORRECTION	UPDATED VALUE
04058D	ELON	W 82 33 45.07140	0 0 -0.01983	W 82 33 45.09123
04058D	EHYT	-23.544	0.081	-23.463
04058E	ELAT	N 27 20 19.44758	0 0 -0.07782	N 27 20 19.36976
04058E	ELON	W 82 21 33.04284	0 0 0.00431	W 82 21 33.03853
04058E	EHYT	-15.781	2.704	-13.077
04058F	ELAT	N 27 20 4.41252	0 0 -0.16210	N 27 20 4.25042
04058F	ELON	W 82 17 42.11960	0 0 -0.00530	W 82 17 42.12490
04058F	EHYT	-7.300	-1.438	-8.738
04058G	ELAT	N 27 16 26.30513	0 0 -0.07835	N 27 16 26.22678
04058G	ELON	W 82 12 26.97844	0 0 -0.00250	W 82 12 26.98094
04058G	EHYT	-11.068	-0.648	-11.716
04058H	ELAT	N 27 14 45.34632	0 0 -0.08867	N 27 14 45.25765
04058H	ELON	W 82 21 19.74656	0 0 0.00409	W 82 21 19.74247
04058H	EHYT	-14.035	-1.526	-15.561
04058I	ELAT	N 27 09 59.79374	0 0 -0.07250	N 27 09 59.72124
04058I	ELON	W 82 24 15.46685	0 0 -0.05131	W 82 24 15.51816
04058I	EHYT	-16.829	-1.763	-18.592
04058J	ELAT	N 27 06 58.82864	0 0 -0.05674	N 27 06 58.77190
04058J	ELON	W 82 11 29.38979	0 0 0.01209	W 82 11 29.37770
04058J	EHYT	-17.639	1.014	-16.625
04058L	ELAT	N 26 57 41.01047	0 0 -0.14149	N 26 57 40.86898
04058L	ELON	W 82 21 43.15372	0 0 0.01027	W 82 21 43.14345
04058L	EHYT	-19.080	-2.665	-21.745
04058M	ELAT	N 27 03 9.22884	0 0 -0.06175	N 27 03 9.16709
04058M	ELON	W 82 21 26.62816	0 0 0.01802	W 82 21 26.61014
04058M	EHYT	-18.829	-0.896	-19.725
04058N	ELAT	N 27 01 31.95391	0 0 -0.04540	N 27 01 31.90851
04058N	ELON	W 82 11 42.61530	0 0 0.02130	W 82 11 42.59400
04058N	EHYT	-21.020	0.791	-20.229
04058O	ELAT	N 27 12 13.93238	0 0 -0.05402	N 27 12 13.87836
04058O	ELON	W 82 03 24.03585	0 0 0.04097	W 82 03 23.99488
04058O	EHYT	-12.354	1.285	-11.069
04058Y	ELAT	N 27 05 35.94804	0 0 -0.08742	N 27 05 35.86062
04058Y	ELON	W 82 00 11.37623	0 0 0.01476	W 82 00 11.36147
04058Y	EHYT	-16.398	1.160	-15.238
AG1868	ELAT	N 27 02 48.45238	0 0 -0.11014	N 27 02 48.34224
AG1868	ELON	W 82 15 52.17273	0 0 -0.06135	W 82 15 52.23408
AG1868	EHYT	-18.939	-2.938	-21.877
AG1968	ELAT	N 27 21 55.12052	0 0 -0.01246	N 27 21 55.10806
AG1968	ELON	W 82 16 5.65984	0 0 -0.00500	W 82 16 5.66484
AG1968	EHYT	5.520	-2.805	2.715
AG8099	ELAT	N 27 07 16.67182	0 0 -0.07015	N 27 07 16.60167
AG8099	ELON	W 82 12 46.87822	0 0 0.05409	W 82 12 46.82413
AG8099	EHYT	-20.101	3.488	-16.613
AG8311	ELAT	N 27 20 19.31438	0 0 -0.01079	N 27 20 19.30359
AG8311	ELON	W 82 26 48.01441	0 0 -0.07688	W 82 26 48.09129
AG8478	ELAT	N 27 28 32.23036	0 0 -0.07774	N 27 28 32.15262
AG8478	ELON	W 82 22 10.77976	0 0 0.02870	W 82 22 10.75106
AG8478	EHYT	-2.494	-1.855	-4.349
AG9362	ELAT	N 27 23 20.39067	0 0 -0.01500	N 27 23 20.37567

Solution (pass 1):

NAME	TYPE	OLD VALUE	CORRECTION	UPDATED VALUE
AG9362	ELON	W 82 26 56.01683	0 0 -0.04546	W 82 26 56.06229
AG9362	EHYT	-14.148	4.636	-9.512
CRLT	EHYT	-12.970	0.058	-12.912

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV		
PLH	000	04057A	N 27 20 9.04938	0.006	W 82 26 25.65945	0.006	-17.228	0.008	m	0
PLH	000	04057AA	N 27 27 19.84364	0.011	W 82 28 53.72140	0.011	-19.546	0.015	m	0
PLH	000	04057AB	N 27 26 42.27655	0.011	W 82 28 52.07666	0.011	-19.292	0.013	m	0
PLH	000	04057AC	N 27 26 5.56351	0.011	W 82 30 24.75492	0.010	-18.460	0.013	m	0
PLH	000	04057AD	N 27 25 26.34451	0.011	W 82 31 4.35053	0.011	-20.057	0.016	m	0
PLH	000	04057AE	N 27 24 3.40066	0.010	W 82 31 1.47512	0.010	-16.927	0.013	m	0
PLH	000	04057AF	N 27 22 47.33560	0.011	W 82 30 56.05671	0.011	-12.266	0.014	m	0
PLH	000	04057AG	N 27 22 39.81180	0.011	W 82 28 16.10300	0.011	-16.341	0.015	m	0
PLH	000	04057AH	N 27 21 25.55481	0.010	W 82 28 17.23103	0.010	-16.163	0.013	m	0
PLH	000	04057AI	N 27 20 43.94392	0.010	W 82 27 12.69010	0.010	-15.142	0.012	m	0
PLH	000	04057AJ	N 27 21 21.17651	0.011	W 82 23 8.00899	0.011	-12.353	0.013	m	0
PLH	000	04057AK	N 27 23 15.24989	0.011	W 82 23 5.61220	0.011	-9.317	0.014	m	0
PLH	000	04057AL	N 27 23 5.24409	0.014	W 82 20 5.80227	0.014	-6.210	0.029	m	0
PLH	000	04057AM	N 27 23 42.56503	0.010	W 82 18 43.68549	0.010	-1.404	0.013	m	0
PLH	000	04057AN	N 27 25 24.26693	0.010	W 82 16 59.35277	0.010	6.452	0.015	m	0
PLH	000	04057AO	N 27 25 56.41724	0.010	W 82 18 12.96740	0.010	2.129	0.015	m	0
PLH	000	04057AP	N 27 27 21.32877	0.010	W 82 18 12.10663	0.010	-1.567	0.013	m	0
PLH	000	04057AQ	N 27 24 50.46610	0.011	W 82 18 28.37997	0.010	1.021	0.014	m	0
PLH	000	04057B	N 27 21 57.64641	0.006	W 82 16 2.14653	0.006	4.023	0.011	m	0
PLH	000	04057C	N 27 23 46.52985	0.013	W 82 33 31.50622	0.013	-18.343	0.019	m	0
PLH	000	04057CA	N 27 22 47.26442	0.014	W 82 30 35.10981	0.014	-13.060	0.019	m	0
PLH	000	04057CB	N 27 21 33.01486	0.013	W 82 27 49.84054	0.013	-15.280	0.022	m	0
PLH	000	04057CC	N 27 21 20.16775	0.013	W 82 25 3.16586	0.013	-14.220	0.016	m	0
PLH	000	04057CD	N 27 25 16.71691	0.014	W 82 28 15.42247	0.013	-19.921	0.017	m	0
PLH	000	04057CE	N 27 24 7.35801		W 82 18 44.01825		-0.894		m	0

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV	
				0.013		0.013		0.016	
PLH	000	04057CG	N 27 26	59.86148	W 82 18	11.78514	-1.110 m	0.014	0
PLH	000	04057CH	N 27 27	19.97398	W 82 28	40.17591	-18.327 m	0.030	0
PLH	000	04057CJ	N 27 23	12.33326	W 82 23	52.69801	-9.724 m	0.020	0
PLH	000	04057D	N 27 6	54.65364	W 82 14	28.86820	-16.291 m	0.016	0
PLH	000	04057F	N 27 1	13.61491	W 82 17	17.14955	-21.081 m	0.012	0
PLH	000	04058A	N 27 22	51.67132	W 82 33	33.21768	-18.831 m	0.014	0
PLH	000	04058B	N 27 26	36.21287	W 82 27	44.56235	-15.428 m	0.013	0
PLH	000	04058C	N 27 25	49.90178	W 82 16	55.74064	5.724 m	0.013	0
PLH	000	04058D	N 27 16	29.48555	W 82 33	45.09123	-23.463 m	0.014	0
PLH	000	04058E	N 27 20	19.36976	W 82 21	33.03853	-13.077 m	0.014	0
PLH	000	04058F	N 27 20	4.25042	W 82 17	42.12490	-8.738 m	0.012	0
PLH	000	04058G	N 27 16	26.22678	W 82 12	26.98094	-11.716 m	0.013	0
PLH	000	04058H	N 27 14	45.25765	W 82 21	19.74246	-15.561 m	0.015	0
PLH	000	04058I	N 27 9	59.72124	W 82 24	15.51816	-18.592 m	0.015	0
PLH	000	04058J	N 27 6	58.77190	W 82 11	29.37770	-16.625 m	0.014	0
PLH	111	04058K	N 27 4	27.73904	W 82 4	23.93205	-11.825 m	0.015	0
PLH	000	04058L	N 26 57	40.86898	W 82 21	43.14345	-21.745 m	0.000	0
PLH	000	04058M	N 27 3	9.16709	W 82 21	26.61014	-19.725 m	0.018	0
PLH	000	04058N	N 27 1	31.90851	W 82 11	42.59400	-20.229 m	0.016	0
PLH	000	04058O	N 27 12	13.87836	W 82 3	23.99488	-11.069 m	0.016	0
PLH	000	04058Y	N 27 5	35.86062	W 82 0	11.36147	-15.238 m	0.017	0
PLH	000	AG1868	N 27 2	48.34224	W 82 15	52.23408	-21.877 m	0.014	0
PLH	000	AG1968	N 27 21	55.10806	W 82 16	5.66484	2.715 m	0.017	0
PLH	000	AG8099	N 27 7	16.60167	W 82 12	46.82413	-16.613 m	0.014	0
				0.010		0.010		0.015	

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV	
PLH	001	AG8311	N 27 20 19.30359	0.010	W 82 26 48.09129	0.010	-7.867 m	0.000	0
PLH	000	AG8478	N 27 28 32.15262	0.011	W 82 22 10.75106	0.011	-4.349 m	0.017	0
PLH	000	AG9362	N 27 23 20.37567	0.010	W 82 26 56.06229	0.010	-9.512 m	0.013	0
PLH	110	CRLT	N 26 54 59.90383	0.000	W 81 59 52.62224	0.000	-12.912 m	0.011	0

Adjusted PLO Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	O-HEIGHT	STD DEV		
PLO	000	04057A	N 27 20	9.04938	W 82 26	25.65945	7.096	0.008	m	0
				0.006		0.006				
PLO	000	04057AA	N 27 27	19.84364	W 82 28	53.72140	4.977	0.015	m	0
				0.011		0.011				
PLO	000	04057AB	N 27 26	42.27655	W 82 28	52.07666	5.219	0.013	m	0
				0.011		0.011				
PLO	000	04057AC	N 27 26	5.56351	W 82 30	24.75492	6.008	0.013	m	0
				0.011		0.010				
PLO	000	04057AD	N 27 25	26.34451	W 82 31	4.35053	4.385	0.016	m	0
				0.011		0.011				
PLO	000	04057AE	N 27 24	3.40066	W 82 31	1.47512	7.484	0.013	m	0
				0.010		0.010				
PLO	000	04057AF	N 27 22	47.33560	W 82 30	56.05671	12.117	0.014	m	0
				0.011		0.011				
PLO	000	04057AG	N 27 22	39.81180	W 82 28	16.10300	8.081	0.015	m	0
				0.011		0.011				
PLO	000	04057AH	N 27 21	25.55481	W 82 28	17.23103	8.226	0.013	m	0
				0.010		0.010				
PLO	000	04057AI	N 27 20	43.94392	W 82 27	12.69010	9.244	0.012	m	0
				0.010		0.010				
PLO	000	04057AJ	N 27 21	21.17651	W 82 23	8.00899	12.110	0.013	m	0
				0.011		0.011				
PLO	000	04057AK	N 27 23	15.24989	W 82 23	5.61220	15.202	0.014	m	0
				0.011		0.011				
PLO	000	04057AL	N 27 23	5.24409	W 82 20	5.80227	18.341	0.029	m	0
				0.014		0.014				
PLO	000	04057AM	N 27 23	42.56503	W 82 18	43.68549	23.177	0.013	m	0
				0.010		0.010				
PLO	000	04057AN	N 27 25	24.26693	W 82 16	59.35277	31.097	0.015	m	0
				0.010		0.010				
PLO	000	04057AO	N 27 25	56.41724	W 82 18	12.96740	26.777	0.015	m	0
				0.010		0.010				
PLO	000	04057AP	N 27 27	21.32877	W 82 18	12.10663	23.121	0.013	m	0
				0.010		0.010				
PLO	000	04057AQ	N 27 24	50.46610	W 82 18	28.37997	25.636	0.014	m	0
				0.011		0.010				
PLO	000	04057B	N 27 21	57.64641	W 82 16	2.14653	28.584	0.011	m	0
				0.006		0.006				
PLO	000	04057C	N 27 23	46.52985	W 82 33	31.50622	6.016	0.019	m	0
				0.013		0.013				
PLO	000	04057CA	N 27 22	47.26442	W 82 30	35.10981	11.328	0.019	m	0
				0.014		0.014				
PLO	000	04057CB	N 27 21	33.01486	W 82 27	49.84054	9.119	0.022	m	0
				0.013		0.013				
PLO	000	04057CC	N 27 21	20.16775	W 82 25	3.16586	10.215	0.016	m	0
				0.013		0.013				
PLO	000	04057CD	N 27 25	16.71691	W 82 28	15.42247	4.569	0.017	m	0
				0.014		0.013				
PLO	000	04057CE	N 27 24	7.35801	W 82 18	44.01825	23.698		m	0

Adjusted PLO Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	O-HEIGHT	STD DEV		
				0.013		0.013		0.016		
PLO	000	04057CG	N 27 26 59.86148		W 82 18 11.78514		23.568		m	0
				0.014		0.014		0.030		
PLO	000	04057CH	N 27 27 19.97398		W 82 28 40.17591		6.201		m	0
				0.013		0.013		0.020		
PLO	000	04057CJ	N 27 23 12.33326		W 82 23 52.69801		14.782		m	0
				0.014		0.014		0.016		
PLO	000	04057D	N 27 6 54.65364		W 82 14 28.86820		7.761		m	0
				0.006		0.006		0.012		
PLO	000	04057F	N 27 1 13.61491		W 82 17 17.14955		2.765		m	0
				0.008		0.008		0.014		
PLO	000	04058A	N 27 22 51.67132		W 82 33 33.21768		5.508		m	0
				0.011		0.011		0.013		
PLO	000	04058B	N 27 26 36.21287		W 82 27 44.56235		9.102		m	0
				0.011		0.011		0.013		
PLO	000	04058C	N 27 25 49.90178		W 82 16 55.74064		30.382		m	0
				0.010		0.010		0.014		
PLO	000	04058D	N 27 16 29.48555		W 82 33 45.09123		0.712		m	0
				0.011		0.011		0.014		
PLO	000	04058E	N 27 20 19.36976		W 82 21 33.03853		11.378		m	0
				0.010		0.010		0.012		
PLO	000	04058F	N 27 20 4.25042		W 82 17 42.12490		15.757		m	0
				0.011		0.011		0.013		
PLO	000	04058G	N 27 16 26.22678		W 82 12 26.98094		12.730		m	0
				0.011		0.010		0.015		
PLO	000	04058H	N 27 14 45.25765		W 82 21 19.74246		8.712		m	0
				0.010		0.010		0.015		
PLO	000	04058I	N 27 9 59.72124		W 82 24 15.51816		5.466		m	0
				0.011		0.011		0.014		
PLO	000	04058J	N 27 6 58.77190		W 82 11 29.37770		7.480		m	0
				0.010		0.010		0.015		
PLO	111	04058K	N 27 4 27.73904		W 82 4 23.93205		12.333		m	0
				0.000		0.000		0.000		
PLO	000	04058L	N 26 57 40.86898		W 82 21 43.14345		2.028		m	0
				0.011		0.011		0.018		
PLO	000	04058M	N 27 3 9.16709		W 82 21 26.61014		4.124		m	0
				0.010		0.010		0.016		
PLO	000	04058N	N 27 1 31.90851		W 82 11 42.59400		3.717		m	0
				0.010		0.010		0.016		
PLO	000	04058O	N 27 12 13.87836		W 82 3 23.99488		13.330		m	0
				0.011		0.011		0.017		
PLO	000	04058Y	N 27 5 35.86062		W 82 0 11.36147		9.029		m	0
				0.008		0.008		0.014		
PLO	000	AG1868	N 27 2 48.34224		W 82 15 52.23408		2.027		m	0
				0.011		0.011		0.017		
PLO	000	AG1968	N 27 21 55.10806		W 82 16 5.66484		27.274		m	0
				0.010		0.010		0.014		
PLO	000	AG8099	N 27 7 16.60167		W 82 12 46.82413		7.481		m	0
				0.010		0.010		0.015		

Adjusted PLO Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	O-HEIGHT	STD DEV	
PLO	001	AG8311	N 27 20 19.30359	0.010	W 82 26 48.09129	0.010	16.513 m	0.000	0
PLO	000	AG8478	N 27 28 32.15262	0.011	W 82 22 10.75106	0.011	20.321 m	0.017	0
PLO	000	AG9362	N 27 23 20.37567	0.010	W 82 26 56.06229	0.010	14.951 m	0.013	0
PLO	110	CRLT	N 26 54 59.90383	0.000	W 81 59 52.62224	0.000	11.155 m	0.011	0

Adjusted XYZ Coordinates:

CODE	FFF	STATION	X-COORDINATE STD DEV	Y-COORDINATE STD DEV	Z-COORDINATE STD DEV		
XYZ		04057A	745908.797 0.006	-5620600.470 0.008	2911315.810 0.007	m	0
XYZ		04057AA	741075.399 0.011	-5615083.497 0.014	2923087.652 0.011	m	0
XYZ		04057AB	741189.953 0.011	-5615606.276 0.013	2922061.621 0.012	m	0
XYZ		04057AC	738734.697 0.011	-5616455.771 0.012	2921059.092 0.011	m	0
XYZ		04057AD	737728.750 0.011	-5617147.434 0.015	2919986.888 0.012	m	0
XYZ		04057AE	737960.491 0.010	-5618305.300 0.013	2917721.946 0.011	m	0
XYZ		04057AF	738248.920 0.011	-5619357.962 0.013	2915645.256 0.012	m	0
XYZ		04057AG	742619.863 0.011	-5618885.771 0.014	2915437.737 0.012	m	0
XYZ		04057AH	742726.818 0.010	-5619931.634 0.013	2913407.984 0.011	m	0
XYZ		04057AI	744562.678 0.010	-5620283.213 0.012	2912270.846 0.011	m	0
XYZ		04057AJ	751159.760 0.011	-5618876.596 0.013	2913290.042 0.012	m	0
XYZ		04057AK	751011.482 0.011	-5617270.454 0.014	2916409.547 0.011	m	0
XYZ		04057AL	755927.276 0.014	-5616756.766 0.027	2916137.510 0.017	m	0
XYZ		04057AM	758093.195 0.010	-5615935.877 0.013	2917159.696 0.011	m	0
XYZ		04057AN	760741.179 0.010	-5614130.583 0.014	2919942.334 0.012	m	0
XYZ		04057AO	758675.920 0.010	-5613946.188 0.014	2920818.710 0.012	m	0
XYZ		04057AP	758537.581 0.010	-5612746.042 0.013	2923136.506 0.011	m	0
XYZ		04057AQ	758381.441 0.010	-5614928.418 0.013	2919016.297 0.012	m	0
XYZ		04057B	762691.644 0.006	-5616816.930 0.010	2914294.542 0.007	m	0
XYZ		04057C	733904.487 0.013	-5619076.293 0.018	2917260.254 0.014	m	0
XYZ		04057CA	738819.621 0.014	-5619283.261 0.018	2915642.945 0.014	m	0
XYZ		04057CB	743459.362 0.014	-5619729.121 0.021	2913612.329 0.015	m	0
XYZ		04057CC	748024.309 0.013	-5619307.589 0.016	2913261.606 0.014	m	0
XYZ		04057CD	742346.767 0.013	-5616676.785 0.016	2919723.907 0.015	m	0
XYZ		04057CE	758037.217	-5615589.524	2917837.467	m	0

Adjusted XYZ Coordinates:

CODE	FFF	STATION	X-COORDINATE / STD DEV	Y-COORDINATE / STD DEV	Z-COORDINATE / STD DEV		
			0.013	0.016	0.014		
XYZ		04057CG	758587.183	-5613047.150	2922550.348	m	0
			0.015	0.028	0.017		
XYZ		04057CH	741444.041	-5615034.056	2923091.775	m	0
			0.014	0.019	0.015		
XYZ		04057CJ	749734.576	-5617482.322	2916329.647	m	0
			0.014	0.016	0.014		
XYZ		04057D	766946.681	-5629059.133	2889573.904	m	0
			0.006	0.011	0.008		
XYZ		04057F	762994.351	-5634412.066	2880224.639	m	0
			0.008	0.013	0.009		
XYZ		04058A	733958.401	-5619852.192	2915760.741	m	0
			0.011	0.013	0.011		
XYZ		04058B	743039.740	-5615452.047	2921897.763	m	0
			0.011	0.013	0.011		
XYZ		04058C	760790.597	-5613756.459	2920642.365	m	0
			0.010	0.013	0.011		
XYZ		04058D	734333.429	-5625245.434	2905307.810	m	0
			0.011	0.013	0.012		
XYZ		04058E	753862.894	-5619395.689	2911599.902	m	0
			0.010	0.012	0.010		
XYZ		04058F	760182.508	-5618763.816	2911188.490	m	0
			0.011	0.013	0.011		
XYZ		04058G	769183.328	-5620643.091	2905224.040	m	0
			0.011	0.014	0.012		
XYZ		04058H	754852.119	-5624018.491	2902459.627	m	0
			0.010	0.014	0.011		
XYZ		04058I	750589.912	-5628639.937	2894641.875	m	0
			0.011	0.014	0.012		
XYZ		04058J	771836.876	-5628332.076	2889686.577	m	0
			0.010	0.014	0.011		
XYZ		04058K	783736.911	-5628829.437	2885550.298	m	0
			0.000	0.000	0.000		
XYZ		04058L	756122.640	-5638336.180	2874389.534	m	0
			0.011	0.017	0.013		
XYZ		04058M	755964.584	-5633729.621	2883393.144	m	0
			0.010	0.015	0.012		
XYZ		04058N	772097.559	-5632914.400	2880726.609	m	0
			0.010	0.015	0.011		
XYZ		04058O	784468.192	-5622120.296	2898318.455	m	0
			0.012	0.016	0.013		
XYZ		04058Y	790495.577	-5626917.185	2887415.538	m	0
			0.008	0.013	0.009		
XYZ		AG1868	765135.407	-5632783.659	2882821.313	m	0
			0.011	0.016	0.013		
XYZ		AG1968	762600.511	-5616864.375	2914224.553	m	0
			0.010	0.013	0.011		
XYZ		AG8099	769689.654	-5628373.641	2890175.036	m	0
			0.010	0.014	0.011		

Adjusted XYZ Coordinates:

CODE	FFF	STATION	X-COORDINATE STD DEV	Y-COORDINATE STD DEV	Z-COORDINATE STD DEV		
XYZ		AG8311	745279.578 0.010	-5620546.112 0.005	2911600.485 0.009	m	0
XYZ		AG8478	751909.401 0.011	-5612620.892 0.015	2925069.520 0.013	m	0
XYZ		AG9362	744725.538 0.010	-5618033.897 0.013	2916549.546 0.011	m	0
XYZ		CRLT	792244.339 0.001	-5635648.743 0.010	2869976.874 0.005	m	0

Geoid Values:

