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Airborne GPS Survey Report For

US GEOLOGICAL SURVEY NGTOC III

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Aerometric Project No. 1110814

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USGS

San Luis Valley, Colorado

Lidar Task Order G11PD01035

Aerometric Project No. 1110814

1 INTRODUCTION

This report contains a summary of the LiDAR data acquisition and processing for the **USGS – SAN LUIS VALLEY COLORADO. LiDAR TASK ORDER G11PD01035**.

1.1 Contact Info

Questions regarding the technical aspects of this report should be addressed to:

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Email:cguy@aerometric.com

1.2 Purpose

Aerometric, Inc. acquired highly accurate Light Detection and Ranging (LiDAR) data in the region of San Luis, Colorado for the United States Geological Survey in accordance with requirements specified to produce a dataset as outlined in Task Order G11PD01035 and as defined by USGS National Geospatial Program Base LiDAR Specification, Version 13(ILMF).

1.3 Project Locations

The project area covers the San Luis Valley region in Colorado which includes parts of Saguache, Rio Grande, Alamosa, Conejos, and Costilla counties. The area was defined and supplied by USGS on September 7, 2011.

1.4 Time Period

LiDAR data acquisition was completed between September 18th, 2011 and September 29th, 2011. A total of 33 flight missions were required to cover the project area. See Item 3.4 for a sketch of the acquisition missions and Section 7 of the report for each flight log. Two re-flights were made on November 16, 2011 and March 29, 2012 to acquire data in previous void areas.

1.5 Project Scope

To collect data over the approximately 3633 square miles of the project, three aircraft were operated by; The Atlantic Group, Merrick and Company and Aerometric Inc, utilizing Leica ALS 50II, Optech 3100, and Optech Gemini airborne LiDAR systems respectively. Data was collected at altitudes from 1450 to 3000 meters to provide optimal data collection from the project area's varying terrain.

As documented in our proposal dated August 14, 2011, we were to achieve a TIN accuracy of 12.5cm for all areas. The accuracy as tested and published in this report in Section 8 has met the vertical accuracy requirements.

1.6 Conditions Affecting Progress

Due to the time of year of collection some agricultural areas show vertical differences between neighboring flight lines. This is due to agricultural harvests at the time LiDAR was collected. An example of this can be seen in the image below.

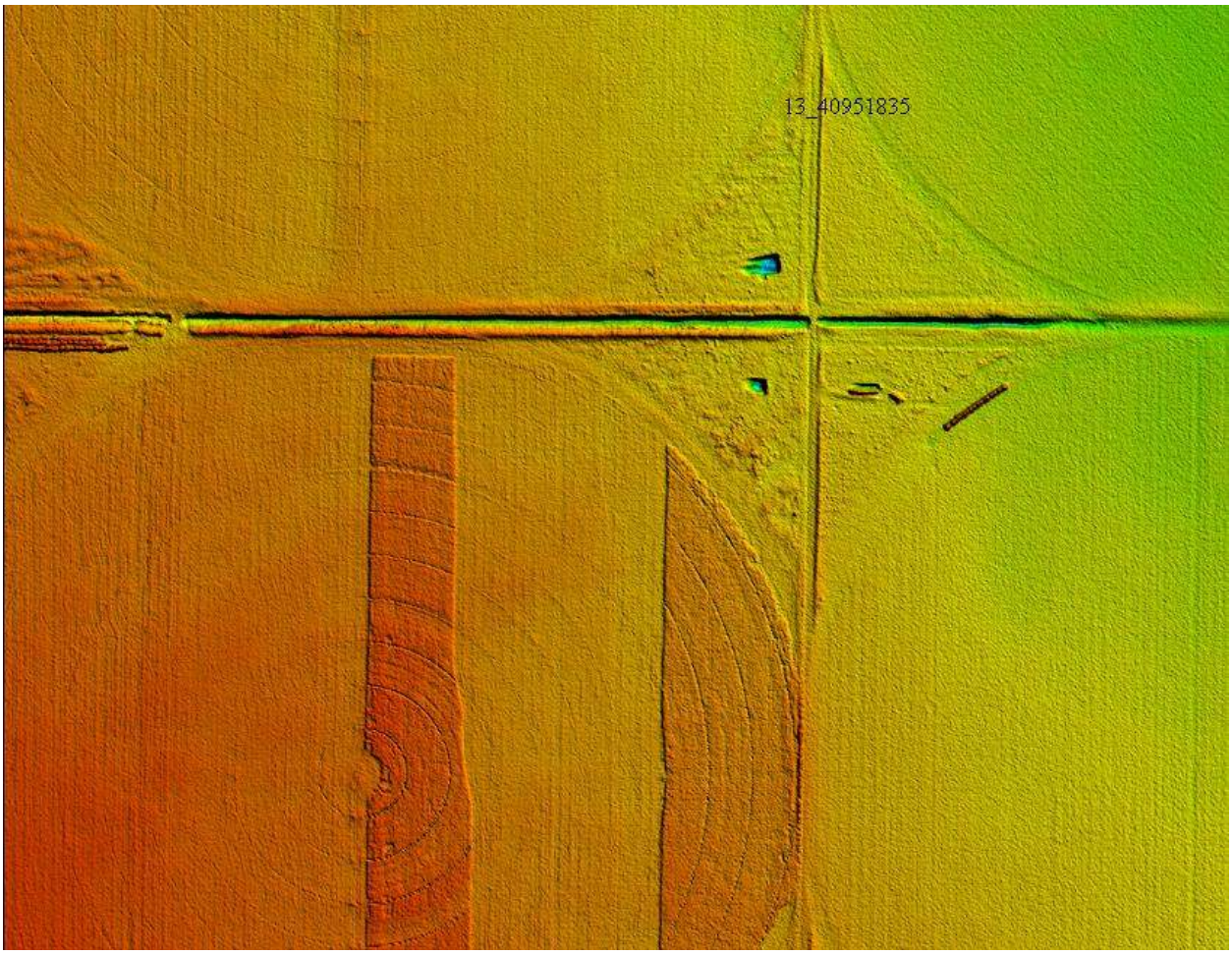


Image of DEM sample demonstrating variations in data during harvest

2 GEODETIC CONTROL

2.1 Network Scope

Base horizontal control for the check point survey consisted of three NGS Order B stations: **ALS B**, **K 75**, **MIRAGE**; and two NGS First Order stations: **R 33**, **T 163**.

Horizontal control is referenced to the Universal Transverse Mercator (UTM) Coordinate System – Zone 13, based on the North American Datum of 1983/2007 (NAD83/07). Final coordinates are published in meters.

Base vertical control for the check point survey consisted of three NGS First Order, Class 2 stations: **ANTONITO, MIRAGE, R 33**; three NGS Second Order stations: **K 75, T 163, Z 269**; and one NGS Fifth Order station: **ALS B**. The NGS Second Order station **J 65** was also observed, but not used as control due to a large vertical misclosure. The NGS Geoid Model GEOID09 was applied to the derived ellipsoid heights that approximate the North American Vertical Datum of 1988.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88).

NGS recovery sheets are located in the following page of the Control Survey Report.

2.2 Network Computations

GPS measurements were done in two stages. Initial computations were done with LEICA Geo Office (LGO), version 4.0. LGO permits the conversion of raw satellite data collected by the receivers to a meaningful coordinate difference between points (baseline solutions). Once the baseline solutions were determined, they were input into the GeoSurv-GeoLab2 series of programs (Geolab version 2.4d). Adjustments were performed for analysis and quality closure holding the position and elevation of **R 33** fixed:

HORIZONTAL CLOSURES (in meters)

STATION	NORTHING	EASTING	LINEAR	DISTANCE	PROPORTION
ALS B	0.006	0.002	0.006	32692.3	1:5169000
K 75	0.007	0.020	0.021	51306.4	1:2421000
MIRAGE	0.011	0.006	0.013	40671.0	1:3245000
T 163	0.007	0.005	0.009	44192.9	1:5137000

VERTICAL CLOSURES (in meters)

STATION	ADJUSTED ELEVATION	PUBLISHED ELEVATION	DIFFERENCE	DISTANCE	ALLOWABLE 3rd ORDER CLOSURE
ALS B	2280.837*	2280.864*	0.027	32692.3	0.069
ANTONITO	2409.600	2409.621	0.021	75067.1	0.104
K 75	2409.341	2409.347	0.006	51306.4	0.086
MIRAGE	2326.405	2326.427	0.022	40671.0	0.077
T 163	2409.854	2409.876	0.022	44192.9	0.080
Z 269	2407.743	2407.696	0.047	51690.0	0.086

* Ellipsoid Height

The NGS bench mark **J 65** evaluated, but not held in the final constrained adjustments. The rest of the above controls were held in the fully constrained scaled least squares base network adjustments to derive the ground control checkpoint values.

An additional RTK survey was performed to determine check point profiles along sand dunes of interest. The ground GPS observation was coordinated with the LiDAR acquisition.

3 LiDAR ACQUISITION AND PROCEDURES

3.1 Acquisition Time Period

LiDAR data acquisition and Airborne GPS control surveys were completed between September 18th, 2011 and October 27th, 2011. A total of 33 flight missions were required to cover the project areas. Two re-flights were made on November 16, 2011 and March 29, 2012 to acquire data in previous void areas.

3.2 LiDAR Planning

The LiDAR data for this project was collected with The Atlantic Group, Merrick and Company and Aerometric, Inc. using Merrick's Leica ALS 50II, The Atlanta Group's Optech 3100, and Aerometric's Optech Gemini LiDAR systems, respectively. All flight planning and acquisition was completed using Optech ALTM-Nav, version 2.1.25b (flight planning and LiDAR control software). Plan version 5.97 in .pln files.

The following are acquisition details for the project areas.

	Aerometric Inc	**The Atlantic Group**	**Merrick and Company**
	Area 1	**Area 1**	**Area 1**
Flying Height (Above Ground)	1450 m	1600 m	1500 m
Laser Pulse Rate	50 kHz	50 kHz	96 kHz
Mirror Scan Rate Frequency	42 Hz	42 Hz	33.1 Hz
Scan Angle (degrees)	12	12	15
Side Lap	60%	70.00%	
Ground Speed	160 kts	160	140
Nominal Point Spacing	1.008	1.058	
	64 passes	34 passes	78 passes
	Area 2	**Area 2**	**Area 2**
Flying Height (Above Ground)	1500 m	1500 m	1750 m
Laser Pulse Rate	70 kHz	70 kHz	96 kHz
Mirror Scan Rate Frequency	42 Hz	42 Hz	33.1
Scan Angle (degrees)	15	16	15
Side Lap	50	50	
Ground Speed	160 kts	160	140
Nominal Point Spacing	0.972	1.006	
	200 passes	34 passes	16 passes
		Area 3	
Flying Height (Above Ground)		1500 m	
Laser Pulse Rate		70 kHz	
Mirror Scan Rate Frequency		42 Hz	
Scan Angle (degrees)		16	
Side Lap		50	
Ground Speed		160	
Nominal Point Spacing		1.006	
		20 passes	

3.3 LiDAR Acquisition

A total of 33 flight missions were required to cover the project area. The missions were flown using the above planned values. See below for an image of the acquisition missions and Section 7 of the report for each flight log.

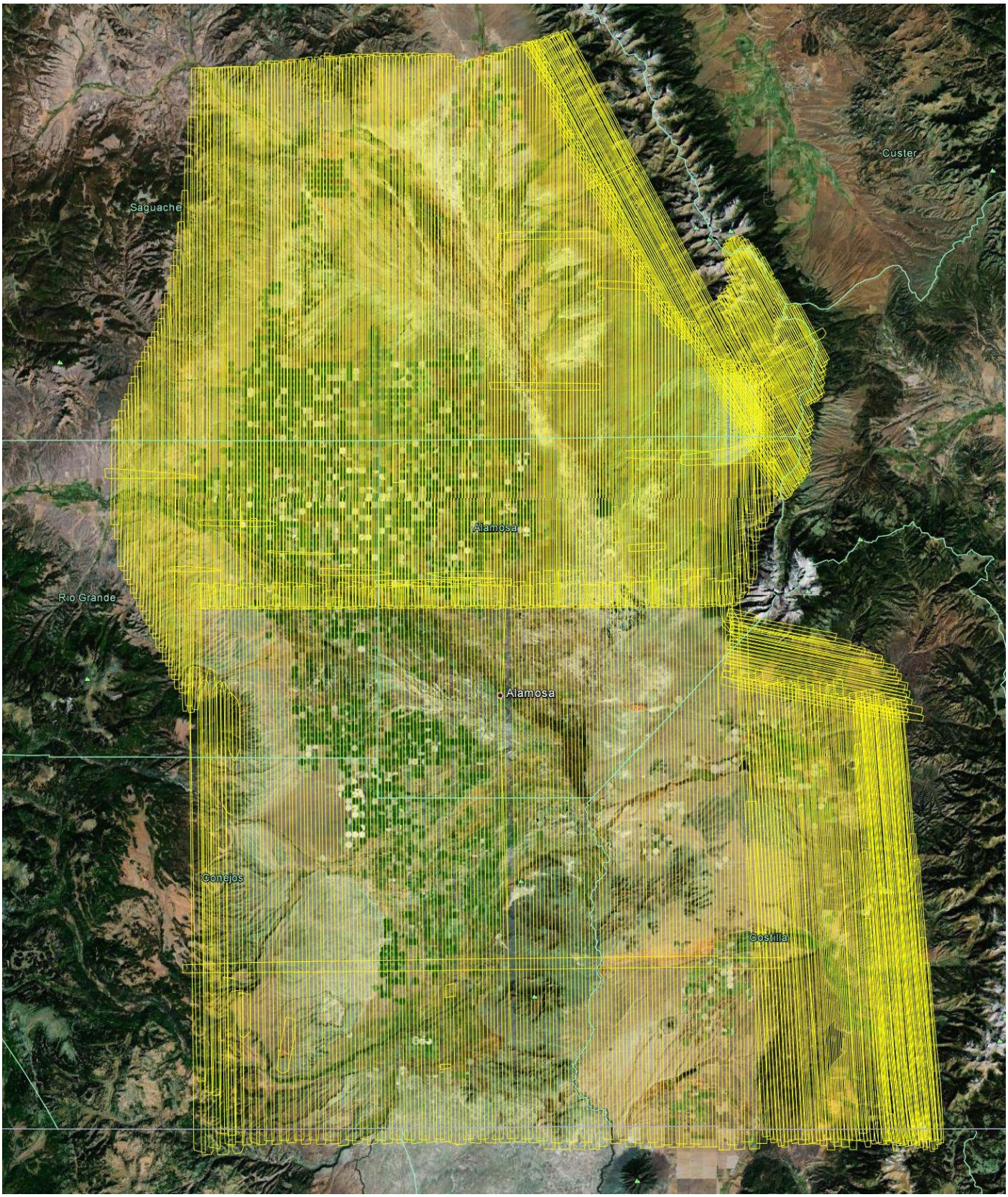
Airborne GPS and IMU trajectories for the LiDAR sensor were also acquired during the time of flight.

Each mission was typically four to five hours long. Before take-off, the LiDAR system and the Airborne GPS and IMU system were initialized for a period of five minutes and then again after landing for another five minutes. The missions acquired data according to the planned flight lines and included a minimum of one (usually two) cross flights. The cross flights were flown perpendicular to the planned flight lines and their data used in the in-situ calibration of the sensor.

3.4 LiDAR Trajectory Processing

The airborne positioning was based on the following control stations: Base 3, Base 5, Base 8, Base 10, Base 508, P123, ALSB, P037 and Base Merrick 1.

Control Station locations and Project boundary



San Luis, Colorado area of acquisition missions and flight trajectories

4 QC SURVEYS

The check point survey was performed between August 28th and September 31st, 2011 using Rapid Static GPS techniques. A total of 22 check points were surveyed across the project areas. These points were collected in open terrain to assess Fundamental Vertical Accuracy.

The control stations mentioned above to support the Airborne GPS acquisition were also used to complete the QC surveys.

See Section 5 of the control report for a complete listing.

5 FINAL LiDAR PROCESSING

5.1 ABGPS and IMU Processing

Airborne GPS

Applanix - POSGPS
Utilizing carrier phase ambiguity resolution on the fly (i.e., without initialization). The solution to sub-decimeter kinematic positioning without the operational constraint of static initialization as used in semi-kinematic or stop-and-go positioning was utilized for the airborne GPS post-processing.

The processing technique used by Applanix, Inc. for achieving the desired accuracy is Kinematic Ambiguity Resolution (KAR). KAR searches for ambiguities and uses a special method to evaluate the relative quality of each intersection (RMS). The quality indicator is used to evaluate the accuracy of the solution for each processing computation. In addition to the quality indicator, the software will compute separation plots between any two solutions, which will ultimately determine the acceptance of the airborne GPS post processing.

Inertial Data
the post-processing of inertial and aiding sensor data (i.e. airborne GPS post processed data) is to compute an optimally blended navigation solution. The Kalman filter-based aided inertial navigation algorithm generates an accurate (in the sense of least-square error) navigation solution that will retain the best characteristics of the processed input data. An example of inertial/GPS sensor blending is the following: inertial data is smooth in the short term. However, a free- inertial navigation solution has errors that grow without bound with time. A GPS navigation solution exhibits short-term noise but has errors that are bounded. This optimally blended navigation solution will retain the best features of both, i.e. the blended navigation solution has errors that are smooth and bounded. The resultant processing generates the following data:

- Position:…….Latitude, Longitude, Altitude
- Velocity:…….North, East, and Down components
- 3-axis attitude:…….roll, pitch, true heading
- Acceleration:…….x, y, z components
- Angular rates:……. x, y, z components

The Applanix software, version 4.4, was used to determine both the ABGPS trajectory and the blending of inertial data.

The airborne GPS and blending of inertial and GPS post-processing were completed in multiple steps.

1. The collected data was transferred from the field data collectors to the main computer. Data was saved under the project number and separated between LiDAR mission dates. Inside each mission date, a sub-directory was created with the aircraft's tail number and an A or B suffix was attached for the time of when the data was collected. Inside the tail number sub-directory, five sub-directories were also created EO, GPS, IMU, PROC, and RAW.

2. The aircraft raw data (IMU and GPS data combined) was run through a data extractor program. This separated the IMU and GPS data. In addition to the extracting of data, it provided the analyst the first statistics on the overall flight. The program was POSPac (POS post-processing PACkage).

3. Executing POSGPS program to derive accurate GPS positions for all flights: Applanix POSGPS

The software utilized for the data collected was PosGPS, a kinematic on- the-fly (OTF) processing software package. Post processing of the data is computed from each base station (Note: only base stations within the flying area were used) in both a forward and backward direction. This

provides the analyst the ability to Quality Check (QC) the post processing, since different ambiguities are determined from different base stations and also with the same data from different directions.

The trajectory separation program is designed to display the time of week that the airborne or roving antenna traveled, and compute the differences found between processing runs. Processed data can be compared between a forward/reverse solution from one base station, a reverse solution from one base station and a forward solution from the second base station, etc. For the Applanix POSGPS processing, this is considered the final QC check for the given mission. If wrong ambiguities were found with one or both runs, the analyst would see disagreements from the trajectory plot, and re-processing would continue until an agreement was determined.

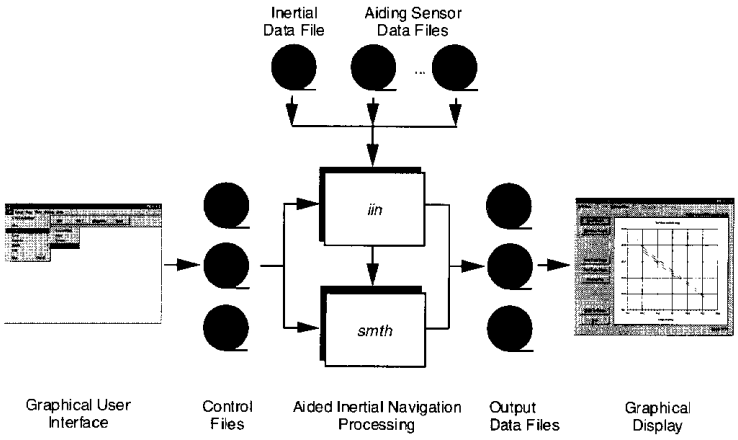
Once the analyst accepts a forward and reverse processing solution, the trajectory plot is analyzed and the combined solution is stored in a file format acceptable for the IMU post processor.

Please see Section 7 of the control report for the final accepted trajectory plots.

4. When the processed trajectory (either through POSGPS) data was accepted after quality control analysis, the combined solution is stored in a file format acceptable for the IMU post processor (i.e. POSProc).

5. Execute POS Proc. POS Proc comprises a set of individual processing interface tools that execute and provide the following functions:

The diagram below shows the organization of these tools, and is a function of the POSProc processing components.



Integrated Inertial Navigation (iin) Module.
The name *iin* is a contraction of Integrated Inertial Navigation. *iin* reads inertial data and aiding data from data files specified in a processing environment file and computes the aided inertial navigation solution. The inertial data comes from a strapdown IMU. *iin* outputs the navigation data between start and end times at a data rate as specified in the environment file. *iin* also outputs Kalman filter data for analysis of estimation error statistics and smoother data that the smoothing program *smth* uses to improve the navigation solution accuracy.

iin implements a full strapdown inertial navigator that solves Newton's equation of motion on the earth using inertial data from a strapdown IMU. The inertial navigator implements coning and sculling compensation to handle potential problems caused by vibration of the IMU.

Smoother Module (*smth*).

smth is a companion processing module to *iin*. *smth* is comprised of two individual functions that run in sequence. *smth* first runs the *smoother function* and then runs the *navigation correction function*.

The *smth* smoother function performs backwards-in-time processing of the forwards-in-time blended navigation solution and Kalman filter data generated by *iin* to compute smoothed error estimates. *smth* implements a modified Bryson-Frazier smoothing algorithm specifically designed for use with the *iin* Kalman filter. The resulting smoothed strapdown navigator error estimates at a given time point are the optimal estimates based on all input data before and after the given time point. In this sense, *smth* makes use of all available information in the input data. *smth* writes the smoothed error estimates and their RMS estimation errors to output data files.

The *smth* navigation correction function implements a feedforward error correction mechanism similar to that in the *iin* strapdown navigation solution using the smoothed strapdown navigation errors. s*mth* reads in the smoothed error estimates and with these, corrects the strapdown navigation data. The resulting navigation solution is called a Best Estimate of Trajectory (BET), and is the best obtainable estimate of vehicle trajectory with the available inertial and aiding sensor data.

The above mentioned modules provide the analyst the following statistics to ensure that the most optimal solution was achieved: a log of the *iin* processing, the Kalman filter Measurement Residuals, Smoothed RMS Estimation Errors, and Smoothed Sensor Errors and RMS.

5.2 LiDAR “Point Cloud” Processing

The ABGPS/IMU post processed data along with the LiDAR raw measurements were processed using Optech Incorporated’s ASDA software. This software was used to match the raw LiDAR measurements with the computed ABGPS/IMU positions and attitudes of the LiDAR sensor. The result was a “point cloud” of LiDAR measured points referenced to the ground control system.

5.3 LiDAR CALIBRATION

Introduction

The purpose of the LiDAR system calibration is to refine the system parameters in order for the post-processing software to produce a “point cloud” that best fits the actual ground.

The following report outlines the calibration techniques employed for this project.

Calibration Procedures

All Companies involved in collection routinely performs two types of calibrations on its airborne LiDAR system. The first calibration, system calibration, is performed whenever the LiDAR system is installed in the aircraft. This calibration is performed to define the system parameters affected by the physical misalignment of the system versus aircraft. The second calibration, in-situ calibration, is performed for each mission using that missions data. This calibration is performed to refine the system parameters that are affected by the on site conditions as needed.

System Calibration and Correction Software

Optech developed proprietary calibration software in December of 2009 that performs system calibration. The results from this new software achieved excellent results and an accuracy that meets the project requirements.

This new calibration tool incorporates Optech’s proprietary optical sensor models to compute laser point positions and provide laser point calibration improvements on a per flightline basis for the entire project area. It furthermore calculates planar surfaces at different angles from each flight line and then uses a robust least squares solution to compute the orientation parameters at the optical

level instead of the traditional methods relating to the ground points. Determining and correcting at the optical level is critical when correcting the data especially when working in terrain and aggressive design parameters as found in this project. Each flight line was computed individually and output in LAS 1.2 format.

In-situ Calibration

The in-situ calibration is performed as needed using the mission's data. This calibration is performed to refine the system parameters that are affected by the on site conditions.