CODE	STATION	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	04057A	0 0 2.92	0 0 1.82	-24.324 m
GEOI	04057AA	0 0 2.22	0 0 2.38	-24.524 m
GEOI	04057AB	0 0 2.33	0 0 2.33	-24.511 m
GEOI	04057AC	0 0 2.33	0 0 2.47	-24.468 m
GEOI	04057AD	0 0 2.36	0 0 2.50	-24.441 m
GEOI	04057AE	0 0 2.52	0 0 2.24	-24.412 m
GEOI	04057AF	0 0 2.80	0 0 2.03	-24.383 m
GEOI	04057AG	0 0 2.97	0 0 1.99	-24.422 m
GEOI	04057AH	0 0 2.97	0 0 1.88	-24.389 m
GEOI	04057AI	0 0 3.10	0 0 1.84	-24.387 m
GEOI	04057AJ	0 0 3.23	0 0 1.73	-24.462 m
GEOI	04057AK	0 0 3.20	0 0 1.72	-24.519 m
GEOI	04057AL	0 0 3.08	0 0 1.32	-24.551 m
GEOI	04057AM	0 0 3.03	0 0 1.18	-24.582 m
GEOI	04057AN	0 0 3.06	0 0 1.17	-24.645 m
GEOI	04057AO	0 0 3.09	0 0 1.14	-24.648 m
GEOI	04057AP	0 0 3.07	0 0 1.18	-24.688 m
GEOI	04057AQ	0 0 3.04	0 0 1.14	-24.615 m
GEOI	04057B	0 0 2.77	0 0 1.31	-24.561 m
GEOI	04057C	0 0 2.14	0 0 2.33	-24.359 m
GEOI	04057CA	0 0 2.82	0 0 2.02	-24.389 m
GEOI	04057CB	0 0 3.00	0 0 1.90	-24.400 m
GEOI	04057CC	0 0 3.24	0 0 1.76	-24.435 m
GEOI	04057CD	0 0 2.64	0 0 2.21	-24.490 m
GEOI	04057CE	0 0 3.04	0 0 1.17	-24.593 m
GEOI	04057CG	0 0 3.05	0 0 1.17	-24.678 m
GEOI	04057CH	0 0 2.24	0 0 2.37	-24.528 m
GEOI	04057CJ	0 0 3.17	0 0 1.77	-24.506 m
GEOI	04057D	0 0 4.31	0 0 2.00	-24.052 m
GEOI	04057F	0 0 2.29	0 0 1.68	-23.847 m
GEOI	04058A	0 0 2.49	0 0 2.25	-24.340 m
GEOI	04058B	0 0 2.41	0 0 2.27	-24.530 m
GEOI	04058C	0 0 3.08	0 0 1.15	-24.657 m
GEOI	04058D	0 0 2.99	0 0 1.29	-24.175 m
GEOI	04058E	0 0 3.20	0 0 1.75	-24.455 m
GEOI	04058F	0 0 2.95	0 0 1.42	-24.495 m
GEOI	04058G	0 0 3.54	0 0 1.24	-24.447 m
GEOI	04058H	0 0 4.13	0 0 1.73	-24.273 m
GEOI	04058I	0 0 4.00	0 0 1.06	-24.058 m
GEOI	04058J	0 0 4.12	0 0 2.14	-24.105 m
GEOI	04058K	0 0 2.89	0 0 2.38	-24.158 m
GEOI	04058L	0 0 0.43 -	0 0 0.27	-23.773 m
GEOI	04058M	0 0 2.66	0 0 0.62	-23.849 m
GEOI	04058N	0 0 2.36	0 0 2.23	-23.946 m
GEOI	04058O	0 0 3.15	0 0 1.19	-24.399 m
GEOI	04058Y	0 0 2.72	0 0 2.43	-24.268 m
GEOI	AG1868	0 0 2.66	0 0 1.92	-23.904 m
GEOI	AG1968	0 0 2.76	0 0 1.31	-24.559 m
GEOI	AG8099	0 0 4.22	0 0 2.11	-24.094 m
GEOI	AG8311	0 0 3.20	0 0 1.74	-24.380 m

Geoid Values:

CODE	STATION	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	AG8478	0 0 2.63	0 0 1.86	-24.670 m
GEOI	AG9362	0 0 3.00	0 0 2.03	-24.463 m
GEOI	CRLT	0 0 1.68	0 0 2.58	-24.067 m

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
GROUP: ID:108	RMS:0.009	Ratio:32.88	Variance:0.90	Duration:21 m	Da	
DXCT		AG9362	04057A	1183.26330	-0.004	-0.345
				0.015	0.011	0.66
DYCT		AG9362	04057A	-2566.57300	-0.004	-0.468
				0.013	0.009	0.71
DZCT		AG9362	04057A	-5233.73100	-0.003	-0.373
				0.010	0.007	0.47
GROUP: ID:109	RMS:0.007	Ratio:16.99	Variance:3.20	Duration:15 m	Da	
DXCT		04057A	04057AI	-1346.12340	0.002	0.210
				0.014	0.010	1.25
DYCT		04057A	04057AI	317.25250	0.004	0.493
				0.012	0.009	2.59
DZCT		04057A	04057AI	955.03530	-0.003	-0.436
				0.009	0.007	1.73
GROUP: ID:110	RMS:0.007	Ratio:18.02	Variance:2.60	Duration:15 m	Da	
DXCT		04057A	04057AI	-1346.11540	-0.002	-0.231
				0.013	0.009	1.29
DYCT		04057A	04057AI	317.26040	-0.005	-0.525
				0.012	0.009	2.74
DZCT		04057A	04057AI	955.03660	0.003	0.525
				0.007	0.005	1.50
GROUP: ID:111	RMS:0.009	Ratio:27.32	Variance:11.30	Duration:15 m	D	
DXCT		04057A	04057CB	-2449.43550	0.000	0.000
				0.018	0.000	0.00*
DYCT		04057A	04057CB	871.34870	-0.000	-0.000
				0.014	0.000	0.00*
DZCT		04057A	04057CB	2296.51920	-0.000	-0.000
				0.015	0.000	0.00*
GROUP: ID:112	RMS:0.012	Ratio:31.94	Variance:9.60	Duration:15 m	Da	
DXCT		04057A	04057AH	-3181.97590	-0.005	-0.464
				0.015	0.011	1.38
DYCT		04057A	04057AH	668.82210	-0.001	-0.138
				0.013	0.010	0.34
DZCT		04057A	04057AH	2092.18770	-0.019	-2.487
				0.010	0.008	4.90
GROUP: ID:113	RMS:0.004	Ratio:41.41	Variance:2.50	Duration:14 m	Da	
DXCT		04057A	04057AH	-3181.98010	0.005	0.515
				0.014	0.009	1.26
DYCT		04057A	04057AH	668.84580	-0.000	-0.028
				0.012	0.009	0.06
DZCT		04057A	04057AH	2092.16380	0.013	2.650
				0.008	0.005	3.46
GROUP: ID:114	RMS:0.017	Ratio:15.40	Variance:2.50	Duration:15 m	Da	
DXCT		04057A	04057AG	-3288.92830	-0.004	-0.302
				0.017	0.012	0.67
DYCT		04057A	04057AG	1714.69250	-0.005	-0.480
				0.014	0.010	0.90
DZCT		04057A	04057AG	4121.93490	-0.010	-1.114

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				STD DEV		
				0.012	0.009	1.74
GROUP: ID:115	RMS:0.012	Ratio:34.41	Variance:1.50	Duration:16 m Da		
DXCT		04057A	04057AG	-3288.93810	0.004	0.322
				0.017	0.012	0.70
DYCT		04057A	04057AG	1714.70320	0.003	0.362
				0.013	0.009	0.60
DZCT		04057A	04057AG	4121.92020	0.008	0.932
				0.012	0.008	1.38
GROUP: ID:116	RMS:0.020	Ratio:25.63	Variance:2.20	Duration:15 m Da		
DXCT		04057A	04057AF	-7659.87850	-0.003	-0.261
				0.015	0.011	0.31
DYCT		04057A	04057AF	1242.51280	0.001	0.061
				0.014	0.010	0.07
DZCT		04057A	04057AF	4329.44580	0.005	0.663
				0.010	0.007	0.54
GROUP: ID:117	RMS:0.015	Ratio:10.89	Variance:2.20	Duration:16 m Da		
DXCT		04057A	04057CA	-7089.17650	-0.000	-0.000
				0.016	0.000	0.00*
DYCT		04057A	04057CA	1317.20840	-0.000	-0.000
				0.014	0.000	0.00*
DZCT		04057A	04057CA	4327.13470	-0.000	-0.000
				0.012	0.000	0.00*
GROUP: ID:118	RMS:0.009	Ratio:29.09	Variance:0.60	Duration:17 m Da		
DXCT		04057A	04057AE	-7948.30740	-0.002	-0.209
				0.015	0.010	0.21
DYCT		04057A	04057AE	2295.18360	-0.001	-0.135
				0.013	0.009	0.12
DZCT		04057A	04057AE	6406.13060	0.015	2.032
				0.010	0.007	1.44
GROUP: ID:120	RMS:0.013	Ratio:10.93	Variance:0.80	Duration:15 m Da		
DXCT		04057A	04057AC	-7174.09960	0.004	0.340
				0.015	0.011	0.29
DYCT		04057A	04057AC	4144.71150	-0.002	-0.234
				0.013	0.009	0.16
DZCT		04057A	04057AC	9743.27170	0.016	3.247
				0.007	0.005	1.27
GROUP: ID:121	RMS:0.016	Ratio:10.02	Variance:1.60	Duration:15 m Da		
DXCT		04057A	04057AB	-4718.84570	0.019	1.509
				0.016	0.012	1.46
DYCT		04057A	04057AB	4994.17950	0.004	0.392
				0.013	0.009	0.28
DZCT		04057A	04057AB	10745.79770	-0.007	-1.766
				0.007	0.004	0.51
GROUP: ID:122	RMS:0.016	Ratio:44.90	Variance:1.30	Duration:17 m Da		
DXCT		04057A	04057CD	-3562.02990	-0.000	-0.000
				0.016	0.000	0.00*
DYCT		04057A	04057CD	3923.68490	-0.000	-0.000
				0.013	0.000	0.00*

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DZCT	04057A	04057CD	8408.09660	-0.000	-0.000
			0.008	0.000	0.00*
GROUP: ID:123	RMS:0.013	Ratio:14.56	Variance:1.10	Duration:16 m	Da
DXCT	04057A	04057CH	-4464.75620	-0.000	-0.000
			0.017	0.000	0.00*
DYCT	04057A	04057CH	5566.41340	-0.000	-0.000
			0.013	0.000	0.00*
DZCT	04057A	04057CH	11775.96450	-0.000	-0.000
			0.012	0.000	0.00*
GROUP: ID:124	RMS:0.011	Ratio:25.50	Variance:1.00	Duration:17 m	Da
DXCT	04057A	04057AA	-4833.39470	0.002	0.150
			0.020	0.016	0.17
DYCT	04057A	04057AA	5516.95750	-0.002	-0.177
			0.015	0.011	0.15
DZCT	04057A	04057AA	11771.84780	-0.017	-1.109
			0.017	0.015	1.21
GROUP: ID:125	RMS:0.015	Ratio:17.13	Variance:1.10	Duration:16 m	Da
DXCT	04057A	04058B	-2869.05490	0.004	0.358
			0.014	0.010	0.29
DYCT	04057A	04058B	5148.41580	-0.002	-0.196
			0.013	0.009	0.14
DZCT	04057A	04058B	10581.95300	-0.006	-1.071
			0.009	0.006	0.49
GROUP: ID:126	RMS:0.007	Ratio:14.57	Variance:4.10	Duration:15 m	Da
DXCT	04057A	04057CC	2115.51150	-0.000	-0.000
			0.014	0.000	0.00*
DYCT	04057A	04057CC	1292.88050	-0.000	-0.000
			0.013	0.000	0.00*
DZCT	04057A	04057CC	1945.79630	-0.000	-0.000
			0.009	0.000	0.00*
GROUP: ID:128	RMS:0.012	Ratio:12.91	Variance:1.10	Duration:15 m	Da
DXCT	04057A	04058E	7954.09270	-0.005	-0.403
			0.016	0.013	0.63
DYCT	04057A	04058E	1204.77340	0.005	0.471
			0.013	0.010	0.61
DZCT	04057A	04058E	284.10140	-0.010	-1.268
			0.010	0.008	1.30
GROUP: ID:129	RMS:0.013	Ratio:12.39	Variance:1.20	Duration:15 m	Da
DXCT	04057A	04058F	14273.71400	0.006	0.600
			0.015	0.011	0.44
DYCT	04057A	04058F	1836.65100	-0.003	-0.347
			0.013	0.009	0.22
DZCT	04057A	04058F	-127.32550	-0.001	-0.088
			0.009	0.007	0.04
GROUP: ID:130	RMS:0.019	Ratio:10.74	Variance:1.80	Duration:14 m	Da
DXCT	04057A	04057AM	12184.38750	0.013	1.313
			0.015	0.010	0.94
DYCT	04057A	04057AM	4664.57950	0.012	1.317

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL	STD RES
				STD DEV	STD DEV	PPM
				0.013	0.009	0.85
DZCT		04057A	04057AM	5843.87710	-0.007	-0.961
				0.010	0.007	0.47
GROUP: ID:131	RMS:0.010	Ratio:7.69	Variance:0.80	Duration:15 m	Day	
DXCT		04057A	04057CE	12128.41940	0.000	0.000
				0.014	0.000	0.00*
DYCT		04057A	04057CE	5010.94550	-0.000	-0.000
				0.013	0.000	0.00*
DZCT		04057A	04057CE	6521.65700	0.000	0.000
				0.009	0.000	0.00*
GROUP: ID:132	RMS:0.010	Ratio:23.25	Variance:0.90	Duration:20 m	Da	
DXCT		04057A	04057AQ	12472.64110	-0.001	-0.143
				0.015	0.009	0.09
DYCT		04057A	04057AQ	5672.06010	0.002	0.204
				0.013	0.009	0.11
DZCT		04057A	04057AQ	7700.48400	0.009	1.164
				0.010	0.008	0.58
GROUP: ID:133	RMS:0.015	Ratio:7.14	Variance:1.70	Duration:21 m	Day	
DXCT		04057A	04057AO	12767.12650	-0.006	-0.421
				0.019	0.014	0.35
DYCT		04057A	04057AO	6654.31200	-0.008	-0.787
				0.014	0.010	0.46
DZCT		04057A	04057AO	9502.89090	0.031	2.844
				0.013	0.011	1.77
GROUP: ID:134	RMS:0.018	Ratio:12.64	Variance:1.50	Duration:19 m	Da	
DXCT		04057A	04057AP	12628.77760	0.000	0.035
				0.015	0.011	0.02
DYCT		04057A	04057AP	7854.45500	0.002	0.287
				0.013	0.009	0.13
DZCT		04057A	04057AP	11820.68150	0.032	6.855
				0.008	0.005	1.67
GROUP: ID:135	RMS:0.016	Ratio:11.27	Variance:1.60	Duration:20 m	Da	
DXCT		04057A	04058C	14881.79050	-0.014	-1.256
				0.016	0.011	0.72
DYCT		04057A	04058C	6844.00630	0.010	1.182
				0.013	0.008	0.53
DZCT		04057A	04058C	9326.57210	-0.011	-3.096
				0.007	0.004	0.58
GROUP: ID:136	RMS:0.021	Ratio:7.09	Variance:2.90	Duration:20 m	Day	
DXCT		04057A	04057AN	14832.43060	0.006	0.510
				0.018	0.013	0.35
DYCT		04057A	04057AN	6469.87930	-0.048	-5.134
				0.014	0.009	2.59
DZCT		04057A	04057AN	8626.52370	-0.012	-1.404
				0.012	0.008	0.64
GROUP: ID:137	RMS:0.015	Ratio:11.85	Variance:2.00	Duration:18 m	Da	

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		04057A	04057CG	12678.38540	-0.000	-0.000
				0.023	0.000	0.00*
DYCT		04057A	04057CG	7553.32000	0.000	0.000
				0.016	0.000	0.00*
DZCT		04057A	04057CG	11234.53840	-0.000	-0.000
				0.022	0.000	0.00*
GROUP: ID:139 RMS:0.012 Ratio:28.38 Variance:0.70 Duration:15 m Da						
DXCT		04057A	04057CJ	3825.77830	-0.000	-0.000
				0.014	0.000	0.00*
DYCT		04057A	04057CJ	3118.14750	0.000	0.000
				0.013	0.000	0.00*
DZCT		04057A	04057CJ	5013.83660	-0.000	-0.000
				0.009	0.000	0.00*
GROUP: ID:140 RMS:0.004 Ratio:37.62 Variance:1.60 Duration:16 m Da						
DXCT		04057A	AG8311	-629.21650	0.005	0.476
				0.013	0.010	6.58
DYCT		04057A	AG8311	54.36100	-0.003	-0.362
				0.012	0.009	4.52
DZCT		04057A	AG8311	284.66870	0.006	1.135
				0.007	0.005	8.23
GROUP: ID:141 RMS:0.012 Ratio:26.02 Variance:1.10 Duration:17 m Da						
DXCT		04057D	04058M	-10982.09660	-0.002	-0.259
				0.014	0.009	0.17
DYCT		04057D	04058M	-4670.48200	-0.000	-0.045
				0.013	0.008	0.03
DZCT		04057D	04058M	-6180.76070	0.005	1.218
				0.008	0.004	0.39
GROUP: ID:142 RMS:0.006 Ratio:27.16 Variance:2.50 Duration:16 m Da						
DXCT		04057D	04058J	4890.19800	-0.001	-0.162
				0.013	0.009	0.30
DYCT		04057D	04058J	727.05490	-0.002	-0.241
				0.012	0.009	0.43
DZCT		04057D	04058J	112.67520	-0.004	-0.727
				0.007	0.005	0.71
GROUP: ID:143 RMS:0.013 Ratio:8.16 Variance:1.00 Duration:179 m Da						
DXCT		04057D	04058Y	23548.90000	-0.001	-0.076
				0.014	0.011	0.03
DYCT		04057D	04058Y	2141.94280	-0.003	-0.318
				0.013	0.009	0.13
DZCT		04057D	04058Y	-2158.36200	-0.007	-1.082
				0.009	0.007	0.30
GROUP: ID:144 RMS:0.004 Ratio:33.12 Variance:1.60 Duration:21 m Da						
DXCT		04057D	AG8099	2742.97580	0.001	0.107
				0.013	0.009	0.34
DYCT		04057D	AG8099	685.49160	-0.002	-0.214
				0.012	0.009	0.64
DZCT		04057D	AG8099	601.13090	0.000	0.004
				0.007	0.004	0.01

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
GROUP: ID:145	RMS:0.009	Ratio:45.97	Variance:5.60	Duration:19 m	Da	
DXCT		04057D	AG8099	2742.97200	-0.001	-0.100
				0.014	0.010	0.35
DYCT		04057D	AG8099	685.49190	0.002	0.211
				0.012	0.009	0.65
DZCT		04057D	AG8099	601.13270	-0.000	-0.013
				0.008	0.006	0.03
GROUP: ID:146	RMS:0.011	Ratio:19.14	Variance:1.00	Duration:16 m	Da	
DXCT		04057D	04058N	5150.87420	-0.002	-0.205
				0.015	0.009	0.17
DYCT		04057D	04058N	-3855.26970	0.005	0.600
				0.013	0.008	0.46
DZCT		04057D	04058N	-8847.29240	-0.003	-0.541
				0.010	0.006	0.31
GROUP: ID:147	RMS:0.014	Ratio:10.33	Variance:1.40	Duration:20 m	Da	
DXCT		04058H	04057D	12094.55890	-0.003	-0.322
				0.014	0.009	0.16
DYCT		04058H	04057D	-5040.62250	0.000	0.038
				0.013	0.008	0.02
DZCT		04058H	04057D	-12885.72930	0.020	3.703
				0.009	0.005	1.10
GROUP: ID:148	RMS:0.011	Ratio:28.70	Variance:0.80	Duration:15 m	Da	
DXCT		04058Y	04058O	-6027.37920	0.006	0.641
				0.014	0.010	0.47
DYCT		04058Y	04058O	4796.89050	-0.006	-0.666
				0.013	0.009	0.46
DZCT		04058Y	04058O	10902.90950	0.004	0.634
				0.009	0.007	0.31
GROUP: ID:149	RMS:0.015	Ratio:10.57	Variance:1.40	Duration:17 m	Da	
DXCT		04058Y	04058O	-6027.39150	-0.007	-0.645
				0.015	0.011	0.52
DYCT		04058Y	04058O	4796.88610	0.007	0.720
				0.013	0.009	0.49
DZCT		04058Y	04058O	10902.92570	-0.006	-0.882
				0.009	0.006	0.42
GROUP: ID:150	RMS:0.017	Ratio:7.50	Variance:1.80	Duration:141 m	Da	
DXCT		04058Y	04057F	-27501.22060	0.001	0.130
				0.015	0.011	0.05
DYCT		04058Y	04057F	-7494.88230	-0.005	-0.552
				0.013	0.009	0.17
DZCT		04058Y	04057F	-7190.90010	-0.001	-0.106
				0.010	0.008	0.03
GROUP: ID:151	RMS:0.013	Ratio:12.81	Variance:1.30	Duration:18 m	Da	
DXCT		04057F	04058L	-6871.70890	0.007	0.664
				0.015	0.010	0.69
DYCT		04057F	04058L	-3924.12200	-0.001	-0.111
				0.013	0.009	0.10
DZCT		04057F	04058L	-5835.10860	-0.006	-1.391

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL	STD RES
				STD DEV	STD DEV	PPM
				0.008	0.005	0.64
GROUP: ID:152	RMS:0.014	Ratio:4.46	Variance:2.00	Duration:18 m	Day	
DXCT		04057F	04058L	-6871.71270	-0.007	-0.668
				0.015	0.011	0.76
DYCT		04057F	04058L	-3924.10200	0.000	0.009
				0.013	0.010	0.01
DZCT		04057F	04058L	-5835.10300	0.009	0.996
				0.012	0.009	0.94
GROUP: ID:153	RMS:0.008	Ratio:12.46	Variance:6.00	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.05690	0.002	0.234
				0.014	0.010	0.64
DYCT		04057F	AG1868	1628.40100	0.000	0.025
				0.013	0.009	0.06
DZCT		04057F	AG1868	2596.67470	-0.005	-0.791
				0.009	0.007	1.45
GROUP: ID:154	RMS:0.007	Ratio:14.43	Variance:3.10	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.05560	-0.002	-0.231
				0.013	0.009	0.58
DYCT		04057F	AG1868	1628.41170	0.000	0.009
				0.012	0.009	0.02
DZCT		04057F	AG1868	2596.67430	0.004	1.037
				0.007	0.004	1.16
GROUP: ID:155	RMS:0.014	Ratio:10.66	Variance:1.50	Duration:17 m	Da	
DXCT		04057F	04058M	-7029.76610	0.003	0.298
				0.014	0.009	0.33
DYCT		04057F	04058M	682.43950	0.000	0.028
				0.013	0.008	0.03
DZCT		04057F	04058M	3168.50500	-0.005	-1.034
				0.008	0.005	0.70
GROUP: ID:156	RMS:0.016	Ratio:31.69	Variance:1.90	Duration:15 m	Da	
DXCT		04057F	04058N	9103.21310	0.002	0.206
				0.015	0.009	0.21
DYCT		04057F	04058N	1497.66950	-0.005	-0.615
				0.013	0.008	0.55
DZCT		04057F	04058N	501.96620	0.004	0.646
				0.009	0.006	0.40
GROUP: ID:157	RMS:0.010	Ratio:11.93	Variance:6.40	Duration:15 m	Da	
DXCT		04057AJ	04058E	2703.13320	0.002	0.181
				0.014	0.009	0.50
DYCT		04057AJ	04058E	-519.09500	0.002	0.197
				0.012	0.008	0.47
DZCT		04057AJ	04058E	-1690.14050	-0.001	-0.360
				0.007	0.003	0.38
GROUP: ID:158	RMS:0.017	Ratio:8.60	Variance:2.10	Duration:15 m	Day	
DXCT		04057A	04057AF	-7659.87590	0.002	0.197
				0.016	0.012	0.26
DYCT		04057A	04057AF	1242.50200	-0.001	-0.062
				0.013	0.009	0.07

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DZCT		04057A	04057AF	4329.44580	-0.005	-0.749
				0.010	0.007	0.57
GROUP: ID:159	RMS:0.012	Ratio:23.19	Variance:1.00	Duration:15 m	Da	
DXCT		04057A	04057AE	-7948.30600	0.002	0.182
				0.014	0.010	0.18
DYCT		04057A	04057AE	2295.15680	0.001	0.098
				0.013	0.009	0.08
DZCT		04057A	04057AE	6406.13990	-0.013	-2.398
				0.008	0.005	1.24
GROUP: ID:161	RMS:0.012	Ratio:24.50	Variance:0.90	Duration:17 m	Da	
DXCT		04057A	04057AC	-7174.10060	-0.002	-0.221
				0.014	0.010	0.16
DYCT		04057A	04057AC	4144.68660	0.002	0.238
				0.013	0.009	0.17
DZCT		04057A	04057AC	9743.29090	-0.014	-2.497
				0.008	0.006	1.12
GROUP: ID:162	RMS:0.010	Ratio:23.20	Variance:0.90	Duration:15 m	Da	
DXCT		04057A	04057AB	-4718.84290	-0.015	-1.498
				0.015	0.010	1.14
DYCT		04057A	04057AB	4994.20930	-0.003	-0.329
				0.013	0.010	0.25
DZCT		04057A	04057AB	10745.81990	0.009	1.259
				0.009	0.007	0.72
GROUP: ID:163	RMS:0.010	Ratio:34.42	Variance:0.80	Duration:16 m	Da	
DXCT		04057A	04057AA	-4833.40040	-0.002	-0.226
				0.014	0.009	0.14
DYCT		04057A	04057AA	5516.97910	0.001	0.093
				0.013	0.009	0.06
DZCT		04057A	04057AA	11771.84130	0.006	1.587
				0.009	0.004	0.42
GROUP: ID:164	RMS:0.012	Ratio:36.46	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058B	-2869.06150	-0.004	-0.370
				0.015	0.011	0.33
DYCT		04057A	04058B	5148.43110	0.003	0.286
				0.014	0.010	0.23
DZCT		04057A	04058B	10581.95320	0.008	1.008
				0.011	0.008	0.67
GROUP: ID:165	RMS:0.011	Ratio:12.53	Variance:0.80	Duration:15 m	Da	
DXCT		04057A	04057AJ	5250.96100	0.002	0.197
				0.014	0.009	0.29
DYCT		04057A	04057AJ	1723.87160	0.001	0.179
				0.013	0.008	0.25
DZCT		04057A	04057AJ	1974.23090	-0.002	-0.261
				0.009	0.006	0.26
GROUP: ID:166	RMS:0.012	Ratio:10.54	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058E	7954.10320	0.003	0.303
				0.014	0.011	0.40
DYCT		04057A	04058E	1204.78830	-0.007	-0.753

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				0.013	0.010	0.93
DZCT		04057A	04058E	284.08510	0.009	1.520
				0.008	0.006	1.11
GROUP: ID:167	RMS:0.012	Ratio:18.07	Variance:1.30	Duration:15 m	Da	
DXCT		04057A	04058F	14273.70670	-0.007	-0.621
				0.015	0.010	0.45
DYCT		04057A	04058F	1836.65640	0.003	0.365
				0.013	0.009	0.23
DZCT		04057A	04058F	-127.31430	-0.000	-0.026
				0.008	0.005	0.01
GROUP: ID:169	RMS:0.004	Ratio:36.67	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	AG8311	-629.22180	-0.004	-0.482
				0.013	0.009	6.41
DYCT		04057A	AG8311	54.35470	0.003	0.339
				0.012	0.009	4.25
DZCT		04057A	AG8311	284.68170	-0.005	-1.100
				0.007	0.005	7.51
GROUP: ID:172	RMS:0.016	Ratio:13.81	Variance:1.70	Duration:15 m	Da	
DXCT		04057A	04058A	-11950.39160	-0.002	-0.169
				0.015	0.011	0.15
DYCT		04057A	04058A	748.26840	-0.003	-0.326
				0.013	0.009	0.24
DZCT		04057A	04058A	4444.93810	-0.012	-1.320
				0.012	0.009	0.96
GROUP: ID:173	RMS:0.013	Ratio:7.67	Variance:1.30	Duration:15 m	Day	
DXCT		04057A	04058A	-11950.40090	0.003	0.299
				0.014	0.010	0.23
DYCT		04057A	04058A	748.28500	0.004	0.444
				0.013	0.009	0.31
DZCT		04057A	04058A	4444.92350	0.010	2.182
				0.008	0.005	0.79
GROUP: ID:174	RMS:0.010	Ratio:48.81	Variance:1.10	Duration:31 m	Da	
DXCT		04057A	04057C	-12004.31000	0.000	0.000
				0.016	0.000	0.00*
DYCT		04057A	04057C	1524.17710	-0.000	-0.000
				0.013	0.000	0.00*
DZCT		04057A	04057C	5944.44400	-0.000	-0.000
				0.012	0.000	0.00*
GROUP: ID:175	RMS:0.013	Ratio:21.62	Variance:1.40	Duration:16 m	Da	
DXCT		04057A	04058D	-11575.37170	-0.006	-0.518
				0.016	0.011	0.41
DYCT		04057A	04058D	-4644.96150	0.003	0.274
				0.013	0.010	0.19
DZCT		04057A	04058D	-6007.99540	0.001	0.072
				0.012	0.010	0.05
GROUP: ID:176	RMS:0.013	Ratio:3.84	Variance:1.80	Duration:16 m	Day	
DXCT		04057A	04058D	-11575.36550	0.007	0.590
				0.017	0.012	0.52

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		04057A	04058D	-4644.96610	-0.003	-0.327
				0.013	0.009	0.21
DZCT		04057A	04058D	-6008.00720	0.001	0.463
				0.008	0.003	0.10
GROUP: ID:179	RMS:0.009	Ratio:25.24	Variance:0.60	Duration:15 m	Da	
DXCT		AG9362	04057A	1183.25450	0.004	0.387
				0.014	0.009	0.61
DYCT		AG9362	04057A	-2566.57310	0.005	0.496
				0.013	0.009	0.76
DZCT		AG9362	04057A	-5233.74010	0.002	0.412
				0.009	0.006	0.39
GROUP: ID:182	RMS:0.005	Ratio:22.71	Variance:1.50	Duration:15 m	Da	
DXCT		04057B	AG1968	-91.13000	-0.002	-0.227
				0.013	0.009	17.05
DYCT		04057B	AG1968	-47.44280	-0.002	-0.281
				0.012	0.009	19.61
DZCT		04057B	AG1968	-69.98780	0.002	0.320
				0.007	0.005	12.61
GROUP: ID:183	RMS:0.003	Ratio:75.61	Variance:1.10	Duration:26 m	Da	
DXCT		04057B	AG1968	-91.13420	0.002	0.223
				0.013	0.009	16.71
DYCT		04057B	AG1968	-47.44810	0.002	0.283
				0.012	0.009	19.60
DZCT		04057B	AG1968	-69.99010	-0.002	-0.331
				0.007	0.005	12.37
GROUP: ID:184	RMS:0.022	Ratio:11.10	Variance:5.10	Duration:29 m	Da	
DXCT		04057B	04057AL	-6764.36720	0.000	0.000
				0.022	0.000	0.00*
DYCT		04057B	04057AL	60.16330	0.000	0.000
				0.015	0.000	0.00*
DZCT		04057B	04057AL	1842.96850	-0.000	-0.000
				0.021	0.000	0.00*
GROUP: ID:185	RMS:0.010	Ratio:29.15	Variance:0.90	Duration:15 m	Da	
DXCT		04057B	04058G	6491.68800	0.005	0.372
				0.017	0.013	0.40
DYCT		04057B	04058G	-3826.15480	-0.005	-0.470
				0.014	0.010	0.40
DZCT		04057B	04058G	-9070.51040	0.010	0.845
				0.014	0.011	0.82
GROUP: ID:186	RMS:0.012	Ratio:11.15	Variance:1.00	Duration:17 m	Da	
DXCT		04057B	04058G	6491.67930	-0.006	-0.582
				0.015	0.010	0.48
DYCT		04057B	04058G	-3826.16570	0.005	0.610
				0.013	0.009	0.45
DZCT		04057B	04058G	-9070.49370	-0.007	-1.863
				0.008	0.004	0.56
GROUP: ID:187	RMS:0.018	Ratio:8.34	Variance:2.00	Duration:15 m	Day	
DXCT		04057B	04058H	-7839.52740	-0.002	-0.212

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.015	0.010	0.13
DYCT		04057B	04058H	-7201.53970	-0.000	-0.044
				0.013	0.009	0.02
DZCT		04057B	04058H	-11834.92380	0.024	3.716
				0.009	0.006	1.51
GROUP: ID:188	RMS:0.007	Ratio:53.24	Variance:0.50	Duration:41 m	Da	
DXCT		04057B	04057D	4255.04450	-0.003	-0.263
				0.014	0.011	0.10
DYCT		04057B	04057D	-12242.20320	-0.007	-0.755
				0.012	0.010	0.27
DZCT		04057B	04057D	-24720.63360	-0.002	-0.401
				0.008	0.006	0.08
GROUP: ID:189	RMS:0.014	Ratio:81.34	Variance:1.20	Duration:16 m	Da	
DXCT		04057B	04057AM	-4598.43820	-0.013	-1.392
				0.014	0.009	2.34
DYCT		04057B	04057AM	881.06520	-0.012	-1.374
				0.013	0.008	2.11
DZCT		04057B	04057AM	2865.16340	0.005	1.066
				0.008	0.005	0.97
GROUP: ID:190	RMS:0.010	Ratio:14.17	Variance:0.70	Duration:15 m	Da	
DXCT		04057B	04058C	-1901.03680	0.009	0.963
				0.015	0.010	1.28
DYCT		04057B	04058C	3060.47750	-0.010	-1.171
				0.013	0.009	1.39
DZCT		04057B	04058C	6347.81040	0.011	1.402
				0.010	0.008	1.46
GROUP: ID:191	RMS:0.012	Ratio:14.43	Variance:1.30	Duration:15 m	Da	
DXCT		04057B	04057AN	-1950.51190	-0.005	-0.510
				0.016	0.010	0.79
DYCT		04057B	04057AN	2686.34900	0.047	5.311
				0.013	0.009	7.12
				^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^		
DZCT		04057B	04057AN	5647.79370	0.007	1.020
				0.011	0.007	1.14
GROUP: ID:192	RMS:0.012	Ratio:23.28	Variance:1.20	Duration:15 m	Da	
DXCT		04057B	04057AQ	-4310.19950	-0.001	-0.048
				0.017	0.013	0.09
DYCT		04057B	04057AQ	1888.50420	-0.002	-0.188
				0.013	0.009	0.24
DZCT		04057B	04057AQ	4721.76020	-0.009	-4.293
				0.006	0.002	1.35
				^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^		
GROUP: ID:193	RMS:0.011	Ratio:28.80	Variance:0.80	Duration:14 m	Da	
DXCT		04057B	04057AO	-4015.73060	0.007	0.725
				0.015	0.009	0.81
DYCT		04057B	04057AO	2870.72490	0.009	1.132
				0.012	0.008	1.11
DZCT		04057B	04057AO	6524.16860	-0.014	-6.779

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

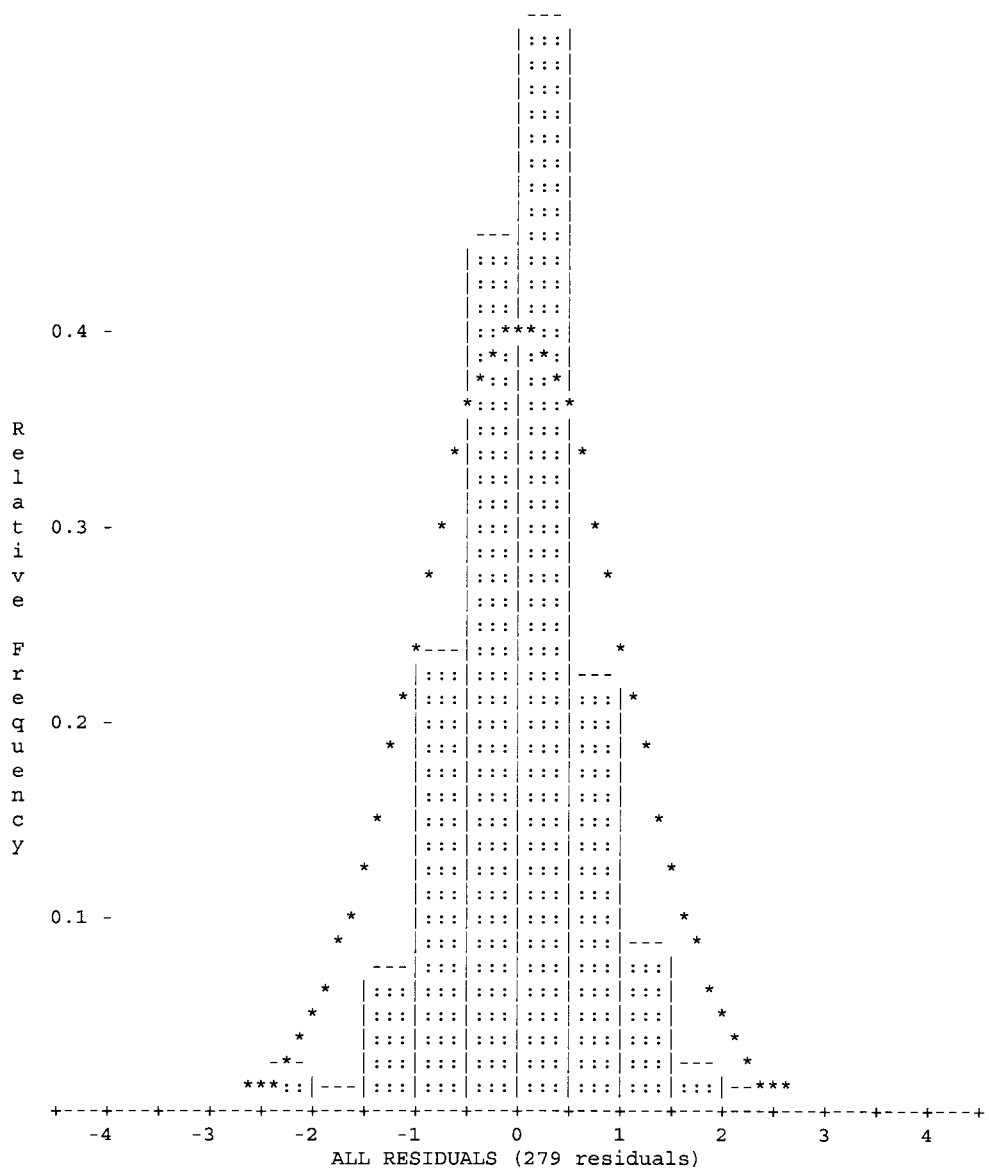
TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				0.007	0.002	1.68
GROUP: ID:194	RMS:0.012	Ratio:12.12	Variance:1.20	Duration:15 m	Da	
DXCT		04057B	04057AP	-4154.05660	0.001	0.083
				0.015	0.010	0.08
DYCT		04057B	04057AP	4070.85890	-0.002	-0.229
				0.013	0.009	0.18
DZCT		04057B	04057AP	8841.97910	-0.032	-5.441
				0.008	0.006	3.06
GROUP: ID:195	RMS:0.006	Ratio:23.07	Variance:3.40	Duration:15 m	Da	
DXCT		04057D	04058J	4890.19340	0.002	0.161
				0.014	0.010	0.34
DYCT		04057D	04058J	727.05970	0.002	0.202
				0.012	0.009	0.36
DZCT		04057D	04058J	112.66890	0.004	0.659
				0.008	0.006	0.83
GROUP: ID:196	RMS:0.023	Ratio:6.02	Variance:3.00	Duration:14 m	Day	
DXCT		AG8478	04057B	10782.24450	-0.012	-1.007
				0.017	0.012	0.77
DYCT		AG8478	04057B	-4196.01930	-0.004	-0.413
				0.014	0.010	0.26
DZCT		AG8478	04057B	-10774.97440	0.014	1.733
				0.011	0.008	0.87
GROUP: ID:197	RMS:0.010	Ratio:11.27	Variance:1.60	Duration:15 m	Da	
DXCT		04057B	AG8478	-10782.24120	-0.010	-0.790
				0.018	0.013	0.66
DYCT		04057B	AG8478	4196.05460	-0.004	-0.396
				0.014	0.010	0.25
DZCT		04057B	AG8478	10774.98200	0.013	1.753
				0.011	0.008	0.84
GROUP: ID:198	RMS:0.013	Ratio:19.31	Variance:1.40	Duration:21 m	Da	
DXCT		04057A	04058I	4681.11490	-0.004	-0.331
				0.016	0.011	0.19
DYCT		04057A	04058I	-8039.48610	0.003	0.289
				0.013	0.009	0.14
DZCT		04057A	04058I	-16673.92120	-0.023	-5.682
				0.008	0.004	1.20
GROUP: ID:199	RMS:0.011	Ratio:29.99	Variance:1.10	Duration:19 m	Da	
DXCT		04057A	04058I	4681.11360	-0.000	-0.037
				0.016	0.012	0.02
DYCT		04057A	04058I	-8039.44050	-0.002	-0.205
				0.014	0.010	0.10
DZCT		04057A	04058I	-16673.94830	0.030	2.855
				0.013	0.010	1.57
GROUP: ID:205	RMS:0.017	Ratio:11.56	Variance:1.60	Duration:16 m	Da	
DXCT		04057A	04057AK	5102.68180	0.005	0.466

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
				0.015	0.010	0.59
DYCT		04057A	04057AK	3329.98810	0.006	0.657
				0.013	0.009	0.76
DZCT		04057A	04057AK	5093.74560	-0.028	-5.640
				0.009	0.005	3.57
GROUP: ID:206		RMS:0.023	Ratio:11.22	Variance:3.00	Duration:15 m	Da
DXCT		04057A	04057AK	5102.68600	-0.008	-0.604
				0.017	0.013	0.96
DYCT		04057A	04057AK	3330.06080	-0.008	-0.753
				0.014	0.010	0.96
DZCT		04057A	04057AK	5093.72240	0.046	4.147
				0.014	0.011	5.77
GROUP: ID:214		RMS:0.014	Ratio:2.37	Variance:1.20	Duration:451 m	Da
DXCT		04057A	CRLT	46335.53730	-0.000	-0.027
				0.014	0.011	0.00
DYCT		04057A	CRLT	-15048.27590	0.005	0.456
				0.012	0.010	0.07
DZCT		04057A	CRLT	-41338.93520	-0.002	-0.349
				0.008	0.007	0.04
GROUP: ID:215		RMS:0.017	Ratio:13.67	Variance:2.10	Duration:592 m	D
DXCT		04057A	CRLT	46335.53450	0.003	0.297
				0.014	0.011	0.05
DYCT		04057A	CRLT	-15048.28990	0.009	0.900
				0.012	0.010	0.15
DZCT		04057A	CRLT	-41338.93240	-0.016	-2.315
				0.008	0.007	0.24
GROUP: ID:216		RMS:0.015	Ratio:13.79	Variance:1.60	Duration:528 m	D
DXCT		04057B	CRLT	29552.70180	0.001	0.128
				0.014	0.011	0.03
DYCT		04057B	CRLT	-18831.81170	-0.006	-0.622
				0.012	0.010	0.11
DZCT		04057B	CRLT	-44317.67010	0.002	0.272
				0.008	0.007	0.03
GROUP: ID:217		RMS:0.011	Ratio:13.04	Variance:0.80	Duration:105 m	D
DXCT		04057D	CRLT	25297.66470	0.003	0.248
				0.013	0.011	0.09
DYCT		04057D	CRLT	-6589.59400	-0.008	-0.772
				0.012	0.011	0.25
DZCT		04057D	CRLT	-19597.04160	0.018	3.082
				0.007	0.006	0.56
GROUP: ID:218		RMS:0.011	Ratio:21.09	Variance:1.00	Duration:193 m	D
DXCT		04057D	CRLT	25297.65910	-0.002	-0.193
				0.015	0.013	0.08
DYCT		04057D	CRLT	-6589.60930	-0.001	-0.058
				0.013	0.011	0.02
DZCT		04057D	CRLT	-19597.02830	-0.001	-0.061

Residuals (critical value = 3.822, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				0.009	0.008	0.02
GROUP: ID:219	RMS:0.014	Ratio:11.57	Variance:1.30	Duration:377 m D		
DXCT		04058Y	CRLT	1748.76090	-0.002	-0.216
				0.014	0.011	0.12
DYCT		04058Y	CRLT	-8731.56330	0.002	0.224
				0.013	0.009	0.11
DZCT		04058Y	CRLT	-17438.65980	-0.006	-1.001
				0.009	0.006	0.32
GROUP: ID:220	RMS:0.013	Ratio:17.52	Variance:1.60	Duration:168 m D		
DXCT		04057F	CRLT	29249.98820	-0.003	-0.242
				0.015	0.011	0.09
DYCT		04057F	CRLT	-1236.67410	-0.001	-0.053
				0.013	0.009	0.02
DZCT		04057F	CRLT	-10247.76380	0.002	0.205
				0.010	0.008	0.05
GROUP: ID:221	RMS:0.016	Ratio:12.24	Variance:1.60	Duration:436 m D		
DXCT		04057A	04057B	16782.83410	-0.001	-0.076
				0.014	0.012	0.05
DYCT		04057A	04057B	3783.52870	0.013	1.225
				0.012	0.011	0.77
DZCT		04057A	04057B	2978.73750	-0.011	-1.653
				0.008	0.007	0.65
GROUP: ID:226	RMS:0.009	Ratio:23.96	Variance:0.80	Duration:16 m Da		
DXCT		04057A	04057AD	-8180.05050	0.010	0.813
				0.018	0.012	0.79
DYCT		04057A	04057AD	3453.06130	-0.001	-0.062
				0.014	0.009	0.05
DZCT		04057A	04057AD	8671.05300	0.035	5.256
				0.012	0.007	2.78
				^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^		
GROUP: ID:227	RMS:0.011	Ratio:10.28	Variance:1.60	Duration:16 m Da		
DXCT		04057A	04057AD	-8180.04920	-0.005	-0.357
				0.019	0.014	0.41
DYCT		04057A	04057AD	3452.99890	0.006	0.585
				0.015	0.011	0.50
DZCT		04057A	04057AD	8671.10180	-0.043	-3.196
				0.017	0.013	3.47


Relative Frequency
0.4
0.3
0.2
0.1
-4
-3
-2
-1
0
1
2
3
4
ALL RESIDUALS (279 residuals)

STATISTICS SUMMARY

Residual Critical Value Type	Tau Max
Residual Critical Value	3.8222
Number of Flagged Residuals	10
Convergence Criterion	0.0010
Final Iteration Counter Value	2
Confidence Level Used	95.0000
Estimated Variance Factor	2.6230
Number of Degrees of Freedom	126

Chi-Square Test on the Variance Factor:

2.0791e+00 < 1.0000 < 3.4135e+00 ?

******** THE TEST FAILS ********

NOTE: All confidence regions were computed using the following factors:

Variance factor used	=	2.6230
1-D expansion factor	=	1.9600
2-D expansion factor	=	2.4477

Note that, for relative confidence regions, precisions are computed from the ratio of the major semi-axis and the spatial distance between the two stations.

2-D and 1-D Station Confidence Regions (95.000 and 95.000 percent):

STATION	MAJOR SEMI-AXIS	AZ	MINOR SEMI-AXIS	VERTICAL
04057A	0.016	169	0.015	0.017
04057AA	0.026	130	0.026	0.029
04057AB	0.027	165	0.026	0.026
04057AC	0.026	165	0.026	0.025
04057AD	0.026	163	0.026	0.032
04057AE	0.026	175	0.026	0.026
04057AF	0.027	157	0.026	0.027
04057AG	0.027	172	0.026	0.030
04057AH	0.026	176	0.025	0.026
04057AI	0.026	35	0.025	0.024
04057AJ	0.028	147	0.027	0.026
04057AK	0.027	51	0.026	0.028
04057AL	0.035	6	0.034	0.056
04057AM	0.025	128	0.025	0.026
04057AN	0.025	168	0.025	0.030
04057AO	0.026	2	0.025	0.029
04057AP	0.026	172	0.025	0.026
04057AQ	0.026	167	0.025	0.027
04057B	0.016	168	0.016	0.021
04057C	0.033	0	0.032	0.036
04057CA	0.035	94	0.034	0.036
04057CB	0.033	174	0.033	0.044
04057CC	0.033	8	0.032	0.032
04057CD	0.035	169	0.033	0.034
04057CE	0.033	77	0.033	0.032
04057CG	0.034	118	0.033	0.060
04057CH	0.033	173	0.033	0.039
04057CJ	0.034	46	0.032	0.031
04057D	0.014	142	0.014	0.024
04057F	0.019	146	0.019	0.028
04058A	0.026	4	0.026	0.026
04058B	0.026	95	0.026	0.026
04058C	0.025	172	0.025	0.027
04058D	0.026	172	0.026	0.028
04058E	0.024	150	0.024	0.024
04058F	0.026	151	0.026	0.026
04058G	0.026	26	0.026	0.030
04058H	0.024	129	0.024	0.029
04058I	0.026	16	0.026	0.028
04058J	0.025	126	0.025	0.030
04058L	0.028	31	0.028	0.035
04058M	0.025	147	0.025	0.031
04058N	0.025	134	0.025	0.032
04058O	0.028	127	0.028	0.034
04058Y	0.019	143	0.019	0.028
AG1868	0.028	165	0.028	0.033
AG1968	0.025	167	0.025	0.027
AG8099	0.025	174	0.025	0.029
AG8311	0.025	153	0.025	0.000
AG8478	0.027	9	0.026	0.033

2-D and 1-D Station Confidence Regions (95.000 and 95.000 percent):

STATION	MAJOR SEMI-AXIS	AZ	MINOR SEMI-AXIS	VERTICAL
AG9362	0.026	133	0.025	0.026
CRLT	0.000	0	0.000	0.022

Input file: c:\projects\04057\adjust\04057.iob
Output file: c:\projects\04057\adjust\04057.lst
Options file: C:\Program Files\Microsearch\GeoLab\default.gpj

Geoid File: C:\geoids\geoid03\g2003u07.gsp

PARAMETERS		OBSERVATIONS	
Description	Number	Description	Number
No. of Stations	55	Directions	0
Coord Parameters	145	Distances	2
Free Latitudes	48	Azimuths	2
Free Longitudes	48	Vertical Angles	0
Free Heights	49	Zenithal Angles	0
Fixed Coordinates	20	Angles	0
Astro. Latitudes	0	Heights	0
Astro. Longitudes	0	Height Differences	2
Geoid Records	0	Auxiliary Params.	0
All Aux. Pars.	0	2-D Coords.	0
Direction Pars.	0	2-D Coord. Diffs.	0
Scale Parameters	0	3-D Coords.	0
Constant Pars.	0	3-D Coord. Diffs.	279
Rotation Pars.	0		
Translation Pars.	0		
Total Parameters	145	Total Observations	285
Degrees of Freedom =	140		