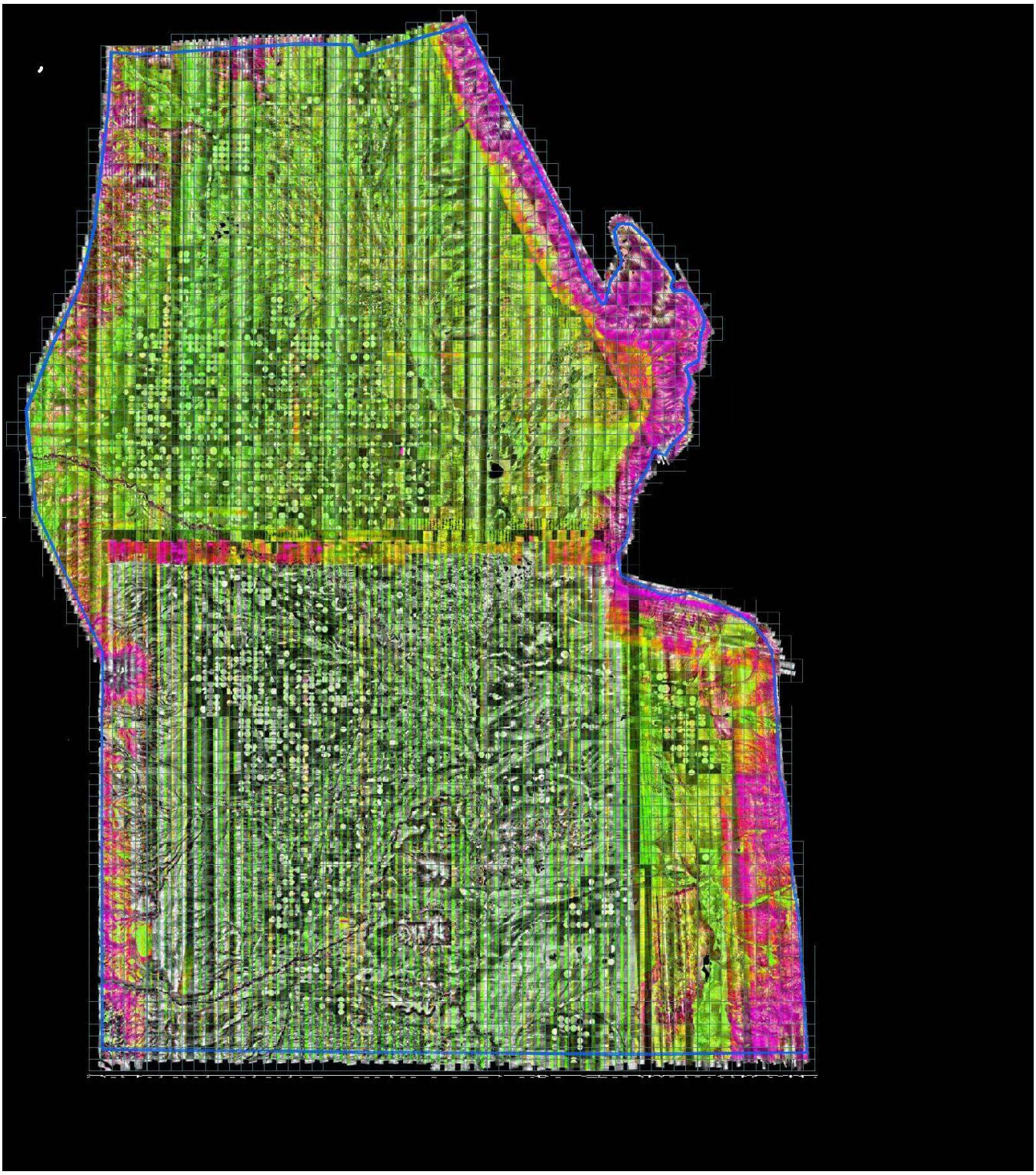
For each mission, LiDAR data for at least one cross flight is acquired over the mission's acquisition site. The processed data of the cross flight is compared to the perpendicular flight lines using either the Optech proprietary software or TerraSolid's TerraMatch software to determine if any systematic errors are present. In this calibration, the data of individual flight lines are compared against each other and their systematic errors are corrected in the final processed data.

5.4 LiDAR Processing

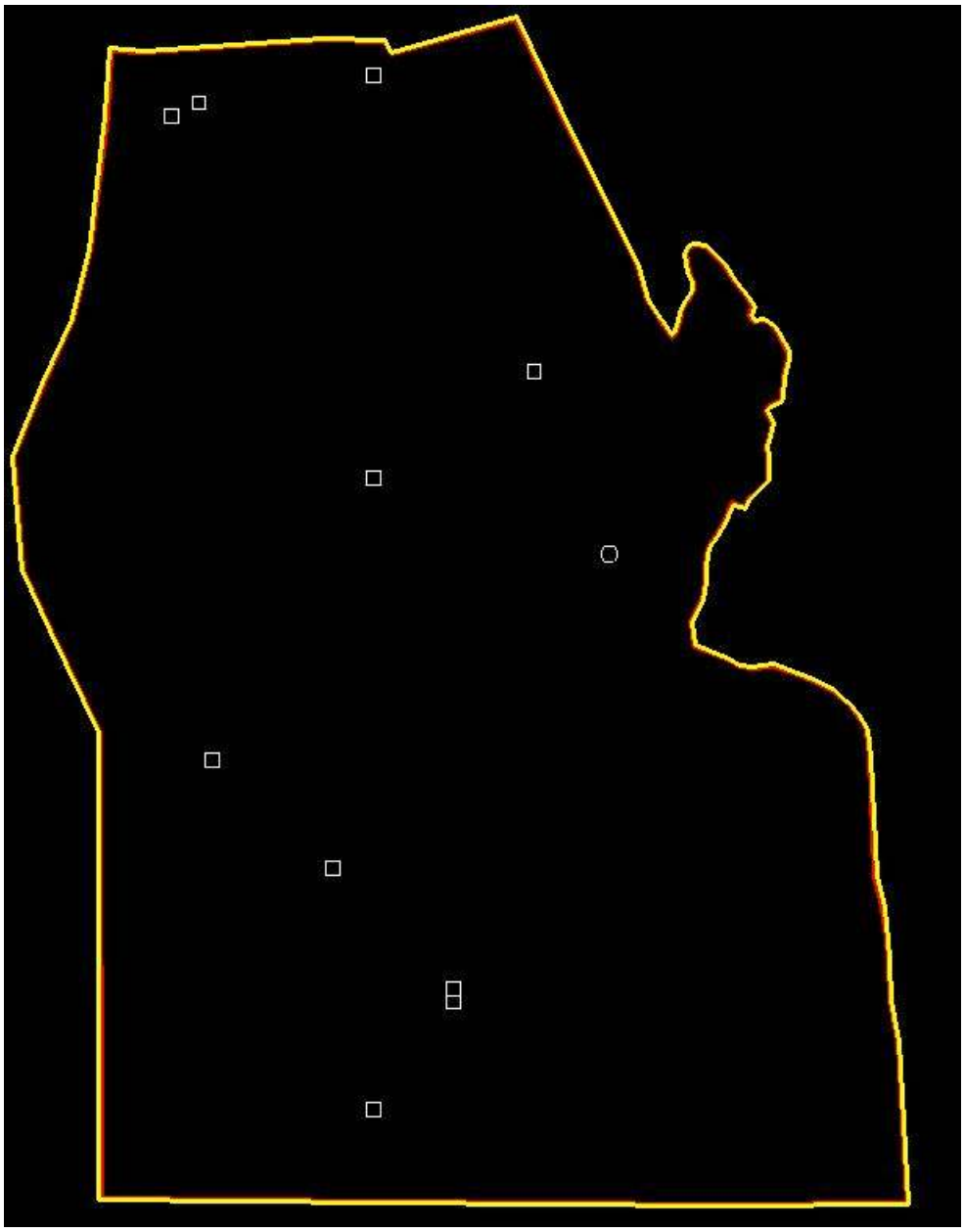
The LAS files were then imported, verified, and parsed into manageable, tiled grids using GeoCue version 2011.1.20.1. GeoCue allows for ease of data management and process tracking.

The first step after the data has been processed and calibrated is to perform a relative accuracy assessment on the flightline to flightline comparisons and also a data density test prior any further processing.

In addition to the relative accuracy assessment, Aerometric also reviews a few tiles to ensure that the desired density has been met. Aerometric utilizes an in- house proprietary software to complete this task. Initially a grid was placed according to the version 12 specification that is based on the nominal post spacing. The results indicated that the density of the sampled tiles achieved only 82% of the points meeting the specified data density criteria. However, using the latest USGS specification, version 13, which modifies the requirements to allow up to 2 times the nominal post spacing our data tests now easily meets the desired density requirements. Below are the statistics from the results of the inspected tiles as shown in the next image.



Relative Accuracy assessment



Sample tile locations of point density analysis

Sampled tiles: San Luis Valley (13_45450950, 13_38401130, 13_39302150, 13_39602165, 13_39751430,13_41101310, 13_41551040, 13_41551745, 13_41552195, 13_42451160, 13_42451175, 13_43351865)

Run 1 (Version 12 – 1.0 meter) Total number of cells: 20,879,026 Total number of cells with one or more points : 25,332,378 Percentage of tiles with 1 point or more: 82%

Run 2 (Version 13 – 2.0 meter) Total number of cells: 6,219,830 Total number of cells with one or more points: 6,342,947 Percentage of tiles with 1 point or more: 99.8%

Once both the accuracy between swaths and data density is accepted an automated classification

algorithm is performed using TerraSolid's TerraScan, version 012.005. This will produce the majority of the bare-earth datasets.

The remainder of the data was classified using manual classification techniques. The majority of the manual edit moved points misclassified as ground (class 2) to unclassified (class 1). Erroneous low points, high points, including clouds are classified to class 7.

5.5 Check Point Validation

The data was then verified using the ground control data collected by Aerometric. TerraScan then computes the vertical differences between the surveyed elevation and the LiDAR derived elevation for each point.

A report listing the differences and common statistics was created and can be found in Section 8 of this report.

5.6 LiDAR Data Delivery

Raw point cloud data supplied is in the following format:

- LAS, version 1.2
- GPS times adjusted to GPS Absolute
- Full swaths and delivered as 1 file per swath which did not exceed 2gb.

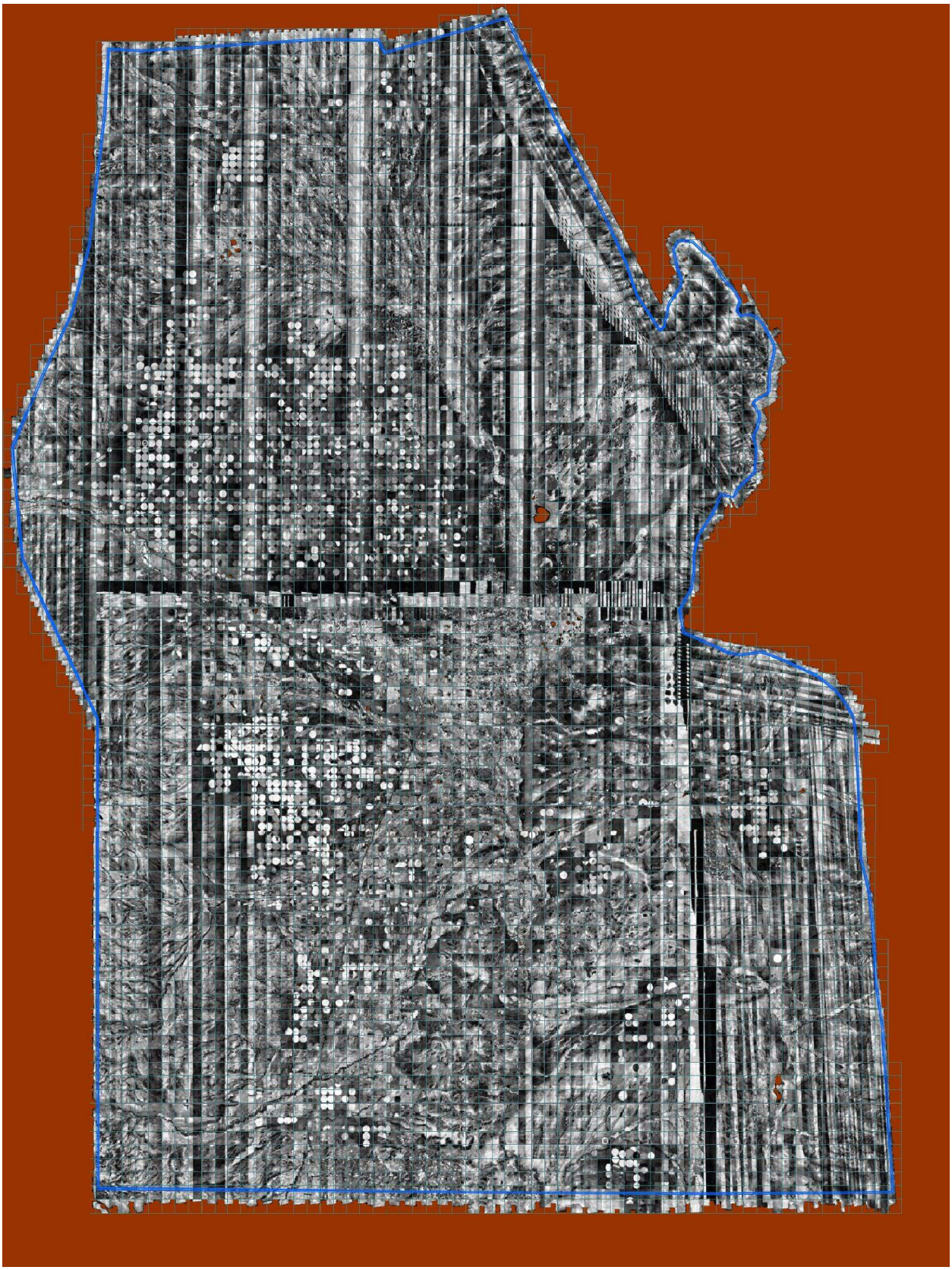
Classified point cloud data is also being supplied using the following criteria.

- LAS, version 1.2
- GPS times adjusted to GPS Absolute
- Classification scheme:
    - Code 1 – Processed, but unclassified
    - Code 2 – Ground
    - Code 7 – Noise
    - Code 9 – Water
    - Code 10 – Ignored Ground (Breakline proximity)

The 1 meter bare-earth DEMs were created in the following manner. First, ArcGrids in ASCII format were created using TerraModeler version 012.002 (TerraSolid Ltd.). The ASCII grids were then imported into ARC and translated to raster format and placed in a geodatabase DEM feature dataset.

The first return 1 meter intensity images were created using GeoCue. These images are in GeoTiff format.

Collected breaklines are first collected in a Microstation environment using the base specifications. Upon acceptance the breaklines, either polygons or lines, are translated into ARC and imported to the final geodatabase as separate features.



San Luis Intensity Raster

6 CONCLUSION

Because of the rigorous procedures and use of new technology, this project will serve the USGS and all users requiring the provided LiDAR derivative products for the project area of San Luis Valley in Colorado well into the future. Although this project tested the limits of both the equipment and personnel, the results are extremely accurate and reliable.

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 29, 2011
 AI5935 ***********************************************************************
 AI5935  PACS        -  This is a Primary Airport Control Station.
 AI5935  DESIGNATION -  ALS B
 AI5935  PID         -  AI5935
 AI5935  STATE/COUNTY-  CO/ALAMOSA
 AI5935  USGS QUAD   -  ALAMOSA EAST (1966)
 AI5935
 AI5935                        *CURRENT SURVEY CONTROL
 AI5935  ______________________________________________________________________
 AI5935* NAD 83(2007)-  37 26 26.60415(N)    105 51 56.52421(W)     ADJUSTED
 AI5935* NAVD 88     -      2297.66   (meters)    7538.2    (feet)  GPS OBS
 AI5935  ______________________________________________________________________
 AI5935  EPOCH DATE  -        2002.00
 AI5935  X           -  -1,386,660.430 (meters)                     COMP
 AI5935  Y           -  -4,878,992.549 (meters)                     COMP
 AI5935  Z           -   3,857,729.262 (meters)                     COMP
 AI5935  LAPLACE CORR-           0.14  (seconds)                    DEFLEC09
 AI5935  ELLIP HEIGHT-        2280.864 (meters)          (02/10/07) ADJUSTED
 AI5935  GEOID HEIGHT-         -16.80  (meters)                     GEOID09
 AI5935
 AI5935  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AI5935  Type    PID    Designation                      North   East  Ellip
 AI5935  ----------------------------------------------------------------------
 AI5935  NETWORK AI5935 ALS B                             0.84   0.61   1.20
 AI5935  ----------------------------------------------------------------------
 AI5935
 AI5935.This mark is at San Luis Valley Regional/bergman Fld Airport (ALS)
 AI5935
 AI5935.The horizontal coordinates were established by GPS observations
 AI5935.and adjusted by the National Geodetic Survey in February 2007.
 AI5935
 AI5935.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AI5935.See National Readjustment for more information.
 AI5935.The horizontal coordinates are valid at the epoch date displayed above.
 AI5935.The epoch date for horizontal control is a decimal equivalence
 AI5935.of Year/Month/Day.
 AI5935
 AI5935.The orthometric height was determined by GPS observations and a
 AI5935.high-resolution geoid model.
 AI5935
 AI5935.GPS derived orthometric heights for airport stations designated as
 AI5935.PACS or SACS are published to 2 decimal places.  This maintains
 AI5935.centimeter relative accuracy between the PACS and SACS.  It does
 AI5935.not indicate centimeter accuracy relative to other marks which are
 AI5935.part of the NAVD 88 network.
 AI5935
```

```
AI5935.Photographs are available for this station.
AI5935
AI5935.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AI5935
AI5935.The Laplace correction was computed from DEFLEC09 derived deflections.
AI5935
AI5935.The ellipsoidal height was determined by GPS observations
AI5935.and is referenced to NAD 83.
AI5935
AI5935.The geoid height was determined by GEOID09.
AI5935
AI5935;                    North         East     Units Scale Factor Converg.
AI5935;SPC CO S     -   390,771.591   882,040.087   MT  0.99996883   -0 13 27.5
AI5935;SPC CO S     - 1,282,056.46  2,893,826.52   sFT  0.99996883   -0 13 27.5
AI5935;UTM  13      - 4,144,116.803   423,419.394   MT  0.99967224   -0 31 34.8
AI5935
AI5935!             -  Elev Factor  x  Scale Factor =   Combined Factor
AI5935!SPC CO S     -   0.99964221  x   0.99996883  =   0.99961105
AI5935!UTM  13      -   0.99964221  x   0.99967224  =   0.99931456
AI5935
AI5935                          SUPERSEDED SURVEY CONTROL
AI5935
AI5935  ELLIP H (10/21/02) 2280.860  (m)                          GP(       ) 5 1
AI5935  NAD 83(1992)-  37 26 26.60392(N)    105 51 56.52397(W) AD(       ) B
AI5935  ELLIP H (06/30/00) 2280.873  (m)                          GP(       ) 1 1
AI5935
AI5935.Superseded values are not recommended for survey control.
AI5935.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AI5935.See file dsdata.txt to determine how the superseded data were derived.
AI5935
AI5935_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDB2341944116(NAD 83)
AI5935_MARKER: I = METAL ROD
AI5935_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AI5935_STAMPING: ALS B 1999
AI5935_MARK LOGO: NGS
AI5935_PROJECTION: FLUSH
AI5935_MAGNETIC: I = MARKER IS A STEEL ROD
AI5935_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AI5935_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AI5935+SATELLITE: SATELLITE OBSERVATIONS - October 15, 2009
AI5935_ROD/PIPE-DEPTH: 10.7 meters
AI5935_SLEEVE-DEPTH  : 0.9 meters
AI5935
AI5935  HISTORY     - Date     Condition        Report By
AI5935  HISTORY     - 1999     MONUMENTED       NGS
AI5935  HISTORY     - 20000731 GOOD             NGS
AI5935  HISTORY     - 20091015 GOOD             INDIV
AI5935
AI5935                          STATION DESCRIPTION
AI5935
AI5935'DESCRIBED BY NATIONAL GEODETIC SURVEY 1999 (RSC)
AI5935'THE STATION IS LOCATED ABOUT 11.5 MI (18.5 KM) NORTH-NORTHEAST OF LA
AI5935'JARA, 2 MI (3.2 KM) SOUTH OF ALAMOSA AND AT THE SAN LUIS VALLEY
AI5935'REGIONAL AIRPORT, IN THE NORTHEAST 1/4 OF SECTION 22, T 37 N, R 10 E.
AI5935'ACCESS TO THE AIRPORT IS CONTROLLED.  PERMISSION TO USE THIS STATION
AI5935'MUST BE OBTAINED FROM THE AIRPORT MANAGER.  OWNERSHIP--SAN LUIS VALLEY
AI5935'REGIONAL AIRPORT, P.O.  BOX 419, 425 4TH STREET, ALAMOSA, CO 81101.
```

AI5935'CONTACT--MR. JOE BOOS, TELEPHONE--719-580-6444
AI5935'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 285 AND
AI5935'U.S. HIGHWAY 160 IN ALAMOSA, GO SOUTH ON U.S. HIGHWAY 285 FOR 1.7 MI
AI5935'(2.7 KM) TO THE INTERSECTION OF AIRPORT ROAD. TURN LEFT, EAST, ON
AI5935'AIRPORT ROAD FOR 1.0 MI (1.6 KM) TO THE TERMINAL BUILDING. CONTACT
AI5935'AIRPORT OPERATIONS BEFORE GOING INTO THE FLIGHT OPERATIONS AREA. ENTER
AI5935'THE TERMINAL RAMP AREA AND GO EAST ACROSS TERMINAL RAMP TO RAMP A/2
AI5935'AND TAXIWAY A. TURN RIGHT, SOUTH, ON TAXIWAY A FOR 0.25 MI, (0.40 KM)
AI5935'JUST PAST THE SOUTHWESTERN MOST TERMINAL RAMP AREA AND THE STATION ON
AI5935'THE RIGHT
AI5935'THE MARK IS A PUNCH HOLE, TOP CENTER ON A M LONG STAINLESS STEEL ROD
AI5935'DRIVEN TO REFUSAL, ENCASED IN A 0.9 M (3.0 FT) LONG GREASED PVC PIPE,
AI5935'ENCLOSED IN A 5-INCH PVC PIPE WITH LOGO LID, SURROUNDED BY A CONCRETE
AI5935'COLLAR FLUSH WITH THE GROUND. IT IS 69.5 M (228.0 FT) EAST FROM THE
AI5935'CENTER OF THE SECONDARY WEATHER MAST, 44.5 M (146.0 FT)
AI5935'SOUTH-SOUTHWEST FROM THE SOUTHEAST CORNER OF A HELICOPTER PAD AND 29.4
AI5935'M (96.5 FT) WEST-NORTHWEST FROM THE CENTER OF THE TAXIWAY A. THE
AI5935'STATION IS DESIGNATED A PRIMARY AIRPORT CONTROL STATION FOR THE ANA
AI5935'PROJECT.
AI5935
AI5935   STATION RECOVERY (2000)
AI5935
AI5935'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2000 (AJL)
AI5935'RECOVERED AS DESCRIBED. NOTE--THIS STATION IS DESIGNATED A PRIMARY
AI5935'AIRPORT CONTROL STATION (PACS) .
AI5935
AI5935   STATION RECOVERY (2009)
AI5935
AI5935'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2009 (AJM)
AI5935'RECOVERED AS DESCRIBED

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 HL0362 ***********************************************************************
 HL0362  DESIGNATION -  ANTONITO
 HL0362  PID         -  HL0362
 HL0362  STATE/COUNTY-  CO/CONEJOS
 HL0362  USGS QUAD   -  ANTONITO (1967)
 HL0362
 HL0362                        *CURRENT SURVEY CONTROL
 HL0362  ______________________________________________________________________
 HL0362* NAD 83(1992)-  37 04 03.48524(N)     106 00 59.91147(W)      ADJUSTED
 HL0362* NAVD 88     -      2409.621  (meters)     7905.56   (feet)   ADJUSTED
 HL0362  ______________________________________________________________________
 HL0362  LAPLACE CORR-          -1.10  (seconds)                      DEFLEC09
 HL0362  GEOID HEIGHT-         -16.45  (meters)                       GEOID09
 HL0362  DYNAMIC HT  -        2406.386 (meters)     7894.95  (feet)   COMP
 HL0362  MODELED GRAV-     979,201.4   (mgal)                         NAVD 88
 HL0362
 HL0362  HORZ ORDER  -  FIRST
 HL0362  VERT ORDER  -  FIRST     CLASS II
 HL0362
 HL0362.The horizontal coordinates were established by classical geodetic methods
 HL0362.and adjusted by the National Geodetic Survey in December 1993.
 HL0362
 HL0362.The orthometric height was determined by differential leveling and
 HL0362.adjusted in June 1991.
 HL0362
 HL0362.The Laplace correction was computed from DEFLEC09 derived deflections.
 HL0362
 HL0362.The geoid height was determined by GEOID09.
 HL0362
 HL0362.The dynamic height is computed by dividing the NAVD 88
 HL0362.geopotential number by the normal gravity value computed on the
 HL0362.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 HL0362.degrees latitude (g = 980.6199 gals.).
 HL0362
 HL0362.The modeled gravity was interpolated from observed gravity values.
 HL0362
 HL0362;                    North         East     Units Scale Factor Converg.
 HL0362;SPC CO S     -   349,429.119   868,454.081   MT  1.00003420   -0 19 00.8
 HL0362;SPC CO S     - 1,146,418.70  2,849,253.10   sFT  1.00003420   -0 19 00.8
 HL0362;SPC NM C     -   673,000.811   520,751.107   MT  0.99990530   +0 08 26.4
 HL0362;SPC NM C     - 2,208,003.49  1,708,497.59   sFT  0.99990530   +0 08 26.4
 HL0362;UTM  13      - 4,102,858.693   409,622.060   MT  0.99970062   -0 36 46.2
 HL0362
 HL0362!             -  Elev Factor  x  Scale Factor =   Combined Factor
 HL0362!SPC CO S     -   0.99962458  x   1.00003420  =   0.99965877
 HL0362!SPC NM C     -   0.99962458  x   0.99990530  =   0.99952991
 HL0362!UTM  13      -   0.99962458  x   0.99970062  =   0.99932531
```