SUMMARY OF SELECTED OPTIONS

OPTION	SELECTION
Computation Mode	Adjustment
Maximum Iterations	31
Convergence Criterion	0.00100
Angular Misclosure Limit Factor	2.00
Linear Misclosure Limit Factor	2.00
Residual Rejection Criterion	Tau Max
Confidence Region Types	1D 2D Station
Variance Factor (VF) Known	Yes
Scale Covariance Matrix With VF	Yes
Scale Residual Variances With VF	Yes
Force Convergence in Max Iters	No
Distances Contribute To Heights	No
Compute Full Inverse	Yes
Optimize Band Width	Yes

Generate Initial Coordinates	Yes
Re-Transform Obs After 1st Pass	Yes
Geoid Interpolation Method	Bi-Quadratic

Input Station Data:

FFF	STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
000	04057A	N 27 20 33.84738 N 27 20 36.76738 0 0 2.92	W 82 31 4.54590 W 82 31 2.49699 0 0 1.82	-20.612 3.712 -24.324
000	04057AA	N 27 27 19.89095 N 27 27 22.11095 0 0 2.22	W 82 28 53.69771 W 82 28 51.01562 0 0 2.38	-22.591 1.933 -24.524
000	04057AB	N 27 26 42.36305 N 27 26 44.69305 0 0 2.33	W 82 28 52.08379 W 82 28 49.45830 0 0 2.33	-18.848 5.663 -24.511
000	04057AC	N 27 26 5.62089 N 27 26 7.95089 0 0 2.33	W 82 30 24.75156 W 82 30 21.96857 0 0 2.47	-17.453 7.015 -24.468
000	04057AD	N 27 25 26.42282 N 27 25 28.78282 0 0 2.36	W 82 31 4.35591 W 82 31 1.53940 0 0 2.50	-15.437 9.004 -24.441
000	04057AE	N 27 24 3.48386 N 27 24 6.00386 0 0 2.52	W 82 31 1.48658 W 82 30 58.96351 0 0 2.24	-14.167 10.245 -24.412
000	04057AF	N 27 22 47.48628 N 27 22 50.28628 0 0 2.80	W 82 30 56.06311 W 82 30 53.77701 0 0 2.03	-11.548 12.835 -24.383
000	04057AG	N 27 22 39.94043 N 27 22 42.91043 0 0 2.97	W 82 28 16.10394 W 82 28 13.86293 0 0 1.99	-15.131 9.291 -24.422
000	04057AH	N 27 21 25.62137 N 27 21 28.59137 0 0 2.97	W 82 28 17.23861 W 82 28 15.12187 0 0 1.88	-18.732 5.657 -24.389
000	04057AI	N 27 20 44.04034 N 27 20 47.14034 0 0 3.10	W 82 27 12.66393 W 82 27 10.59245 0 0 1.84	-15.536 8.851 -24.387
000	04057AJ	N 27 21 21.25248 N 27 21 24.48248 0 0 3.23	W 82 23 7.99786 W 82 23 6.05003 0 0 1.73	-12.904 11.558 -24.462
000	04057AK	N 27 23 15.29929 N 27 23 18.49929 0 0 3.20	W 82 23 5.58262 W 82 23 3.64550 0 0 1.72	-9.365 15.154 -24.519
000	04057AL	N 27 23 5.30283 N 27 23 8.38283 0 0 3.08	W 82 20 5.83722 W 82 20 4.35063 0 0 1.32	-2.961 21.590 -24.551
000	04057AM	N 27 23 42.72389 N 27 23 45.75389 0 0 3.03	W 82 18 43.68422 W 82 18 42.35517 0 0 1.18	-0.425 24.157 -24.582
000	04057AN	N 27 25 24.33472 N 27 25 27.39472 0 0 3.06	W 82 16 59.35327 W 82 16 58.03515 0 0 1.17	6.201 30.846 -24.645
000	04057AO	N 27 25 56.48784 N 27 25 59.57784 0 0 3.09	W 82 18 12.97318 W 82 18 11.68875 0 0 1.14	5.323 29.971 -24.648

Input Station Data:

FFF	STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
000	04057AP	N 27 27 21.39486 N 27 27 24.46486 0 0 3.07	W 82 18 12.10200 W 82 18 10.77222 0 0 1.18	-0.602 24.086 -24.688
000	04057AQ	N 27 24 50.54879 N 27 24 53.58879 0 0 3.04	W 82 18 28.38971 W 82 18 27.10550 0 0 1.14	4.067 28.682 -24.615
000	04057B	N 27 21 57.75550 N 27 22 0.52550 0 0 2.77	W 82 16 2.13670 W 82 16 0.66162 0 0 1.31	2.691 27.252 -24.561
000	04057C	N 27 23 46.59612 N 27 23 48.73612 0 0 2.14	W 82 33 31.53218 W 82 33 28.90785 0 0 2.33	-15.378 8.981 -24.359
000	04057CA	N 27 22 47.38446 N 27 22 50.20446 0 0 2.82	W 82 30 35.14030 W 82 30 32.86547 0 0 2.02	-10.625 13.764 -24.389
000	04057CB	N 27 21 33.09185 N 27 21 36.09185 0 0 3.00	W 82 27 49.82639 W 82 27 47.68709 0 0 1.90	-14.757 9.643 -24.400
000	04057CC	N 27 21 20.26484 N 27 21 23.50484 0 0 3.24	W 82 25 3.13603 W 82 25 1.15443 0 0 1.76	-14.703 9.732 -24.435
000	04057CD	N 27 25 16.79598 N 27 25 19.43598 0 0 2.64	W 82 28 15.43337 W 82 28 12.94363 0 0 2.21	-19.959 4.531 -24.490
000	04057CE	N 27 24 7.46942 N 27 24 10.50942 0 0 3.04	W 82 18 44.01411 W 82 18 42.69624 0 0 1.17	-0.771 23.822 -24.593
000	04057CG	N 27 26 59.90640 N 27 27 2.95640 0 0 3.05	W 82 18 11.76601 W 82 18 10.44757 0 0 1.17	-3.517 21.161 -24.678
000	04057CH	N 27 27 20.02596 N 27 27 22.26596 0 0 2.24	W 82 28 40.16273 W 82 28 37.49191 0 0 2.37	-19.534 4.994 -24.528
000	04057CJ	N 27 23 12.39155 N 27 23 15.56155 0 0 3.17	W 82 23 52.66637 W 82 23 50.67295 0 0 1.77	-9.708 14.798 -24.506
000	04057D	N 27 6 54.71137 N 27 6 59.02137 0 0 4.31	W 82 14 28.87237 W 82 14 26.62541 0 0 2.00	-19.989 4.062 -24.052
000	04057F	N 27 1 13.73671 N 27 1 16.02671 0 0 2.29	W 82 17 17.13670 W 82 17 15.25085 0 0 1.68	-20.858 2.989 -23.847
000	04058A	N 27 22 51.70508 N 27 22 54.19508 0 0 2.49	W 82 33 33.24137 W 82 33 30.70749 0 0 2.25	-15.121 9.219 -24.340
000	04058B	N 27 26 36.25192 N 27 26 38.66192 0 0 2.41	W 82 27 44.53062 W 82 27 41.97278 0 0 2.27	-15.968 8.562 -24.530

Input Station Data:

FFF	STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
000	04058C	N 27 25 49.98788	W 82 16 55.75133	5.990
		N 27 25 53.06788	W 82 16 54.45566	30.647
		0 0 3.08	0 0 1.15	-24.657
000	04058D	N 27 16 29.53888	W 82 33 45.07140	-23.544
		N 27 16 32.52888	W 82 33 43.62004	0.631
		0 0 2.99	0 0 1.29	-24.175
000	04058E	N 27 20 19.44758	W 82 21 33.04284	-15.781
		N 27 20 22.64758	W 82 21 31.07280	8.674
		0 0 3.20	0 0 1.75	-24.455
000	04058F	N 27 20 4.41252	W 82 17 42.11960	-7.300
		N 27 20 7.36252	W 82 17 40.52111	17.195
		0 0 2.95	0 0 1.42	-24.495
000	04058G	N 27 16 26.30513	W 82 12 26.97844	-11.068
		N 27 16 29.84513	W 82 12 25.58334	13.379
		0 0 3.54	0 0 1.24	-24.447
000	04058H	N 27 14 45.34632	W 82 21 19.74656	-14.035
		N 27 14 49.47632	W 82 21 17.80066	10.238
		0 0 4.13	0 0 1.73	-24.273
000	04058I	N 27 9 59.79374	W 82 24 15.46685	-16.829
		N 27 10 3.79374	W 82 24 14.27541	7.229
		0 0 4.00	0 0 1.06	-24.058
000	04058J	N 27 6 58.82864	W 82 11 29.38979	-17.639
		N 27 7 2.94864	W 82 11 26.98552	6.466
		0 0 4.12	0 0 2.14	-24.105
111	04058K	N 27 4 27.73904	W 82 4 23.93205	-11.825
		N 27 4 30.62904	W 82 4 21.25914	12.333
		0 0 2.89	0 0 2.38	-24.158
000	04058L	N 26 57 41.01047	W 82 21 43.15372	-19.080
		N 26 57 41.44047	W 82 21 43.45664	4.693
		0 0 0.43 -	0 0 0.27	-23.773
000	04058M	N 27 3 9.22884	W 82 21 26.62816	-18.829
		N 27 3 11.88884	W 82 21 25.93199	5.020
		0 0 2.66	0 0 0.62	-23.849
000	04058N	N 27 1 31.95391	W 82 11 42.61530	-21.020
		N 27 1 34.31391	W 82 11 40.11194	2.926
		0 0 2.36	0 0 2.23	-23.946
000	04058O	N 27 12 13.93238	W 82 3 24.03585	-12.354
		N 27 12 17.08238	W 82 3 22.69785	12.046
		0 0 3.15	0 0 1.19	-24.399
000	04058Y	N 27 5 35.94804	W 82 0 11.37623	-16.398
		N 27 5 38.66804	W 82 0 8.64671	7.870
		0 0 2.72	0 0 2.43	-24.268
111	AG1868	N 27 2 48.34214	W 82 15 52.23382	-21.910
		N 27 2 51.00214	W 82 15 50.07806	1.994
		0 0 2.66	0 0 1.92	-23.904
110	AG1968	N 27 21 55.10750	W 82 16 5.66506	2.748
		N 27 21 57.86750	W 82 16 4.18999	27.308
		0 0 2.76	0 0 1.31	-24.559

Input Station Data:

FFF	STATION	ELIP-LATITUDE ASTRO-LATITUDE N/S DEFLECTION	ELIP-LONGITUDE ASTRO-LONGITUDE N/S DEFLECTION	ELIP-HEIGHT ORTHO-HEIGHT GEOID-HEIGHT
111	AG8099	N 27 7 16.60160	W 82 12 46.82396	-16.638
		N 27 7 20.82160	W 82 12 44.45329	7.456
		0 0 4.22	0 0 2.11	-24.094
001	AG8311	N 27 20 19.31438	W 82 26 48.01441	-7.867
		N 27 20 22.51438	W 82 26 46.05563	16.513
		0 0 3.20	0 0 1.74	-24.380
111	AG8478	N 27 28 32.15308	W 82 22 10.75067	-4.376
		N 27 28 34.78308	W 82 22 8.65420	20.294
		0 0 2.63	0 0 1.86	-24.670
111	AG9362	N 27 23 20.37543	W 82 26 56.06202	-9.533
		N 27 23 23.37543	W 82 26 53.77574	14.930
		0 0 3.00	0 0 2.03	-24.463
000	BRAD-11	N 27 23 15.31778	W 82 23 5.58371	-9.365
		N 27 23 15.31778	W 82 23 5.58371	-9.365
		0 0 3.20	0 0 1.72	-24.519
000	BRAD-12	N 27 23 5.31582	W 82 20 5.83697	-2.961
		N 27 23 5.31582	W 82 20 5.83697	-2.961
		0 0 3.08	0 0 1.32	-24.551
110	CRLT	N 26 54 59.90383	W 81 59 52.62224	-12.970
		N 26 55 1.58383	W 81 59 49.72878	11.097
		0 0 1.68	0 0 2.58	-24.067

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
GROUP:	ID:108	RMS:0.009	Ratio:32.88	Variance:0.90	Duration:21 m	Da
DXCT		AG9362	04057A	1183.263	0.007	-7646.23
DYCT		AG9362	04057A	-2566.573	0.009	-652.864
DZCT		AG9362	04057A	-5233.731	0.008	676.486
GROUP:	ID:109	RMS:0.007	Ratio:16.99	Variance:3.20	Duration:15 m	Da
DXCT		04057A	04057AI	-1346.123	0.007	7646.709
DYCT		04057A	04057AI	317.252	0.008	654.645
DZCT		04057A	04057AI	955.035	0.007	-674.019
GROUP:	ID:110	RMS:0.007	Ratio:18.02	Variance:2.60	Duration:15 m	Da
DXCT		04057A	04057AI	-1346.115	0.007	7646.701
DYCT		04057A	04057AI	317.260	0.008	654.637
DZCT		04057A	04057AI	955.037	0.007	-674.020
GROUP:	ID:111	RMS:0.009	Ratio:27.32	Variance:11.30	Duration:15 m	D
DXCT		04057A	04057CB	-2449.436	0.007	7646.521
DYCT		04057A	04057CB	871.349	0.012	653.518
DZCT		04057A	04057CB	2296.519	0.009	-674.129
GROUP:	ID:112	RMS:0.012	Ratio:31.94	Variance:9.60	Duration:15 m	Da
DXCT		04057A	04057AH	-3181.976	0.007	7645.585
DYCT		04057A	04057AH	668.822	0.009	656.030
DZCT		04057A	04057AH	2092.188	0.008	-675.849
GROUP:	ID:113	RMS:0.004	Ratio:41.41	Variance:2.50	Duration:14 m	Da
DXCT		04057A	04057AH	-3181.980	0.007	7645.589
DYCT		04057A	04057AH	668.846	0.008	656.006
DZCT		04057A	04057AH	2092.164	0.007	-675.825
GROUP:	ID:114	RMS:0.017	Ratio:15.40	Variance:2.50	Duration:15 m	Da
DXCT		04057A	04057AG	-3288.928	0.008	7646.088
DYCT		04057A	04057AG	1714.693	0.010	653.591
DZCT		04057A	04057AG	4121.935	0.009	-672.410
GROUP:	ID:115	RMS:0.012	Ratio:34.41	Variance:1.50	Duration:16 m	Da
DXCT		04057A	04057AG	-3288.938	0.007	7646.098
DYCT		04057A	04057AG	1714.703	0.010	653.580
DZCT		04057A	04057AG	4121.920	0.009	-672.395
GROUP:	ID:116	RMS:0.020	Ratio:25.63	Variance:2.20	Duration:15 m	Da
DXCT		04057A	04057AF	-7659.878	0.008	7645.849
DYCT		04057A	04057AF	1242.513	0.009	654.302
DZCT		04057A	04057AF	4329.446	0.008	-672.026
GROUP:	ID:117	RMS:0.015	Ratio:10.89	Variance:2.20	Duration:16 m	Da
DXCT		04057A	04057CA	-7089.176	0.008	7645.447
DYCT		04057A	04057CA	1317.208	0.010	652.280
DZCT		04057A	04057CA	4327.135	0.008	-672.074
GROUP:	ID:118	RMS:0.009	Ratio:29.09	Variance:0.60	Duration:17 m	Da
DXCT		04057A	04057AE	-7948.307	0.007	7646.071
DYCT		04057A	04057AE	2295.184	0.009	651.532
DZCT		04057A	04057AE	6406.131	0.007	-672.926
GROUP:	ID:120	RMS:0.013	Ratio:10.93	Variance:0.80	Duration:15 m	Da
DXCT		04057A	04057AC	-7174.100	0.007	7646.319
DYCT		04057A	04057AC	4144.712	0.008	652.768
DZCT		04057A	04057AC	9743.272	0.008	-674.432
GROUP:	ID:121	RMS:0.016	Ratio:10.02	Variance:1.60	Duration:15 m	Da

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DXCT		04057A	04057AB	-4718.846	0.007	7645.916
DYCT		04057A	04057AB	4994.180	0.008	653.663
DZCT		04057A	04057AB	10745.798	0.009	-673.894
GROUP: ID:122	RMS:0.016	Ratio:44.90	Variance:1.30	Duration:17 m	Da	
DXCT		04057A	04057CD	-3562.030	0.007	7645.769
DYCT		04057A	04057CD	3923.685	0.009	653.954
DZCT		04057A	04057CD	8408.097	0.009	-674.332
GROUP: ID:123	RMS:0.013	Ratio:14.56	Variance:1.10	Duration:16 m	Da	
DXCT		04057A	04057CH	-4464.756	0.007	7646.339
DYCT		04057A	04057CH	5566.413	0.010	654.689
DZCT		04057A	04057CH	11775.965	0.008	-675.612
GROUP: ID:124	RMS:0.011	Ratio:25.50	Variance:1.00	Duration:17 m	Da	
DXCT		04057A	04057AA	-4833.395	0.008	7646.417
DYCT		04057A	04057AA	5516.958	0.013	656.293
DZCT		04057A	04057AA	11771.848	0.009	-676.592
GROUP: ID:125	RMS:0.015	Ratio:17.13	Variance:1.10	Duration:16 m	Da	
DXCT		04057A	04058B	-2869.055	0.007	7646.943
DYCT		04057A	04058B	5148.416	0.008	653.994
DZCT		04057A	04058B	10581.953	0.007	-675.657
GROUP: ID:126	RMS:0.007	Ratio:14.57	Variance:4.10	Duration:15 m	Da	
DXCT		04057A	04057CC	2115.512	0.007	7646.792
DYCT		04057A	04057CC	1292.880	0.009	654.743
DZCT		04057A	04057CC	1945.796	0.007	-674.043
GROUP: ID:128	RMS:0.012	Ratio:12.91	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058E	7954.093	0.007	7645.638
DYCT		04057A	04058E	1204.773	0.009	656.311
DZCT		04057A	04058E	284.101	0.008	-675.598
GROUP: ID:129	RMS:0.013	Ratio:12.39	Variance:1.20	Duration:15 m	Da	
DXCT		04057A	04058F	14273.714	0.007	7646.222
DYCT		04057A	04058F	1836.651	0.009	653.875
DZCT		04057A	04058F	-127.326	0.008	-671.377
GROUP: ID:130	RMS:0.019	Ratio:10.74	Variance:1.80	Duration:14 m	Da	
DXCT		04057A	04057AM	12184.388	0.008	7646.078
DYCT		04057A	04057AM	4664.579	0.009	654.235
DZCT		04057A	04057AM	5843.877	0.008	-671.674
GROUP: ID:131	RMS:0.010	Ratio:7.69	Variance:0.80	Duration:15 m	Day	
DXCT		04057A	04057CE	12128.419	0.007	7646.134
DYCT		04057A	04057CE	5010.945	0.009	654.319
DZCT		04057A	04057CE	6521.657	0.007	-673.374
GROUP: ID:132	RMS:0.010	Ratio:23.25	Variance:0.90	Duration:20 m	Da	
DXCT		04057A	04057AQ	12472.641	0.007	7646.160
DYCT		04057A	04057AQ	5672.060	0.009	651.286
DZCT		04057A	04057AQ	7700.484	0.008	-672.810
GROUP: ID:133	RMS:0.015	Ratio:7.14	Variance:1.70	Duration:21 m	Day	
DXCT		04057A	04057AO	12767.127	0.008	7646.301
DYCT		04057A	04057AO	6654.312	0.011	650.979
DZCT		04057A	04057AO	9502.891	0.009	-673.066
GROUP: ID:134	RMS:0.018	Ratio:12.64	Variance:1.50	Duration:19 m	Da	
DXCT		04057A	04057AP	12628.778	0.007	7646.338

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DYCT		04057A	04057AP	7854.455	0.008	652.919
DZCT		04057A	04057AP	11820.682	0.008	-674.210
GROUP: ID:135	RMS:0.016	Ratio:11.27	Variance:1.60	Duration:20 m Da		
DXCT		04057A	04058C	14881.790	0.007	7645.803
DYCT		04057A	04058C	6844.006	0.008	653.790
DZCT		04057A	04058C	9326.572	0.009	-674.017
GROUP: ID:136	RMS:0.021	Ratio:7.09	Variance:2.90	Duration:20 m Day		
DXCT		04057A	04057AN	14832.431	0.007	7645.996
DYCT		04057A	04057AN	6469.879	0.010	654.027
DZCT		04057A	04057AN	8626.524	0.009	-674.738
GROUP: ID:137	RMS:0.015	Ratio:11.85	Variance:2.00	Duration:18 m Da		
DXCT		04057A	04057CG	12678.385	0.008	7646.366
DYCT		04057A	04057CG	7553.320	0.016	655.667
DZCT		04057A	04057CG	11234.538	0.010	-676.357
GROUP: ID:139	RMS:0.012	Ratio:28.38	Variance:0.70	Duration:15 m Da		
DXCT		04057A	04057CJ	3825.778	0.007	7646.971
DYCT		04057A	04057CJ	3118.148	0.008	653.767
DZCT		04057A	04057CJ	5013.837	0.007	-674.874
GROUP: ID:140	RMS:0.004	Ratio:37.62	Variance:1.60	Duration:16 m Da		
DXCT		04057A	AG8311	-629.216	0.007	7648.289
DYCT		04057A	AG8311	54.361	0.007	653.274
DZCT		04057A	AG8311	284.669	0.007	-676.173
GROUP: ID:141	RMS:0.012	Ratio:26.02	Variance:1.10	Duration:17 m Da		
DXCT		04057D	04058M	-10982.097	0.007	0.167
DYCT		04057D	04058M	-4670.482	0.008	-4.055
DZCT		04057D	04058M	-6180.761	0.008	2.204
GROUP: ID:142	RMS:0.006	Ratio:27.16	Variance:2.50	Duration:16 m Da		
DXCT		04057D	04058J	4890.198	0.007	0.104
DYCT		04057D	04058J	727.055	0.008	-2.409
DZCT		04057D	04058J	112.675	0.007	1.193
GROUP: ID:143	RMS:0.013	Ratio:8.16	Variance:1.00	Duration:179 m Da		
DXCT		04057D	04058Y	23548.900	0.007	-0.053
DYCT		04057D	04058Y	2141.943	0.008	-1.864
DZCT		04057D	04058Y	-2158.362	0.007	1.967
GROUP: ID:144	RMS:0.004	Ratio:33.12	Variance:1.60	Duration:21 m Da		
DXCT		04057D	AG8099	2742.976	0.007	0.667
DYCT		04057D	AG8099	685.492	0.007	-4.027
DZCT		04057D	AG8099	601.131	0.007	0.092
GROUP: ID:145	RMS:0.009	Ratio:45.97	Variance:5.60	Duration:19 m Da		
DXCT		04057D	AG8099	2742.972	0.007	0.671
DYCT		04057D	AG8099	685.492	0.008	-4.027
DZCT		04057D	AG8099	601.133	0.007	0.090
GROUP: ID:146	RMS:0.011	Ratio:19.14	Variance:1.00	Duration:16 m Da		
DXCT		04057D	04058N	5150.874	0.008	-0.091
DYCT		04057D	04058N	-3855.270	0.009	-2.798
DZCT		04057D	04058N	-8847.292	0.007	0.986
GROUP: ID:147	RMS:0.014	Ratio:10.33	Variance:1.40	Duration:20 m Da		
DXCT		04058H	04057D	12094.559	0.008	-0.567
DYCT		04058H	04057D	-5040.623	0.008	4.151

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DZCT		04058H	04057D	-12885.729	0.007	-3.222
GROUP: ID:148	RMS:0.011	Ratio:28.70	Variance:0.80	Duration:15 m	Da	
DXCT		04058Y	04058O	-6027.379	0.007	-0.669
DYCT		04058Y	04058O	4796.891	0.008	-0.452
DZCT		04058Y	04058O	10902.909	0.007	-0.968
GROUP: ID:149	RMS:0.015	Ratio:10.57	Variance:1.40	Duration:17 m	Da	
DXCT		04058Y	04058O	-6027.391	0.007	-0.657
DYCT		04058Y	04058O	4796.886	0.009	-0.448
DZCT		04058Y	04058O	10902.926	0.008	-0.984
GROUP: ID:150	RMS:0.017	Ratio:7.50	Variance:1.80	Duration:141 m	Da	
DXCT		04058Y	04057F	-27501.221	0.007	0.861
DYCT		04058Y	04057F	-7494.882	0.009	-0.640
DZCT		04058Y	04057F	-7190.900	0.008	1.575
GROUP: ID:151	RMS:0.013	Ratio:12.81	Variance:1.30	Duration:18 m	Da	
DXCT		04057F	04058L	-6871.709	0.007	-0.379
DYCT		04057F	04058L	-3924.122	0.008	-1.965
DZCT		04057F	04058L	-5835.109	0.008	1.652
GROUP: ID:152	RMS:0.014	Ratio:4.46	Variance:2.00	Duration:18 m	Day	
DXCT		04057F	04058L	-6871.713	0.007	-0.375
DYCT		04057F	04058L	-3924.102	0.010	-1.985
DZCT		04057F	04058L	-5835.103	0.008	1.646
GROUP: ID:153	RMS:0.008	Ratio:12.46	Variance:6.00	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.057	0.007	-0.146
DYCT		04057F	AG1868	1628.401	0.008	-1.504
DZCT		04057F	AG1868	2596.675	0.007	-3.459
GROUP: ID:154	RMS:0.007	Ratio:14.43	Variance:3.10	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.056	0.007	-0.145
DYCT		04057F	AG1868	1628.412	0.007	-1.515
DZCT		04057F	AG1868	2596.674	0.007	-3.459
GROUP: ID:155	RMS:0.014	Ratio:10.66	Variance:1.50	Duration:17 m	Da	
DXCT		04057F	04058M	-7029.766	0.007	-0.651
DYCT		04057F	04058M	682.439	0.008	-1.533
DZCT		04057F	04058M	3168.505	0.007	-1.341
GROUP: ID:156	RMS:0.016	Ratio:31.69	Variance:1.90	Duration:15 m	Da	
DXCT		04057F	04058N	9103.213	0.007	-0.917
DYCT		04057F	04058N	1497.669	0.009	-0.294
DZCT		04057F	04058N	501.966	0.008	-2.552
GROUP: ID:157	RMS:0.010	Ratio:11.93	Variance:6.40	Duration:15 m	Da	
DXCT		04057AJ	04058E	2703.133	0.007	-0.678
DYCT		04057AJ	04058E	-519.095	0.008	1.867
DZCT		04057AJ	04058E	-1690.140	0.008	-0.937
GROUP: ID:158	RMS:0.017	Ratio:8.60	Variance:2.10	Duration:15 m	Day	
DXCT		04057A	04057AF	-7659.876	0.008	7645.847
DYCT		04057A	04057AF	1242.502	0.009	654.313
DZCT		04057A	04057AF	4329.446	0.008	-672.026
GROUP: ID:159	RMS:0.012	Ratio:23.19	Variance:1.00	Duration:15 m	Da	
DXCT		04057A	04057AE	-7948.306	0.007	7646.070
DYCT		04057A	04057AE	2295.157	0.008	651.558
DZCT		04057A	04057AE	6406.140	0.008	-672.935