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HL0362
HL0362:                Primary Azimuth Mark                     Grid Az
HL0362:SPC CO S     -  ANTONITO AZ MK                           233 40 47.7
HL0362:SPC NM C     -  ANTONITO AZ MK                           233 13 20.5
HL0362:UTM  13      -  ANTONITO AZ MK                           233 58 33.1
HL0362
HL0362|---------------------------------------------------------------------|
HL0362| PID    Reference Object                    Distance      Geod. Az   |
HL0362|                                                          dddmmss.s |
HL0362| HL0487 ANTONITO CATHOLIC CHURCH SPIRE    APPROX. 1.4 KM 0185848.2 |
HL0362| CM6859 ANTONITO RM 1                      9.453 METERS 02557      |
HL0362| HL0363 ANTONITO AZ MK                                  2332146.9 |
HL0362| CM6860 ANTONITO RM 2                      5.653 METERS 29005      |
HL0362| HL0485 DRGWRR MILEPOST 281               15.670 METERS 32243      |
HL0362| HL0488 CONEJOS COURTHOUSE CUPOLA         APPROX. 2.4 KM 3512255.9 |
HL0362|---------------------------------------------------------------------|
HL0362
HL0362                          SUPERSEDED SURVEY CONTROL
HL0362
HL0362  NAD 83(1992)-  37 04 03.48534(N)    106 00 59.91103(W) AD(       ) 1
HL0362  NAD 83(1986)-  37 04 03.48854(N)    106 00 59.92006(W) AD(       ) 1
HL0362  NAD 27      -  37 04 03.44400(N)    106 00 57.84400(W) AD(       ) 1
HL0362  NGVD 29 (07/19/86) 2408.3    (m)          7901.     (f) VERT ANG
HL0362
HL0362.Superseded values are not recommended for survey control.
HL0362.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
HL0362.See file dsdata.txt to determine how the superseded data were derived.
HL0362
HL0362_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDB0962202858(NAD 83)
HL0362_MARKER: DS = TRIANGULATION STATION DISK
HL0362_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
HL0362_SP_SET: CONCRETE POST
HL0362_STAMPING: ANTONITO 1945
HL0362_MARK LOGO: CGS
HL0362_PROJECTION: PROJECTING 10 CENTIMETERS
HL0362_MAGNETIC: N = NO MAGNETIC MATERIAL
HL0362_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
HL0362+STABILITY: SURFACE MOTION
HL0362_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
HL0362+SATELLITE: SATELLITE OBSERVATIONS - August 31, 2011
HL0362
HL0362  HISTORY     - Date     Condition        Report By
HL0362  HISTORY     - 1945     MONUMENTED       CGS
HL0362  HISTORY     - 19780418 GOOD             NGS
HL0362  HISTORY     - 1984     GOOD             NGS
HL0362  HISTORY     - 19980614 GOOD             USPSQD
HL0362  HISTORY     - 20070920 GOOD             GEOCAC
HL0362  HISTORY     - 20110831 GOOD             AEROME
HL0362
HL0362                          STATION DESCRIPTION
HL0362
HL0362'DESCRIBED BY COAST AND GEODETIC SURVEY 1945 (RAM)
HL0362'STATION IS LOCATED 1 MILE SW OF ANTONITO, ON THE SE SIDE OF
HL0362'THE DENVER AND RIO GRANDE WESTERN RAILROAD, OPPOSITE MILEPOST
HL0362'281, AND BETWEEN THE RAILROAD AND A GRADED ROAD.
HL0362'
HL0362'TO REACH THE STATION FROM THE ANTONITO POST OFFICE, GO SW ON
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HL0362'U.S. HIGHWAY 285 FOR 0.55 MILE TO WHERE THE HIGHWAY CROSSES THE
HL0362'RAILROAD. CROSS THE RAILROAD TRACKS AND TURN RIGHT BEFORE
HL0362'REACHING A GRADED ROAD AND GO 0.15 MILE DOWN THE RAILROAD
HL0362'RIGHT-OF-WAY TO THE END OF TRUCK TRAVEL AND THE STATION. AZIMUTH
HL0362'MARK MAY BE REACHED FROM WHERE U.S. HIGHWAY 285 CROSSES THE
HL0362'RAILROAD TRACKS BY GOING ABOUT 100 FEET TO GRADED ROAD LEADING
HL0362'OFF TO THE RIGHT. TURN RIGHT AND GO SW ON THE GRADED ROAD FOR
HL0362'0.65 MILE TO THE AZIMUTH MARK ON THE RIGHT.
HL0362'
HL0362'STATION MARK IS A BRONZE STATION DISK SET IN A SQUARE CONCRETE
HL0362'POST WHICH PROJECTS 4 INCHES ABOVE THE SURROUNDING SURFACE. IT
HL0362'IS LOCATED 52 FEET NW OF THE CENTER OF THE GRADED ROAD, 35.8
HL0362'FEET SE OF THE SE RAIL OF THE DENVER AND RIO GRANDE WESTERN
HL0362'RAILROAD, AND 14 FEET NE OF A 4-INCH SQUARE WHITE WITNESS POST.
HL0362'DISK IS STAMPED ANTONITO 1945. UNDERGROUND MARK IS A BRONZE
HL0362'STATION DISK SET IN CONCRETE.
HL0362'
HL0362'REFERENCE MARK 1 IS A BRONZE REFERENCE DISK SET IN A SQUARE
HL0362'CONCRETE POST PROJECTING 4 INCHES ABOVE THE SURROUNDING
HL0362'SURFACE. IT IS LOCATED NNE OF THE STATION AND ABOUT THE SAME
HL0362'LEVEL. DISK IS STAMPED ANTONITO NO 1 1945.
HL0362'
HL0362'REFERENCE MARK 2 IS A BRONZE REFERENCE DISK SET IN A SQUARE
HL0362'CONCRETE POST PROJECTING 3 INCHES ABOVE THE SURROUNDING
HL0362'SURFACE. IT IS LOCATED W OF THE STATION AND ABOUT THE SAME
HL0362'LEVEL. DISK IS STAMPED ANTONITO NO 2 1945.
HL0362'
HL0362'AZIMUTH MARK IS A BRONZE AZIMUTH DISK SET IN A CONCRETE CYLINDER
HL0362'FLUSH WITH THE SURROUNDING SURFACE. IT IS LOCATED 0.5 MILE
HL0362'SW OF THE STATION, 52 FEET NW OF THE CENTER OF THE GRADED ROAD,
HL0362'30 FEET SE OF THE SE RAIL OF THE DENVER AND RIO GRANDE WESTERN
HL0362'RAILROAD, AND 5-1/2 FEET NE OF A 4-INCH SQUARE WHITE WITNESS
HL0362'POST. DISK IS STAMPED ANTONITO 1945.
HL0362'
HL0362'MILEPOST 281 IS A 9-1/2-INCH SQUARE WHITE WOODEN POST WHICH
HL0362'STANDS 6.3 FEET ABOVE THE SURROUNDING SURFACE AND IS 51.4 FEET
HL0362'NW OF THE STATION.
HL0362'
HL0362'HEIGHT OF LIGHT ABOVE STATION MARK - 1.2 METERS.
HL0362
HL0362   STATION RECOVERY (1978)
HL0362
HL0362'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1978 (CLN)
HL0362'STATION RECOVERED AND ALL MARKS ARE IN GOOD CONDITION. DISTANCE AND
HL0362'DIRECTION TO REFERENCE MARKS CHECKED PREVIOUS DATA ADEQUATELY, ALSO
HL0362'THE DIRECTION TO THE CATHOLIC CHURCH STEEPLE CHECKED GOOD. STATION IS
HL0362'REACHED FROM THE PRESENT POST OFFICE IN ANTONITO. GO SOUTHWESTERLY ON
HL0362'U.S. HIGHWAY 285 FOR 0.65 MILE (1.05 KM) TO JUNCTION WITH U.S. HIGHWAY
HL0362'160 AND STATE HIGHWAY 17. TURN LEFT AND PROCEED ON HIGHWAY 285,
HL0362'CROSSING RAILROAD TRACKS FOR 0.05 MILE (0.08 KM) TO A SURFACED ROAD
HL0362'RIGHT. TURN RIGHT AND GO SOUTHWEST ON SURFACED ROAD FOR 0.15 TO
HL0362'STATION ON THE RIGHT, BETWEEN SURFACED ROAD AND RAILROAD TRACK.
HL0362'AZIMUTH MARK IS REACHED FROM STATION. GO SOUTHWEST ON THE SURFACED
HL0362'ROAD FOR 0.55 MILE (0.89 KM) TO THE MARK ON RIGHT, ALSO BETWEEN THE
HL0362'SURFACED ROAD AND THE RAILROAD TRACK.
HL0362'
HL0362'STATION IS A STANDARD DISK STAMPED--ANTONITO 1945--, SET IN TOP OF A

HL0362'SQUARE CONCRETE MONUMENT PROJECTING 5 INCHES, 55 FEET (16.8 M)
HL0362'NORTHWEST OF CENTER OF SURFACED ROAD, 50.7 FEET (15.5 M) SOUTHEAST OF
HL0362'RAILROAD MILE POST 281, 35.4 FEET (10.8 M) SOUTHEAST OF SOUTHEAST RAIL
HL0362'OF RAILROAD TRACK, 1.2 FEET (0.4 M) NORTHWEST OF A METAL WITNESS POST.
HL0362'REFERENCE MARK 2 IS A STANDARD DISK STAMPED--ANTONITO NO 2 1945--, SET
HL0362'IN TOP OF A SQUARE CONCRETE MONUMENT PROJECTING 3 INCHES, 70 FEET
HL0362'(21.3 M) NORTHWEST OF THE SURFACED ROAD, 21 FEET (6.4 M) SOUTHEAST OF
HL0362'THE TRACK.
HL0362'
HL0362'AZIMUTH MARK IS A STANDARD DISK STAMPED--ANTONITO 1945--, SET IN TOP
HL0362'OF A ROUND CONCRETE MONUMENT FLUSH WITH GROUND SURFACE, 30 FEET (9.1
HL0362'M) SOUTHEAST OF SOUTHEAST RAIL OF RAILROAD TRACK, 45 FEET (13.7 M)
HL0362'NORTHWEST OF CENTER OF THE SURFACED ROAD, 5.6 FEET (1.7 M) NORTHEAST
HL0362'OF A WOOD WITNESS POST.
HL0362
HL0362   STATION RECOVERY (1984)
HL0362
HL0362'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1984
HL0362'1.2 KM (0.75 MI) SOUTH FROM ANTONITO.
HL0362'1.0 KM (0.6 MI) SOUTHERLY ALONG U.S. HIGHWAY 285 FROM THE POST OFFICE
HL0362'IN ANTONITO, THENCE 0.2 KM (0.1 MI) SOUTHERLY ALONG THE DENVER AND RIO
HL0362'GRANDE WESTEREN RAILROAD, 15.9 M (52.2 FT) NORTHWEST OF THE CENTER OF
HL0362'A PAVED ROAD, AND 10.9 M (35.8 FT) SOUTHEAST OF THE NEAR RAIL.
HL0362'THE MARK IS 0.3 METERS NW FROM A WITNESS POST
HL0362'THE MARK IS 0.6 M BELOW THE TRACKS.
HL0362
HL0362   STATION RECOVERY (1998)
HL0362
HL0362'RECOVERY NOTE BY US POWER SQUADRON 1998
HL0362'RECOVERED IN GOOD CONDITION.
HL0362
HL0362   STATION RECOVERY (2007)
HL0362
HL0362'RECOVERY NOTE BY GEOCACHING 2007 (TFW)
HL0362'RECOVERED IN GOOD CONDITION.
HL0362
HL0362   STATION RECOVERY (2011)
HL0362
HL0362'RECOVERY NOTE BY AERO METRIC INC 2011 (MB)
HL0362'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 HK0323 ***********************************************************************
 HK0323  DESIGNATION -  J 65
 HK0323  PID         -  HK0323
 HK0323  STATE/COUNTY-  CO/COSTILLA
 HK0323  USGS QUAD   -  SAN ACACIO (1982)
 HK0323
 HK0323                         *CURRENT SURVEY CONTROL
 HK0323  ______________________________________________________________________
 HK0323* NAD 83(1986)-  37 11 04.      (N)    105 35 40.      (W)      SCALED
 HK0323* NAVD 88     -       2330.245  (meters)    7645.15   (feet)   ADJUSTED
 HK0323  ______________________________________________________________________
 HK0323  GEOID HEIGHT-          -16.92  (meters)                       GEOID09
 HK0323  DYNAMIC HT  -         2327.107 (meters)    7634.85  (feet)   COMP
 HK0323  MODELED GRAV-      979,200.4   (mgal)                         NAVD 88
 HK0323
 HK0323  VERT ORDER  -  SECOND    CLASS 0
 HK0323
 HK0323.The horizontal coordinates were scaled from a topographic map and have
 HK0323.an estimated accuracy of +/- 6 seconds.
 HK0323
 HK0323.The orthometric height was determined by differential leveling and
 HK0323.adjusted in June 1991.
 HK0323
 HK0323.The geoid height was determined by GEOID09.
 HK0323
 HK0323.The dynamic height is computed by dividing the NAVD 88
 HK0323.geopotential number by the normal gravity value computed on the
 HK0323.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 HK0323.degrees latitude (g = 980.6199 gals.).
 HK0323
 HK0323.The modeled gravity was interpolated from observed gravity values.
 HK0323
 HK0323;                    North         East     Units  Estimated Accuracy
 HK0323;SPC CO S     -   362,270.      906,020.      MT  (+/- 180 meters Scaled)
 HK0323
 HK0323                          SUPERSEDED SURVEY CONTROL
 HK0323
 HK0323  NGVD 29 (??/??/92) 2328.955  (m)         7640.91   (f) ADJ UNCH    2 0
 HK0323
 HK0323.Superseded values are not recommended for survey control.
 HK0323.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 HK0323.See file dsdata.txt to determine how the superseded data were derived.
 HK0323
 HK0323_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDB472154(NAD 83)
 HK0323_MARKER: DB = BENCH MARK DISK
 HK0323_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 HK0323_SP_SET: SET IN TOP OF CONCRETE MONUMENT
```

HK0323_STAMPING: J 65 1934
HK0323_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
HK0323+STABILITY: SURFACE MOTION
HK0323_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
HK0323+SATELLITE: SATELLITE OBSERVATIONS - August 31, 2011
HK0323
HK0323 HISTORY   - Date   Condition   Report By
HK0323 HISTORY   - 1934   MONUMENTED   CGS
HK0323 HISTORY   - 20110831 GOOD   AEROME
HK0323
HK0323   STATION DESCRIPTION
HK0323
HK0323'DESCRIBED BY COAST AND GEODETIC SURVEY 1934
HK0323'9.7 MI W FROM SAN LUIS.
HK0323'9.7 MI W OF SAN LUIS, 0.9 MI WEST OF THE JUNCTION OF STATE HWY
HK0323'136 AND 99, 58 FEET NORTH OF THE CENTERLINE OF THE HIGHWAY,
HK0323'2 FEET SOUTH OF A FENCE CORNER.
HK0323
HK0323   STATION RECOVERY (2011)
HK0323
HK0323'RECOVERY NOTE BY AERO METRIC INC 2011 (MB)
HK0323'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 HK0251 ***********************************************************************
 HK0251  FBN          -  This is a Federal Base Network Control Station.
 HK0251  DESIGNATION -  K 75
 HK0251  PID          -  HK0251
 HK0251  STATE/COUNTY-  CO/COSTILLA
 HK0251  USGS QUAD    -  FORT GARLAND (1982)
 HK0251
 HK0251                          *CURRENT SURVEY CONTROL
 HK0251  ______________________________________________________________________
 HK0251* NAD 83(2007)-  37 25 39.06808(N)     105 26 41.36608(W)      ADJUSTED
 HK0251* NAVD 88      -       2409.347  (meters)     7904.67   (feet)  ADJUSTED
 HK0251  ______________________________________________________________________
 HK0251  EPOCH DATE   -         2002.00
 HK0251  X            -  -1,351,044.749 (meters)                      COMP
 HK0251  Y            -  -4,889,991.455 (meters)                      COMP
 HK0251  Z            -   3,856,633.200 (meters)                      COMP
 HK0251  LAPLACE CORR-            4.72  (seconds)                     DEFLEC09
 HK0251  ELLIP HEIGHT-         2392.827 (meters)          (02/10/07) ADJUSTED
 HK0251  GEOID HEIGHT-          -16.50  (meters)                      GEOID09
 HK0251  DYNAMIC HT   -         2406.099 (meters)     7894.01  (feet)  COMP
 HK0251
 HK0251  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 HK0251  Type    PID    Designation                        North   East  Ellip
 HK0251  ----------------------------------------------------------------------
 HK0251  NETWORK HK0251 K 75                                 0.43   0.35   0.92
 HK0251  ----------------------------------------------------------------------
 HK0251  MODELED GRAV-     979,195.9   (mgal)                        NAVD 88
 HK0251
 HK0251  VERT ORDER   -  SECOND    CLASS 0
 HK0251
 HK0251.The horizontal coordinates were established by GPS observations
 HK0251.and adjusted by the National Geodetic Survey in February 2007.
 HK0251
 HK0251.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 HK0251.See National Readjustment for more information.
 HK0251.The horizontal coordinates are valid at the epoch date displayed above.
 HK0251.The epoch date for horizontal control is a decimal equivalence
 HK0251.of Year/Month/Day.
 HK0251
 HK0251.The orthometric height was determined by differential leveling and
 HK0251.adjusted in June 1991.
 HK0251.WARNING-GPS observations at this control monument resulted in a GPS
 HK0251.derived orthometric height which differed from the leveled height by
 HK0251.more than one decimeter (0.1 meter).
 HK0251
 HK0251.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 HK0251
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HK0251.The Laplace correction was computed from DEFLEC09 derived deflections.
HK0251
HK0251.The ellipsoidal height was determined by GPS observations
HK0251.and is referenced to NAD 83.
HK0251
HK0251.The geoid height was determined by GEOID09.
HK0251
HK0251.The dynamic height is computed by dividing the NAVD 88
HK0251.geopotential number by the normal gravity value computed on the
HK0251.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
HK0251.degrees latitude (g = 980.6199 gals.).
HK0251
HK0251.The modeled gravity was interpolated from observed gravity values.
HK0251
HK0251;                    North         East     Units Scale Factor Converg.
HK0251;SPC CO S     -   389,244.221   919,285.366   MT  0.99997043   +0 02 01.8
HK0251;SPC CO S     - 1,277,045.42  3,016,022.07   sFT  0.99997043   +0 02 01.8
HK0251;UTM  13      - 4,142,392.998   460,643.904   MT  0.99961908   -0 16 13.3
HK0251
HK0251!             -  Elev Factor  x  Scale Factor =   Combined Factor
HK0251!SPC CO S     -   0.99962465  x   0.99997043  =   0.99959509
HK0251!UTM  13      -   0.99962465  x   0.99961908  =   0.99924387
HK0251
HK0251                          SUPERSEDED SURVEY CONTROL
HK0251
HK0251  ELLIP H (09/24/02) 2392.814  (m)                          GP(       ) 3 1
HK0251  NAD 83(1986)-  37 25 39.07062(N)    105 26 41.36953(W) AD(       ) 3
HK0251  NAD 83(1992)-  37 25 39.06797(N)    105 26 41.36580(W) AD(       ) B
HK0251  ELLIP H (05/26/92) 2392.818  (m)                          GP(       ) 4 1
HK0251  NAVD 88 (09/24/02) 2409.35   (m)          7904.7    (f) LEVELING    3
HK0251  NAVD 88 (10/17/97) 2409.2    (m)          7904.     (f) GPS OBS
HK0251  NAVD 88 (05/26/92) 2409.35   (m)          7904.7    (f) LEVELING    3
HK0251  NGVD 29 (??/??/92) 2407.971  (m)          7900.15   (f) ADJ UNCH    2 0
HK0251
HK0251.Superseded values are not recommended for survey control.
HK0251.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
HK0251.See file dsdata.txt to determine how the superseded data were derived.
HK0251
HK0251_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDB6064342392(NAD 83)
HK0251_MARKER: DB = BENCH MARK DISK
HK0251_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
HK0251_SP_SET: CONCRETE POST
HK0251_STAMPING: K 75 1934
HK0251_MARK LOGO: CGS
HK0251_MAGNETIC: O = OTHER; SEE DESCRIPTION
HK0251_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
HK0251+STABILITY: SURFACE MOTION
HK0251_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
HK0251+SATELLITE: SATELLITE OBSERVATIONS - February 10, 1997
HK0251
HK0251  HISTORY     - Date     Condition        Report By
HK0251  HISTORY     - 1934     MONUMENTED       CGS
HK0251  HISTORY     - 1967     MARK NOT FOUND   USGS
HK0251  HISTORY     - 19910602 GOOD             NGS
HK0251  HISTORY     - 19970210 GOOD             CODOT
HK0251  HISTORY     - 20070918 GOOD             GEOCAC
HK0251
```