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
GROUP: ID:161	RMS:0.012	Ratio:24.50	Variance:0.90	Duration:17 m	Da	
DXCT		04057A	04057AC	-7174.101	0.007	7646.320
DYCT		04057A	04057AC	4144.687	0.008	652.793
DZCT		04057A	04057AC	9743.291	0.007	-674.452
GROUP: ID:162	RMS:0.010	Ratio:23.20	Variance:0.90	Duration:15 m	Da	
DXCT		04057A	04057AB	-4718.843	0.008	7645.913
DYCT		04057A	04057AB	4994.209	0.009	653.634
DZCT		04057A	04057AB	10745.820	0.007	-673.916
GROUP: ID:163	RMS:0.010	Ratio:34.42	Variance:0.80	Duration:16 m	Da	
DXCT		04057A	04057AA	-4833.400	0.007	7646.422
DYCT		04057A	04057AA	5516.979	0.008	656.272
DZCT		04057A	04057AA	11771.841	0.007	-676.585
GROUP: ID:164	RMS:0.012	Ratio:36.46	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058B	-2869.061	0.008	7646.949
DYCT		04057A	04058B	5148.431	0.009	653.979
DZCT		04057A	04058B	10581.953	0.007	-675.657
GROUP: ID:165	RMS:0.011	Ratio:12.53	Variance:0.80	Duration:15 m	Da	
DXCT		04057A	04057AJ	5250.961	0.007	7646.314
DYCT		04057A	04057AJ	1723.872	0.008	654.441
DZCT		04057A	04057AJ	1974.231	0.007	-674.650
GROUP: ID:166	RMS:0.012	Ratio:10.54	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058E	7954.103	0.007	7645.628
DYCT		04057A	04058E	1204.788	0.008	656.296
DZCT		04057A	04058E	284.085	0.008	-675.582
GROUP: ID:167	RMS:0.012	Ratio:18.07	Variance:1.30	Duration:15 m	Da	
DXCT		04057A	04058F	14273.707	0.007	7646.229
DYCT		04057A	04058F	1836.656	0.008	653.870
DZCT		04057A	04058F	-127.314	0.008	-671.388
GROUP: ID:169	RMS:0.004	Ratio:36.67	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	AG8311	-629.222	0.007	7648.295
DYCT		04057A	AG8311	54.355	0.007	653.280
DZCT		04057A	AG8311	284.682	0.007	-676.186
GROUP: ID:172	RMS:0.016	Ratio:13.81	Variance:1.70	Duration:15 m	Da	
DXCT		04057A	04058A	-11950.392	0.007	7645.932
DYCT		04057A	04058A	748.268	0.010	649.981
DZCT		04057A	04058A	4444.938	0.008	-673.853
GROUP: ID:173	RMS:0.013	Ratio:7.67	Variance:1.30	Duration:15 m	Day	
DXCT		04057A	04058A	-11950.401	0.007	7645.942
DYCT		04057A	04058A	748.285	0.008	649.964
DZCT		04057A	04058A	4444.923	0.008	-673.838
GROUP: ID:174	RMS:0.010	Ratio:48.81	Variance:1.10	Duration:31 m	Da	
DXCT		04057A	04057C	-12004.310	0.007	7645.729
DYCT		04057A	04057C	1524.177	0.010	651.076
DZCT		04057A	04057C	5944.444	0.008	-673.299
GROUP: ID:175	RMS:0.013	Ratio:21.62	Variance:1.40	Duration:16 m	Da	
DXCT		04057A	04058D	-11575.372	0.007	7646.654
DYCT		04057A	04058D	-4644.962	0.010	653.733
DZCT		04057A	04058D	-6007.995	0.008	-675.058
GROUP: ID:176	RMS:0.013	Ratio:3.84	Variance:1.80	Duration:16 m	Day	

Misclosures (pass 1):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DXCT		04057A	04058D	-11575.365	0.007	7646.648
DYCT		04057A	04058D	-4644.966	0.009	653.738
DZCT		04057A	04058D	-6008.007	0.009	-675.046
GROUP: ID:179	RMS:0.009	Ratio:25.24	Variance:0.60	Duration:15 m	Da	
DXCT		AG9362	04057A	1183.255	0.007	-7646.22
DYCT		AG9362	04057A	-2566.573	0.008	-652.864
DZCT		AG9362	04057A	-5233.740	0.007	676.495
GROUP: ID:182	RMS:0.005	Ratio:22.71	Variance:1.50	Duration:15 m	Da	
DXCT		04057B	AG1968	-91.130	0.007	0.096
DYCT		04057B	AG1968	-47.443	0.007	-2.779
DZCT		04057B	AG1968	-69.988	0.007	-2.371
GROUP: ID:183	RMS:0.003	Ratio:75.61	Variance:1.10	Duration:26 m	Da	
DXCT		04057B	AG1968	-91.134	0.007	0.100
DYCT		04057B	AG1968	-47.448	0.007	-2.774
DZCT		04057B	AG1968	-69.990	0.007	-2.369
GROUP: ID:184	RMS:0.022	Ratio:11.10	Variance:5.10	Duration:29 m	Da	
DXCT		04057B	04057AL	-6764.367	0.008	-0.578
DYCT		04057B	04057AL	60.163	0.016	-4.901
DZCT		04057B	04057AL	1842.968	0.009	0.730
GROUP: ID:185	RMS:0.010	Ratio:29.15	Variance:0.90	Duration:15 m	Da	
DXCT		04057B	04058G	6491.688	0.007	0.092
DYCT		04057B	04058G	-3826.155	0.011	-2.212
DZCT		04057B	04058G	-9070.510	0.008	0.079
GROUP: ID:186	RMS:0.012	Ratio:11.15	Variance:1.00	Duration:17 m	Da	
DXCT		04057B	04058G	6491.679	0.007	0.101
DYCT		04057B	04058G	-3826.166	0.008	-2.201
DZCT		04057B	04058G	-9070.494	0.008	0.063
GROUP: ID:187	RMS:0.018	Ratio:8.34	Variance:2.00	Duration:15 m	Day	
DXCT		04057B	04058H	-7839.527	0.008	0.005
DYCT		04057B	04058H	-7201.540	0.009	-2.881
DZCT		04057B	04058H	-11834.924	0.008	0.764
GROUP: ID:188	RMS:0.007	Ratio:53.24	Variance:0.50	Duration:41 m	Da	
DXCT		04057B	04057D	4255.044	0.007	-0.576
DYCT		04057B	04057D	-12242.203	0.008	1.310
DZCT		04057B	04057D	-24720.634	0.007	-2.477
GROUP: ID:189	RMS:0.014	Ratio:81.34	Variance:1.20	Duration:16 m	Da	
DXCT		04057B	04057AM	-4598.438	0.007	-0.061
DYCT		04057B	04057AM	881.065	0.008	-1.377
DZCT		04057B	04057AM	2865.163	0.007	2.413
GROUP: ID:190	RMS:0.010	Ratio:14.17	Variance:0.70	Duration:15 m	Da	
DXCT		04057B	04058C	-1901.037	0.007	-0.333
DYCT		04057B	04058C	3060.477	0.009	-1.808
DZCT		04057B	04058C	6347.810	0.007	0.118
GROUP: ID:191	RMS:0.012	Ratio:14.43	Variance:1.30	Duration:15 m	Da	
DXCT		04057B	04057AN	-1950.512	0.007	-0.026
DYCT		04057B	04057AN	2686.349	0.010	-1.569
DZCT		04057B	04057AN	5647.794	0.008	-0.635
GROUP: ID:192	RMS:0.012	Ratio:23.28	Variance:1.20	Duration:15 m	Da	
DXCT		04057B	04057AQ	-4310.199	0.007	0.037

Misclosures (pass 1):
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TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DYCT		04057B	04057AQ	1888.504	0.008	-4.284
DZCT		04057B	04057AQ	4721.760	0.010	1.287
GROUP:	ID:193	RMS:0.011	Ratio:28.80	Variance:0.80	Duration:14 m	Da
DXCT		04057B	04057AO	-4015.731	0.007	0.195
DYCT		04057B	04057AO	2870.725	0.008	-4.560
DZCT		04057B	04057AO	6524.169	0.008	1.030
GROUP:	ID:194	RMS:0.012	Ratio:12.12	Variance:1.20	Duration:15 m	Da
DXCT		04057B	04057AP	-4154.057	0.007	0.208
DYCT		04057B	04057AP	4070.859	0.008	-2.611
DZCT		04057B	04057AP	8841.979	0.008	-0.134
GROUP:	ID:195	RMS:0.006	Ratio:23.07	Variance:3.40	Duration:15 m	Da
DXCT		04057D	04058J	4890.193	0.007	0.109
DYCT		04057D	04058J	727.060	0.008	-2.413
DZCT		04057D	04058J	112.669	0.008	1.200
GROUP:	ID:196	RMS:0.023	Ratio:6.02	Variance:3.00	Duration:14 m	Day
DXCT		AG8478	04057B	10782.245	0.008	-0.107
DYCT		AG8478	04057B	-4196.019	0.010	2.688
DZCT		AG8478	04057B	-10774.974	0.009	2.365
GROUP:	ID:197	RMS:0.010	Ratio:11.27	Variance:1.60	Duration:15 m	Da
DXCT		04057B	AG8478	-10782.241	0.008	0.104
DYCT		04057B	AG8478	4196.055	0.010	-2.723
DZCT		04057B	AG8478	10774.982	0.010	-2.373
GROUP:	ID:198	RMS:0.013	Ratio:19.31	Variance:1.40	Duration:21 m	Da
DXCT		04057A	04058I	4681.115	0.007	7647.690
DYCT		04057A	04058I	-8039.486	0.009	652.509
DZCT		04057A	04058I	-16673.921	0.008	-673.698
GROUP:	ID:199	RMS:0.011	Ratio:29.99	Variance:1.10	Duration:19 m	Da
DXCT		04057A	04058I	4681.114	0.007	7647.691
DYCT		04057A	04058I	-8039.440	0.011	652.463
DZCT		04057A	04058I	-16673.948	0.008	-673.671
GROUP:	ID:205	RMS:0.017	Ratio:11.56	Variance:1.60	Duration:16 m	Da
DXCT		04057A	04057AK	5102.682	0.008	7646.927
DYCT		04057A	04057AK	3329.988	0.009	653.719
DZCT		04057A	04057AK	5093.746	0.008	-675.156
GROUP:	ID:206	RMS:0.023	Ratio:11.22	Variance:3.00	Duration:15 m	Da
DXCT		04057A	04057AK	5102.686	0.008	7646.923
DYCT		04057A	04057AK	3330.061	0.011	653.647
DZCT		04057A	04057AK	5093.722	0.008	-675.132
GROUP:	ID:214	RMS:0.014	Ratio:2.37	Variance:1.20	Duration:451 m	Da
DXCT		04057A	CRLT	46335.537	0.007	7646.214
DYCT		04057A	CRLT	-15048.276	0.008	652.902
DZCT		04057A	CRLT	-41338.935	0.007	-676.502
GROUP:	ID:215	RMS:0.017	Ratio:13.67	Variance:2.10	Duration:592 m	D
DXCT		04057A	CRLT	46335.535	0.007	7646.217
DYCT		04057A	CRLT	-15048.290	0.008	652.916
DZCT		04057A	CRLT	-41338.932	0.007	-676.505
GROUP:	ID:216	RMS:0.015	Ratio:13.79	Variance:1.60	Duration:528 m	D
DXCT		04057B	CRLT	29552.702	0.007	0.086
DYCT		04057B	CRLT	-18831.812	0.008	-2.688

Misclosures (pass 1):
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TYPE	AT	FROM	TO	OBSERVATION	STD.DEV.	MISC
DZCT		04057B	CRLT	-44317.670	0.007	-2.394
GROUP: ID:217	RMS:0.011	Ratio:13.04	Variance:0.80	Duration:105 m	D	
DXCT		04057D	CRLT	25297.665	0.007	0.654
DYCT		04057D	CRLT	-6589.594	0.008	-4.013
DZCT		04057D	CRLT	-19597.042	0.007	0.089
GROUP: ID:218	RMS:0.011	Ratio:21.09	Variance:1.00	Duration:193 m	D	
DXCT		04057D	CRLT	25297.659	0.007	0.660
DYCT		04057D	CRLT	-6589.609	0.009	-3.998
DZCT		04057D	CRLT	-19597.028	0.007	0.075
GROUP: ID:219	RMS:0.014	Ratio:11.57	Variance:1.30	Duration:377 m	D	
DXCT		04058Y	CRLT	1748.761	0.007	0.711
DYCT		04058Y	CRLT	-8731.563	0.008	-2.123
DZCT		04058Y	CRLT	-17438.660	0.007	-1.899
GROUP: ID:220	RMS:0.013	Ratio:17.52	Variance:1.60	Duration:168 m	D	
DXCT		04057F	CRLT	29249.988	0.007	-0.157
DYCT		04057F	CRLT	-1236.674	0.009	-1.490
DZCT		04057F	CRLT	-10247.764	0.008	-3.469
GROUP: ID:221	RMS:0.016	Ratio:12.24	Variance:1.60	Duration:436 m	D	
DXCT		04057A	04057B	16782.834	0.007	7646.130
DYCT		04057A	04057B	3783.529	0.008	655.598
DZCT		04057A	04057B	2978.738	0.007	-674.111
GROUP: ID:226	RMS:0.009	Ratio:23.96	Variance:0.80	Duration:16 m	Da	
DXCT		04057A	04057AD	-8180.051	0.008	7646.463
DYCT		04057A	04057AD	3453.061	0.010	649.838
DZCT		04057A	04057AD	8671.053	0.009	-672.183
GROUP: ID:227	RMS:0.011	Ratio:10.28	Variance:1.60	Duration:16 m	Da	
DXCT		04057A	04057AD	-8180.049	0.008	7646.462
DYCT		04057A	04057AD	3452.999	0.013	649.900
DZCT		04057A	04057AD	8671.102	0.009	-672.232

Solution (pass 1):

NAME	TYPE	OLD VALUE	CORRECTION	UPDATED VALUE
04057A	ELAT	N 27 20 33.84738	0 0 -24.79809	N 27 20 9.04929
04057A	ELON	W 82 31 4.54590	0 4 38.88655	W 82 26 25.65935
04057A	EHYT	-20.612	3.369	-17.243
04057AA	ELAT	N 27 27 19.89095	0 0 -0.04740	N 27 27 19.84355
04057AA	ELON	W 82 28 53.69771	0 0 -0.02359	W 82 28 53.72130
04057AA	EHYT	-22.591	3.030	-19.561
04057AB	ELAT	N 27 26 42.36305	0 0 -0.08660	N 27 26 42.27645
04057AB	ELON	W 82 28 52.08379	0 0 0.00724	W 82 28 52.07655
04057AB	EHYT	-18.848	-0.459	-19.307
04057AC	ELAT	N 27 26 5.62089	0 0 -0.05748	N 27 26 5.56341
04057AC	ELON	W 82 30 24.75156	0 0 -0.00326	W 82 30 24.75482
04057AC	EHYT	-17.453	-1.022	-18.475
04057AD	ELAT	N 27 25 26.42282	0 0 -0.07840	N 27 25 26.34442
04057AD	ELON	W 82 31 4.35591	0 0 0.00548	W 82 31 4.35043
04057AD	EHYT	-15.437	-4.635	-20.072
04057AE	ELAT	N 27 24 3.48386	0 0 -0.08330	N 27 24 3.40056
04057AE	ELON	W 82 31 1.48658	0 0 0.01156	W 82 31 1.47502
04057AE	EHYT	-14.167	-2.776	-16.943
04057AF	ELAT	N 27 22 47.48628	0 0 -0.15077	N 27 22 47.33551
04057AF	ELON	W 82 30 56.06311	0 0 0.00650	W 82 30 56.05661
04057AF	EHYT	-11.548	-0.733	-12.281
04057AG	ELAT	N 27 22 39.94043	0 0 -0.12872	N 27 22 39.81171
04057AG	ELON	W 82 28 16.10394	0 0 0.00104	W 82 28 16.10290
04057AG	EHYT	-15.131	-1.225	-16.356
04057AH	ELAT	N 27 21 25.62137	0 0 -0.06665	N 27 21 25.55472
04057AH	ELON	W 82 28 17.23861	0 0 0.00768	W 82 28 17.23093
04057AH	EHYT	-18.732	2.553	-16.179
04057AI	ELAT	N 27 20 44.04034	0 0 -0.09651	N 27 20 43.94383
04057AI	ELON	W 82 27 12.66393	0 0 -0.02607	W 82 27 12.69000
04057AI	EHYT	-15.536	0.379	-15.157
04057AJ	ELAT	N 27 21 21.25248	0 0 -0.07606	N 27 21 21.17642
04057AJ	ELON	W 82 23 7.99786	0 0 -0.01103	W 82 23 8.00889
04057AJ	EHYT	-12.904	0.536	-12.368
04057AK	ELAT	N 27 23 15.29929	0 0 -0.04950	N 27 23 15.24979
04057AK	ELON	W 82 23 5.58262	0 0 -0.02948	W 82 23 5.61210
04057AK	EHYT	-9.365	0.033	-9.332
04057AL	ELAT	N 27 23 5.30283	0 0 -0.05882	N 27 23 5.24401
04057AL	ELON	W 82 20 5.83722	0 0 0.03502	W 82 20 5.80220
04057AL	EHYT	-2.961	-3.269	-6.230
04057AM	ELAT	N 27 23 42.72389	0 0 -0.15894	N 27 23 42.56495
04057AM	ELON	W 82 18 43.68422	0 0 -0.00119	W 82 18 43.68541
04057AM	EHYT	-0.425	-0.997	-1.422
04057AN	ELAT	N 27 25 24.33472	0 0 -0.06787	N 27 25 24.26685
04057AN	ELON	W 82 16 59.35327	0 0 0.00059	W 82 16 59.35268
04057AN	EHYT	6.201	0.234	6.435
04057AO	ELAT	N 27 25 56.48784	0 0 -0.07069	N 27 25 56.41715
04057AO	ELON	W 82 18 12.97318	0 0 0.00587	W 82 18 12.96731
04057AO	EHYT	5.323	-3.213	2.110
04057AP	ELAT	N 27 27 21.39486	0 0 -0.06618	N 27 27 21.32868
04057AP	ELON	W 82 18 12.10200	0 0 -0.00454	W 82 18 12.10654

Solution (pass 1):

NAME	TYPE	OLD VALUE			CORRECTION		UPDATED VALUE		
04057AP	EHYT			-0.602			-0.982		-1.584
04057AQ	ELAT	N 27 24	50.54879	0 0	-0.08277	N 27 24	50.46602		
04057AQ	ELON	W 82 18	28.38971	0 0	0.00983	W 82 18	28.37988		
04057AQ	EHYT			4.067			-3.063		1.004
04057B	ELAT	N 27 21	57.75550	0 0	-0.10917	N 27 21	57.64633		
04057B	ELON	W 82 16	2.13670	0 0	-0.00975	W 82 16	2.14645		
04057B	EHYT			2.691			1.312		4.003
04057C	ELAT	N 27 23	46.59612	0 0	-0.06636	N 27 23	46.52976		
04057C	ELON	W 82 33	31.53218	0 0	0.02607	W 82 33	31.50611		
04057C	EHYT			-15.378			-2.981		-18.359
04057CA	ELAT	N 27 22	47.38446	0 0	-0.12014	N 27 22	47.26432		
04057CA	ELON	W 82 30	35.14030	0 0	0.03059	W 82 30	35.10971		
04057CA	EHYT			-10.625			-2.451		-13.076
04057CB	ELAT	N 27 21	33.09185	0 0	-0.07709	N 27 21	33.01476		
04057CB	ELON	W 82 27	49.82639	0 0	-0.01404	W 82 27	49.84043		
04057CB	EHYT			-14.757			-0.539		-15.296
04057CC	ELAT	N 27 21	20.26484	0 0	-0.09718	N 27 21	20.16766		
04057CC	ELON	W 82 25	3.13603	0 0	-0.02972	W 82 25	3.16575		
04057CC	EHYT			-14.703			0.468		-14.235
04057CD	ELAT	N 27 25	16.79598	0 0	-0.07917	N 27 25	16.71681		
04057CD	ELON	W 82 28	15.43337	0 0	0.01100	W 82 28	15.42237		
04057CD	EHYT			-19.959			0.023		-19.936
04057CE	ELAT	N 27 24	7.46942	0 0	-0.11150	N 27 24	7.35792		
04057CE	ELON	W 82 18	44.01411	0 0	-0.00404	W 82 18	44.01815		
04057CE	EHYT			-0.771			-0.139		-0.910
04057CG	ELAT	N 27 26	59.90640	0 0	-0.04502	N 27 26	59.86138		
04057CG	ELON	W 82 18	11.76601	0 0	-0.01903	W 82 18	11.78504		
04057CG	EHYT			-3.517			2.392		-1.125
04057CH	ELAT	N 27 27	20.02596	0 0	-0.05207	N 27 27	19.97389		
04057CH	ELON	W 82 28	40.16273	0 0	-0.01308	W 82 28	40.17581		
04057CH	EHYT			-19.534			1.192		-18.342
04057CJ	ELAT	N 27 23	12.39155	0 0	-0.05838	N 27 23	12.33317		
04057CJ	ELON	W 82 23	52.66637	0 0	-0.03153	W 82 23	52.69790		
04057CJ	EHYT			-9.708			-0.031		-9.739
04057D	ELAT	N 27 06	54.71137	0 0	-0.05778	N 27 06	54.65359		
04057D	ELON	W 82 14	28.87237	0 0	0.00425	W 82 14	28.86812		
04057D	EHYT			-19.989			3.675		-16.314
04057F	ELAT	N 27 01	13.73671	0 0	-0.12186	N 27 01	13.61485		
04057F	ELON	W 82 17	17.13670	0 0	-0.01272	W 82 17	17.14942		
04057F	EHYT			-20.858			-0.250		-21.108
04058A	ELAT	N 27 22	51.70508	0 0	-0.03385	N 27 22	51.67123		
04058A	ELON	W 82 33	33.24137	0 0	0.02379	W 82 33	33.21758		
04058A	EHYT			-15.121			-3.725		-18.846
04058B	ELAT	N 27 26	36.25192	0 0	-0.03914	N 27 26	36.21278		
04058B	ELON	W 82 27	44.53062	0 0	-0.03163	W 82 27	44.56225		
04058B	EHYT			-15.968			0.525		-15.443
04058C	ELAT	N 27 25	49.98788	0 0	-0.08619	N 27 25	49.90169		
04058C	ELON	W 82 16	55.75133	0 0	0.01078	W 82 16	55.74055		
04058C	EHYT			5.990			-0.283		5.707
04058D	ELAT	N 27 16	29.53888	0 0	-0.05342	N 27 16	29.48546		

Solution (pass 1):

NAME	TYPE	OLD VALUE	CORRECTION	UPDATED VALUE
04058D	ELON	W 82 33 45.07140	0 0 -0.01973	W 82 33 45.09113
04058D	EHYT	-23.544	0.066	-23.478
04058E	ELAT	N 27 20 19.44758	0 0 -0.07792	N 27 20 19.36966
04058E	ELON	W 82 21 33.04284	0 0 0.00441	W 82 21 33.03843
04058E	EHYT	-15.781	2.689	-13.092
04058F	ELAT	N 27 20 4.41252	0 0 -0.16219	N 27 20 4.25033
04058F	ELON	W 82 17 42.11960	0 0 -0.00520	W 82 17 42.12480
04058F	EHYT	-7.300	-1.453	-8.753
04058G	ELAT	N 27 16 26.30513	0 0 -0.07843	N 27 16 26.22670
04058G	ELON	W 82 12 26.97844	0 0 -0.00242	W 82 12 26.98086
04058G	EHYT	-11.068	-0.668	-11.736
04058H	ELAT	N 27 14 45.34632	0 0 -0.08873	N 27 14 45.25759
04058H	ELON	W 82 21 19.74656	0 0 0.00418	W 82 21 19.74238
04058H	EHYT	-14.035	-1.547	-15.582
04058I	ELAT	N 27 09 59.79374	0 0 -0.07260	N 27 09 59.72114
04058I	ELON	W 82 24 15.46685	0 0 -0.05120	W 82 24 15.51805
04058I	EHYT	-16.829	-1.778	-18.607
04058J	ELAT	N 27 06 58.82864	0 0 -0.05679	N 27 06 58.77185
04058J	ELON	W 82 11 29.38979	0 0 0.01217	W 82 11 29.37762
04058J	EHYT	-17.639	0.992	-16.647
04058L	ELAT	N 26 57 41.01047	0 0 -0.14154	N 26 57 40.86893
04058L	ELON	W 82 21 43.15372	0 0 0.01040	W 82 21 43.14332
04058L	EHYT	-19.080	-2.692	-21.772
04058M	ELAT	N 27 03 9.22884	0 0 -0.06180	N 27 03 9.16704
04058M	ELON	W 82 21 26.62816	0 0 0.01813	W 82 21 26.61003
04058M	EHYT	-18.829	-0.921	-19.750
04058N	ELAT	N 27 01 31.95391	0 0 -0.04545	N 27 01 31.90846
04058N	ELON	W 82 11 42.61530	0 0 0.02141	W 82 11 42.59389
04058N	EHYT	-21.020	0.766	-20.254
04058O	ELAT	N 27 12 13.93238	0 0 -0.05406	N 27 12 13.87832
04058O	ELON	W 82 03 24.03585	0 0 0.04105	W 82 03 23.99480
04058O	EHYT	-12.354	1.262	-11.092
04058Y	ELAT	N 27 05 35.94804	0 0 -0.08746	N 27 05 35.86058
04058Y	ELON	W 82 00 11.37623	0 0 0.01483	W 82 00 11.36140
04058Y	EHYT	-16.398	1.136	-15.262
AG1968	EHYT	2.748	-0.054	2.695
AG8311	ELAT	N 27 20 19.31438	0 0 -0.01088	N 27 20 19.30350
AG8311	ELON	W 82 26 48.01441	0 0 -0.07678	W 82 26 48.09119
BRAD-11	ELAT	N 27 23 15.31778	0 0 -0.04950	N 27 23 15.26829
BRAD-11	ELON	W 82 23 5.58371	0 0 -0.02948	W 82 23 5.61318
BRAD-11	EHYT	-9.365	0.033	-9.332
BRAD-12	ELAT	N 27 23 5.31582	0 0 -0.05882	N 27 23 5.25700
BRAD-12	ELON	W 82 20 5.83697	0 0 0.03502	W 82 20 5.80194
BRAD-12	EHYT	-2.961	-3.269	-6.230
CRLT	EHYT	-12.970	0.037	-12.933

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV		
PLH	000	04057A	N 27 20 9.04929	0.005	W 82 26 25.65935	0.005	-17.243	0.005	m	0
PLH	000	04057AA	N 27 27 19.84354	0.010	W 82 28 53.72130	0.010	-19.561	0.013	m	0
PLH	000	04057AB	N 27 26 42.27645	0.010	W 82 28 52.07655	0.010	-19.307	0.012	m	0
PLH	000	04057AC	N 27 26 5.56341	0.010	W 82 30 24.75482	0.010	-18.475	0.011	m	0
PLH	000	04057AD	N 27 25 26.34442	0.010	W 82 31 4.35043	0.010	-20.072	0.015	m	0
PLH	000	04057AE	N 27 24 3.40056	0.010	W 82 31 1.47501	0.010	-16.943	0.011	m	0
PLH	000	04057AF	N 27 22 47.33551	0.010	W 82 30 56.05661	0.010	-12.281	0.012	m	0
PLH	000	04057AG	N 27 22 39.81170	0.010	W 82 28 16.10290	0.010	-16.356	0.014	m	0
PLH	000	04057AH	N 27 21 25.55471	0.010	W 82 28 17.23093	0.010	-16.179	0.012	m	0
PLH	000	04057AI	N 27 20 43.94383	0.010	W 82 27 12.69000	0.009	-15.157	0.011	m	0
PLH	000	04057AJ	N 27 21 21.17642	0.010	W 82 23 8.00889	0.010	-12.368	0.012	m	0
PLH	000	04057AK	N 27 23 15.24979	0.010	W 82 23 5.61210	0.010	-9.332	0.012	m	0
PLH	000	04057AL	N 27 23 5.24401	0.014	W 82 20 5.80220	0.013	-6.230	0.028	m	0
PLH	000	04057AM	N 27 23 42.56495	0.009	W 82 18 43.68540	0.009	-1.422	0.011	m	0
PLH	000	04057AN	N 27 25 24.26685	0.009	W 82 16 59.35268	0.009	6.435	0.013	m	0
PLH	000	04057AO	N 27 25 56.41715	0.010	W 82 18 12.96731	0.009	2.110	0.013	m	0
PLH	000	04057AP	N 27 27 21.32868	0.010	W 82 18 12.10654	0.009	-1.584	0.011	m	0
PLH	000	04057AQ	N 27 24 50.46602	0.010	W 82 18 28.37988	0.009	1.004	0.012	m	0
PLH	000	04057B	N 27 21 57.64633	0.004	W 82 16 2.14645	0.004	4.003	0.006	m	0
PLH	000	04057C	N 27 23 46.52976	0.013	W 82 33 31.50611	0.013	-18.359	0.018	m	0
PLH	000	04057CA	N 27 22 47.26432	0.013	W 82 30 35.10971	0.014	-13.076	0.017	m	0
PLH	000	04057CB	N 27 21 33.01476	0.013	W 82 27 49.84043	0.013	-15.296	0.022	m	0
PLH	000	04057CC	N 27 21 20.16766	0.013	W 82 25 3.16575	0.013	-14.235	0.015	m	0
PLH	000	04057CD	N 27 25 16.71681	0.014	W 82 28 15.42237	0.013	-19.936	0.016	m	0
PLH	000	04057CE	N 27 24 7.35792		W 82 18 44.01815		-0.910		m	0

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV		
				0.013		0.013		0.015		
PLH	000	04057CG	N 27 26 59.86138	0.013	W 82 18 11.78504	0.013	-1.125	0.030	m	0
PLH	000	04057CH	N 27 27 19.97389	0.013	W 82 28 40.17581	0.013	-18.342	0.019	m	0
PLH	000	04057CJ	N 27 23 12.33317	0.013	W 82 23 52.69790	0.013	-9.739	0.015	m	0
PLH	000	04057D	N 27 6 54.65359	0.005	W 82 14 28.86812	0.005	-16.314	0.006	m	0
PLH	000	04057F	N 27 1 13.61485	0.006	W 82 17 17.14942	0.006	-21.108	0.007	m	0
PLH	000	04058A	N 27 22 51.67123	0.010	W 82 33 33.21758	0.010	-18.846	0.012	m	0
PLH	000	04058B	N 27 26 36.21278	0.010	W 82 27 44.56224	0.010	-15.443	0.012	m	0
PLH	000	04058C	N 27 25 49.90169	0.009	W 82 16 55.74055	0.009	5.707	0.011	m	0
PLH	000	04058D	N 27 16 29.48546	0.010	W 82 33 45.09113	0.010	-23.478	0.013	m	0
PLH	000	04058E	N 27 20 19.36966	0.009	W 82 21 33.03843	0.009	-13.092	0.010	m	0
PLH	000	04058F	N 27 20 4.25033	0.010	W 82 17 42.12480	0.010	-8.753	0.012	m	0
PLH	000	04058G	N 27 16 26.22670	0.009	W 82 12 26.98086	0.009	-11.736	0.013	m	0
PLH	000	04058H	N 27 14 45.25759	0.009	W 82 21 19.74238	0.009	-15.582	0.011	m	0
PLH	000	04058I	N 27 9 59.72114	0.010	W 82 24 15.51805	0.010	-18.607	0.013	m	0
PLH	000	04058J	N 27 6 58.77185	0.009	W 82 11 29.37761	0.009	-16.647	0.011	m	0
PLH	111	04058K	N 27 4 27.73904	0.000	W 82 4 23.93205	0.000	-11.825	0.000	m	0
PLH	000	04058L	N 26 57 40.86893	0.010	W 82 21 43.14332	0.010	-21.772	0.013	m	0
PLH	000	04058M	N 27 3 9.16704	0.009	W 82 21 26.61003	0.009	-19.750	0.011	m	0
PLH	000	04058N	N 27 1 31.90846	0.009	W 82 11 42.59389	0.009	-20.254	0.012	m	0
PLH	000	04058O	N 27 12 13.87832	0.011	W 82 3 23.99480	0.011	-11.092	0.014	m	0
PLH	000	04058Y	N 27 5 35.86059	0.007	W 82 0 11.36140	0.007	-15.262	0.010	m	0
PLH	111	AG1868	N 27 2 48.34214	0.000	W 82 15 52.23382	0.000	-21.910	0.000	m	0
PLH	110	AG1968	N 27 21 55.10750	0.000	W 82 16 5.66506	0.000	2.695	0.011	m	0
PLH	111	AG8099	N 27 7 16.60160	0.000	W 82 12 46.82396	0.000	-16.638	0.000	m	0

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV	
PLH	001	AG8311	N 27 20 19.30350	0.009	W 82 26 48.09119	0.009	-7.867 m	0.000	0
PLH	111	AG8478	N 27 28 32.15308	0.000	W 82 22 10.75067	0.000	-4.376 m	0.000	0
PLH	111	AG9362	N 27 23 20.37543	0.000	W 82 26 56.06202	0.000	-9.533 m	0.000	0
PLH	000	BRAD-11	N 27 23 15.26829	0.019	W 82 23 5.61318	0.019	-9.332 m	0.021	0
PLH	000	BRAD-12	N 27 23 5.25700	0.021	W 82 20 5.80194	0.017	-6.230 m	0.032	0
PLH	110	CRLT	N 26 54 59.90383	0.000	W 81 59 52.62224	0.000	-12.933 m	0.007	0

Adjusted PLO Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	O-HEIGHT	STD DEV		
PLO	000	04057A	N 27 20	9.04929	W 82 26	25.65935	7.081	0.005	m	0
				0.005		0.005				
PLO	000	04057AA	N 27 27	19.84354	W 82 28	53.72130	4.962	0.010	m	0
				0.010		0.010		0.013		
PLO	000	04057AB	N 27 26	42.27645	W 82 28	52.07655	5.204	0.010	m	0
				0.010		0.010		0.012		
PLO	000	04057AC	N 27 26	5.56341	W 82 30	24.75482	5.993	0.010	m	0
				0.010		0.010		0.011		
PLO	000	04057AD	N 27 25	26.34442	W 82 31	4.35043	4.369	0.010	m	0
				0.010		0.010		0.015		
PLO	000	04057AE	N 27 24	3.40056	W 82 31	1.47501	7.469	0.010	m	0
				0.010		0.010		0.011		
PLO	000	04057AF	N 27 22	47.33551	W 82 30	56.05661	12.102	0.010	m	0
				0.010		0.010		0.012		
PLO	000	04057AG	N 27 22	39.81170	W 82 28	16.10290	8.066	0.010	m	0
				0.010		0.010		0.014		
PLO	000	04057AH	N 27 21	25.55471	W 82 28	17.23093	8.210	0.010	m	0
				0.010		0.010		0.012		
PLO	000	04057AI	N 27 20	43.94383	W 82 27	12.69000	9.229	0.010	m	0
				0.010		0.009		0.011		
PLO	000	04057AJ	N 27 21	21.17642	W 82 23	8.00889	12.094	0.010	m	0
				0.010		0.010		0.012		
PLO	000	04057AK	N 27 23	15.24979	W 82 23	5.61210	15.187	0.010	m	0
				0.010		0.010		0.012		
PLO	000	04057AL	N 27 23	5.24401	W 82 20	5.80220	18.321	0.014	m	0
				0.014		0.013		0.028		
PLO	000	04057AM	N 27 23	42.56495	W 82 18	43.68540	23.159	0.009	m	0
				0.009		0.009		0.011		
PLO	000	04057AN	N 27 25	24.26685	W 82 16	59.35268	31.079	0.009	m	0
				0.009		0.009		0.013		
PLO	000	04057AO	N 27 25	56.41715	W 82 18	12.96731	26.758	0.010	m	0
				0.010		0.009		0.013		
PLO	000	04057AP	N 27 27	21.32868	W 82 18	12.10654	23.103	0.010	m	0
				0.010		0.009		0.011		
PLO	000	04057AQ	N 27 24	50.46602	W 82 18	28.37988	25.619	0.010	m	0
				0.010		0.009		0.012		
PLO	000	04057B	N 27 21	57.64633	W 82 16	2.14645	28.564	0.004	m	0
				0.004		0.004		0.006		
PLO	000	04057C	N 27 23	46.52976	W 82 33	31.50611	6.001	0.013	m	0
				0.013		0.013		0.018		
PLO	000	04057CA	N 27 22	47.26432	W 82 30	35.10971	11.313	0.013	m	0
				0.013		0.014		0.017		
PLO	000	04057CB	N 27 21	33.01476	W 82 27	49.84043	9.104	0.013	m	0
				0.013		0.013		0.022		
PLO	000	04057CC	N 27 21	20.16766	W 82 25	3.16575	10.200	0.013	m	0
				0.013		0.013		0.015		
PLO	000	04057CD	N 27 25	16.71681	W 82 28	15.42237	4.554	0.014	m	0
				0.014		0.013		0.016		
PLO	000	04057CE	N 27 24	7.35792	W 82 18	44.01815	23.683		m	0

Adjusted PLO Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	O-HEIGHT	STD DEV		
				0.013		0.013		0.015		
PLO	000	04057CG	N 27 26 59.86138	0.013	W 82 18 11.78504	0.013	23.553	0.030	m	0
PLO	000	04057CH	N 27 27 19.97389	0.013	W 82 28 40.17581	0.013	6.186	0.019	m	0
PLO	000	04057CJ	N 27 23 12.33317	0.013	W 82 23 52.69790	0.013	14.767	0.015	m	0
PLO	000	04057D	N 27 6 54.65359	0.005	W 82 14 28.86812	0.005	7.738	0.006	m	0
PLO	000	04057F	N 27 1 13.61485	0.006	W 82 17 17.14942	0.006	2.738	0.007	m	0
PLO	000	04058A	N 27 22 51.67123	0.010	W 82 33 33.21758	0.010	5.493	0.012	m	0
PLO	000	04058B	N 27 26 36.21278	0.010	W 82 27 44.56224	0.010	9.087	0.012	m	0
PLO	000	04058C	N 27 25 49.90169	0.009	W 82 16 55.74055	0.009	30.364	0.011	m	0
PLO	000	04058D	N 27 16 29.48546	0.010	W 82 33 45.09113	0.010	0.697	0.013	m	0
PLO	000	04058E	N 27 20 19.36966	0.009	W 82 21 33.03843	0.009	11.363	0.010	m	0
PLO	000	04058F	N 27 20 4.25033	0.010	W 82 17 42.12480	0.010	15.742	0.012	m	0
PLO	000	04058G	N 27 16 26.22670	0.009	W 82 12 26.98086	0.009	12.710	0.013	m	0
PLO	000	04058H	N 27 14 45.25759	0.009	W 82 21 19.74238	0.009	8.691	0.011	m	0
PLO	000	04058I	N 27 9 59.72114	0.010	W 82 24 15.51805	0.010	5.451	0.013	m	0
PLO	000	04058J	N 27 6 58.77185	0.009	W 82 11 29.37761	0.009	7.457	0.011	m	0
PLO	111	04058K	N 27 4 27.73904	0.000	W 82 4 23.93205	0.000	12.333	0.000	m	0
PLO	000	04058L	N 26 57 40.86893	0.010	W 82 21 43.14332	0.010	2.001	0.013	m	0
PLO	000	04058M	N 27 3 9.16704	0.009	W 82 21 26.61003	0.009	4.099	0.011	m	0
PLO	000	04058N	N 27 1 31.90846	0.009	W 82 11 42.59389	0.009	3.692	0.012	m	0
PLO	000	04058O	N 27 12 13.87832	0.011	W 82 3 23.99480	0.011	13.307	0.014	m	0
PLO	000	04058Y	N 27 5 35.86059	0.007	W 82 0 11.36140	0.007	9.006	0.010	m	0
PLO	111	AG1868	N 27 2 48.34214	0.000	W 82 15 52.23382	0.000	1.994	0.000	m	0
PLO	110	AG1968	N 27 21 55.10750	0.000	W 82 16 5.66506	0.000	27.254	0.011	m	0
PLO	111	AG8099	N 27 7 16.60160	0.000	W 82 12 46.82396	0.000	7.456	0.000	m	0

Adjusted PLO Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	O-HEIGHT	STD DEV	
PLO	001	AG8311	N 27 20 19.30350	0.009	W 82 26 48.09119	0.009	16.513 m	0.000	0
PLO	111	AG8478	N 27 28 32.15308	0.000	W 82 22 10.75067	0.000	20.294 m	0.000	0
PLO	111	AG9362	N 27 23 20.37543	0.000	W 82 26 56.06202	0.000	14.930 m	0.000	0
PLO	000	BRAD-11	N 27 23 15.26829	0.019	W 82 23 5.61318	0.019	15.187 m	0.021	0
PLO	000	BRAD-12	N 27 23 5.25700	0.021	W 82 20 5.80194	0.017	18.321 m	0.032	0
PLO	110	CRLT	N 26 54 59.90383	0.000	W 81 59 52.62224	0.000	11.134 m	0.007	0

Adjusted XYZ Coordinates:

CODE	FFF	STATION	X-COORDINATE STD DEV	Y-COORDINATE STD DEV	Z-COORDINATE STD DEV		
XYZ		04057A	745908.799 0.005	-5620600.457 0.005	2911315.800 0.005	m	0
XYZ		04057AA	741075.400 0.010	-5615083.484 0.013	2923087.643 0.010	m	0
XYZ		04057AB	741189.955 0.010	-5615606.263 0.011	2922061.612 0.011	m	0
XYZ		04057AC	738734.699 0.010	-5616455.759 0.011	2921059.083 0.010	m	0
XYZ		04057AD	737728.751 0.010	-5617147.422 0.014	2919986.878 0.011	m	0
XYZ		04057AE	737960.492 0.010	-5618305.288 0.011	2917721.936 0.010	m	0
XYZ		04057AF	738248.921 0.010	-5619357.950 0.012	2915645.246 0.011	m	0
XYZ		04057AG	742619.864 0.010	-5618885.759 0.013	2915437.728 0.011	m	0
XYZ		04057AH	742726.820 0.010	-5619931.621 0.011	2913407.975 0.010	m	0
XYZ		04057AI	744562.679 0.009	-5620283.201 0.011	2912270.836 0.010	m	0
XYZ		04057AJ	751159.761 0.010	-5618876.583 0.011	2913290.032 0.011	m	0
XYZ		04057AK	751011.483 0.010	-5617270.441 0.012	2916409.537 0.010	m	0
XYZ		04057AL	755927.276 0.013	-5616756.749 0.026	2916137.499 0.016	m	0
XYZ		04057AM	758093.196 0.009	-5615935.862 0.011	2917159.685 0.010	m	0
XYZ		04057AN	760741.180 0.009	-5614130.568 0.013	2919942.323 0.011	m	0
XYZ		04057AO	758675.920 0.009	-5613946.173 0.012	2920818.699 0.011	m	0
XYZ		04057AP	758537.582 0.009	-5612746.028 0.011	2923136.496 0.010	m	0
XYZ		04057AQ	758381.442 0.009	-5614928.403 0.011	2919016.287 0.011	m	0
XYZ		04057B	762691.643 0.004	-5616816.913 0.006	2914294.530 0.005	m	0
XYZ		04057C	733904.489 0.013	-5619076.280 0.017	2917260.244 0.014	m	0
XYZ		04057CA	738819.622 0.014	-5619283.249 0.017	2915642.935 0.014	m	0
XYZ		04057CB	743459.363 0.013	-5619729.109 0.020	2913612.320 0.015	m	0
XYZ		04057CC	748024.310 0.013	-5619307.577 0.015	2913261.597 0.013	m	0
XYZ		04057CD	742346.769 0.013	-5616676.772 0.015	2919723.897 0.015	m	0
XYZ		04057CE	758037.218	-5615589.512	2917837.457	m	0

Adjusted XYZ Coordinates:

CODE	FFF	STATION	X-COORDINATE STD DEV	Y-COORDINATE STD DEV	Z-COORDINATE STD DEV		
			0.013	0.015	0.013		
XYZ		04057CG	758587.184	-5613047.137	2922550.339	m	0
			0.014	0.027	0.017		
XYZ		04057CH	741444.042	-5615034.044	2923091.765	m	0
			0.013	0.018	0.014		
XYZ		04057CJ	749734.577	-5617482.310	2916329.637	m	0
			0.013	0.015	0.013		
XYZ		04057D	766946.680	-5629059.113	2889573.893	m	0
			0.005	0.006	0.005		
XYZ		04057F	762994.352	-5634412.043	2880224.625	m	0
			0.006	0.007	0.006		
XYZ		04058A	733958.403	-5619852.179	2915760.731	m	0
			0.010	0.012	0.010		
XYZ		04058B	743039.741	-5615452.035	2921897.754	m	0
			0.010	0.011	0.010		
XYZ		04058C	760790.598	-5613756.444	2920642.355	m	0
			0.009	0.011	0.010		
XYZ		04058D	734333.430	-5625245.422	2905307.800	m	0
			0.010	0.012	0.011		
XYZ		04058E	753862.895	-5619395.676	2911599.893	m	0
			0.009	0.010	0.009		
XYZ		04058F	760182.509	-5618763.803	2911188.480	m	0
			0.010	0.011	0.010		
XYZ		04058G	769183.328	-5620643.075	2905224.028	m	0
			0.009	0.012	0.010		
XYZ		04058H	754852.119	-5624018.473	2902459.615	m	0
			0.009	0.011	0.010		
XYZ		04058I	750589.914	-5628639.925	2894641.866	m	0
			0.010	0.012	0.011		
XYZ		04058J	771836.876	-5628332.056	2889686.565	m	0
			0.009	0.011	0.010		
XYZ		04058K	783736.911	-5628829.437	2885550.298	m	0
			0.000	0.000	0.000		
XYZ		04058L	756122.641	-5638336.156	2874389.520	m	0
			0.010	0.012	0.011		
XYZ		04058M	755964.585	-5633729.599	2883393.131	m	0
			0.009	0.011	0.010		
XYZ		04058N	772097.560	-5632914.378	2880726.596	m	0
			0.010	0.011	0.010		
XYZ		04058O	784468.191	-5622120.276	2898318.444	m	0
			0.011	0.014	0.012		
XYZ		04058Y	790495.576	-5626917.164	2887415.527	m	0
			0.007	0.009	0.008		
XYZ		AG1868	765135.411	-5632783.631	2882821.296	m	0
			0.000	0.000	0.000		
XYZ		AG1968	762600.504	-5616864.366	2914224.528	m	0
			0.001	0.009	0.005		
XYZ		AG8099	769689.656	-5628373.620	2890175.023	m	0
			0.000	0.000	0.000		

Adjusted XYZ Coordinates:

CODE	FFF	STATION	X-COORDINATE STD DEV	Y-COORDINATE STD DEV	Z-COORDINATE STD DEV		
XYZ		AG8311	745279.581 0.009	-5620546.113 0.004	2911600.483 0.008	m	0
XYZ		AG8478	751909.407 0.000	-5612620.861 0.000	2925069.520 0.000	m	0
XYZ		AG9362	744725.544 0.000	-5618033.881 0.000	2916549.530 0.000	m	0
XYZ		BRAD-11	751011.419 0.019	-5617270.186 0.020	2916410.043 0.019	m	0
XYZ		BRAD-12	755927.259 0.017	-5616756.566 0.031	2916137.854 0.023	m	0
XYZ		CRLT	792244.337 0.001	-5635648.725 0.006	2869976.864 0.003	m	0

Geoid Values:

CODE	STATION	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	04057A	0 0 2.92	0 0 1.82	-24.324 m
GEOI	04057AA	0 0 2.22	0 0 2.38	-24.524 m
GEOI	04057AB	0 0 2.33	0 0 2.33	-24.511 m
GEOI	04057AC	0 0 2.33	0 0 2.47	-24.468 m
GEOI	04057AD	0 0 2.36	0 0 2.50	-24.441 m
GEOI	04057AE	0 0 2.52	0 0 2.24	-24.412 m
GEOI	04057AF	0 0 2.80	0 0 2.03	-24.383 m
GEOI	04057AG	0 0 2.97	0 0 1.99	-24.422 m
GEOI	04057AH	0 0 2.97	0 0 1.88	-24.389 m
GEOI	04057AI	0 0 3.10	0 0 1.84	-24.387 m
GEOI	04057AJ	0 0 3.23	0 0 1.73	-24.462 m
GEOI	04057AK	0 0 3.20	0 0 1.72	-24.519 m
GEOI	04057AL	0 0 3.08	0 0 1.32	-24.551 m
GEOI	04057AM	0 0 3.03	0 0 1.18	-24.582 m
GEOI	04057AN	0 0 3.06	0 0 1.17	-24.645 m
GEOI	04057AO	0 0 3.09	0 0 1.14	-24.648 m
GEOI	04057AP	0 0 3.07	0 0 1.18	-24.688 m
GEOI	04057AQ	0 0 3.04	0 0 1.14	-24.615 m
GEOI	04057B	0 0 2.77	0 0 1.31	-24.561 m
GEOI	04057C	0 0 2.14	0 0 2.33	-24.359 m
GEOI	04057CA	0 0 2.82	0 0 2.02	-24.389 m
GEOI	04057CB	0 0 3.00	0 0 1.90	-24.400 m
GEOI	04057CC	0 0 3.24	0 0 1.76	-24.435 m
GEOI	04057CD	0 0 2.64	0 0 2.21	-24.490 m
GEOI	04057CE	0 0 3.04	0 0 1.17	-24.593 m
GEOI	04057CG	0 0 3.05	0 0 1.17	-24.678 m
GEOI	04057CH	0 0 2.24	0 0 2.37	-24.528 m
GEOI	04057CJ	0 0 3.17	0 0 1.77	-24.506 m
GEOI	04057D	0 0 4.31	0 0 2.00	-24.052 m
GEOI	04057F	0 0 2.29	0 0 1.68	-23.847 m
GEOI	04058A	0 0 2.49	0 0 2.25	-24.340 m
GEOI	04058B	0 0 2.41	0 0 2.27	-24.530 m
GEOI	04058C	0 0 3.08	0 0 1.15	-24.657 m
GEOI	04058D	0 0 2.99	0 0 1.29	-24.175 m
GEOI	04058E	0 0 3.20	0 0 1.75	-24.455 m
GEOI	04058F	0 0 2.95	0 0 1.42	-24.495 m
GEOI	04058G	0 0 3.54	0 0 1.24	-24.447 m
GEOI	04058H	0 0 4.13	0 0 1.73	-24.273 m
GEOI	04058I	0 0 4.00	0 0 1.06	-24.058 m
GEOI	04058J	0 0 4.12	0 0 2.14	-24.105 m
GEOI	04058K	0 0 2.89	0 0 2.38	-24.158 m
GEOI	04058L	0 0 0.43 -	0 0 0.27	-23.773 m
GEOI	04058M	0 0 2.66	0 0 0.62	-23.849 m
GEOI	04058N	0 0 2.36	0 0 2.23	-23.946 m
GEOI	04058O	0 0 3.15	0 0 1.19	-24.399 m
GEOI	04058Y	0 0 2.72	0 0 2.43	-24.268 m
GEOI	AG1868	0 0 2.66	0 0 1.92	-23.904 m
GEOI	AG1968	0 0 2.76	0 0 1.31	-24.559 m
GEOI	AG8099	0 0 4.22	0 0 2.11	-24.094 m
GEOI	AG8311	0 0 3.20	0 0 1.74	-24.380 m

Geoid Values:

CODE	STATION	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	AG8478	0 0 2.63	0 0 1.86	-24.670 m
GEOI	AG9362	0 0 3.00	0 0 2.03	-24.463 m
GEOI	BRAD-11	0 0 3.20	0 0 1.72	-24.519 m
GEOI	BRAD-12	0 0 3.08	0 0 1.32	-24.551 m
GEOI	CRLT	0 0 1.68	0 0 2.58	-24.067 m

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL	STD RES
				STD DEV	STD DEV	PPM
GROUP: ID:108	RMS:0.009	Ratio:32.88	Variance:0.90	Duration:21 m	Da	
DXCT		AG9362	04057A	1183.26330	0.001	0.040
				0.016	0.014	0.10
DYCT		AG9362	04057A	-2566.57300	-0.009	-0.744
				0.013	0.012	1.48
DZCT		AG9362	04057A	-5233.73100	0.003	0.315
				0.010	0.009	0.50
GROUP: ID:109	RMS:0.007	Ratio:16.99	Variance:3.20	Duration:15 m	Da	
DXCT		04057A	04057AI	-1346.12340	0.002	0.208
				0.014	0.010	1.25
DYCT		04057A	04057AI	317.25250	0.004	0.489
				0.013	0.009	2.59
DZCT		04057A	04057AI	955.03530	-0.003	-0.432
				0.009	0.007	1.73
GROUP: ID:110	RMS:0.007	Ratio:18.02	Variance:2.60	Duration:15 m	Da	
DXCT		04057A	04057AI	-1346.11540	-0.002	-0.229
				0.014	0.009	1.29
DYCT		04057A	04057AI	317.26040	-0.005	-0.520
				0.013	0.009	2.74
DZCT		04057A	04057AI	955.03660	0.003	0.521
				0.008	0.005	1.50
GROUP: ID:111	RMS:0.009	Ratio:27.32	Variance:11.30	Duration:15 m	D	
DXCT		04057A	04057CB	-2449.43550	-0.000	-0.000
				0.018	0.000	0.00*
DYCT		04057A	04057CB	871.34870	0.000	0.000
				0.014	0.000	0.00*
DZCT		04057A	04057CB	2296.51920	0.000	0.000
				0.015	0.000	0.00*
GROUP: ID:112	RMS:0.012	Ratio:31.94	Variance:9.60	Duration:15 m	Da	
DXCT		04057A	04057AH	-3181.97590	-0.005	-0.460
				0.016	0.012	1.38
DYCT		04057A	04057AH	668.82210	-0.001	-0.137
				0.013	0.010	0.34
DZCT		04057A	04057AH	2092.18770	-0.019	-2.467
				0.010	0.008	4.90
GROUP: ID:113	RMS:0.004	Ratio:41.41	Variance:2.50	Duration:14 m	Da	
DXCT		04057A	04057AH	-3181.98010	0.005	0.510
				0.014	0.010	1.26
DYCT		04057A	04057AH	668.84580	-0.000	-0.027
				0.012	0.009	0.06
DZCT		04057A	04057AH	2092.16380	0.013	2.629
				0.008	0.005	3.46
GROUP: ID:114	RMS:0.017	Ratio:15.40	Variance:2.50	Duration:15 m	Da	
DXCT		04057A	04057AG	-3288.92830	-0.004	-0.300
				0.017	0.012	0.67
DYCT		04057A	04057AG	1714.69250	-0.005	-0.476
				0.014	0.010	0.90
DZCT		04057A	04057AG	4121.93490	-0.010	-1.105

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				0.012	0.009	1.74
GROUP: ID:115	RMS:0.012	Ratio:34.41	Variance:1.50	Duration:16 m	Da	
DXCT		04057A	04057AG	-3288.93810	0.004	0.319
				0.017	0.012	0.70
DYCT		04057A	04057AG	1714.70320	0.003	0.359
				0.013	0.009	0.60
DZCT		04057A	04057AG	4121.92020	0.008	0.925
				0.012	0.008	1.38
GROUP: ID:116	RMS:0.020	Ratio:25.63	Variance:2.20	Duration:15 m	Da	
DXCT		04057A	04057AF	-7659.87850	-0.003	-0.259
				0.015	0.011	0.31
DYCT		04057A	04057AF	1242.51280	0.001	0.060
				0.014	0.010	0.07
DZCT		04057A	04057AF	4329.44580	0.005	0.658
				0.010	0.007	0.54
GROUP: ID:117	RMS:0.015	Ratio:10.89	Variance:2.20	Duration:16 m	Da	
DXCT		04057A	04057CA	-7089.17650	-0.000	-0.000
				0.016	0.000	0.00*
DYCT		04057A	04057CA	1317.20840	0.000	0.000
				0.014	0.000	0.00*
DZCT		04057A	04057CA	4327.13470	-0.000	-0.000
				0.012	0.000	0.00*
GROUP: ID:118	RMS:0.009	Ratio:29.09	Variance:0.60	Duration:17 m	Da	
DXCT		04057A	04057AE	-7948.30740	-0.002	-0.207
				0.015	0.011	0.21
DYCT		04057A	04057AE	2295.18360	-0.001	-0.134
				0.013	0.009	0.12
DZCT		04057A	04057AE	6406.13060	0.015	2.015
				0.010	0.007	1.44
GROUP: ID:120	RMS:0.013	Ratio:10.93	Variance:0.80	Duration:15 m	Da	
DXCT		04057A	04057AC	-7174.09960	0.004	0.338
				0.015	0.011	0.29
DYCT		04057A	04057AC	4144.71150	-0.002	-0.232
				0.013	0.009	0.16
DZCT		04057A	04057AC	9743.27170	0.016	3.221
				0.007	0.005	1.27
GROUP: ID:121	RMS:0.016	Ratio:10.02	Variance:1.60	Duration:15 m	Da	
DXCT		04057A	04057AB	-4718.84570	0.019	1.496
				0.017	0.012	1.46
DYCT		04057A	04057AB	4994.17950	0.004	0.389
				0.013	0.009	0.28
DZCT		04057A	04057AB	10745.79770	-0.007	-1.752
				0.007	0.004	0.51
GROUP: ID:122	RMS:0.016	Ratio:44.90	Variance:1.30	Duration:17 m	Da	
DXCT		04057A	04057CD	-3562.02990	-0.000	-0.000
				0.016	0.000	0.00*
DYCT		04057A	04057CD	3923.68490	0.000	0.000
				0.013	0.000	0.00*

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DZCT		04057A	04057CD	8408.09660	0.000	0.000
				0.008	0.000	0.00*
GROUP: ID:123 RMS:0.013 Ratio:14.56 Variance:1.10 Duration:16 m Da						
DXCT		04057A	04057CH	-4464.75620	0.000	0.000
				0.017	0.000	0.00*
DYCT		04057A	04057CH	5566.41340	0.000	0.000
				0.014	0.000	0.00*
DZCT		04057A	04057CH	11775.96450	0.000	0.000
				0.013	0.000	0.00*
GROUP: ID:124 RMS:0.011 Ratio:25.50 Variance:1.00 Duration:17 m Da						
DXCT		04057A	04057AA	-4833.39470	0.002	0.149
				0.020	0.016	0.17
DYCT		04057A	04057AA	5516.95750	-0.002	-0.175
				0.015	0.012	0.15
DZCT		04057A	04057AA	11771.84780	-0.017	-1.100
				0.017	0.015	1.21
GROUP: ID:125 RMS:0.015 Ratio:17.13 Variance:1.10 Duration:16 m Da						
DXCT		04057A	04058B	-2869.05490	0.004	0.355
				0.014	0.010	0.29
DYCT		04057A	04058B	5148.41580	-0.002	-0.194
				0.013	0.009	0.14
DZCT		04057A	04058B	10581.95300	-0.006	-1.062
				0.009	0.006	0.49
GROUP: ID:126 RMS:0.007 Ratio:14.57 Variance:4.10 Duration:15 m Da						
DXCT		04057A	04057CC	2115.51150	0.000	0.000
				0.014	0.000	0.00*
DYCT		04057A	04057CC	1292.88050	-0.000	-0.000
				0.013	0.000	0.00*
DZCT		04057A	04057CC	1945.79630	-0.000	-0.000
				0.010	0.000	0.00*
GROUP: ID:128 RMS:0.012 Ratio:12.91 Variance:1.10 Duration:15 m Da						
DXCT		04057A	04058E	7954.09270	-0.005	-0.400
				0.016	0.013	0.63
DYCT		04057A	04058E	1204.77340	0.005	0.467
				0.013	0.010	0.61
DZCT		04057A	04058E	284.10140	-0.010	-1.258
				0.010	0.008	1.30
GROUP: ID:129 RMS:0.013 Ratio:12.39 Variance:1.20 Duration:15 m Da						
DXCT		04057A	04058F	14273.71400	0.006	0.595
				0.015	0.011	0.44
DYCT		04057A	04058F	1836.65100	-0.003	-0.345
				0.013	0.009	0.22
DZCT		04057A	04058F	-127.32550	-0.001	-0.088
				0.009	0.007	0.04
GROUP: ID:130 RMS:0.019 Ratio:10.74 Variance:1.80 Duration:14 m Da						
DXCT		04057A	04057AM	12184.38750	0.014	1.320
				0.015	0.010	0.96
DYCT		04057A	04057AM	4664.57950	0.012	1.249

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
				0.013	0.009	0.82
DZCT		04057A	04057AM	5843.87710	-0.009	-1.314
				0.010	0.007	0.66
GROUP: ID:131 RMS:0.010 Ratio:7.69 Variance:0.80 Duration:15 m Day						
DXCT		04057A	04057CE	12128.41940	-0.000	-0.000
				0.015	0.000	0.00*
DYCT		04057A	04057CE	5010.94550	-0.000	-0.000
				0.013	0.000	0.00*
DZCT		04057A	04057CE	6521.65700	0.000	0.000
				0.010	0.000	0.00*
GROUP: ID:132 RMS:0.010 Ratio:23.25 Variance:0.90 Duration:20 m Da						
DXCT		04057A	04057AQ	12472.64110	-0.001	-0.085
				0.015	0.010	0.05
DYCT		04057A	04057AQ	5672.06010	0.001	0.158
				0.013	0.009	0.09
DZCT		04057A	04057AQ	7700.48400	0.007	0.832
				0.010	0.008	0.42
GROUP: ID:133 RMS:0.015 Ratio:7.14 Variance:1.70 Duration:21 m Day						
DXCT		04057A	04057AO	12767.12650	-0.006	-0.398
				0.019	0.015	0.34
DYCT		04057A	04057AO	6654.31200	-0.008	-0.820
				0.014	0.010	0.49
DZCT		04057A	04057AO	9502.89090	0.027	2.486
				0.013	0.011	1.58
GROUP: ID:134 RMS:0.018 Ratio:12.64 Variance:1.50 Duration:19 m Da						
DXCT		04057A	04057AP	12628.77760	0.001	0.060
				0.015	0.011	0.03
DYCT		04057A	04057AP	7854.45500	0.002	0.237
				0.013	0.009	0.11
DZCT		04057A	04057AP	11820.68150	0.029	6.208
				0.008	0.005	1.54
GROUP: ID:135 RMS:0.016 Ratio:11.27 Variance:1.60 Duration:20 m Da						
DXCT		04057A	04058C	14881.79050	-0.013	-1.215
				0.016	0.011	0.71
DYCT		04057A	04058C	6844.00630	0.010	1.108
				0.013	0.009	0.51
DZCT		04057A	04058C	9326.57210	-0.013	-3.681
				0.007	0.004	0.70
GROUP: ID:136 RMS:0.021 Ratio:7.09 Variance:2.90 Duration:20 m Day						
DXCT		04057A	04057AN	14832.43060	0.007	0.522
				0.018	0.013	0.36
DYCT		04057A	04057AN	6469.87930	-0.048	-5.083
				0.014	0.009	2.62
DZCT		04057A	04057AN	8626.52370	-0.014	-1.701
				0.012	0.008	0.79
GROUP: ID:137 RMS:0.015 Ratio:11.85 Variance:2.00 Duration:18 m Da						

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DXCT		04057A	04057CG	12678.38540	0.000	0.000
				0.023	0.000	0.00*
DYCT		04057A	04057CG	7553.32000	-0.000	-0.000
				0.017	0.000	0.00*
DZCT		04057A	04057CG	11234.53840	-0.000	-0.000
				0.022	0.000	0.00*
GROUP: ID:139 RMS:0.012 Ratio:28.38 Variance:0.70 Duration:15 m Da						
DXCT		04057A	04057CJ	3825.77830	0.000	0.000
				0.014	0.000	0.00*
DYCT		04057A	04057CJ	3118.14750	0.000	0.000
				0.013	0.000	0.00*
DZCT		04057A	04057CJ	5013.83660	0.000	0.000
				0.009	0.000	0.00*
GROUP: ID:140 RMS:0.004 Ratio:37.62 Variance:1.60 Duration:16 m Da						
DXCT		04057A	AG8311	-629.21650	0.005	0.420
				0.014	0.011	6.55
DYCT		04057A	AG8311	54.36100	-0.003	-0.350
				0.012	0.009	4.55
DZCT		04057A	AG8311	284.66870	0.021	2.913
				0.007	0.007	30.18
GROUP: ID:141 RMS:0.012 Ratio:26.02 Variance:1.10 Duration:17 m Da						
DXCT		04057D	04058M	-10982.09660	-0.003	-0.268
				0.014	0.010	0.19
DYCT		04057D	04058M	-4670.48200	0.000	0.041
				0.013	0.008	0.03
DZCT		04057D	04058M	-6180.76070	0.003	0.663
				0.008	0.005	0.23
GROUP: ID:142 RMS:0.006 Ratio:27.16 Variance:2.50 Duration:16 m Da						
DXCT		04057D	04058J	4890.19800	-0.001	-0.161
				0.013	0.009	0.30
DYCT		04057D	04058J	727.05490	-0.002	-0.239
				0.013	0.009	0.43
DZCT		04057D	04058J	112.67520	-0.004	-0.721
				0.007	0.005	0.71
GROUP: ID:143 RMS:0.013 Ratio:8.16 Variance:1.00 Duration:179 m Da						
DXCT		04057D	04058Y	23548.90000	-0.000	-0.037
				0.014	0.011	0.02
DYCT		04057D	04058Y	2141.94280	-0.003	-0.348
				0.013	0.010	0.14
DZCT		04057D	04058Y	-2158.36200	-0.008	-1.118
				0.009	0.007	0.32
GROUP: ID:144 RMS:0.004 Ratio:33.12 Variance:1.60 Duration:21 m Da						
DXCT		04057D	AG8099	2742.97580	0.000	0.018
				0.013	0.012	0.07
DYCT		04057D	AG8099	685.49160	0.000	0.034
				0.012	0.011	0.13
DZCT		04057D	AG8099	601.13090	-0.002	-0.329
				0.007	0.006	0.63

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
GROUP: ID:145	RMS:0.009	Ratio:45.97	Variance:5.60	Duration:19 m	Da	
DXCT		04057D	AG8099	2742.97200	-0.002	-0.140
				0.014	0.013	0.61
DYCT		04057D	AG8099	685.49190	0.004	0.357
				0.013	0.012	1.42
DZCT		04057D	AG8099	601.13270	-0.002	-0.266
				0.008	0.007	0.67
GROUP: ID:146	RMS:0.011	Ratio:19.14	Variance:1.00	Duration:16 m	Da	
DXCT		04057D	04058N	5150.87420	-0.002	-0.206
				0.015	0.010	0.18
DYCT		04057D	04058N	-3855.26970	0.006	0.642
				0.013	0.009	0.52
DZCT		04057D	04058N	-8847.29240	-0.006	-0.825
				0.010	0.007	0.51
GROUP: ID:147	RMS:0.014	Ratio:10.33	Variance:1.40	Duration:20 m	Da	
DXCT		04058H	04057D	12094.55890	-0.002	-0.253
				0.014	0.009	0.13
DYCT		04058H	04057D	-5040.62250	0.000	0.047
				0.013	0.009	0.02
DZCT		04058H	04057D	-12885.72930	0.019	3.374
				0.009	0.006	1.03
GROUP: ID:148	RMS:0.011	Ratio:28.70	Variance:0.80	Duration:15 m	Da	
DXCT		04058Y	04058O	-6027.37920	0.006	0.636
				0.014	0.010	0.47
DYCT		04058Y	04058O	4796.89050	-0.006	-0.661
				0.013	0.009	0.46
DZCT		04058Y	04058O	10902.90950	0.004	0.629
				0.009	0.007	0.31
GROUP: ID:149	RMS:0.015	Ratio:10.57	Variance:1.40	Duration:17 m	Da	
DXCT		04058Y	04058O	-6027.39150	-0.007	-0.640
				0.015	0.011	0.52
DYCT		04058Y	04058O	4796.88610	0.007	0.714
				0.013	0.009	0.49
DZCT		04058Y	04058O	10902.92570	-0.006	-0.875
				0.009	0.006	0.42
GROUP: ID:150	RMS:0.017	Ratio:7.50	Variance:1.80	Duration:141 m	Da	
DXCT		04058Y	04057F	-27501.22060	0.001	0.061
				0.015	0.012	0.02
DYCT		04058Y	04057F	-7494.88230	-0.003	-0.334
				0.013	0.010	0.11
DZCT		04058Y	04057F	-7190.90010	-0.005	-0.568
				0.010	0.008	0.16
GROUP: ID:151	RMS:0.013	Ratio:12.81	Variance:1.30	Duration:18 m	Da	
DXCT		04057F	04058L	-6871.70890	0.007	0.659
				0.015	0.010	0.69
DYCT		04057F	04058L	-3924.12200	-0.001	-0.111
				0.013	0.009	0.10
DZCT		04057F	04058L	-5835.10860	-0.006	-1.380

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				STD DEV		
				0.008	0.005	0.64
GROUP: ID:152	RMS:0.014	Ratio:4.46	Variance:2.00	Duration:18 m	Day	
DXCT		04057F	04058L	-6871.71270	-0.007	-0.662
				0.016	0.011	0.76
DYCT		04057F	04058L	-3924.10200	0.000	0.009
				0.013	0.010	0.01
DZCT		04057F	04058L	-5835.10300	0.009	0.988
				0.012	0.009	0.94
GROUP: ID:153	RMS:0.008	Ratio:12.46	Variance:6.00	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.05690	0.001	0.076
				0.014	0.012	0.25
DYCT		04057F	AG1868	1628.40100	0.004	0.336
				0.013	0.011	1.00
DZCT		04057F	AG1868	2596.67470	-0.011	-1.439
				0.009	0.008	2.93
GROUP: ID:154	RMS:0.007	Ratio:14.43	Variance:3.10	Duration:15 m	Da	
DXCT		04057F	AG1868	2141.05560	-0.004	-0.310
				0.014	0.012	0.96
DYCT		04057F	AG1868	1628.41170	0.004	0.331
				0.012	0.011	0.96
DZCT		04057F	AG1868	2596.67430	-0.001	-0.223
				0.007	0.005	0.32
GROUP: ID:155	RMS:0.014	Ratio:10.66	Variance:1.50	Duration:17 m	Da	
DXCT		04057F	04058M	-7029.76610	0.003	0.290
				0.014	0.009	0.35
DYCT		04057F	04058M	682.43950	-0.000	-0.047
				0.013	0.008	0.05
DZCT		04057F	04058M	3168.50500	-0.003	-0.587
				0.008	0.006	0.43
GROUP: ID:156	RMS:0.016	Ratio:31.69	Variance:1.90	Duration:15 m	Da	
DXCT		04057F	04058N	9103.21310	0.002	0.215
				0.015	0.010	0.23
DYCT		04057F	04058N	1497.66950	-0.006	-0.664
				0.013	0.009	0.62
DZCT		04057F	04058N	501.96620	0.006	0.960
				0.009	0.006	0.63
GROUP: ID:157	RMS:0.010	Ratio:11.93	Variance:6.40	Duration:15 m	Da	
DXCT		04057AJ	04058E	2703.13320	0.002	0.180
				0.014	0.009	0.50
DYCT		04057AJ	04058E	-519.09500	0.002	0.195
				0.013	0.008	0.47
DZCT		04057AJ	04058E	-1690.14050	-0.001	-0.357
				0.007	0.003	0.38
GROUP: ID:158	RMS:0.017	Ratio:8.60	Variance:2.10	Duration:15 m	Day	
DXCT		04057A	04057AF	-7659.87590	0.002	0.196
				0.016	0.012	0.26
DYCT		04057A	04057AF	1242.50200	-0.001	-0.061
				0.013	0.009	0.07

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DZCT		04057A	04057AF	4329.44580	-0.005	-0.743
				0.010	0.007	0.57
GROUP: ID:159	RMS:0.012	Ratio:23.19	Variance:1.00	Duration:15 m	Da	
DXCT		04057A	04057AE	-7948.30600	0.002	0.181
				0.015	0.010	0.18
DYCT		04057A	04057AE	2295.15680	0.001	0.097
				0.013	0.009	0.08
DZCT		04057A	04057AE	6406.13990	-0.013	-2.379
				0.008	0.005	1.24
GROUP: ID:161	RMS:0.012	Ratio:24.50	Variance:0.90	Duration:17 m	Da	
DXCT		04057A	04057AC	-7174.10060	-0.002	-0.219
				0.014	0.010	0.16
DYCT		04057A	04057AC	4144.68660	0.002	0.237
				0.013	0.009	0.17
DZCT		04057A	04057AC	9743.29090	-0.014	-2.477
				0.008	0.006	1.12
GROUP: ID:162	RMS:0.010	Ratio:23.20	Variance:0.90	Duration:15 m	Da	
DXCT		04057A	04057AB	-4718.84290	-0.015	-1.486
				0.015	0.010	1.14
DYCT		04057A	04057AB	4994.20930	-0.003	-0.326
				0.013	0.010	0.25
DZCT		04057A	04057AB	10745.81990	0.009	1.249
				0.010	0.007	0.72
GROUP: ID:163	RMS:0.010	Ratio:34.42	Variance:0.80	Duration:16 m	Da	
DXCT		04057A	04057AA	-4833.40040	-0.002	-0.224
				0.014	0.009	0.14
DYCT		04057A	04057AA	5516.97910	0.001	0.092
				0.013	0.009	0.06
DZCT		04057A	04057AA	11771.84130	0.006	1.574
				0.009	0.004	0.42
GROUP: ID:164	RMS:0.012	Ratio:36.46	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058B	-2869.06150	-0.004	-0.367
				0.015	0.011	0.33
DYCT		04057A	04058B	5148.43110	0.003	0.284
				0.014	0.010	0.23
DZCT		04057A	04058B	10581.95320	0.008	1.000
				0.011	0.008	0.67
GROUP: ID:165	RMS:0.011	Ratio:12.53	Variance:0.80	Duration:15 m	Da	
DXCT		04057A	04057AJ	5250.96100	0.002	0.195
				0.014	0.009	0.29
DYCT		04057A	04057AJ	1723.87160	0.001	0.177
				0.013	0.008	0.25
DZCT		04057A	04057AJ	1974.23090	-0.002	-0.259
				0.009	0.006	0.26
GROUP: ID:166	RMS:0.012	Ratio:10.54	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	04058E	7954.10320	0.003	0.301
				0.014	0.011	0.40
DYCT		04057A	04058E	1204.78830	-0.007	-0.747