HK0251 STATION DESCRIPTION
HK0251
HK0251'DESCRIBED BY US GEOLOGICAL SURVEY 1967
HK0251'0.8 MI W FROM FORT GARLAND.
HK0251'0.8 MILE WEST ALONG THE DENVER AND RIO GRANDE WESTERN RAILROAD
HK0251'FROM FORT GARLAND, 35 FEET SOUTH OF THE CENTER LINE OF A ROAD, 41
HK0251'FEET NORTH OF THE CENTER LINE OF THE TRACK, AND 5 FEET SOUTH OF
HK0251'A ROW OF POLES. SET IN THE TOP OF A CONCRETE POST.
HK0251
HK0251 STATION RECOVERY (1991)
HK0251
HK0251'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1991
HK0251'STATION IS LOCATED ABOUT 1 KM (0.6 MI) WEST OF FORT GARLAND, 100 M
HK0251'(328.1 FT) SOUTH OF US HIGHWAY 160, IN A SAGE AND CACTUS AREA, ON
HK0251'RAILROAD RIGHT-OF-WAY, JUST EAST OF AN OLD TRACK ROAD CROSSING.
HK0251'OWNERSHIP--DENVER AND RIO GRANDE WESTERN RAILROAD.
HK0251'TO REACH FROM THE JUNCTION OF US HIGHWAY 160 AND STATE HIGHWAY 159 AT
HK0251'FORT GARLAND, GO WEST ON HIGHWAY 160 FOR 0.85 MI (1.37 KM) TO THE
HK0251'ENTRANCE TO THE FORBES BLANCA TRINCHERA ON THE RIGHT AND A TRACK ROAD
HK0251'LEFT (AT MILE 237.45). TURN LEFT, SOUTH, ON TRACK ROAD FOR 20 METERS
HK0251'TO A FORK. BEAR LEFT, SOUTHEAST, FOR 90 M (295.3 FT) TO A DIM
HK0251'CROSSROAD PARALLELING THE TRACKS. TURN LEFT, EAST, ON DIM ROAD FOR
HK0251'37 M (121.4 FT) TO THE STATION ON THE RIGHT.
HK0251'STATION MARK IS SET IN THE TOP OF A 30-CM SQUARE CONCRETE POST
HK0251'PROJECTING 3 CM. IT IS 12.6 M (41.3 FT) NORTH OF, AND 1 M (3.3 FT)
HK0251'LOWER THAN THE NORTH RAIL OF TRACK, 11 M (36.1 FT) SOUTH OF THE DIM
HK0251'ROAD CENTER, 1.0 M (3.3 FT) NORTH OF A FIBERGLASS WITNESS POST, 37.3
HK0251'M (122.4 FT) EAST OF THE TRACK ROAD AND 35.8 M (117.5 FT)
HK0251'EAST-NORTHEAST OF A STEEL RAILROAD PROPERTY WARNING SIGN ATTACHED TO A
HK0251'2 M (6.6 FT) HIGH VERTICAL RAIL ON SOUTH SIDE OF TRACK.
HK0251'DESCRIBED BY G.R.HEID
HK0251
HK0251 STATION RECOVERY (1997)
HK0251
HK0251'RECOVERY NOTE BY COLORADO DEPARTMENT OF TRANSPORTATION 1997 (RSC)
HK0251'RECOVERED AS DESCRIBED.
HK0251
HK0251 STATION RECOVERY (2007)
HK0251
HK0251'RECOVERY NOTE BY GEOCACHING 2007 (TFW)
HK0251'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 JK0898 ***********************************************************************
 JK0898  CBN         -  This is a Cooperative Base Network Control Station.
 JK0898  DESIGNATION -  MIRAGE
 JK0898  PID         -  JK0898
 JK0898  STATE/COUNTY-  CO/SAGUACHE
 JK0898  USGS QUAD   -  MOFFAT NORTH (1979)
 JK0898
 JK0898                        *CURRENT SURVEY CONTROL
 JK0898  ______________________________________________________________________
 JK0898* NAD 83(2007)-  38 06 01.24915(N)    105 55 07.88973(W)     ADJUSTED
 JK0898* NAVD 88     -      2326.427  (meters)    7632.62   (feet)  ADJUSTED
 JK0898  ______________________________________________________________________
 JK0898  EPOCH DATE  -        2002.00
 JK0898  X           -  -1,378,889.203 (meters)                     COMP
 JK0898  Y           -  -4,834,588.185 (meters)                     COMP
 JK0898  Z           -   3,915,641.015 (meters)                     COMP
 JK0898  LAPLACE CORR-           0.10  (seconds)                    DEFLEC09
 JK0898  ELLIP HEIGHT-        2311.015 (meters)          (02/10/07) ADJUSTED
 JK0898  GEOID HEIGHT-         -15.41  (meters)                     GEOID09
 JK0898  DYNAMIC HT  -        2323.502 (meters)    7623.02  (feet)  COMP
 JK0898
 JK0898  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 JK0898  Type    PID    Designation                        North   East  Ellip
 JK0898  ----------------------------------------------------------------------
 JK0898  NETWORK JK0898 MIRAGE                              0.73   0.59   1.63
 JK0898  ----------------------------------------------------------------------
 JK0898  MODELED GRAV-     979,288.3   (mgal)                       NAVD 88
 JK0898
 JK0898  VERT ORDER  -  FIRST     CLASS II
 JK0898
 JK0898.The horizontal coordinates were established by GPS observations
 JK0898.and adjusted by the National Geodetic Survey in February 2007.
 JK0898
 JK0898.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 JK0898.See National Readjustment for more information.
 JK0898.The horizontal coordinates are valid at the epoch date displayed above.
 JK0898.The epoch date for horizontal control is a decimal equivalence
 JK0898.of Year/Month/Day.
 JK0898
 JK0898.The orthometric height was determined by differential leveling and
 JK0898.adjusted in June 1991.
 JK0898
 JK0898.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 JK0898
 JK0898.The Laplace correction was computed from DEFLEC09 derived deflections.
 JK0898
 JK0898.The ellipsoidal height was determined by GPS observations
```

JK0898.and is referenced to NAD 83.
JK0898
JK0898.The geoid height was determined by GEOID09.
JK0898
JK0898.The dynamic height is computed by dividing the NAVD 88
JK0898.geopotential number by the normal gravity value computed on the
JK0898.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
JK0898.degrees latitude (g = 980.6199 gals.).
JK0898
JK0898.The modeled gravity was interpolated from observed gravity values.
JK0898
JK0898;   North   East   Units Scale Factor Converg.
JK0898;SPC CO S   -   464,000.097   877,664.398   MT 0.99995616   -0 15 24.9
JK0898;SPC CO S   - 1,522,306.98 2,879,470.61   sFT 0.99995616   -0 15 24.9
JK0898;UTM 13   - 4,217,347.454   419,435.919   MT 0.99967994   -0 34 01.2
JK0898
JK0898!   - Elev Factor x Scale Factor =   Combined Factor
JK0898!SPC CO S   -   0.99963750 x   0.99995616 =   0.99959368
JK0898!UTM 13   -   0.99963750 x   0.99967994 =   0.99931756
JK0898
JK0898:   Primary Azimuth Mark   Grid Az
JK0898:SPC CO S   - ALEXANDER   250 22 42.9
JK0898:UTM 13   - ALEXANDER   250 41 19.2
JK0898
JK0898|---|
JK0898| PID   Reference Object   Distance   Geod. Az |
JK0898| dddmmss.s |
JK0898| CM9117 MIRAGE AZ MK   0910458.8 |
JK0898| CM9118 MIRAGE RM 1   22.427 METERS 10136 |
JK0898| CM9119 MIRAGE RM 2   21.023 METERS 16110 |
JK0898| JL0678 ALEXANDER   APPROX.30.4 KM 2500718.0 |
JK0898|---|
JK0898
JK0898   SUPERSEDED SURVEY CONTROL
JK0898
JK0898 ELLIP H (10/21/02) 2311.033 (m)   GP(   ) 4 2
JK0898 NAD 83(1992)- 38 06 01.24921(N)   105 55 07.88894(W) AD(   ) B
JK0898 ELLIP H (05/26/92) 2311.023 (m)   GP(   ) 4 1
JK0898 NAD 83(1986)- 38 06 01.23794(N)   105 55 07.90020(W) AD(   ) 1
JK0898 NAD 27   - 38 06 01.24000(N)   105 55 05.85800(W) AD(   ) 1
JK0898 NAVD 88 (05/26/92) 2326.43   (m)   7632.6   (f) LEVELING   3
JK0898 NGVD 29 (06/11/92) 2325.38   (m)   7629.2   (f) LEVELING   3
JK0898
JK0898.Superseded values are not recommended for survey control.
JK0898.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
JK0898.See file dsdata.txt to determine how the superseded data were derived.
JK0898
JK0898_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDC1943517347(NAD 83)
JK0898_MARKER: DS = TRIANGULATION STATION DISK
JK0898_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
JK0898_SP_SET: CONCRETE POST
JK0898_STAMPING: MIRAGE 1935
JK0898_MARK LOGO: CGS
JK0898_PROJECTION: PROJECTING 6 CENTIMETERS
JK0898_MAGNETIC: N = NO MAGNETIC MATERIAL
JK0898_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
JK0898+STABILITY: SURFACE MOTION

JK0898_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
JK0898+SATELLITE: SATELLITE OBSERVATIONS - July 09, 2002
JK0898
JK0898 HISTORY   - Date   Condition   Report By
JK0898 HISTORY   - 1935   MONUMENTED   CGS
JK0898 HISTORY   - 1959   SEE DESCRIPTION USGS
JK0898 HISTORY   - 1967   SEE DESCRIPTION USGS
JK0898 HISTORY   - 1967   GOOD   USGS
JK0898 HISTORY   - 1970   GOOD   NGS
JK0898 HISTORY   - 1984   GOOD   NGS
JK0898 HISTORY   - 19910605 GOOD   NGS
JK0898 HISTORY   - 19990406 GOOD   MSAM
JK0898 HISTORY   - 20000216 GOOD   CODOT
JK0898 HISTORY   - 20020709 GOOD   MSAM
JK0898
JK0898   STATION DESCRIPTION
JK0898
JK0898'DESCRIBED BY COAST AND GEODETIC SURVEY 1935 (WRP)
JK0898'STATION IS 4.5 MILES S OF MINERAL HOT SPRINGS, COLORADO, AND IS ON
JK0898'RAILROAD PROPERTY OF THE D. AND R.G.W. RAILROAD 1.5 MILES N OF
JK0898'MIRAGE SIDING, AT A POINT WHERE STATE HIGHWAY 17 TURNS FROM
JK0898'S TO W. 33 FEET E OF THE E RAIL OF THE D. AND R.G.W. RAILROAD,
JK0898'43 FEET SW OF T-INTERSECTION OF THE STEM N.
JK0898'
JK0898'THE MARK PROJECTS 4 INCHES.
JK0898'
JK0898'SURFACE, UNDERGROUND, REFERENCE AND AZIMUTH MARKS ARE STANDARD
JK0898'BRONZE DISKS SET IN CONCRETE.
JK0898'
JK0898'REFERENCE MARK NO. 1 IS 73.59 FEET E OF THE STATION AND IS IN
JK0898'THE E AND W RIGHT-OF-WAY FENCE LINE, 30 FEET S OF THE CENTER
JK0898'LINE OF THE STATE HIGHWAY 17. THE MARK PROJECTS 6 INCHES.
JK0898'
JK0898'REFERENCE MARK NO. 2 IS 68.98 FEET S OF THE STATION AND IS IN
JK0898'THE N AND S FENCE LINE AND RIGHT-OF-WAY FENCE OF THE
JK0898'D. AND R.G.W. RAILROAD, 52 FEET S OF THE FENCE CORNER. THE
JK0898'MARK PROJECTS 6 INCHES.
JK0898'
JK0898'AZIMUTH IS 0.15 MILE E ALONG THE HIGHWAY AND IS IN THE SOUTH
JK0898'RIGHT-OF-WAY FENCE, 30 FEET S OF THE CENTER LINE OF COLORADO
JK0898'STATE HIGHWAY 17. THE MARK PROJECTS 4 INCHES.
JK0898'
JK0898'THE STATION WAS REACHED BY DRIVING 4.6 MILES S OF MINERAL HOT
JK0898'SPRINGS, ALONG STATE HIGHWAY 17.
JK0898
JK0898   STATION RECOVERY (1959)
JK0898
JK0898'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1959
JK0898'STATION IS 4.5 MILES SOUTH OF MINERAL HOT SPRINGS ALONG STATE
JK0898'HIGHWAY 17. 245 FEET EAST AND 33 FEET SOUTH OF CROSS ROADS.
JK0898'15 FEET WEST AND 12 FEET NORTH OF A FENCE CORNER. IN A CONCRETE
JK0898'POST PROJECTING 2 INCHES, STANDARD TABLET STAMPED MIRAGE 1935.
JK0898
JK0898   STATION RECOVERY (1967)
JK0898
JK0898'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1967 (JCH)
JK0898'TO REACH FROM MOFFAT, SAGUACHE COUNTY, DRIVE NORTH ON STATE

JK0898'HIGHWAY NO. 17 7.0 MILES TO A ROAD CROSSING. 250 FT. EAST
JK0898'OF CROSSING, 40 FT. SOUTH OF E-W ROAD C-L, 8 FT. SOUTH OF A
JK0898'NEW FENCE, 6 FT. NORTH OF A WHITE WITNESS POST, 18 FT. WEST
JK0898'AND 14 FT. NORTH OF AN OLD FENCE CORNER, AND ABOUT ONE FT.
JK0898'UNDERGROUND, THE ORIGINAL STATION MARK STAMPED MIRAGE 1935.
JK0898'(A TRENCH, MAYBE A SILO, HAD BEEN RECENTLY DUG SW OF THE
JK0898'STATION, AND THE REMOVED DIRT SPREAD AROUND, THUS COVERING THE
JK0898'STATION MARK)
JK0898
JK0898   STATION RECOVERY (1967)
JK0898
JK0898'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1967
JK0898'RECOVERED AND REDESCRIBED AS FOLLOWS
JK0898'
JK0898'TO REACH FROM MOFFAT, SAGUACHE COUNTY, DRIVE N. ON STATE HIGHWAY 17
JK0898'7.0 MI. TO A RD. CROSSING, 250 FT. E. AND 40 FT. S. OF E-W. RD.
JK0898'CROSSING, 3 FT. S. OF A NEW FENCE, 6 FT. N. OF A WHITE WITNESS POST,
JK0898'18 FT. W. AND 14 FT. N. OF AN OLD FENCE CORNER, AND ABOUT 1 FT.
JK0898'UNDERGROUND.
JK0898
JK0898   STATION RECOVERY (1970)
JK0898
JK0898'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970 (LFS)
JK0898'THE STATION MARK AND REFERENCE MARKS 1 AND 2 WERE RECOVERED
JK0898'AND FOUND IN GOOD CONDITION. A STOCK POND WAS DUG IN THE AREA
JK0898'AND THE MARKS WERE FOUND BURIED. THE AZIMUTH MARK WAS NOT
JK0898'RECOVERED AND MAY HAVE BEEN DESTROYED DURING CONSTRUCTION OF
JK0898'COUNTY HIGHWAY 44.
JK0898'
JK0898'THE STATION MARK IS A STANDARD DISK STAMPED, MIRAGE 1935. IT IS
JK0898'SET IN THE TOP OF A 12 INCH CONCRETE MONUMENT WHICH IS 1 FOOT
JK0898'BELOW THE GROUND SURFACE. IT IS 33 FEET SOUTH OF THE CENTER
JK0898'LINE OF HIGHWAY 44, 22 FEET NORTHWEST OF AN OLD FENCE CORNER,
JK0898'12 FEET EAST OF THE EAST GATE POST WHICH HAS A WITNESS SIGN
JK0898'AND 3 FEET SOUTH OF AN EAST-WEST FENCE LINE.
JK0898'
JK0898'REFERENCE MARK 1 IS A STANDARD DISK STAMPED, MIRAGE NO 1
JK0898'1935. IT IS SET IN THE TOP OF A 12 INCH CONCRETE MONUMENT WHICH
JK0898'IS ABOUT FLUSH WITH THE GROUND SURFACE. IT IS 6 FEET SOUTHWEST
JK0898'OF A TELEPHONE POLE, 5 FEET WEST OF A TELEPHONE LINE AND A POWER
JK0898'LINE CROSSING, 4 FEET EAST OF AN OLD GATE POST AND 1 FOOT
JK0898'SOUTH OF AN EAST-WEST FENCE LINE.
JK0898'
JK0898'REFERENCE MARK 2 IS A STANDARD DISK STAMPED, MIRAGE NO 2 1935.
JK0898'IT IS SET IN THE TOP OF A 12 INCH CONCRETE MONUMENT ALONG THE
JK0898'EAST SIDE OF THE FILLED AREA. IT IS 69 FEET SOUTH-SOUTHEAST
JK0898'OF WITNESS SIGN ON THE GATE POST AND ABOUT 50 FEET EAST OF THE
JK0898'EAST EDGE OF THE STOCK POND.
JK0898'
JK0898'TO REACH THE STATION FROM MINERAL HOT SPRINGS, GO SOUTH ALONG
JK0898'STATE HIGHWAY 17 FOR 4.5 MILES TO INTERSECTION WITH COUNTY
JK0898'HIGHWAY 44. TURN LEFT FOR 0.05 MILE TO THE STATION ON THE
JK0898'RIGHT NEAR THE STOCK POND.
JK0898'
JK0898'HEIGHT OF LIGHT ABOVE STATION MARK 5 FEET.
JK0898'
JK0898'AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN--4.5 MILES

JK0898'SOUTH OF MINERAL HOT SPRINGS.
JK0898
JK0898   STATION RECOVERY (1984)
JK0898
JK0898'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1984
JK0898'11.2 KM (6.95 MI) NORTH FROM MOFFAT.
JK0898'THE MARK IS 1.0 M BELOW THE ROAD.
JK0898'11.2 KM (6.95 MI) NORTHERLY ALONG STATE HIGHWAY 17 FROM THE POST
JK0898'OFFICE IN MOFFAT, 72.0 M (236.2 FT) EAST OF THE CENTERLINE OF THE
JK0898'HIGHWAY, 10.4 M (34.1 FT) SOUTH OF THE CENTERLINE OF COUNTY ROAD AA,
JK0898'6.0 M (19.7 FT) EAST OF THE CENTER OF A FIELD ENTRANCE, AND 1.0 M (3.3
JK0898'FT) SOUTH OF A FENCE.
JK0898'THE MARK IS 1.3 METERS S FROM A WITNESS POST
JK0898
JK0898   STATION RECOVERY (1991)
JK0898
JK0898'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1991
JK0898'STATION IS LOCATED ABOUT 11 KM (6.8 MI) NORTH OF MOFFAT, 10 KM
JK0898'(6.2 MI) SOUTH OF THE JUNCTION OF US HIGHWAY 285 AND STATE HIGHWAY
JK0898'17, AT A ROAD JUNCTION, IN FENCED RANGE, IN THE NORTHWEST 1/4 OF
JK0898'SECTION 6, T 44 N, R 10 E. OWNERSHIP--MORFITT BROTHERS FARMS, 27650
JK0898'COUNTY ROAD 61, MOFFAT, CO 81143. PHONE IS 719-256-4662, OR 4358.
JK0898'TO REACH FROM THE JUNCTION OF STATE HIGHWAY 17 AND MOFFAT WAY IN
JK0898'MOFFAT, GO NORTH ON HIGHWAY 17 FOR 7.0 MI (11.3 KM) TO ITS JUNCTION
JK0898'WITH COUNTY ROAD AA. TURN RIGHT, EAST, ON GRAVEL ROAD FOR 0.05 MI
JK0898'(0.08 KM) TO THE STATION ON THE RIGHT.
JK0898'STATION MARK IS SET IN THE TOP OF A 25-CM SQUARE CONCRETE POST 15 CM
JK0898'BELOW GROUND IN OPEN HOLE. IT IS 10.6 M (34.8 FT) SOUTH OF, AND 1 M
JK0898'(3.3 FT) LOWER THAN THE ROAD CENTER, 3.8 M (12.5 FT) EAST-SOUTHEAST
JK0898'OF A FIELD ENTRANCE GATEPOST, 1.2 M (3.9 FT) SOUTH OF A FIBERGLASS
JK0898'WITNESS POST IN THE FENCELINE, 22.8 M (74.8 FT) EAST-NORTHEAST OF A
JK0898'UTILITY POLE, 7.2 M (23.6 FT) NORTHWEST OF AN OLD RAILROAD TIE
JK0898'FENCEPOST AND 74 M (242.8 FT) EAST OF THE HIGHWAY CENTER.
JK0898'DESCRIBED BY G.R.HEID
JK0898
JK0898   STATION RECOVERY (1999)
JK0898
JK0898'RECOVERY NOTE BY MOUNTAIN SURVEYING AND MAPPING INC 1999 (KCH)
JK0898'RECOVERED AS DESCRIBED.
JK0898
JK0898   STATION RECOVERY (2000)
JK0898
JK0898'RECOVERY NOTE BY COLORADO DEPARTMENT OF TRANSPORTATION 2000 (RSC)
JK0898'RECOVERED AS DESCRIBED.
JK0898
JK0898   STATION RECOVERY (2002)
JK0898
JK0898'RECOVERY NOTE BY MOUNTAIN SURVEYING AND MAPPING INC 2002 (KCH)
JK0898'RECOVERY NOTE BY MOUNTAIN SURVEYING AND MAPPING, INC. 2002 (KCH)
JK0898'RECOVERED AS DESCRIBED.
JK0898'

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 HK0366 ***********************************************************************
 HK0366  DESIGNATION -  R 33
 HK0366  PID         -  HK0366
 HK0366  STATE/COUNTY-  CO/ALAMOSA
 HK0366  USGS QUAD   -  HOOPER WEST (1968)
 HK0366
 HK0366                        *CURRENT SURVEY CONTROL
 HK0366  ______________________________________________________________________
 HK0366* NAD 83(2007)-  37 44 06.70476(N)     105 52 42.98984(W)      ADJUSTED
 HK0366* NAVD 88     -      2304.929  (meters)     7562.09   (feet)   ADJUSTED
 HK0366  ______________________________________________________________________
 HK0366  EPOCH DATE  -        2002.00
 HK0366  X           -  -1,382,304.705 (meters)                       COMP
 HK0366  Y           -  -4,859,503.693 (meters)                       COMP
 HK0366  Z           -   3,883,641.874 (meters)                       COMP
 HK0366  LAPLACE CORR-           0.03  (seconds)                      DEFLEC09
 HK0366  ELLIP HEIGHT-        2288.503 (meters)          (02/10/07) ADJUSTED
 HK0366  GEOID HEIGHT-         -16.43  (meters)                       GEOID09
 HK0366  DYNAMIC HT  -        2301.966 (meters)    7552.37  (feet)   COMP
 HK0366
 HK0366  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 HK0366  Type    PID    Designation                       North   East  Ellip
 HK0366  ----------------------------------------------------------------------
 HK0366  NETWORK HK0366 R 33                               1.02   0.84   1.71
 HK0366  ----------------------------------------------------------------------
 HK0366  MODELED GRAV-     979,261.4   (mgal)                         NAVD 88
 HK0366
 HK0366  VERT ORDER  -  FIRST     CLASS II
 HK0366
 HK0366.The horizontal coordinates were established by GPS observations
 HK0366.and adjusted by the National Geodetic Survey in February 2007.
 HK0366
 HK0366.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 HK0366.See National Readjustment for more information.
 HK0366.The horizontal coordinates are valid at the epoch date displayed above.
 HK0366.The epoch date for horizontal control is a decimal equivalence
 HK0366.of Year/Month/Day.
 HK0366
 HK0366.The orthometric height was determined by differential leveling and
 HK0366.adjusted in June 1991.
 HK0366
 HK0366.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 HK0366
 HK0366.The Laplace correction was computed from DEFLEC09 derived deflections.
 HK0366
 HK0366.The ellipsoidal height was determined by GPS observations
 HK0366.and is referenced to NAD 83.
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HK0366
HK0366.The geoid height was determined by GEOID09.
HK0366
HK0366.The dynamic height is computed by dividing the NAVD 88
HK0366.geopotential number by the normal gravity value computed on the
HK0366.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
HK0366.degrees latitude (g = 980.6199 gals.).
HK0366
HK0366.The modeled gravity was interpolated from observed gravity values.
HK0366
HK0366;                    North         East     Units Scale Factor Converg.
HK0366;SPC CO S     -   423,457.531   881,030.376   MT  0.99994688   -0 13 56.0
HK0366;SPC CO S     - 1,389,293.58  2,890,513.83   sFT  0.99994688   -0 13 56.0
HK0366;UTM  13      - 4,176,798.396   422,583.218   MT  0.99967382   -0 32 15.9
HK0366
HK0366!             -  Elev Factor  x  Scale Factor =   Combined Factor
HK0366!SPC CO S     -   0.99964102  x   0.99994688  =   0.99958792
HK0366!UTM  13      -   0.99964102  x   0.99967382  =   0.99931496
HK0366
HK0366                          SUPERSEDED SURVEY CONTROL
HK0366
HK0366  ELLIP H (12/03/02) 2288.514  (m)                        GP(       ) 4 2
HK0366  NAD 83(1992)-  37 44 06.70470(N)    105 52 42.98924(W) AD(       ) 1
HK0366  ELLIP H (08/03/00) 2288.512  (m)                        GP(       ) 4 2
HK0366  NAVD 88 (08/03/00) 2304.93   (m)         7562.1    (f) LEVELING    3
HK0366  NGVD 29 (??/??/92) 2303.756  (m)         7558.24   (f) ADJ UNCH    1 2
HK0366
HK0366.Superseded values are not recommended for survey control.
HK0366.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
HK0366.See file dsdata.txt to determine how the superseded data were derived.
HK0366
HK0366_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDB2258376798(NAD 83)
HK0366_MARKER: DB = BENCH MARK DISK
HK0366_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
HK0366_SP_SET: SET IN TOP OF CONCRETE MONUMENT
HK0366_STAMPING: R 33 1933 7558.239
HK0366_MARK LOGO: CGS
HK0366_PROJECTION: PROJECTING 10 CENTIMETERS
HK0366_MAGNETIC: O = OTHER; SEE DESCRIPTION
HK0366_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
HK0366+STABILITY: SURFACE MOTION
HK0366_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
HK0366+SATELLITE: SATELLITE OBSERVATIONS - February 16, 2000
HK0366
HK0366  HISTORY     - Date     Condition        Report By
HK0366  HISTORY     - 1933     MONUMENTED       CGS
HK0366  HISTORY     - 1968     GOOD             USGS
HK0366  HISTORY     - 1985     GOOD             NGS
HK0366  HISTORY     - 19990406 GOOD             MSAM
HK0366  HISTORY     - 20000216 GOOD             CODOT
HK0366
HK0366                           STATION DESCRIPTION
HK0366
HK0366'DESCRIBED BY US GEOLOGICAL SURVEY 1968
HK0366'5.8 MI N FROM MOSCA.
HK0366'HOOPER, 0.7 MI. SOUTH OF ALONG COLO. STATE HWY. 17, 5.8 MI NORTH OF
HK0366'MOSCA ALONG COLO. STATE HWY. 17, AT CROSS ROADS, 51 FT EAST OF OLD
```

HK0366'RAILROAD GRADE, 36 FT. NORTH OF EAST-WEST ROAD, IN CONC. POST
HK0366'PROJECTING ABOUT 6 INCHES ABOVE GROUND, A STD. TABLET STAMPED 7558.
HK0366'239 R 33 1933.
HK0366
HK0366 STATION RECOVERY (1985)
HK0366
HK0366'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985
HK0366'RECOVERED IN GOOD CONDITION. A NEW DESCRIPTION FOLLOWS. 29.3 KM
HK0366'(18.2 MI SOUTHERLY ALONG STATE HIGHWAY 17 FROM THE POST OFFICE IN
HK0366'MOFFAT, OR 1.7 KM (10.5 MI) EASTERLY ALONG U.S. HIGHWAY 160 FROM ITS
HK0366'JUNCTION WITH U.S. HIGHWAY 285 IN ALAMOSA, THENCE 29.0 KM (18.0 MI)
HK0366'NORTHERLY ALONG STATE HIGHWAY 17, 60.0 M (196.8 FT) EAST OF THE
HK0366'CENTERLINE OF THE HIGHWAY, 10.6 M (34.8 FT) NORTH OF THE CENTER OF
HK0366'LANE 11 N, 1.7 M (5.6 FT) NORTH-NORTHWEST OF A FENCE CORNER, AND 0.6 M
HK0366'(2.0 FT) WEST OF A FENCE.
HK0366'THE MARK IS 0.3 METERS S FROM A WITNESS POST
HK0366'THE MARK IS 0.9 M BELOW THE HIGHWAY.
HK0366
HK0366 STATION RECOVERY (1999)
HK0366
HK0366'RECOVERY NOTE BY MOUNTAIN SURVEYING AND MAPPING INC 1999 (KCH)
HK0366'RECOVERY NOTE BY MOUNTAIN SURVEYING AND MAPPING, K.C. HOFFMAN
HK0366'
HK0366'STATION IS LOACTED ABOUT 29.3 KM (18.20 MI) NORTH OF ALAMOSA, 5.75 MI
HK0366'(9.25 KM) NORTH OF MOSCA AND 18.55 MI (29.85 KM) SOUTH OF MOFFAT, ON
HK0366'THE EAST SIDE OF STATE HIGHWY 17, IN SECTION 4, T 40 N, R 10 E.
HK0366'
HK0366'TO REACH THE STATION FROM THE JUNCTION OF US HIGHWAY 160 AND STATE
HK0366'HIGHWAY 17 IN THE NORTHEAST SECTION OF ALAMOSA, GO NORTH ON HIGHWYA 17
HK0366'FOR 18.25 MI (29.37 KM) TO COUNTY ROAD 11 N, TURN RIGHT, GO EAST ON
HK0366'COUNTY ROAD 11 N FOR 0.04 MI (0.06 KM) TO THE STATION ON THE LEFT
HK0366'(NORTH).
HK0366'
HK0366'STATION IS A US COAST AND GEODETIC SURVEY BENCHMARK DISK SET IN THE
HK0366'TOP
HK0366'OF A 25 CM SQUARE CONCRETE POST 15 CM ABOVE THE GROUND, IT IS 61.7 M
HK0366'(202.4 FT) EAST OF AND 0.9M (3.0 FT) BELOW THE CENTERLINE OF THE
HK0366'HIGHWAY, 10.6 M (34.8 FT) NORTH OF THE CENTER OF COUNTY ROAD 11 N,
HK0366'1.7 M (5.6 FT) NORTH-NORTHWEST OF A FENCE CORNER, 0.6 (2.0 FT) WEST OF
HK0366'A FENCE, AND 0.3 M (1.0 FT) SOUTH OF A FIBERGLASS WITNESS POST.
HK0366
HK0366 STATION RECOVERY (2000)
HK0366
HK0366'RECOVERY NOTE BY COLORADO DEPARTMENT OF TRANSPORTATION 2000 (RSC)
HK0366'RECOVERED AS DESCRIBED.

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 HL0021 ***********************************************************************
 HL0021  DESIGNATION -  T 163
 HL0021  PID         -  HL0021
 HL0021  STATE/COUNTY-  CO/RIO GRANDE
 HL0021  USGS QUAD   -  DEL NORTE (1966)
 HL0021
 HL0021                         *CURRENT SURVEY CONTROL
 HL0021  ______________________________________________________________________
 HL0021* NAD 83(2007)-  37 40 43.51303(N)     106 22 29.46041(W)      ADJUSTED
 HL0021* NAVD 88     -       2409.876  (meters)     7906.40   (feet)  ADJUSTED
 HL0021  ______________________________________________________________________
 HL0021  EPOCH DATE  -         2002.00
 HL0021  X           -  -1,425,444.823 (meters)                      COMP
 HL0021  Y           -  -4,851,106.752 (meters)                      COMP
 HL0021  Z           -   3,878,748.221 (meters)                      COMP
 HL0021  LAPLACE CORR-           -3.29  (seconds)                     DEFLEC09
 HL0021  ELLIP HEIGHT-         2393.760 (meters)          (02/10/07) ADJUSTED
 HL0021  GEOID HEIGHT-          -16.13  (meters)                      GEOID09
 HL0021  DYNAMIC HT  -         2406.673 (meters)     7895.89  (feet)  COMP
 HL0021
 HL0021  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 HL0021  Type    PID    Designation                        North   East  Ellip
 HL0021  ----------------------------------------------------------------------
 HL0021  NETWORK HL0021 T 163                                1.14   0.80   1.59
 HL0021  ----------------------------------------------------------------------
 HL0021  MODELED GRAV-     979,214.3   (mgal)                          NAVD 88
 HL0021
 HL0021  VERT ORDER  -  SECOND    CLASS 0
 HL0021
 HL0021.The horizontal coordinates were established by GPS observations
 HL0021.and adjusted by the National Geodetic Survey in February 2007.
 HL0021
 HL0021.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 HL0021.See National Readjustment for more information.
 HL0021.The horizontal coordinates are valid at the epoch date displayed above.
 HL0021.The epoch date for horizontal control is a decimal equivalence
 HL0021.of Year/Month/Day.
 HL0021
 HL0021.The orthometric height was determined by differential leveling and
 HL0021.adjusted in June 1991.
 HL0021
 HL0021.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 HL0021
 HL0021.The Laplace correction was computed from DEFLEC09 derived deflections.
 HL0021
 HL0021.The ellipsoidal height was determined by GPS observations
 HL0021.and is referenced to NAD 83.
```

HL0021
HL0021.The geoid height was determined by GEOID09.
HL0021
HL0021.The dynamic height is computed by dividing the NAVD 88
HL0021.geopotential number by the normal gravity value computed on the
HL0021.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
HL0021.degrees latitude (g = 980.6199 gals.).
HL0021
HL0021.The modeled gravity was interpolated from observed gravity values.
HL0021
HL0021;   North   East   Units Scale Factor Converg.
HL0021;SPC CO S   -   417,487.033   837,232.666   MT 0.99994906   -0 32 11.8
HL0021;SPC CO S   - 1,369,705.37 2,746,820.84   sFT 0.99994906   -0 32 11.8
HL0021;UTM 13   - 4,171,062.218   378,764.208   MT 0.99978104   -0 50 25.6
HL0021
HL0021!   - Elev Factor x Scale Factor =   Combined Factor
HL0021!SPC CO S   -   0.99962451 x   0.99994906 =   0.99957359
HL0021!UTM 13   -   0.99962451 x   0.99978104 =   0.99940563
HL0021
HL0021   SUPERSEDED SURVEY CONTROL
HL0021
HL0021 ELLIP H (12/03/02) 2393.775 (m)   GP(   ) 4 2
HL0021 NAD 83(1992)- 37 40 43.51267(N)   106 22 29.45994(W) AD(   ) 1
HL0021 ELLIP H (01/28/02) 2393.766 (m)   GP(   ) 4 2
HL0021 NAVD 88 (01/28/02) 2409.88   (m)   7906.4   (f) LEVELING   3
HL0021 NGVD 29 (??/??/92) 2408.442 (m)   7901.70   (f) ADJ UNCH   2 0
HL0021
HL0021.Superseded values are not recommended for survey control.
HL0021.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
HL0021.See file dsdata.txt to determine how the superseded data were derived.
HL0021
HL0021_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SCB7876471062(NAD 83)
HL0021_MARKER: DB = BENCH MARK DISK
HL0021_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
HL0021_SP_SET: SET IN TOP OF CONCRETE MONUMENT
HL0021_STAMPING: T 163 1934
HL0021_MARK LOGO: CGS
HL0021_MAGNETIC: O = OTHER; SEE DESCRIPTION
HL0021_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
HL0021+STABILITY: SURFACE MOTION
HL0021_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
HL0021+SATELLITE: SATELLITE OBSERVATIONS - June 20, 2005
HL0021
HL0021 HISTORY   - Date   Condition   Report By
HL0021 HISTORY   - 1934   MONUMENTED   CGS
HL0021 HISTORY   - 20000215 GOOD   CODOT
HL0021 HISTORY   - 20050620 GOOD   INDIV
HL0021 HISTORY   - 20090724 GOOD   GEOCAC
HL0021
HL0021   STATION DESCRIPTION
HL0021
HL0021'DESCRIBED BY COAST AND GEODETIC SURVEY 1934
HL0021'1.4 MI SW FROM DEL NORTE.
HL0021'1.4 MILES SOUTHWEST ALONG THE DENVER AND RIO GRANDE WESTERN RAILROAD
HL0021'FROM DEL NORTE, RIO GRANDE COUNTY, 0.2 MILE WEST OF MILEPOST 284, 162
HL0021'FEET SOUTH OF THE EAST CORNER OF THE C.O. BENJORSKY RANCH HOUSE, 71
HL0021'FEET SOUTHWEST OF THE SOUTH CORNER OF A BARN, 16 FEET SOUTHWEST OF THE

HL0021'SOUTHWEST END OF THE FIRST GATE, 46 FEET NORTHWEST OF THE CENTER LINE
HL0021'OF THE TRACK, 9 FEET NORTHWEST OF A POLE, AND 3 FEET SOUTHEAST OF A
HL0021'FENCE PARALLELING THE TRACK. A STANDARD DISK, STAMPED T 163 1934 AND
HL0021'SET IN THE TOP OF A CONCRETE POST.
HL0021
HL0021   STATION RECOVERY (2000)
HL0021
HL0021'RECOVERY NOTE BY COLORADO DEPARTMENT OF TRANSPORTATION 2000 (RSC)
HL0021'THE STATION IS LOCATED ABOUT 15 MI (24.1 KM) EAST OF SOUTH FORK, 1.2
HL0021'MI (1.9 KM) WEST OF DEL NORTE AND 1 MI (1.6 KM) NORTHWEST OF LOOKOUT
HL0021'MOUNTAIN JUST SOUTH OF DEL NORTE, IN THE SOUTHEAST 1/4 OF SECTION 25,
HL0021'T 40 N, R 5 E, AT U. S. HIGHWAY 160 MILEPOST 200.8.
HL0021'OWNERSHIP--RAILROAD RIGHT-OF-WAY
HL0021'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 160 AND
HL0021'STATE HIGHWAY 112 IN DEL NORTE, GO WEST ON U.S. HIGHWAY 160 FOR 1.25
HL0021'MI (2.01 KM) TO THE STATION ON THE RIGHT ON THE NORTHSIDE OF THE
HL0021'RAILROAD TRACKS
HL0021'THE MARK IS A STANDARD DISK SET INTO THE TOP OF A SQUARE 15 CM
HL0021'CONCRETE POST PROJECTING 10 CM ABOVE THE GROUND. IT IS 67.2 M (220.5
HL0021'FT) WEST FROM A RAILROAD CROSSING, 44.3 M (145.3 FT) NORTH-NORTHWEST
HL0021'FROM THE CENTER LINE OF U.S. HIGHWAY 160, 13.4 M (44.0 FT)
HL0021'NORTH-NORTHWEST FROM THE NEAR RAIL, 0.25 M (0.82 FT) WEST-SOUTHWEST
HL0021'FROM A WITNESS POST AND ABOUT 0.6 M (2.0 FT) BELOW THE TRACKS.
HL0021
HL0021   STATION RECOVERY (2005)
HL0021
HL0021'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2005 (SCH)
HL0021'RECOVERED IN GOOD CONDITION.
HL0021
HL0021   STATION RECOVERY (2009)
HL0021
HL0021'RECOVERY NOTE BY GEOCACHING 2009 (TFW)
HL0021'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.4.1
1        National Geodetic Survey,   Retrieval Date = SEPTEMBER 19, 2011
 JL0140 ***********************************************************************
 JL0140  DESIGNATION -  Z 269
 JL0140  PID         -  JL0140
 JL0140  STATE/COUNTY-  CO/SAGUACHE
 JL0140  USGS QUAD   -  SAGUACHE (1967)
 JL0140
 JL0140                        *CURRENT SURVEY CONTROL
 JL0140  ______________________________________________________________________
 JL0140* NAD 83(1986)-  38 07 02.      (N)    106 12 53.      (W)      SCALED
 JL0140* NAVD 88     -       2407.696  (meters)    7899.25    (feet)   ADJUSTED
 JL0140  ______________________________________________________________________
 JL0140  GEOID HEIGHT-          -15.20  (meters)                       GEOID09
 JL0140  DYNAMIC HT  -         2404.614 (meters)    7889.14   (feet)   COMP
 JL0140  MODELED GRAV-      979,262.4   (mgal)                         NAVD 88
 JL0140
 JL0140  VERT ORDER  -  SECOND    CLASS 0
 JL0140
 JL0140.The horizontal coordinates were scaled from a topographic map and have
 JL0140.an estimated accuracy of +/- 6 seconds.
 JL0140
 JL0140.The orthometric height was determined by differential leveling and
 JL0140.adjusted in June 1991.
 JL0140
 JL0140.The geoid height was determined by GEOID09.
 JL0140
 JL0140.The dynamic height is computed by dividing the NAVD 88
 JL0140.geopotential number by the normal gravity value computed on the
 JL0140.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 JL0140.degrees latitude (g = 980.6199 gals.).
 JL0140
 JL0140.The modeled gravity was interpolated from observed gravity values.
 JL0140
 JL0140;                    North         East     Units  Estimated Accuracy
 JL0140;SPC CO S     -   466,030.      851,730.      MT   (+/- 180 meters Scaled)
 JL0140
 JL0140                          SUPERSEDED SURVEY CONTROL
 JL0140
 JL0140  NGVD 29 (??/??/92) 2406.252  (m)          7894.51    (f) ADJ UNCH    2 0
 JL0140
 JL0140.Superseded values are not recommended for survey control.
 JL0140.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 JL0140.See file dsdata.txt to determine how the superseded data were derived.
 JL0140
 JL0140_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SCC935195(NAD 83)
 JL0140_MARKER: DB = BENCH MARK DISK
 JL0140_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 JL0140_SP_SET: SET IN TOP OF CONCRETE MONUMENT
```

```
JL0140_STAMPING: Z 269 1940
JL0140_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
JL0140+STABILITY: SURFACE MOTION
JL0140
JL0140  HISTORY     - Date     Condition        Report By
JL0140  HISTORY     - 1940     MONUMENTED       CGS
JL0140  HISTORY     - 1962     GOOD             NGS
JL0140  HISTORY     - 20071004 GOOD             GEOCAC
JL0140
JL0140                          STATION DESCRIPTION
JL0140
JL0140'DESCRIBED BY COAST AND GEODETIC SURVEY 1940
JL0140'5.3 MI W FROM SAGUACHE.
JL0140'ABOUT 5.3 MILES WEST ALONG STATE HIGHWAY 114 FROM THE COUNTY
JL0140'COURTHOUSE AT SAGUACHE, SAGUACHE COUNTY, 70 FEET WEST OF A PASTURE
JL0140'FENCE CORNER, AT THE WEST END OF A CURVE, 33 FEET SOUTH OF THE CENTER
JL0140'LINE OF THE HIGHWAY, 2.0 FEET SOUTH OF THE PASTURE FENCE PARALLELING
JL0140'THE HIGHWAY, AND 4.3 FEET EAST OF A 4- BY 4-INCH WHITE REFERENCE POST
JL0140'PROJECTING ABOUT 1.8 FEET ABOVE GROUND.  A STANDARD DISK, STAMPED Z
JL0140'269 1940 AND SET IN THE TOP OF A CONCRETE POST PROJECTING ABOUT 0.6
JL0140'FOOT ABOVE GROUND.
JL0140
JL0140                          STATION RECOVERY (1962)
JL0140
JL0140'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1962
JL0140'RECOVERED IN GOOD CONDITION.
JL0140
JL0140                          STATION RECOVERY (2007)
JL0140
JL0140'RECOVERY NOTE BY GEOCACHING 2007 (TFW)
JL0140'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:01
```

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Vert. Control - Base

PROJECT 1110804
OPERATOR MB
DATE 8-31-18

SITE NUMBER 1
SITE NAME J65

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:36 p
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CD
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
.982

STATION DESCRIPTIONS Fnd Use + GS
cap/mon.
" J65 1934"

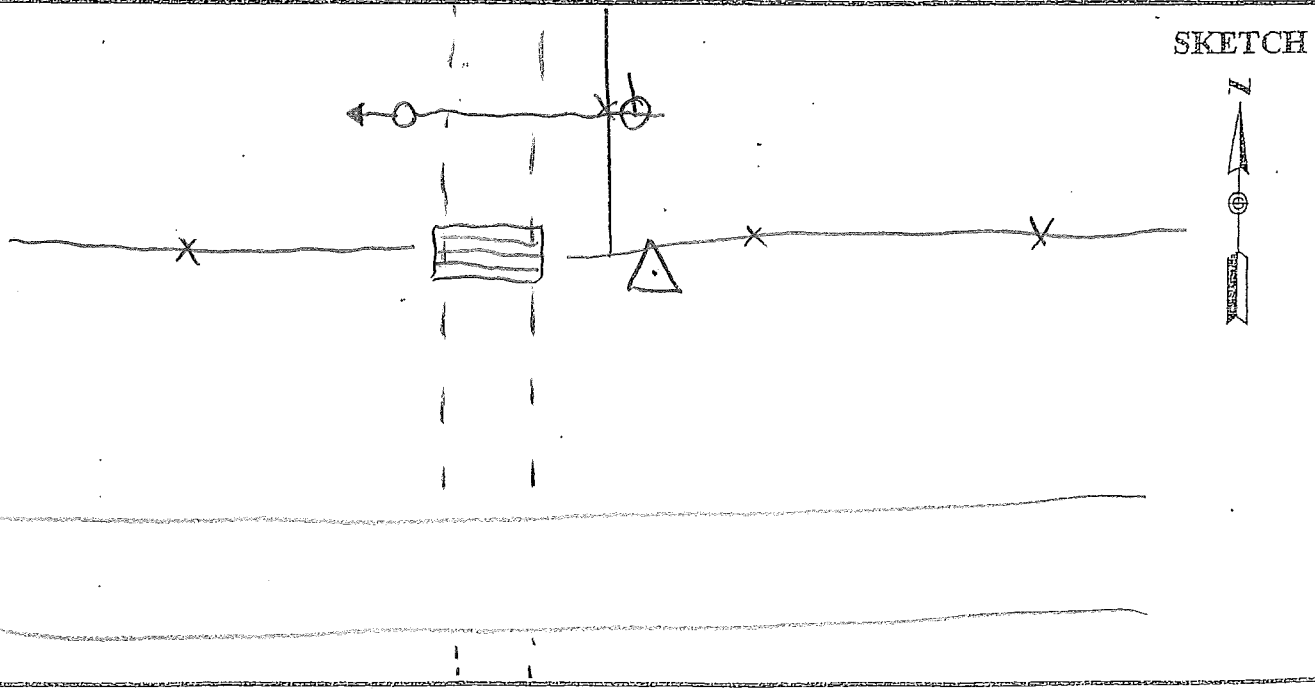
1342

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1336	2.6	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base Horz. + Vert. Control

PROJECT 1110804
OPERATOR MB
DATE 8.31.11

SITE NUMBER 1
SITE NAME ANTONITO

TRACKING TIMES (LOCAL) MEASURE V
START 1:14 p
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO. CK0
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.263

STATION DESCRIPTIONS Fnd USC + GS cap/mon. "Antonito 1945"

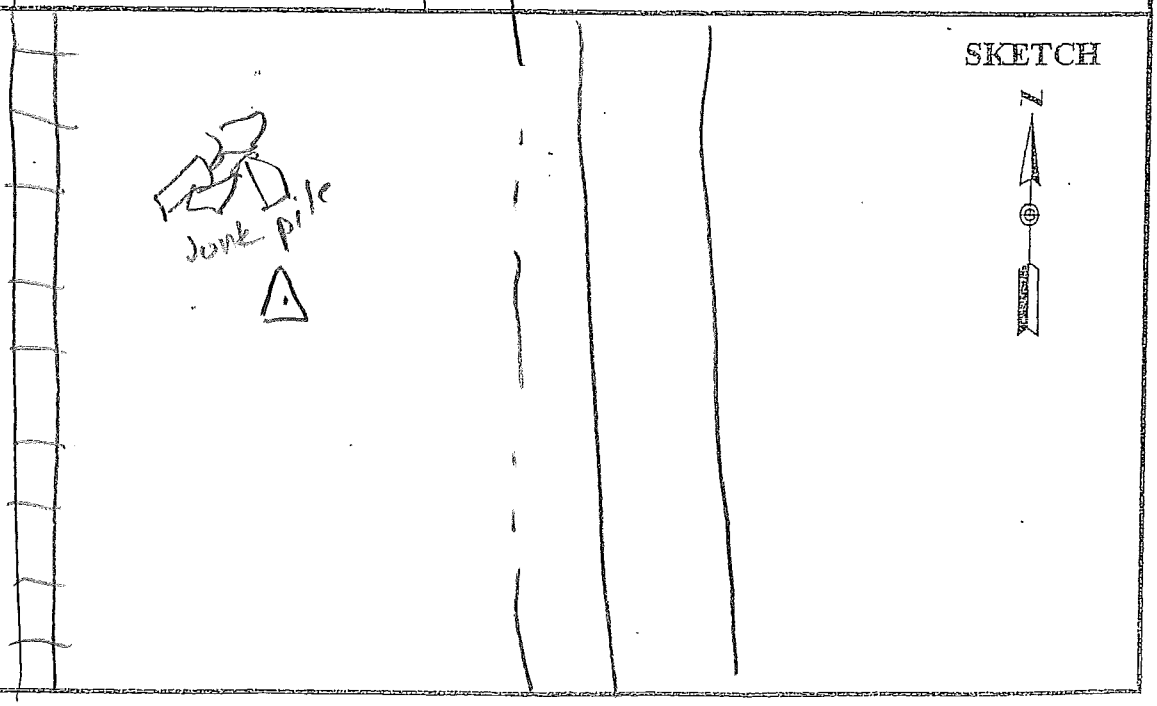
1623

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1414	2.3	7/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 BASE

PROJECT 1110804
OPERATOR MB
DATE 8.31.11

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:02p
STOP 3:02p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.380
1.740

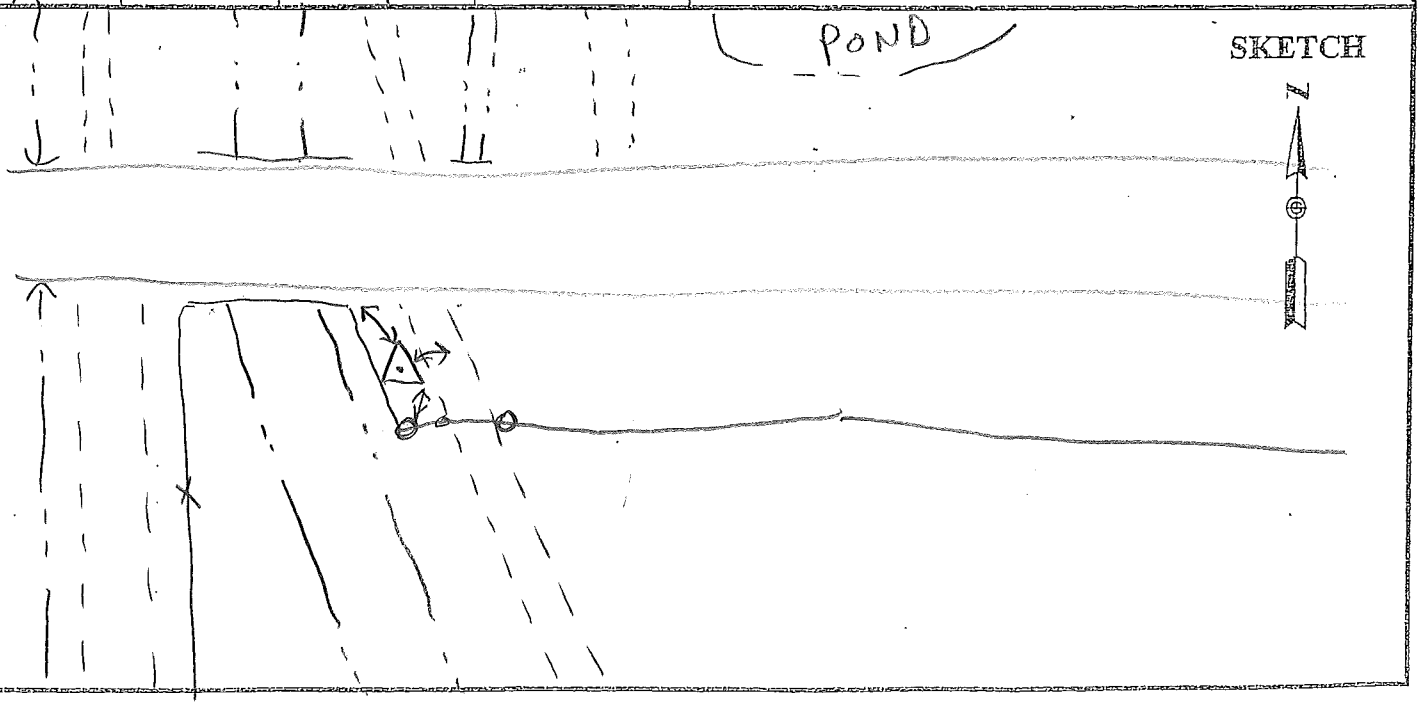
STATION DESCRIPTIONS set 5/8" rebar w/yellow cap ±18' W. of ℄ dirt rd. E; ±2' E. of fence line; ±24' S. of ℄ E/W rd; ±13' NW of W. gate post

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1502	1.7	7/9
1602		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 27 32.5
106 03 26.8

SKETCH



19

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base

PROJECT 1110804
OPERATOR MB
DATE 8.31.11

SITE NUMBER 2
SITE NAME 2

TRACKING TIMES (LOCAL) MEASURE ✓
START 3:30 p
STOP 4:08 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.416

STATION DESCRIPTIONS set 6" nail ±1.5' S. of E/W fence line; ±16' N. of ℄ E/W road; ±68' E of ℄ N/S road.

1.776

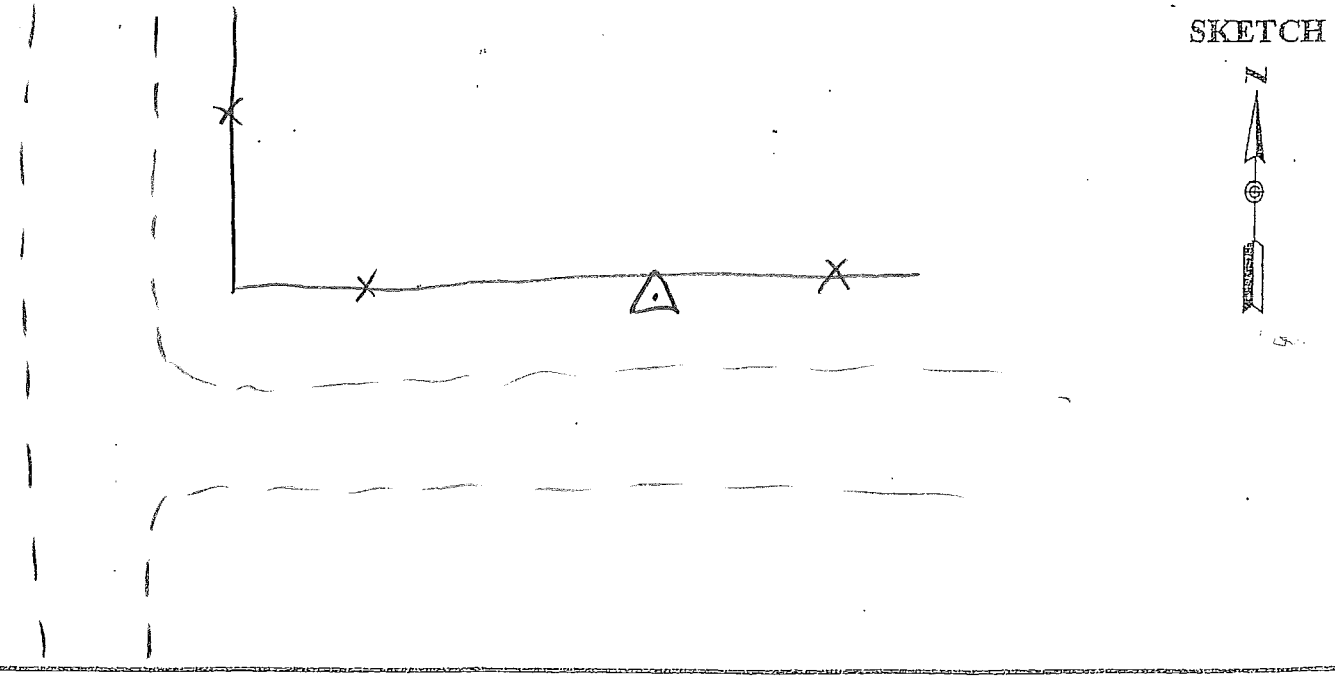
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1630	1.8	8/8
1708		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

37 14 48.1
105 55 40.4

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base H + V CONTROL

PROJECT 1110814
OPERATOR MB
DATE 9.2.11

SITE NUMBER 1
SITE NAME R 33

TRACKING TIMES (LOCAL) MEASURE _____
START 8:33 a.
STOP _____

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO. CB
CONTROLLER NO. _____
SENSOR NO. _____

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: _____

HEIGHT READINGS MTS FT
1.235 _____
1.595

STATION DESCRIPTIONS _____

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
8:33	4.4	8/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

see previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base

PROJECT 1110864
OPERATOR MG
DATE 9.2.11

SITE NUMBER 1
SITE NAME 5

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:59 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 232
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.180
1.540

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
859	2.2	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

HOR 2 + VERT CONTROL

PROJECT 1110804
OPERATOR MB
DATE 9.2.11

SITE NUMBER 1
SITE NAME T163

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:25a.
STOP 9:18a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.279

STATION DESCRIPTIONS Found USC + GS
copper mon. "T163 1934"

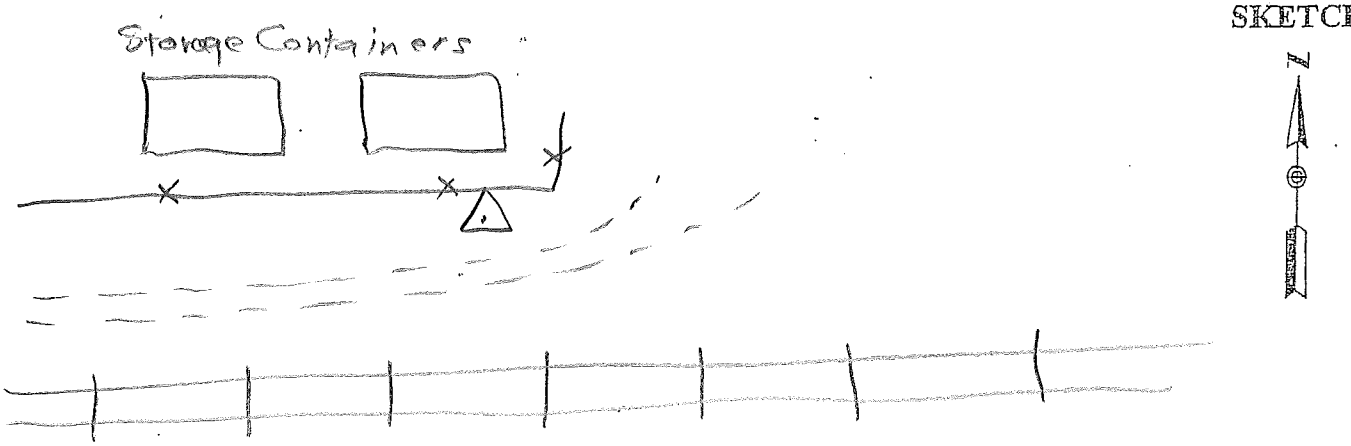
1639

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
925	2.3	10/10
1018		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MS
DATE 9.2.11

SITE NUMBER 2
SITE NAME 7

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:00a.
STOP 10:40a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.368
1.728