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
				0.013	0.010	0.93
DZCT		04057A	04058E	284.08510	0.009	1.508
				0.008	0.006	1.11
GROUP: ID:167	RMS:0.012	Ratio:18.07	Variance:1.30	Duration:15 m	Da	
DXCT		04057A	04058F	14273.70670	-0.007	-0.616
				0.015	0.011	0.45
DYCT		04057A	04058F	1836.65640	0.003	0.362
				0.013	0.009	0.23
DZCT		04057A	04058F	-127.31430	-0.000	-0.026
				0.008	0.005	0.01
GROUP: ID:169	RMS:0.004	Ratio:36.67	Variance:1.10	Duration:15 m	Da	
DXCT		04057A	AG8311	-629.22180	-0.004	-0.424
				0.013	0.010	6.43
DYCT		04057A	AG8311	54.35470	0.003	0.324
				0.012	0.009	4.22
DZCT		04057A	AG8311	284.68170	0.010	1.435
				0.007	0.007	14.44
GROUP: ID:172	RMS:0.016	Ratio:13.81	Variance:1.70	Duration:15 m	Da	
DXCT		04057A	04058A	-11950.39160	-0.002	-0.167
				0.016	0.011	0.15
DYCT		04057A	04058A	748.26840	-0.003	-0.323
				0.013	0.010	0.24
DZCT		04057A	04058A	4444.93810	-0.012	-1.309
				0.012	0.009	0.96
GROUP: ID:173	RMS:0.013	Ratio:7.67	Variance:1.30	Duration:15 m	Day	
DXCT		04057A	04058A	-11950.40090	0.003	0.297
				0.014	0.010	0.23
DYCT		04057A	04058A	748.28500	0.004	0.441
				0.013	0.009	0.31
DZCT		04057A	04058A	4444.92350	0.010	2.164
				0.008	0.005	0.79
GROUP: ID:174	RMS:0.010	Ratio:48.81	Variance:1.10	Duration:31 m	Da	
DXCT		04057A	04057C	-12004.31000	-0.000	-0.000
				0.016	0.000	0.00*
DYCT		04057A	04057C	1524.17710	-0.000	-0.000
				0.013	0.000	0.00*
DZCT		04057A	04057C	5944.44400	0.000	0.000
				0.012	0.000	0.00*
GROUP: ID:175	RMS:0.013	Ratio:21.62	Variance:1.40	Duration:16 m	Da	
DXCT		04057A	04058D	-11575.37170	-0.006	-0.514
				0.016	0.011	0.41
DYCT		04057A	04058D	-4644.96150	0.003	0.271
				0.013	0.010	0.19
DZCT		04057A	04058D	-6007.99540	0.001	0.072
				0.012	0.010	0.05
GROUP: ID:176	RMS:0.013	Ratio:3.84	Variance:1.80	Duration:16 m	Day	
DXCT		04057A	04058D	-11575.36550	0.007	0.586
				0.017	0.012	0.52

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
DYCT		04057A	04058D	-4644.96610	-0.003	-0.325
				0.013	0.009	0.21
DZCT		04057A	04058D	-6008.00720	0.001	0.460
				0.008	0.003	0.10
GROUP: ID:179	RMS:0.009	Ratio:25.24	Variance:0.60	Duration:15 m	Da	
DXCT		AG9362	04057A	1183.25450	0.008	0.634
				0.014	0.013	1.37
DYCT		AG9362	04057A	-2566.57310	-0.000	-0.007
				0.013	0.012	0.01
DZCT		AG9362	04057A	-5233.74010	0.008	1.006
				0.009	0.008	1.36
GROUP: ID:182	RMS:0.005	Ratio:22.71	Variance:1.50	Duration:15 m	Da	
DXCT		04057B	AG1968	-91.13000	-0.017	-1.520
				0.013	0.011	137.03
DYCT		04057B	AG1968	-47.44280	-0.011	-0.953
				0.012	0.011	86.34
DZCT		04057B	AG1968	-69.98780	0.002	0.515
				0.007	0.003	13.46
GROUP: ID:183	RMS:0.003	Ratio:75.61	Variance:1.10	Duration:26 m	Da	
DXCT		04057B	AG1968	-91.13420	-0.013	-1.147
				0.013	0.011	103.27
DYCT		04057B	AG1968	-47.44810	-0.006	-0.523
				0.012	0.011	47.13
DZCT		04057B	AG1968	-69.99010	-0.001	-0.502
				0.007	0.003	11.52
GROUP: ID:184	RMS:0.022	Ratio:11.10	Variance:5.10	Duration:29 m	Da	
DXCT		04057B	04057AL	-6764.36720	-0.000	-0.000
				0.022	0.000	0.00*
DYCT		04057B	04057AL	60.16330	0.000	0.000
				0.016	0.000	0.00*
DZCT		04057B	04057AL	1842.96850	0.000	0.000
				0.021	0.000	0.00*
GROUP: ID:185	RMS:0.010	Ratio:29.15	Variance:0.90	Duration:15 m	Da	
DXCT		04057B	04058G	6491.68800	0.005	0.369
				0.017	0.013	0.40
DYCT		04057B	04058G	-3826.15480	-0.005	-0.466
				0.014	0.010	0.40
DZCT		04057B	04058G	-9070.51040	0.010	0.838
				0.014	0.011	0.82
GROUP: ID:186	RMS:0.012	Ratio:11.15	Variance:1.00	Duration:17 m	Da	
DXCT		04057B	04058G	6491.67930	-0.006	-0.577
				0.015	0.010	0.48
DYCT		04057B	04058G	-3826.16570	0.005	0.605
				0.013	0.009	0.45
DZCT		04057B	04058G	-9070.49370	-0.007	-1.848
				0.008	0.004	0.56
GROUP: ID:187	RMS:0.018	Ratio:8.34	Variance:2.00	Duration:15 m	Day	
DXCT		04057B	04058H	-7839.52740	-0.002	-0.156

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION	STD DEV	RESIDUAL STD DEV	STD RES PPM
				0.015	0.010	0.10	
DYCT		04057B	04058H	-7201.53970	-0.000	-0.024	
				0.013	0.009	0.01	
DZCT		04057B	04058H	-11834.92380	0.023	3.385	
				0.010	0.007	1.41	
GROUP: ID:188	RMS:0.007	Ratio:53.24	Variance:0.50	Duration:41 m	Da		
DXCT		04057B	04057D	4255.04450	-0.002	-0.155	
				0.014	0.012	0.07	
DYCT		04057B	04057D	-12242.20320	-0.007	-0.658	
				0.012	0.011	0.26	
DZCT		04057B	04057D	-24720.63360	-0.005	-0.792	
				0.008	0.006	0.18	
GROUP: ID:189	RMS:0.014	Ratio:81.34	Variance:1.20	Duration:16 m	Da		
DXCT		04057B	04057AM	-4598.43820	-0.013	-1.391	
				0.014	0.009	2.39	
DYCT		04057B	04057AM	881.06520	-0.011	-1.310	
				0.013	0.009	2.05	
DZCT		04057B	04057AM	2865.16340	0.008	1.475	
				0.008	0.005	1.37	
GROUP: ID:190	RMS:0.010	Ratio:14.17	Variance:0.70	Duration:15 m	Da		
DXCT		04057B	04058C	-1901.03680	0.009	0.904	
				0.015	0.010	1.22	
DYCT		04057B	04058C	3060.47750	-0.010	-1.115	
				0.013	0.009	1.35	
DZCT		04057B	04058C	6347.81040	0.013	1.707	
				0.010	0.008	1.81	
GROUP: ID:191	RMS:0.012	Ratio:14.43	Variance:1.30	Duration:15 m	Da		
DXCT		04057B	04057AN	-1950.51190	-0.006	-0.534	
				0.016	0.010	0.85	
DYCT		04057B	04057AN	2686.34900	0.047	5.247	
				0.013	0.009	7.17	
				^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^			
DZCT		04057B	04057AN	5647.79370	0.010	1.295	
				0.011	0.007	1.47	
GROUP: ID:192	RMS:0.012	Ratio:23.28	Variance:1.20	Duration:15 m	Da		
DXCT		04057B	04057AQ	-4310.19950	-0.001	-0.052	
				0.017	0.013	0.10	
DYCT		04057B	04057AQ	1888.50420	-0.001	-0.144	
				0.013	0.009	0.19	
DZCT		04057B	04057AQ	4721.76020	-0.007	-3.141	
				0.006	0.002	1.00	
GROUP: ID:193	RMS:0.011	Ratio:28.80	Variance:0.80	Duration:14 m	Da		
DXCT		04057B	04057AO	-4015.73060	0.006	0.672	
				0.015	0.009	0.76	
DYCT		04057B	04057AO	2870.72490	0.009	1.140	
				0.013	0.008	1.14	
DZCT		04057B	04057AO	6524.16860	-0.012	-6.041	
				0.007	0.002	1.50	

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

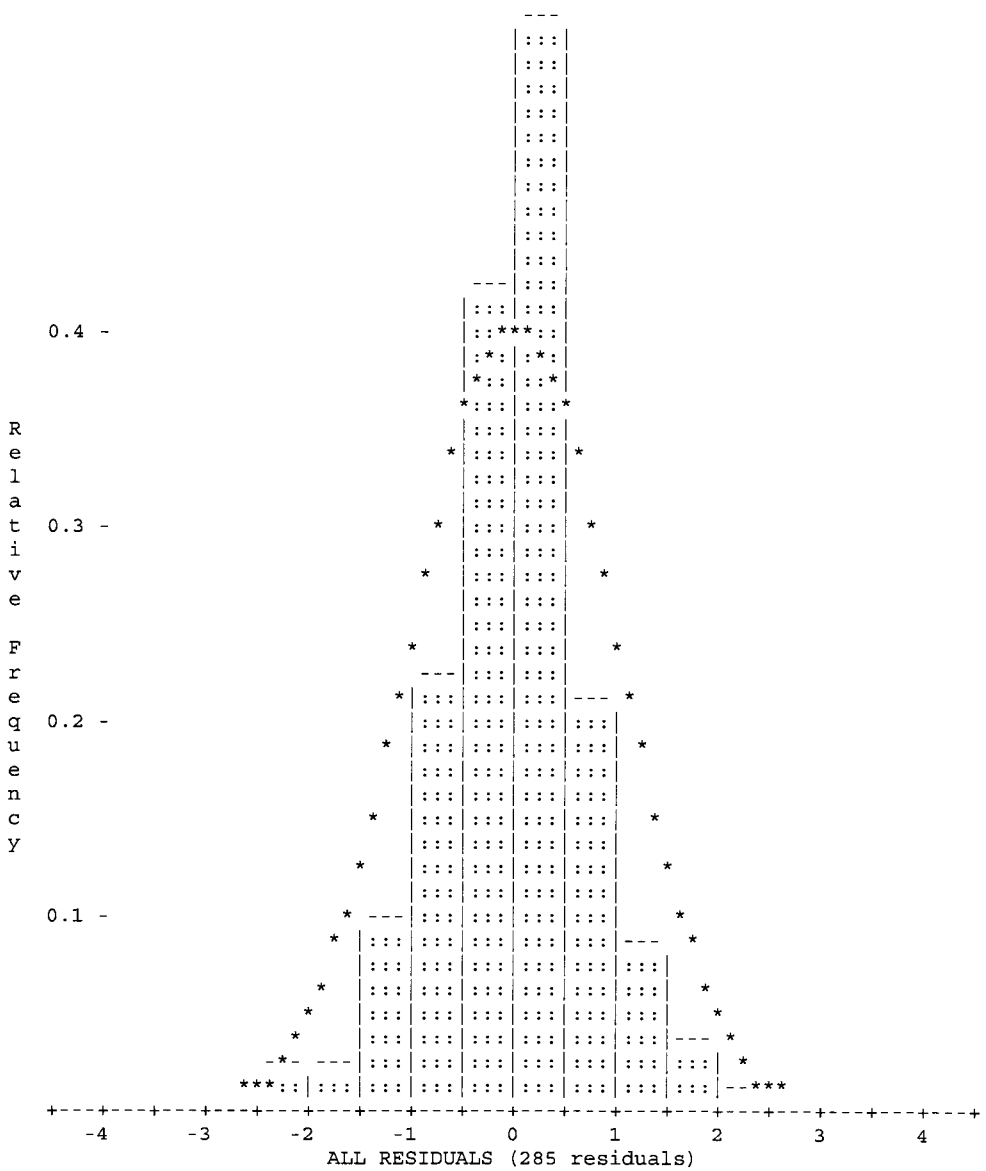
TYPE	AT	FROM	TO	OBSERVATION	RESIDUAL STD DEV	STD RES PPM
GROUP: ID:194	RMS:0.012	Ratio:12.12	Variance:1.20	Duration:15 m Da		
DXCT		04057B	04057AP	-4154.05660	0.000	0.049
				0.015	0.010	0.05
DYCT		04057B	04057AP	4070.85890	-0.002	-0.185
				0.013	0.009	0.15
DZCT		04057B	04057AP	8841.97910	-0.030	-4.928
				0.009	0.006	2.83
GROUP: ID:195	RMS:0.006	Ratio:23.07	Variance:3.40	Duration:15 m Da		
DXCT		04057D	04058J	4890.19340	0.002	0.160
				0.014	0.010	0.34
DYCT		04057D	04058J	727.05970	0.002	0.200
				0.013	0.009	0.36
DZCT		04057D	04058J	112.66890	0.004	0.653
				0.008	0.006	0.83
GROUP: ID:196	RMS:0.023	Ratio:6.02	Variance:3.00	Duration:14 m Day		
DXCT		AG8478	04057B	10782.24450	-0.029	-1.728
				0.018	0.017	1.81
DYCT		AG8478	04057B	-4196.01930	-0.013	-0.948
				0.014	0.013	0.80
DZCT		AG8478	04057B	-10774.97440	0.021	1.997
				0.011	0.010	1.31
GROUP: ID:197	RMS:0.010	Ratio:11.27	Variance:1.60	Duration:15 m Da		
DXCT		04057B	AG8478	-10782.24120	0.006	0.340
				0.018	0.017	0.38
DYCT		04057B	AG8478	4196.05460	0.005	0.352
				0.014	0.013	0.29
DZCT		04057B	AG8478	10774.98200	0.006	0.640
				0.011	0.010	0.41
GROUP: ID:198	RMS:0.013	Ratio:19.31	Variance:1.40	Duration:21 m Da		
DXCT		04057A	04058I	4681.11490	-0.004	-0.328
				0.016	0.011	0.19
DYCT		04057A	04058I	-8039.48610	0.003	0.287
				0.013	0.009	0.14
DZCT		04057A	04058I	-16673.92120	-0.023	-5.636
				0.009	0.004	1.20
GROUP: ID:199	RMS:0.011	Ratio:29.99	Variance:1.10	Duration:19 m Da		
DXCT		04057A	04058I	4681.11360	-0.000	-0.036
				0.016	0.012	0.02
DYCT		04057A	04058I	-8039.44050	-0.002	-0.203
				0.014	0.010	0.10
DZCT		04057A	04058I	-16673.94830	0.030	2.832
				0.013	0.011	1.57
GROUP: ID:205	RMS:0.017	Ratio:11.56	Variance:1.60	Duration:16 m Da		
DXCT		04057A	04057AK	5102.68180	0.005	0.462
				0.015	0.010	0.59

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DYCT		04057A	04057AK	3329.98810	0.006	0.652
				0.013	0.009	0.76
DZCT		04057A	04057AK	5093.74560	-0.028	-5.595
				0.009	0.005	3.57
GROUP: ID:206 RMS:0.023 Ratio:11.22 Variance:3.00 Duration:15 m Da						
DXCT		04057A	04057AK	5102.68600	-0.008	-0.599
				0.017	0.013	0.96
DYCT		04057A	04057AK	3330.06080	-0.008	-0.747
				0.014	0.010	0.96
DZCT		04057A	04057AK	5093.72240	0.046	4.113
				0.014	0.011	5.77
GROUP: ID:214 RMS:0.014 Ratio:2.37 Variance:1.20 Duration:451 m Da						
DXCT		04057A	CRLT	46335.53730	0.003	0.224
				0.014	0.012	0.04
DYCT		04057A	CRLT	-15048.27590	0.002	0.151
				0.012	0.011	0.03
DZCT		04057A	CRLT	-41338.93520	-0.008	-1.142
				0.008	0.007	0.12
GROUP: ID:215 RMS:0.017 Ratio:13.67 Variance:2.10 Duration:592 m D						
DXCT		04057A	CRLT	46335.53450	0.007	0.522
				0.014	0.012	0.10
DYCT		04057A	CRLT	-15048.28990	0.006	0.556
				0.012	0.011	0.10
DZCT		04057A	CRLT	-41338.93240	-0.021	-3.036
				0.008	0.007	0.33
GROUP: ID:216 RMS:0.015 Ratio:13.79 Variance:1.60 Duration:528 m D						
DXCT		04057B	CRLT	29552.70180	0.004	0.319
				0.014	0.012	0.07
DYCT		04057B	CRLT	-18831.81170	-0.009	-0.751
				0.012	0.012	0.15
DZCT		04057B	CRLT	-44317.67010	0.001	0.192
				0.008	0.006	0.02
GROUP: ID:217 RMS:0.011 Ratio:13.04 Variance:0.80 Duration:105 m D						
DXCT		04057D	CRLT	25297.66470	0.004	0.357
				0.014	0.012	0.13
DYCT		04057D	CRLT	-6589.59400	-0.011	-0.939
				0.013	0.011	0.33
DZCT		04057D	CRLT	-19597.04160	0.021	3.418
				0.007	0.006	0.63
GROUP: ID:218 RMS:0.011 Ratio:21.09 Variance:1.00 Duration:193 m D						
DXCT		04057D	CRLT	25297.65910	-0.001	-0.073
				0.015	0.013	0.03
DYCT		04057D	CRLT	-6589.60930	-0.003	-0.268
				0.013	0.012	0.10
DZCT		04057D	CRLT	-19597.02830	0.002	0.195
				0.010	0.009	0.05

Residuals (critical value = 3.836, N,E,Up for 3D):
NOTE: Observation values shown are reduced to mark-to-mark.

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
GROUP: ID:219	RMS:0.014	Ratio:11.57	Variance:1.30	Duration:377 m D		
DXCT		04058Y	CRLT	1748.76090	-0.001	-0.107
				0.014	0.011	0.06
DYCT		04058Y	CRLT	-8731.56330	-0.000	-0.001
				0.013	0.010	0.00
DZCT		04058Y	CRLT	-17438.65980	-0.004	-0.584
				0.009	0.006	0.19
GROUP: ID:220	RMS:0.013	Ratio:17.52	Variance:1.60	Duration:168 m D		
DXCT		04057F	CRLT	29249.98820	-0.001	-0.071
				0.015	0.013	0.03
DYCT		04057F	CRLT	-1236.67410	-0.004	-0.387
				0.013	0.011	0.14
DZCT		04057F	CRLT	-10247.76380	0.008	0.946
				0.010	0.008	0.26
GROUP: ID:221	RMS:0.016	Ratio:12.24	Variance:1.60	Duration:436 m D		
DXCT		04057A	04057B	16782.83410	-0.000	-0.026
				0.014	0.013	0.02
DYCT		04057A	04057B	3783.52870	0.013	1.116
				0.012	0.011	0.73
DZCT		04057A	04057B	2978.73750	-0.016	-2.269
				0.008	0.007	0.93
GROUP: ID:226	RMS:0.009	Ratio:23.96	Variance:0.80	Duration:16 m Da		
DXCT		04057A	04057AD	-8180.05050	0.010	0.807
				0.018	0.012	0.79
DYCT		04057A	04057AD	3453.06130	-0.001	-0.062
				0.014	0.009	0.05
DZCT		04057A	04057AD	8671.05300	0.035	5.213
				0.012	0.007	2.78
				^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^		
GROUP: ID:227	RMS:0.011	Ratio:10.28	Variance:1.60	Duration:16 m Da		
DXCT		04057A	04057AD	-8180.04920	-0.005	-0.355
				0.019	0.014	0.41
DYCT		04057A	04057AD	3452.99890	0.006	0.580
				0.015	0.011	0.50
DZCT		04057A	04057AD	8671.10180	-0.043	-3.170
				0.017	0.014	3.47
AZIM		04057AK	BRAD-11	357 0 0.0	0.0	0.0
				5877.7	0.7	
DIST		04057AK	BRAD-11	0.57000	0.000	0.000
				0.016	0.000	0.00*
OHDF		04057AK	BRAD-11	0.00000	0.000	0.000
				0.016	0.000	0.00*
AZIM		04057AL	BRAD-12	1 0 0.0	0.0	0.0
				5877.7	5.9	
DIST		04057AL	BRAD-12	0.40000	0.000	0.000
				0.016	0.000	0.00*
OHDF		04057AL	BRAD-12	0.00000	0.000	0.000
				0.016	0.000	*


Relative Frequency
0.4
0.3
0.2
0.1
-4
-3
-2
-1
0
1
2
3
4
ALL RESIDUALS (285 residuals)

STATISTICS SUMMARY

Residual Critical Value Type	Tau Max
Residual Critical Value	3.8364
Number of Flagged Residuals	9
Convergence Criterion	0.0010
Final Iteration Counter Value	2
Confidence Level Used	95.0000
Estimated Variance Factor	2.6657
Number of Degrees of Freedom	140

Chi-Square Test on the Variance Factor:

2.1369e+00 < 1.0000 < 3.4196e+00 ?

******** THE TEST FAILS ********

NOTE: All confidence regions were computed using the following factors:

Variance factor used	=	2.6657
1-D expansion factor	=	1.9600
2-D expansion factor	=	2.4477

Note that, for relative confidence regions, precisions are computed from the ratio of the major semi-axis and the spatial distance between the two stations.

2-D and 1-D Station Confidence Regions (95.000 and 95.000 percent):

STATION	MAJOR SEMI-AXIS	AZ	MINOR SEMI-AXIS	VERTICAL
04057A	0.011	163	0.011	0.011
04057AA	0.024	130	0.023	0.026
04057AB	0.025	164	0.024	0.023
04057AC	0.024	165	0.023	0.021
04057AD	0.024	161	0.024	0.030
04057AE	0.024	170	0.024	0.022
04057AF	0.024	156	0.024	0.024
04057AG	0.025	171	0.024	0.027
04057AH	0.023	174	0.023	0.023
04057AI	0.023	35	0.023	0.021
04057AJ	0.026	147	0.025	0.023
04057AK	0.025	51	0.024	0.024
04057AL	0.033	6	0.032	0.054
04057AM	0.023	130	0.023	0.022
04057AN	0.023	169	0.023	0.026
04057AO	0.023	1	0.023	0.025
04057AP	0.024	172	0.022	0.022
04057AQ	0.024	167	0.023	0.023
04057B	0.010	176	0.010	0.013
04057C	0.031	180	0.031	0.034
04057CA	0.033	94	0.032	0.034
04057CB	0.031	173	0.031	0.042
04057CC	0.031	7	0.031	0.029
04057CD	0.033	169	0.031	0.031
04057CE	0.032	77	0.031	0.030
04057CG	0.033	117	0.032	0.059
04057CH	0.031	172	0.031	0.037
04057CJ	0.033	46	0.031	0.028
04057D	0.011	153	0.011	0.012
04057F	0.014	156	0.014	0.014
04058A	0.024	3	0.024	0.023
04058B	0.024	96	0.024	0.023
04058C	0.023	172	0.022	0.023
04058D	0.024	171	0.024	0.025
04058E	0.022	149	0.022	0.020
04058F	0.024	150	0.024	0.023
04058G	0.023	26	0.023	0.025
04058H	0.023	121	0.023	0.022
04058I	0.024	15	0.024	0.025
04058J	0.023	126	0.023	0.022
04058L	0.025	37	0.025	0.025
04058M	0.023	147	0.023	0.021
04058N	0.023	136	0.023	0.023
04058O	0.027	126	0.027	0.028
04058Y	0.018	148	0.018	0.019
AG1968	0.000	0	0.000	0.021
AG8311	0.023	148	0.023	0.000
BRAD-11	0.047	40	0.046	0.040
BRAD-12	0.052	2	0.042	0.063
CRLT	0.000	0	0.000	0.013

REPORT OF SURVEY
SARASOTA COUNTY, FLORIDA

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412.341.5621

July 20, 2004

PURPOSE:

The purpose of this survey is to establish ground control for a photogrammetric mapping and LIDAR project.

REPORT CONTENTS:

This report contains a detailed narrative of survey methodologies used and the results of the final computations and adjustments. A map of the survey network entitled "PLAN OF GPS SURVEY, BRADENTON, FL AND SARASOTA CO., FL FOR PHOTOGRAMMETRIC MAPPING CONTROL" dated July 20, 2004 is included as an attachment. The Table of Contents contains more detailed content information.

THIS REPORT IS NOT VALID WITHOUT THE RAISED SEAL AND SIGNATURE OF THE FLORIDA PSM IN RESPONSIBLE CHARGE OF THIS SURVEY.

I hereby certify that this report is based upon an actual field survey performed under my direct supervision and that the report contents are true and factual to the best of my professional knowledge and belief.

Kevin J. Chappell
Florida PSM Lic. No. LS5818