OBSTRUCTIONS: none

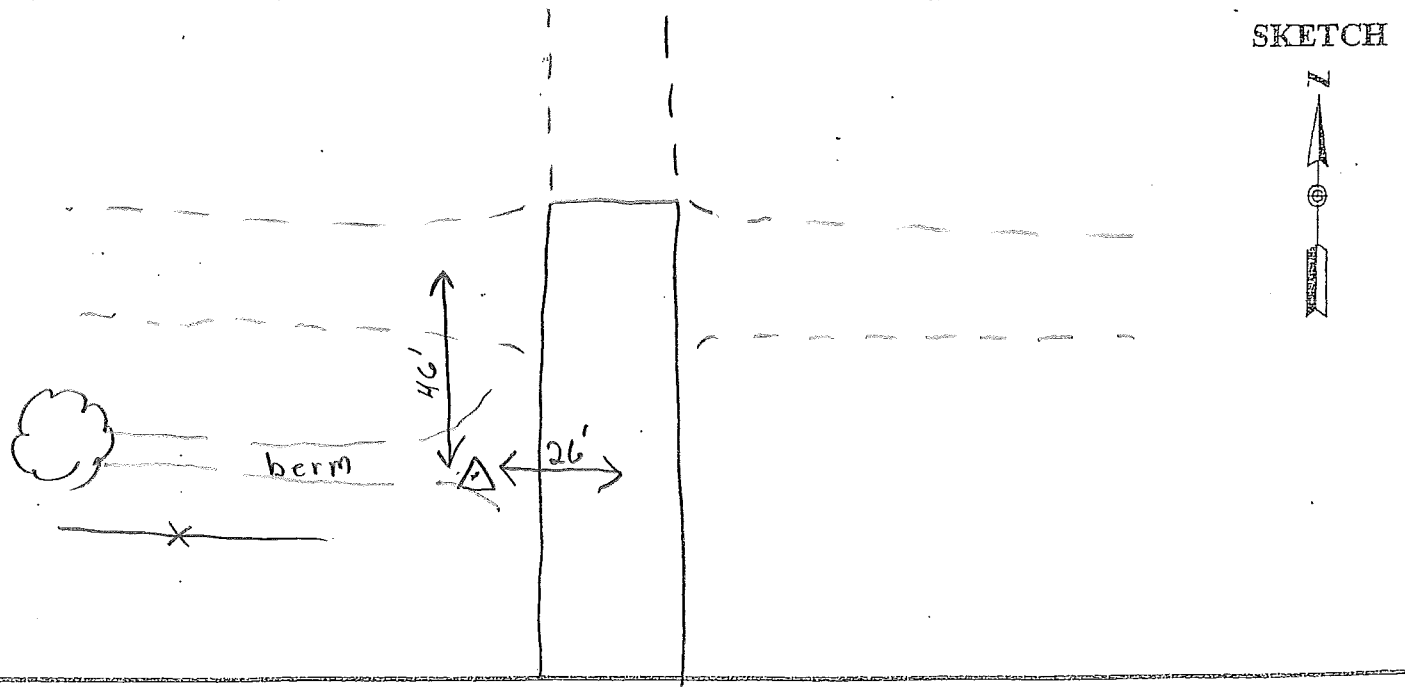
STATION DESCRIPTIONS set 6" nail

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1100	1.7	9/11
1140		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 53 38.1
106 10 56.9

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VERT. CONTROL

PROJECT 11108p4
OPERATOR MB
DATE 9.2.11

SITE NUMBER 3
SITE NAME Z 269

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:16 a.
STOP 12:16 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) 0.360

HEIGHT READINGS MTS FT
1.286

1646

OBSTRUCTIONS: none

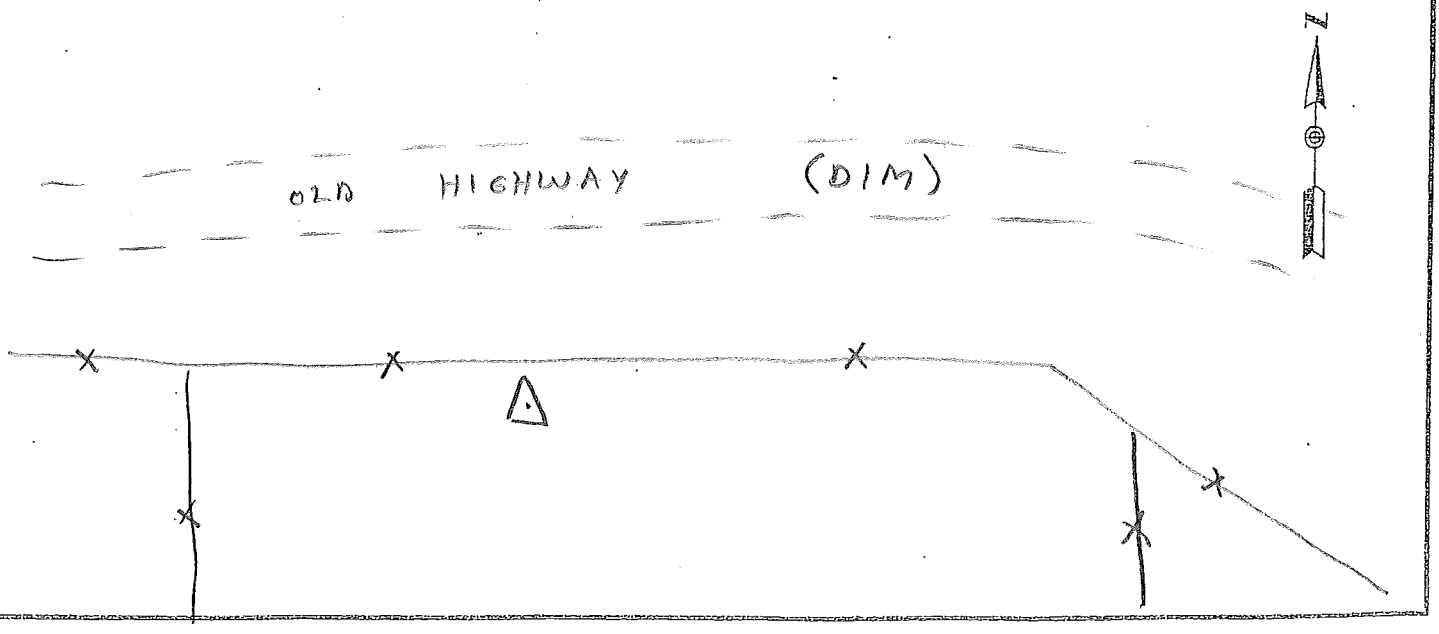
STATION DESCRIPTIONS Fnd USC + GS
cap/conc. mon. "Z 269 1940"

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1216	2.0	9/9
1316		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 HORZ. + VERT CONTROL

PROJECT 1110804
OPERATOR MB
DATE 9.2.11

SITE NUMBER 5
SITE NAME MIRAGE

TRACKING TIMES (LOCAL) MEASURE _____
START 1:45 p
STOP 2:38 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.587
1.947

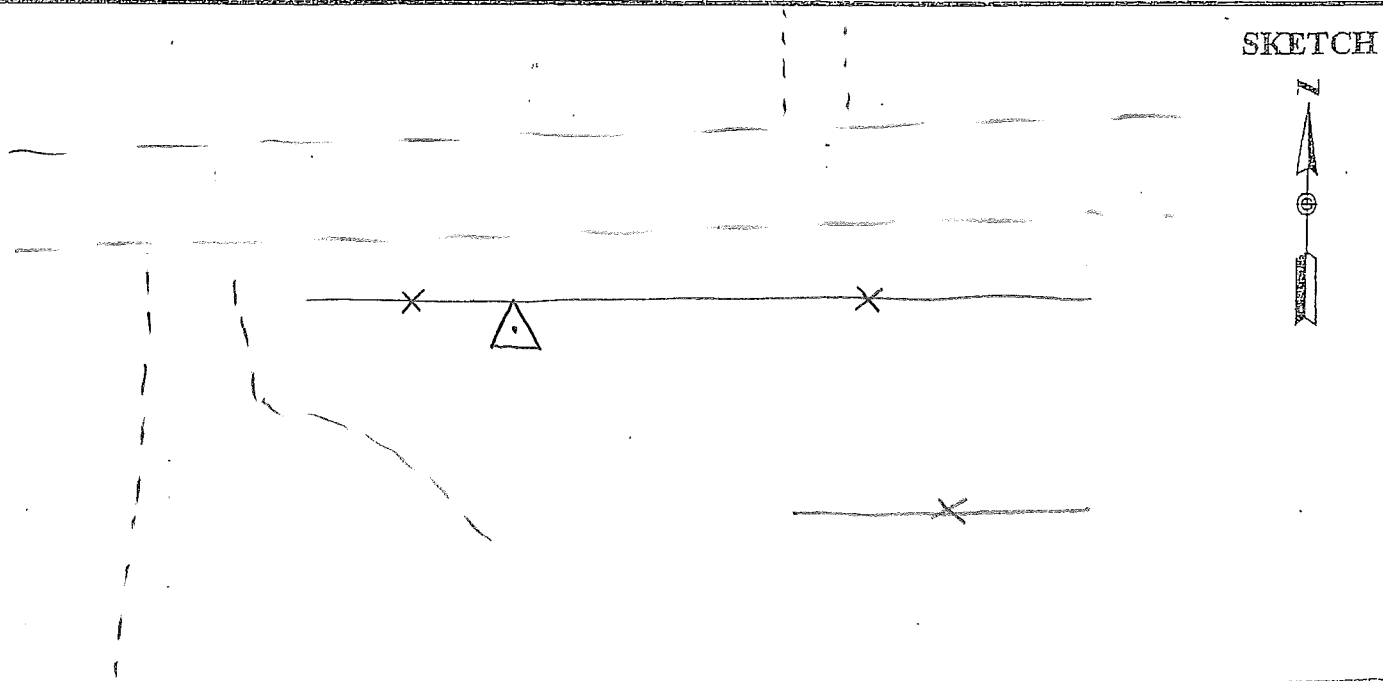
STATION DESCRIPTIONS fnd USC + GS
cap/cone, mon "Mirage 1935"

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1445	1.7	9/9
1538		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MS
DATE 9.2.11

SITE NUMBER 6
SITE NAME 9

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:54 p
STOP 3:34 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.373
1.733

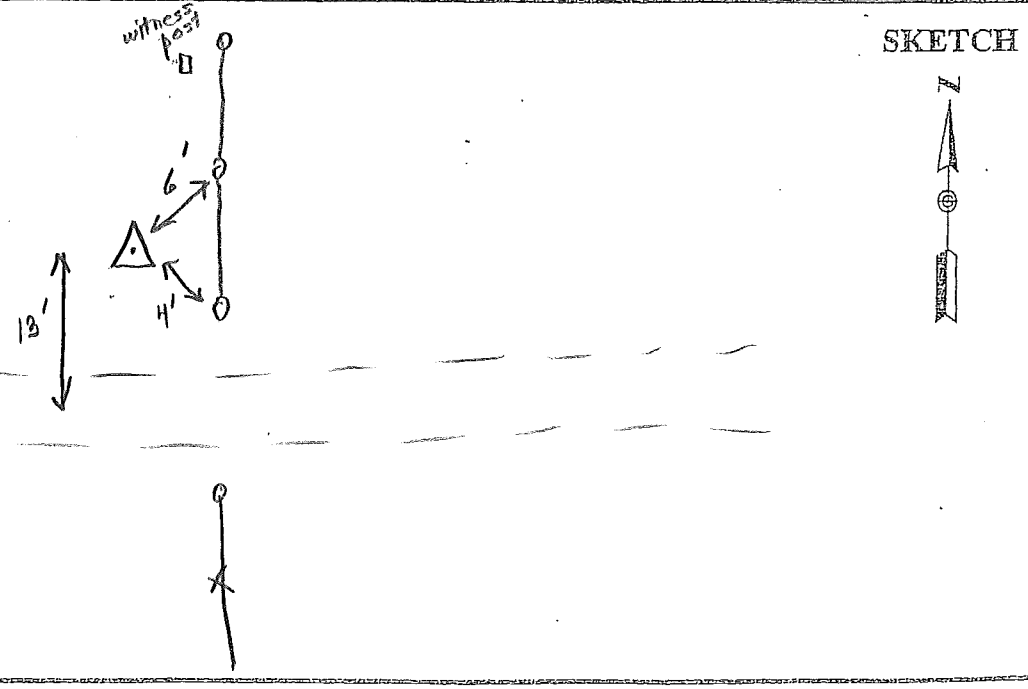
STATION DESCRIPTIONS Set 6" nail

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1554	2.2	6/6
1634		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 57 47.4'
105 54 12.5

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT

bare earth

PROJECT 1110804
OPERATOR MB
DATE 9.3.11

SITE NUMBER 7
SITE NAME ~~101~~ 121

TRACKING TIMES (LOCAL) MEASURE √
START 1:41p
STOP 2:14p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.406
1.766

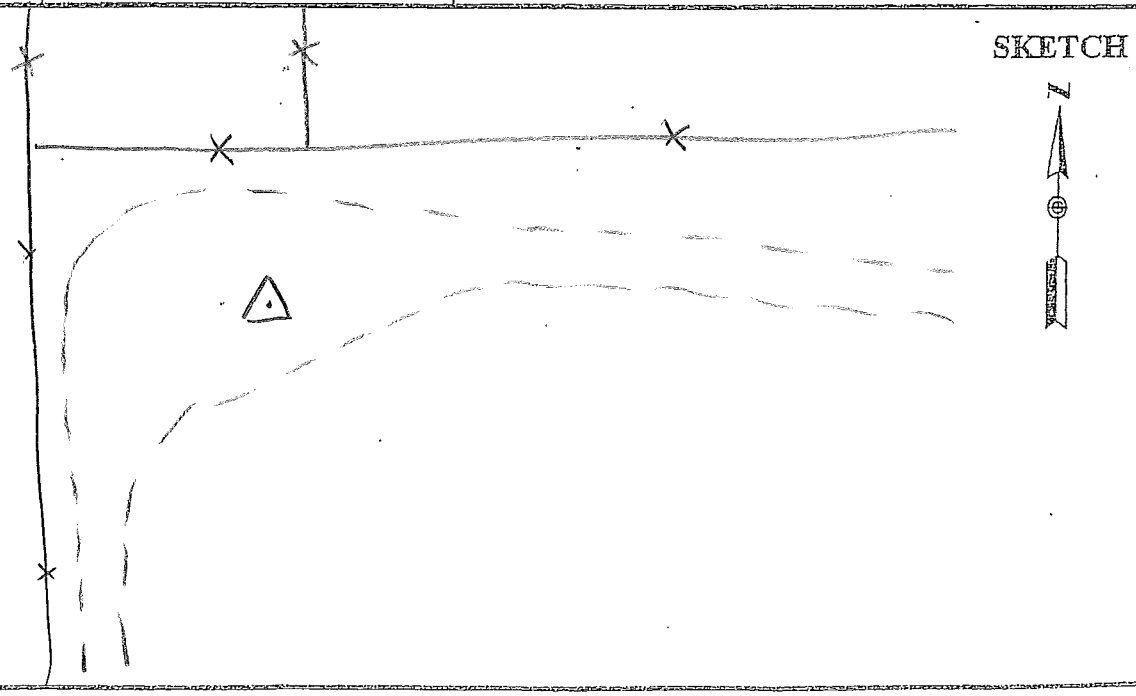
STATION DESCRIPTIONS in clearing

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
1441	1.5	9/9
1514		

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VRS urban

PROJECT 1110814
OPERATOR MB
DATE 9.8.11

SITE NUMBER 5
SITE NAME 508

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:57 a.
STOP 11:46 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.426
1.786

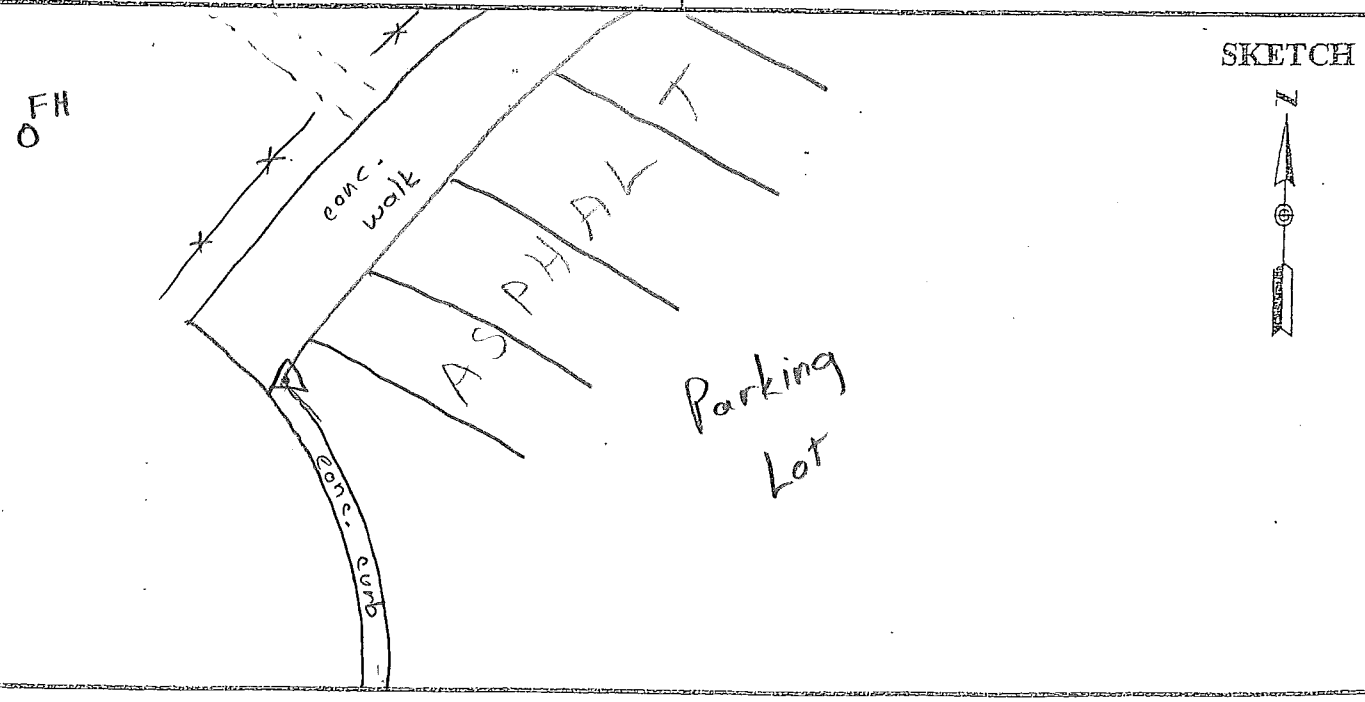
STATION DESCRIPTIONS set PK nail in W. corner of asphalt of Visitor Center parking lot

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1157	2.1	8/8
1246		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 43 57.2
105 30 45.8

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MB
DATE 9.1.11

SITE NUMBER 1
SITE NAME 3

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:54 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.334
1.694

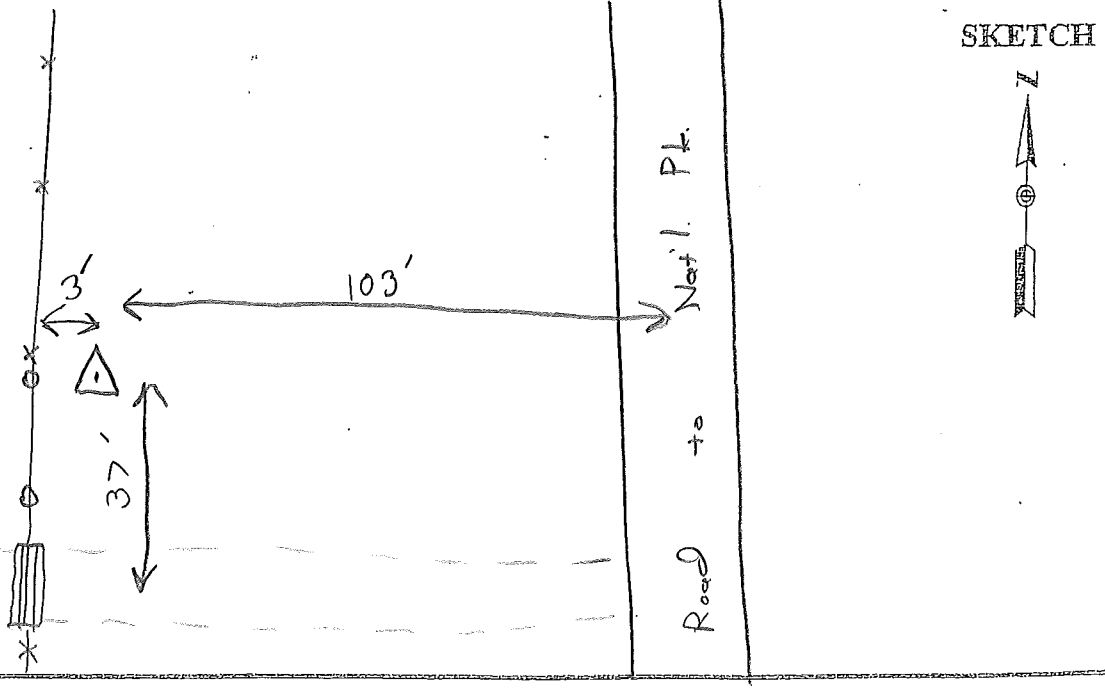
STATION DESCRIPTIONS set 5/8" rebar + cap

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
854	2.2	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 31 06.5
105 36 08.6

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MD
DATE 9.1.11

SITE NUMBER 2
SITE NAME 5

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:18 p
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.195
1.555

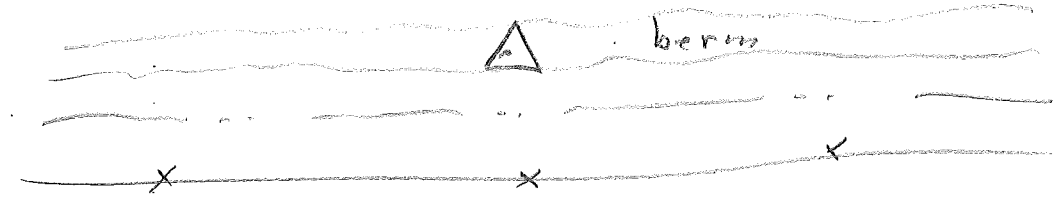
STATION DESCRIPTIONS set 5/8" rebar w/cap 18' N. of E/W fence on small berm

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1318	2.2	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 44 58.0
106 09 20.3

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MG
DATE 9.2.11

SITE NUMBER 4
SITE NAME 8

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:35p
STOP 1:27p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.360
1.720

OBSTRUCTIONS: none

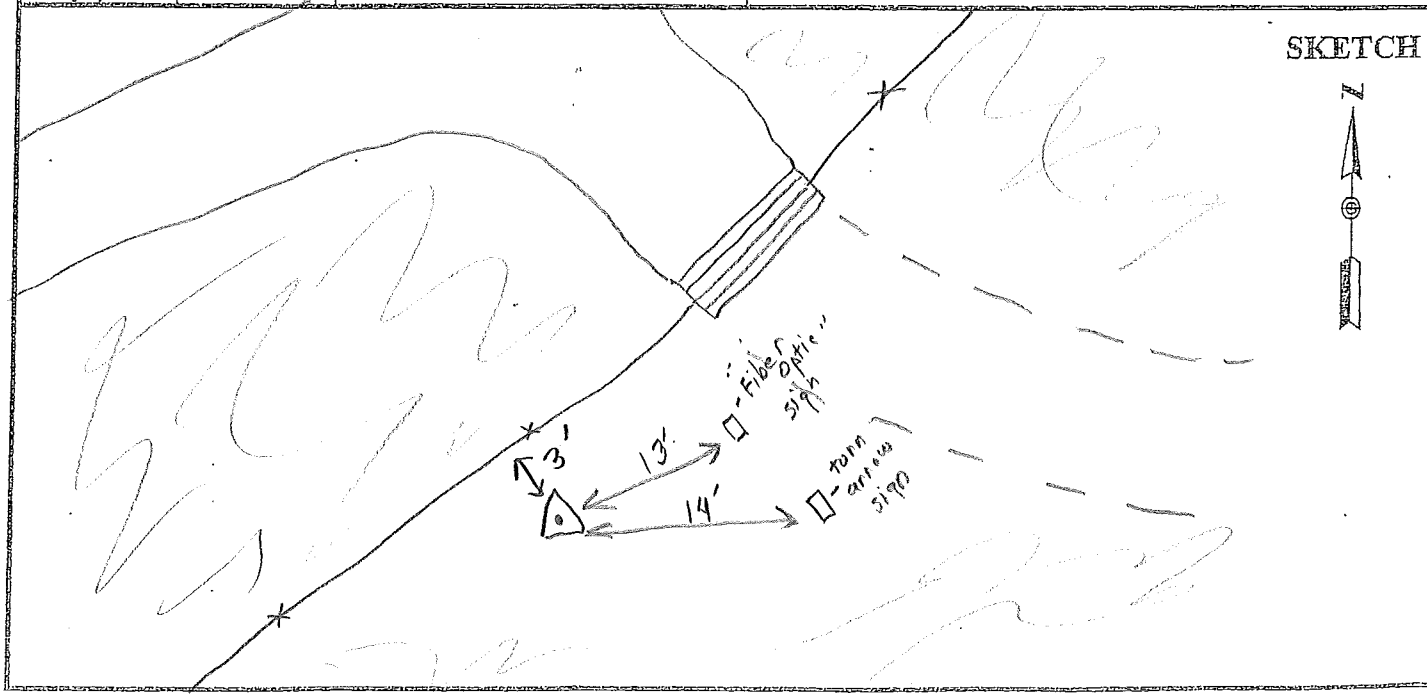
STATION DESCRIPTIONS set 5/8" rebar w/cap

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1335	2.6	8/8
1427		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
38 06 05.3
106 03 00.3

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MB
DATE 9.1.11

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:11a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.345

STATION DESCRIPTIONS

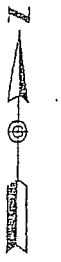
1.705

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
811	1.9	7/7

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Horz. + Vert. Control

PROJECT 11108#4
OPERATOR MB
DATE 9.1.11

SITE NUMBER 1
SITE NAME K 75

TRACKING TIMES (LOCAL) MEASURE ____
START 8:27a.
STOP 9:32a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.242

1602

OBSTRUCTIONS: none

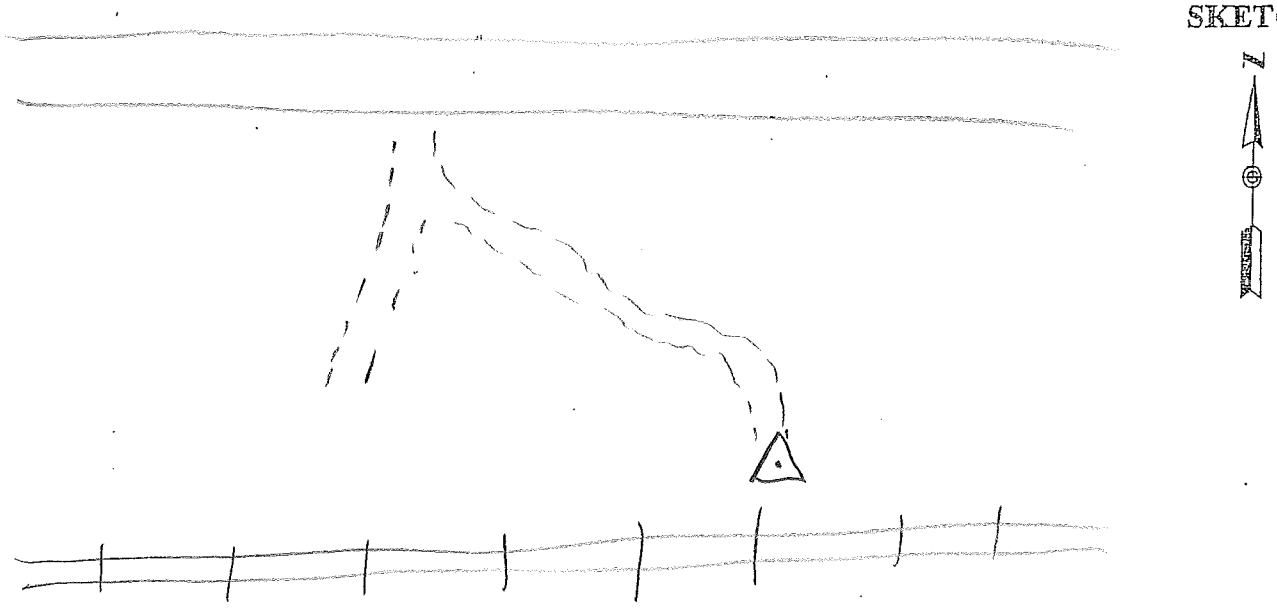
STATION DESCRIPTIONS fnd USC+GS
cap/mon. "K 75 1934"

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
927	2.3	9/9
1632		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MB
DATE 9.1.11

SITE NUMBER 2
SITE NAME 4

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:10 a.
STOP 10:52 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~ 0.360
500

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.420
1.780

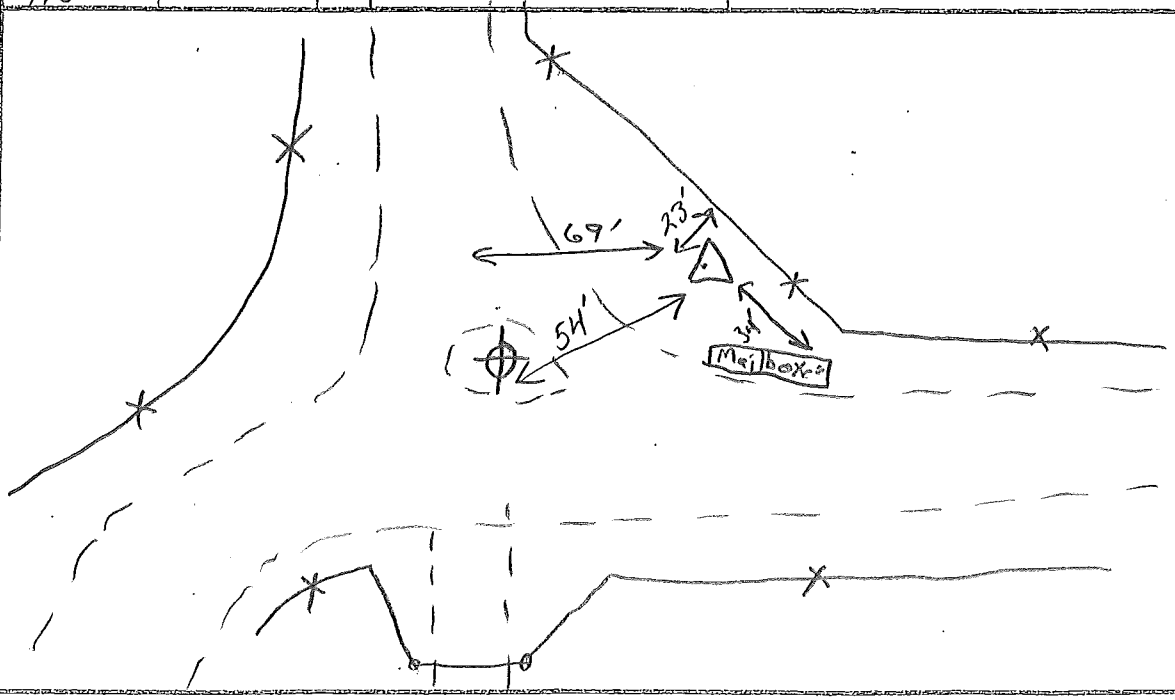
STATION DESCRIPTIONS set 6" nail ±54' NE of PP; 34' NW of mail box "Parcel B"; 23' SW of fence; ±69' E. of ℄ N/S road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1110	3.5	5/5
1152		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 18 57.3
105 43 27.1

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Horz. + Vert. Control

PROJECT 11108\$4
OPERATOR MB
DATE 9.1.11

SITE NUMBER 3
SITE NAME R33

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:46 p
STOP 1:28 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.412

STATION DESCRIPTIONS Fnd USC+GS
cap/mon. "R 39 1933"

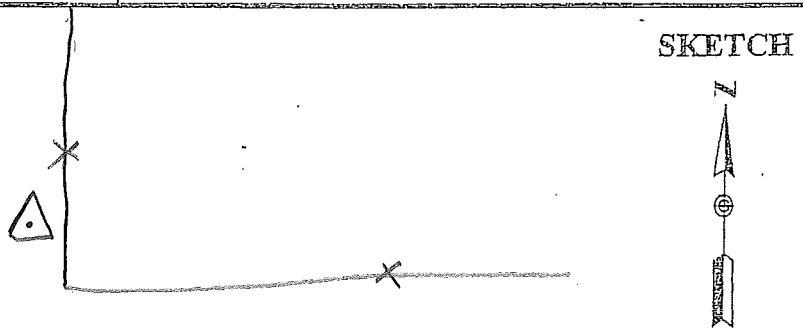
1.772

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1346	3.5	7/7
1428		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.1.11

SITE NUMBER 4
SITE NAME 6

TRACKING TIMES (LOCAL) MEASURE _____
START 1850p
STOP 2:32p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.275
1.635

STATION DESCRIPTIONS set 6" nail

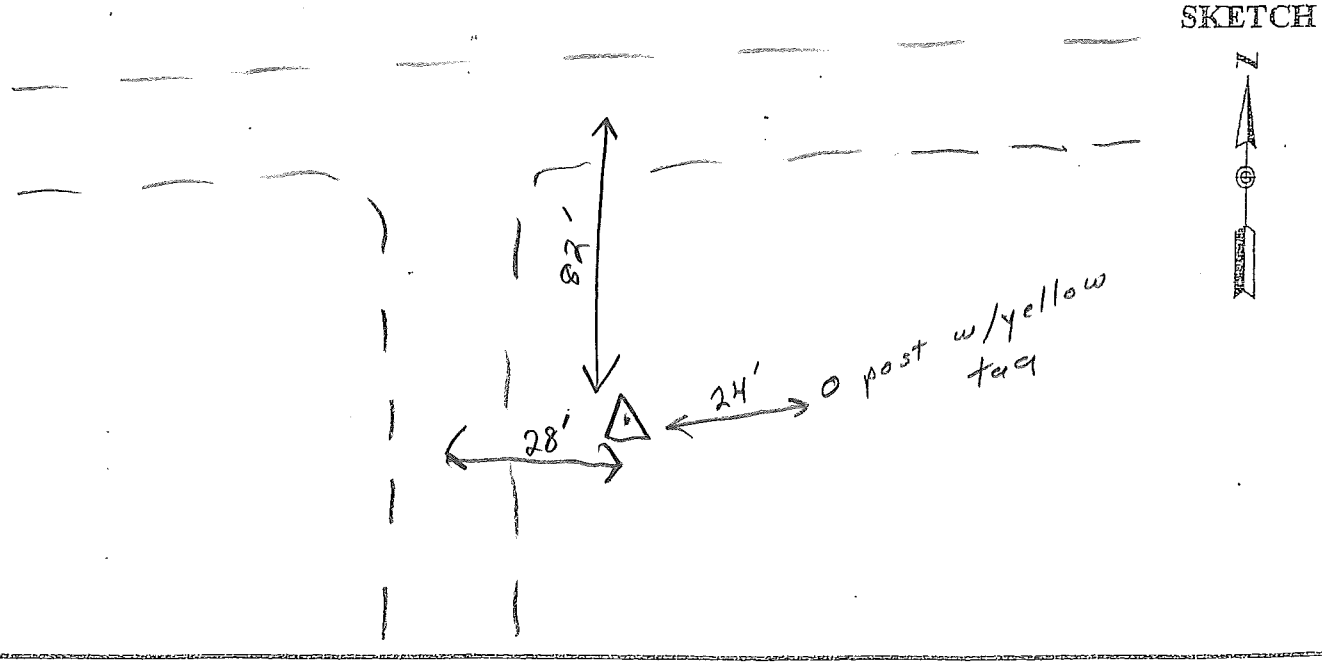
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1450	1.7	8/9
1532		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

37 37 55.5
105 57 54.8

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 11108 Ø4
OPERATOR MB
DATE 9.3.11

SITE NUMBER 1
SITE NAME R 33

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:17 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.309
1.669

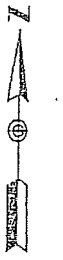
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
817	1.6	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 111084
OPERATOR MB
DATE 9.3.11

SITE NUMBER 1
SITE NAME 9

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:37a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.337
1.697

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
837	4.5	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110804
OPERATOR MB
DATE 9.3.11

SITE NUMBER 1
SITE NAME 10

TRACKING TIMES (LOCAL) MEASURE ____
START 8:07a.
STOP 8:47a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.388
1.748

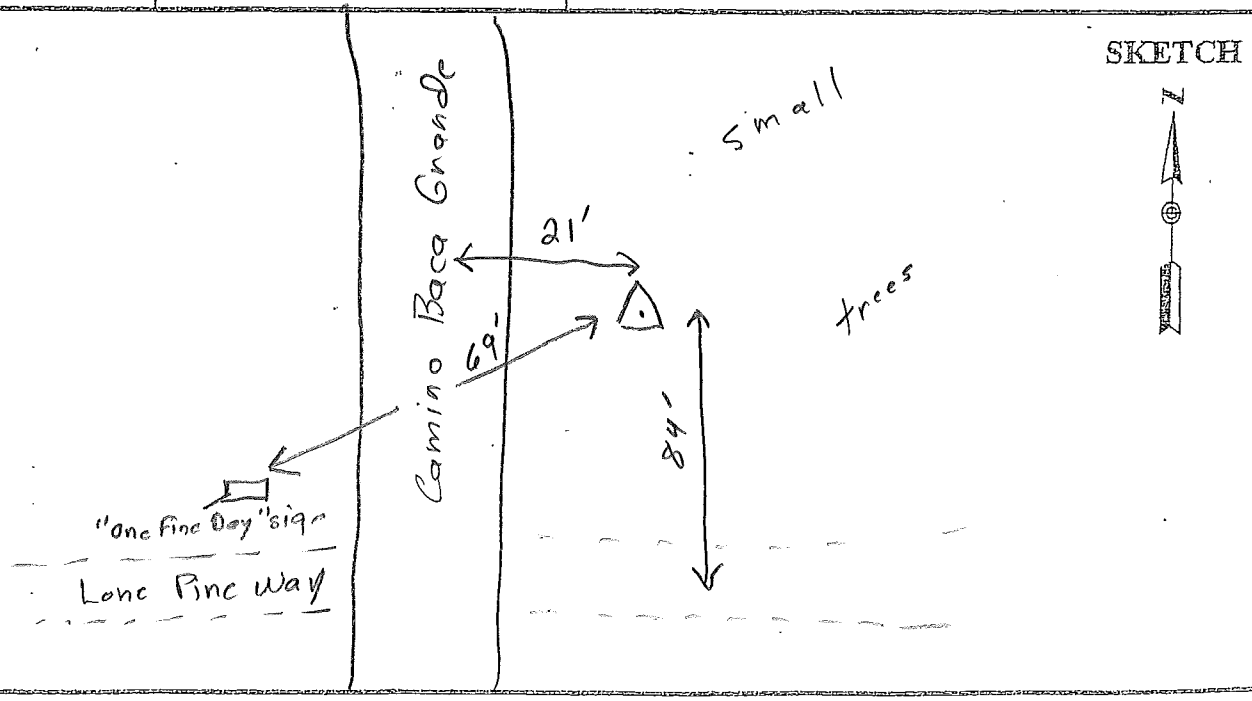
STATION DESCRIPTIONS set 5/8" rebar w/cap

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
907	2.2	6/6
947		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
37 57 55.2
105 40 17.6

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT

Bare Earth

PROJECT 11108b4
OPERATOR MB
DATE 9·3·11

SITE NUMBER 2
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:48 a.
STOP 9:28 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~ 0.360
500

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.440
1.800

STATION DESCRIPTIONS E. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
948	2.1	10/10
1028		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

small trees

small trees

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

/PT

brush

PROJECT 11088.4
OPERATOR MB
DATE 9.3.11

SITE NUMBER 3
SITE NAME 300

TRACKING TIMES (LOCAL) MEASURE /
START 10:03 a.
STOP 10:43 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.421
1.781

OBSTRUCTIONS: none

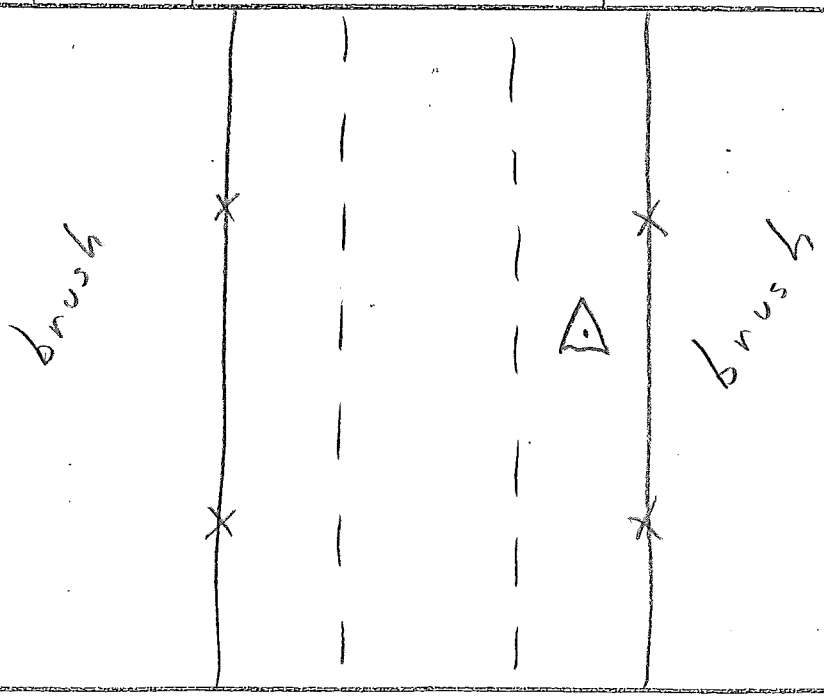
STATION DESCRIPTIONS between road + fence - brush

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1103	3.3	10/12
1143		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 JPT AME

PROJECT 11108.04
OPERATOR MS
DATE 9.3.11

SITE NUMBER 4
SITE NAME 1000

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:59 a.
STOP 11:39 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.434

1794

OBSTRUCTIONS: none

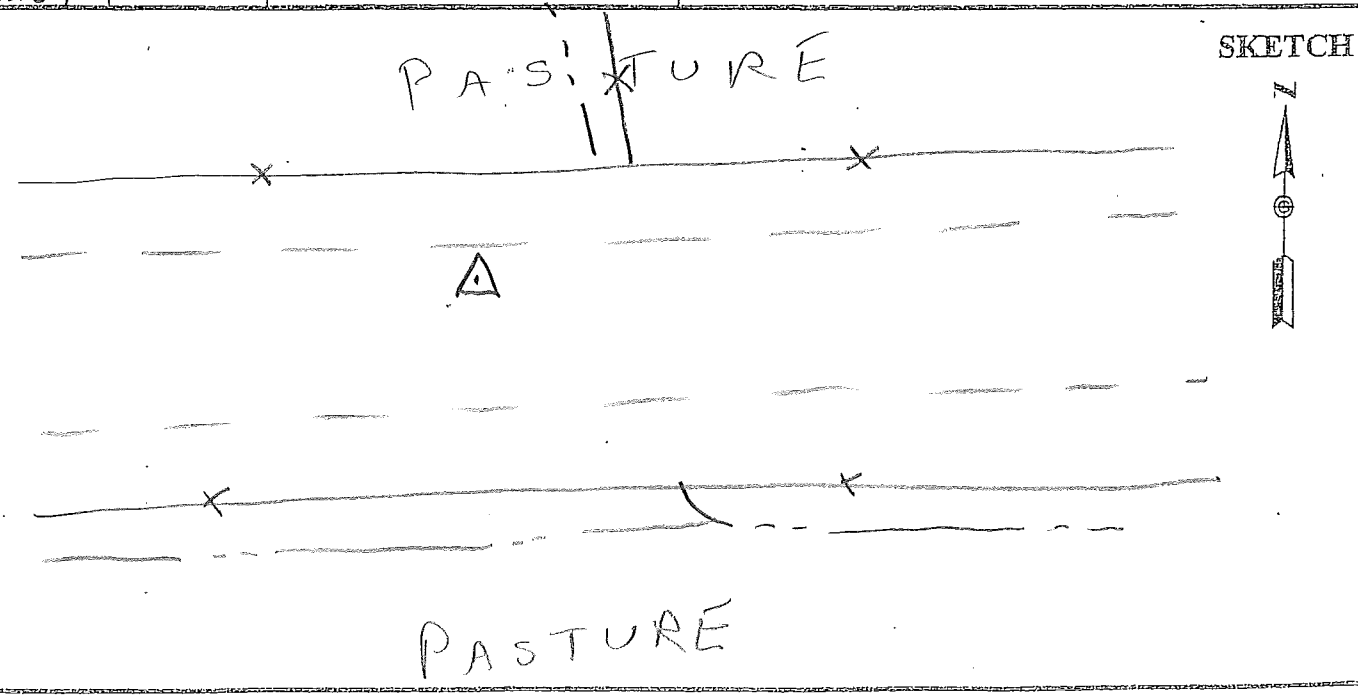
STATION DESCRIPTIONS W. bound lane

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1159	2.3	8/9
1239		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Urban

√PT

PROJECT 1110864
OPERATOR MB
DATE 9.3.11

SITE NUMBER 5
SITE NAME 500

TRACKING TIMES (LOCAL) MEASURE √
START 11:56a.
STOP 12:33p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.458
1.818

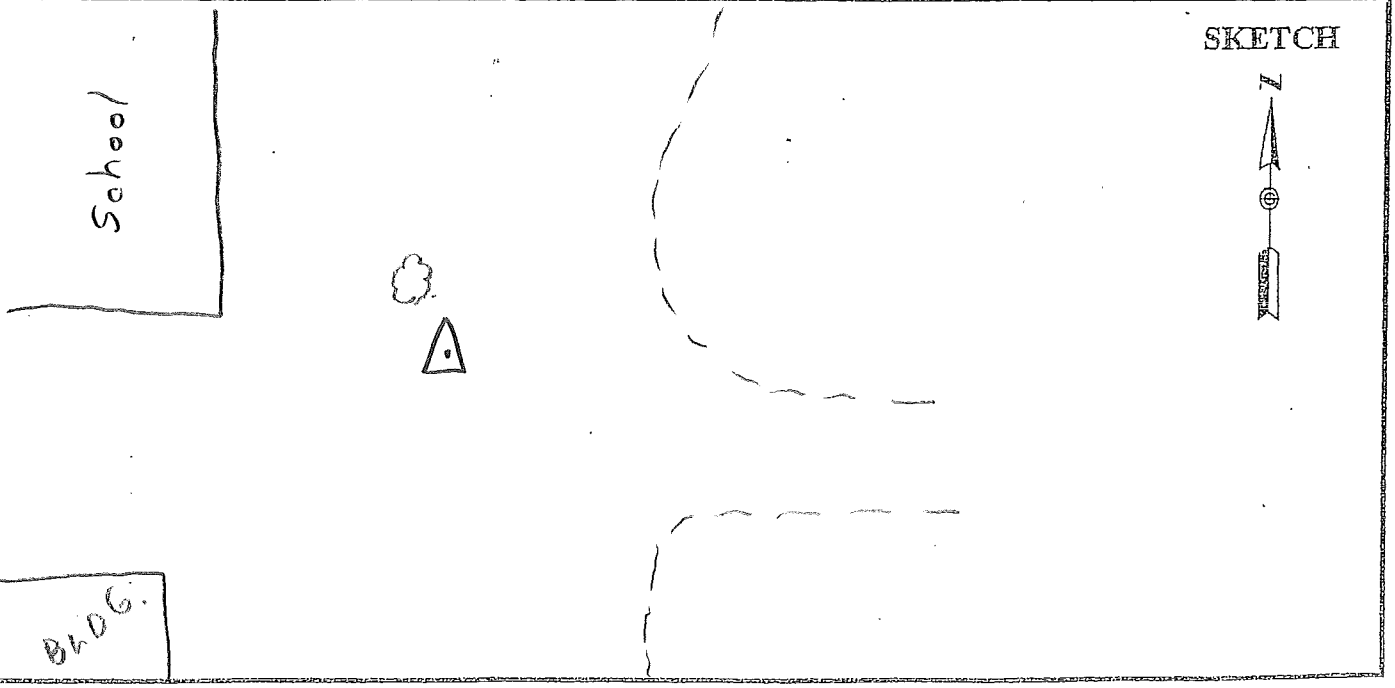
STATION DESCRIPTIONS in parking area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1256	3.0	8/8
1333		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√pT

tall weeds

PROJECT 1110804
OPERATOR MB
DATE 9.3.11

SITE NUMBER 6
SITE NAME 200

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:47 p
STOP 1:20 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
~~399E/9500~~ ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.380
1.740

OBSTRUCTIONS: none

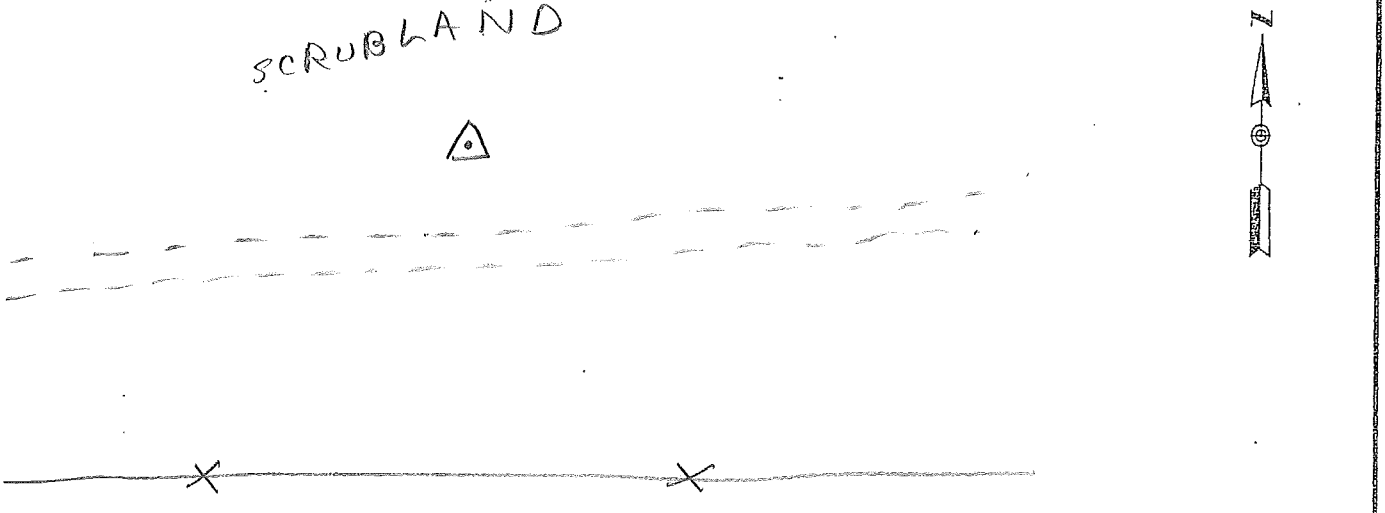
STATION DESCRIPTIONS in tall grass

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1347	2.6	8/8
1421		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base Horz. + Vert. Control

PROJECT 1110814
OPERATOR MO
DATE 9.4.11

SITE NUMBER 1
SITE NAME MIRAGE

TRACKING TIMES (LOCAL) MEASURE _____
START 7:34a.
STOP _____

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO. _____
SENSOR NO. _____

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: _____

HEIGHT READINGS MTS FT
1.527 _____

1,887

STATION DESCRIPTIONS _____

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
834	3.1	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

see previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MG
DATE 9.4.11

SITE NUMBER 1
SITE NAME 8

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:48a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.335

1695

OBSTRUCTIONS:

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
848	2.3	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

trees

VPT

PROJECT 110814
OPERATOR MJ
DATE 9.4.11

SITE NUMBER 1
SITE NAME 400

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:03 a.
STOP 8:35 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
~~500~~ 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.402
1.262

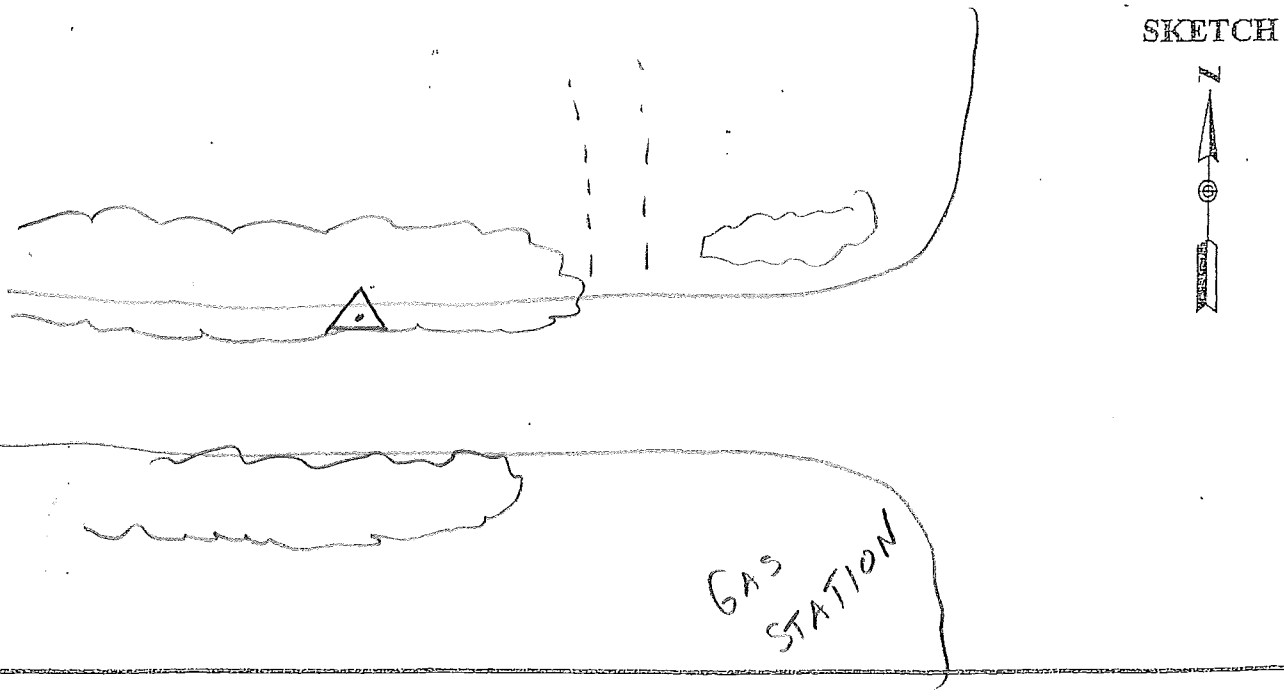
STATION DESCRIPTIONS N. side street under trees

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
903	3.1	8/9
935		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

urban

√PT

PROJECT 1110814
OPERATOR MD
DATE 9.4.11

SITE NUMBER 2
SITE NAME 501

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:38 a.
STOP 9:06 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: trees NE + SE

HEIGHT READINGS MTS FT
1.412
1.772

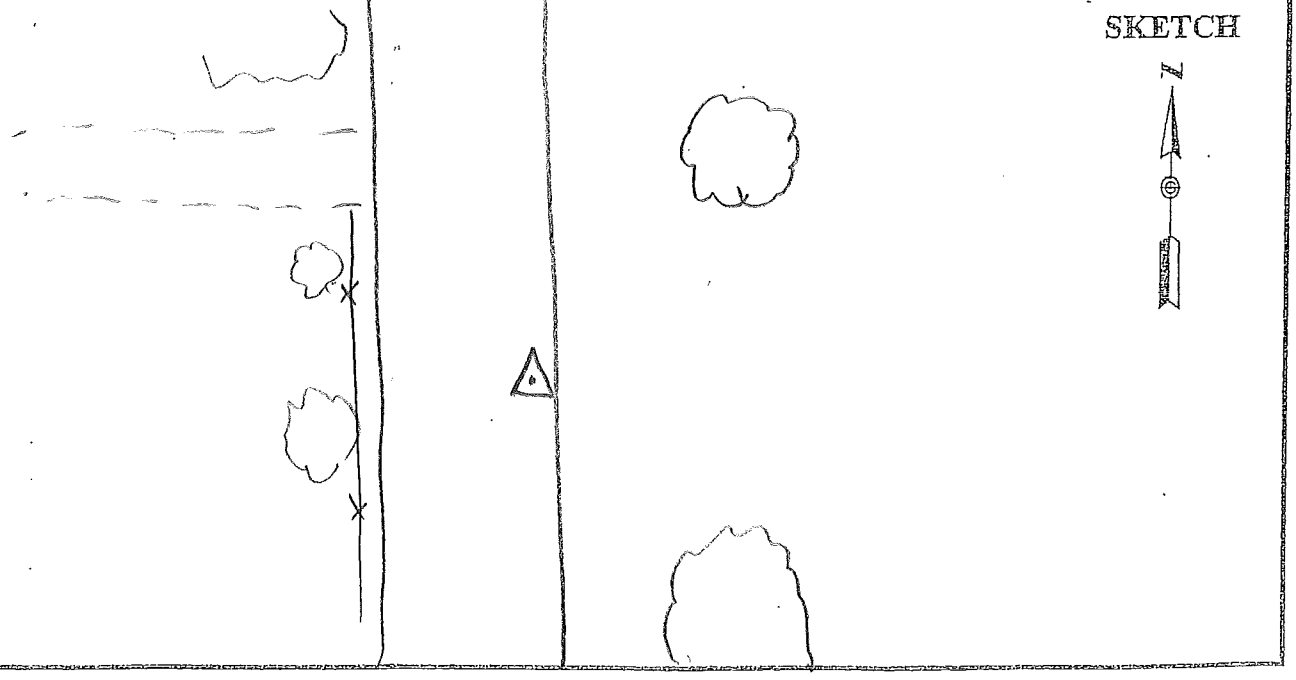
STATION DESCRIPTIONS E. side street

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
938	2.3	5/5
1006		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 3
SITE NAME 101

TRACKING TIMES (LOCAL) MEASURE √
START 9:14 a.
STOP 9:41 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.445

1805

OBSTRUCTIONS: none

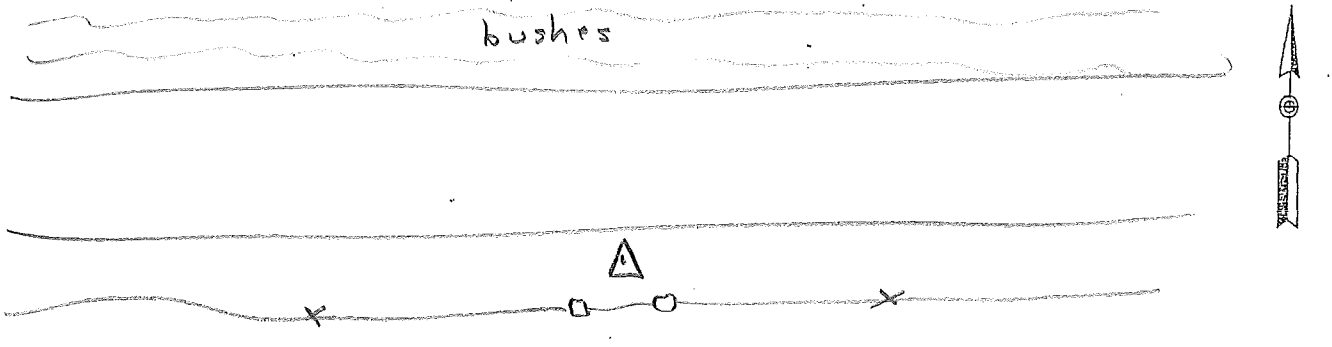
STATION DESCRIPTIONS S. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1014	2.1	10/10
1041		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 4
SITE NAME 1001

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:43 a.
STOP 10:10 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

HEIGHT READINGS MTS FT
1.448
1.808

OBSTRUCTIONS: none

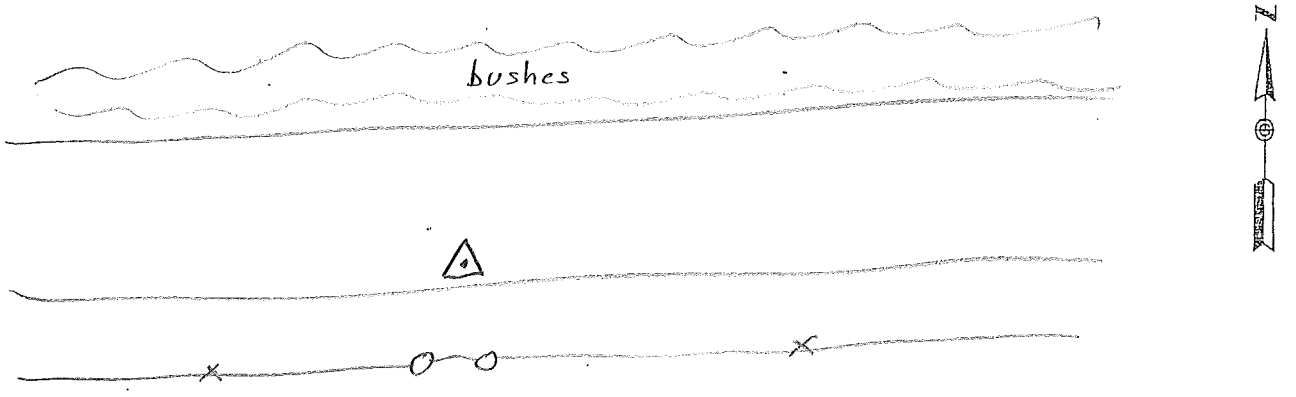
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1043	1.8	11/11
1110		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VOT

tall weeds

PROJECT	1110814	SITE NUMBER	5
OPERATOR	NB	SITE NAME	201
DATE	9.4.11		

TRACKING TIMES (LOCAL) MEASURE ✓

START 10:13a.

STOP 10:40a.

SENSOR TYPE 500 9500 399 299

MEMORY CARD 603

BATTERY NO.

CONTROLLER NO.

SENSOR NO.

SENSOR CONSTANT 299/399 0.441

399E/9500 ~~0.389~~

500 0.360

HEIGHT READINGS MTS FT

1.450

1.810

OBSTRUCTIONS: none

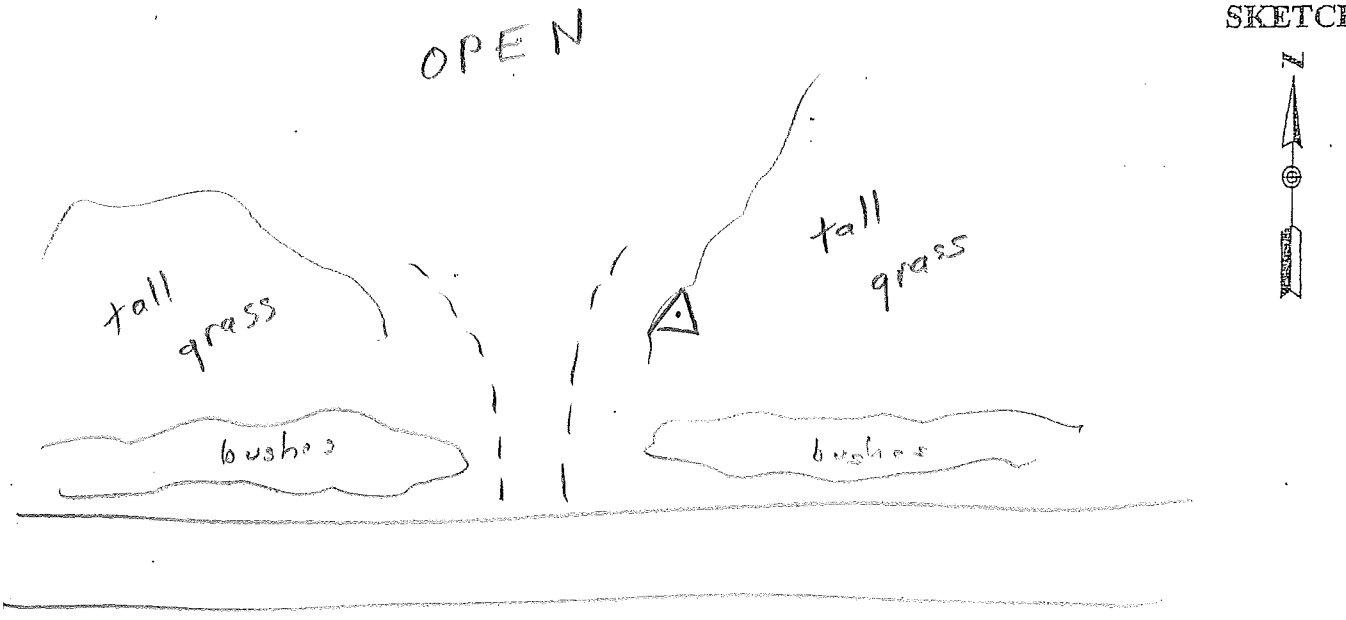
STATION DESCRIPTIONS is tall weeds

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1113	6.4	9/10
1140		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

brush

√ PT

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 6
SITE NAME 301

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:45 a
STOP 11:12 a

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.425
1.285

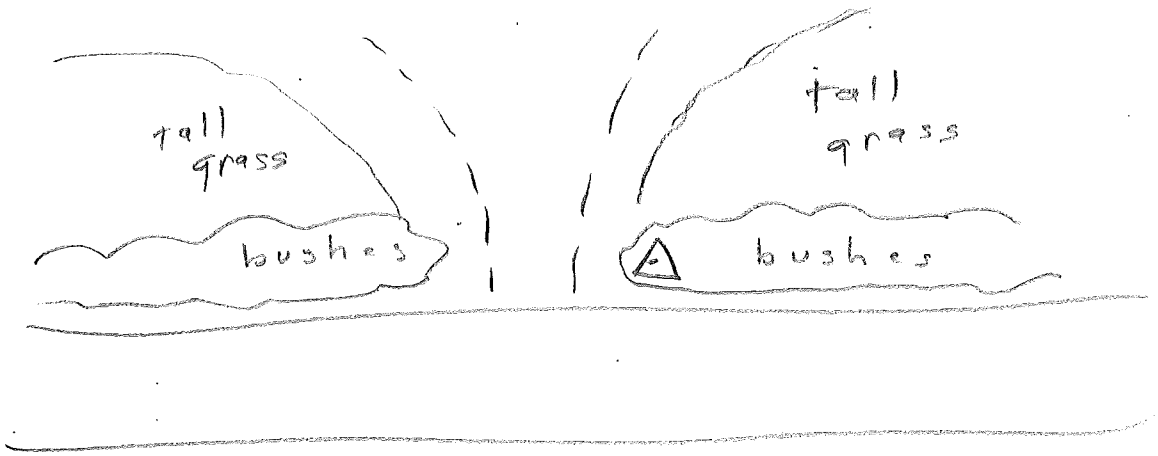
STATION DESCRIPTIONS in brush

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1145	2.5	7/7
1212		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 7
SITE NAME 102

TRACKING TIMES (LOCAL) MEASURE √
START 11:22 a.
STOP 11:45 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.419
1.779

OBSTRUCTIONS: none

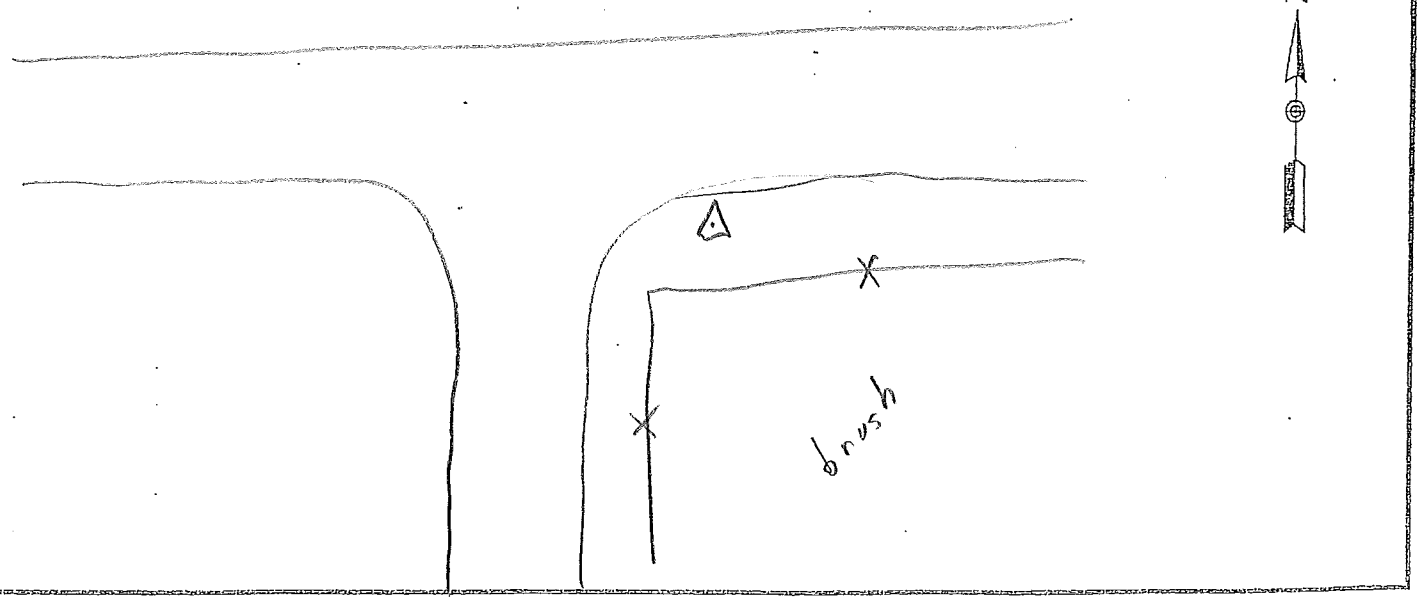
STATION DESCRIPTIONS on S. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1232	2.7	7/9
1245		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT trees

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 8
SITE NAME 401

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:53 a.
STOP 12:14 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) (0.360)

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.400
1.760

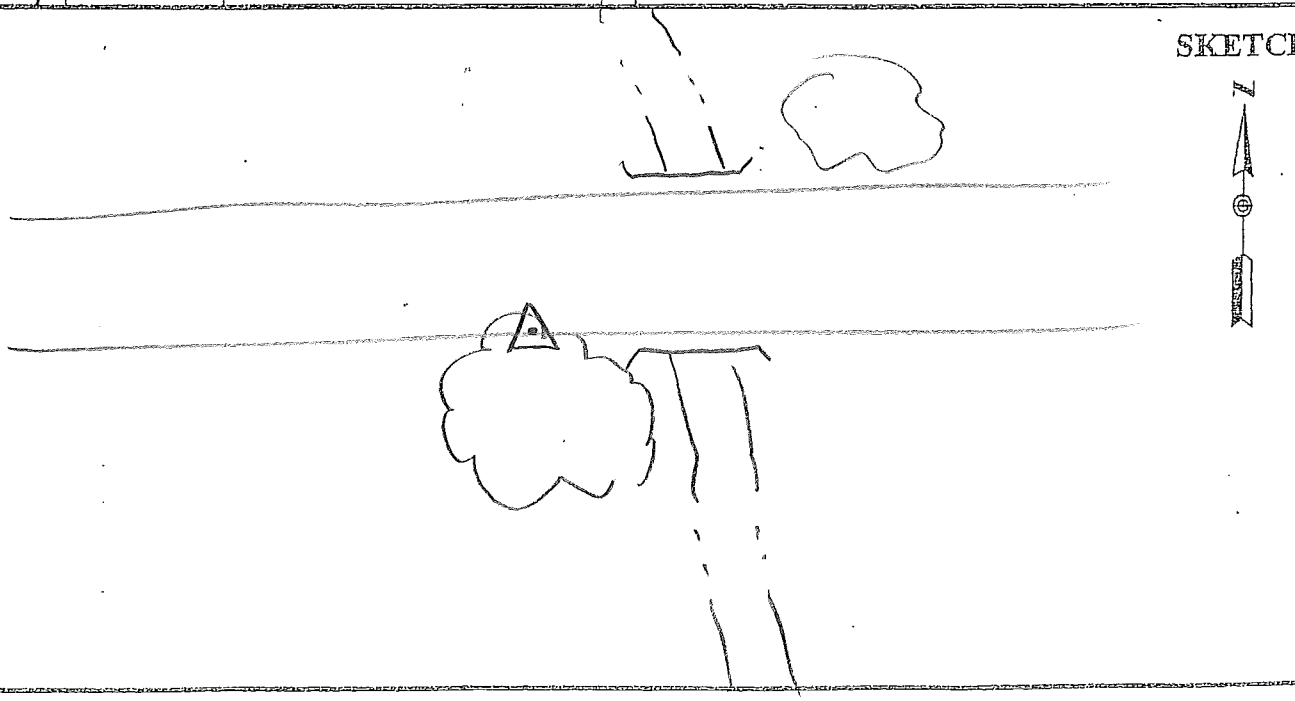
STATION DESCRIPTIONS S. edge road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1253	4.5	7/9
1314		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 9
SITE NAME 1002

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:19 p
STOP 12:41 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.440
1.800

OBSTRUCTIONS: tree SE

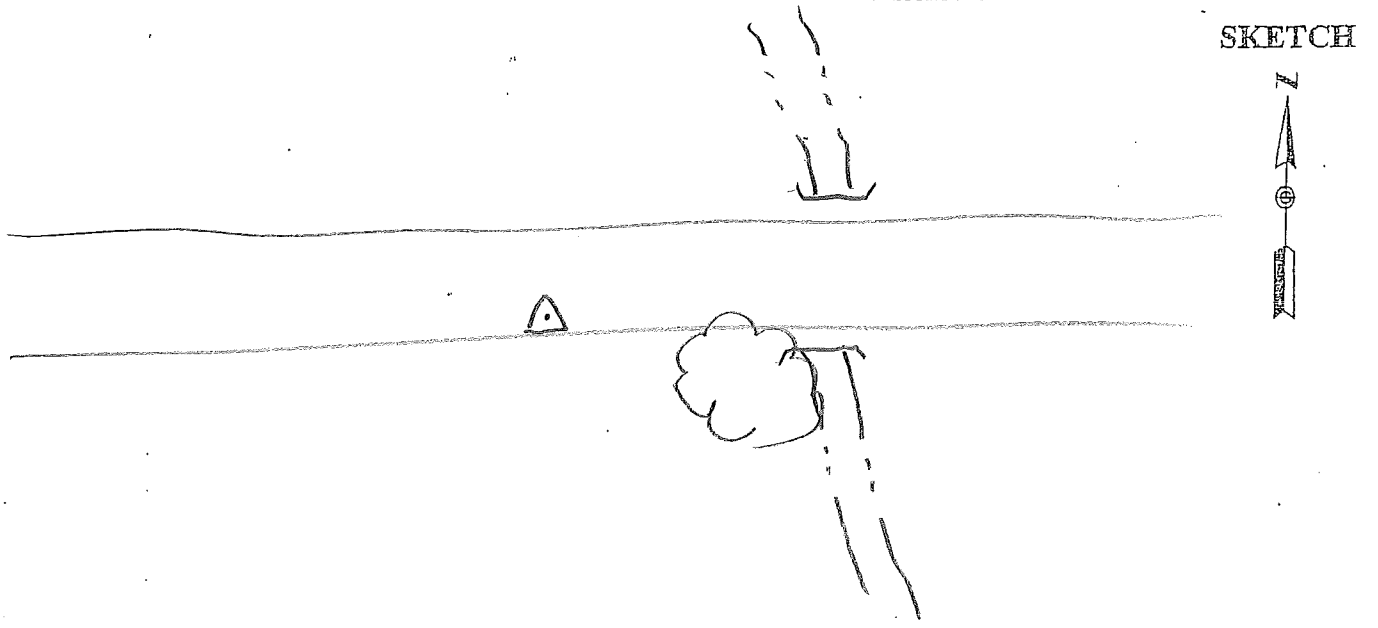
STATION DESCRIPTIONS S. lane

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1319	2.6	8/8
1341		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 10
SITE NAME 202

TRACKING TIMES (LOCAL) MEASURE √
START 12:50 p
STOP 1:08 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.453

STATION DESCRIPTIONS in tall grass + weeds

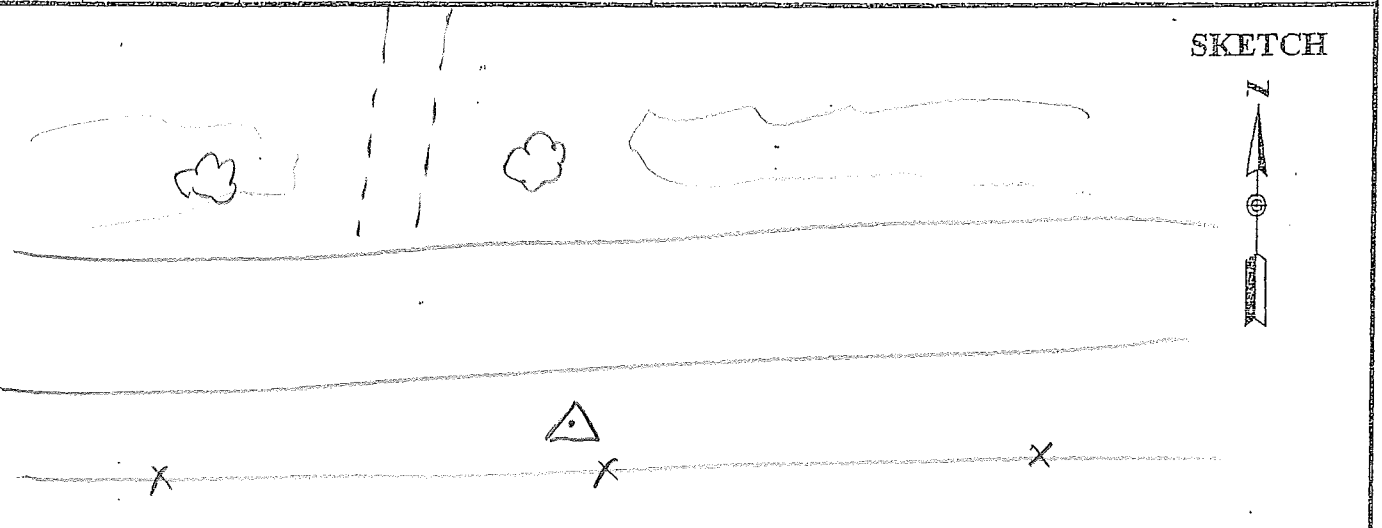
1.813

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1350	2.4	8/8
1408		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT trees

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 11
SITE NAME 402

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:26 p
STOP 1:48 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.430
1.790

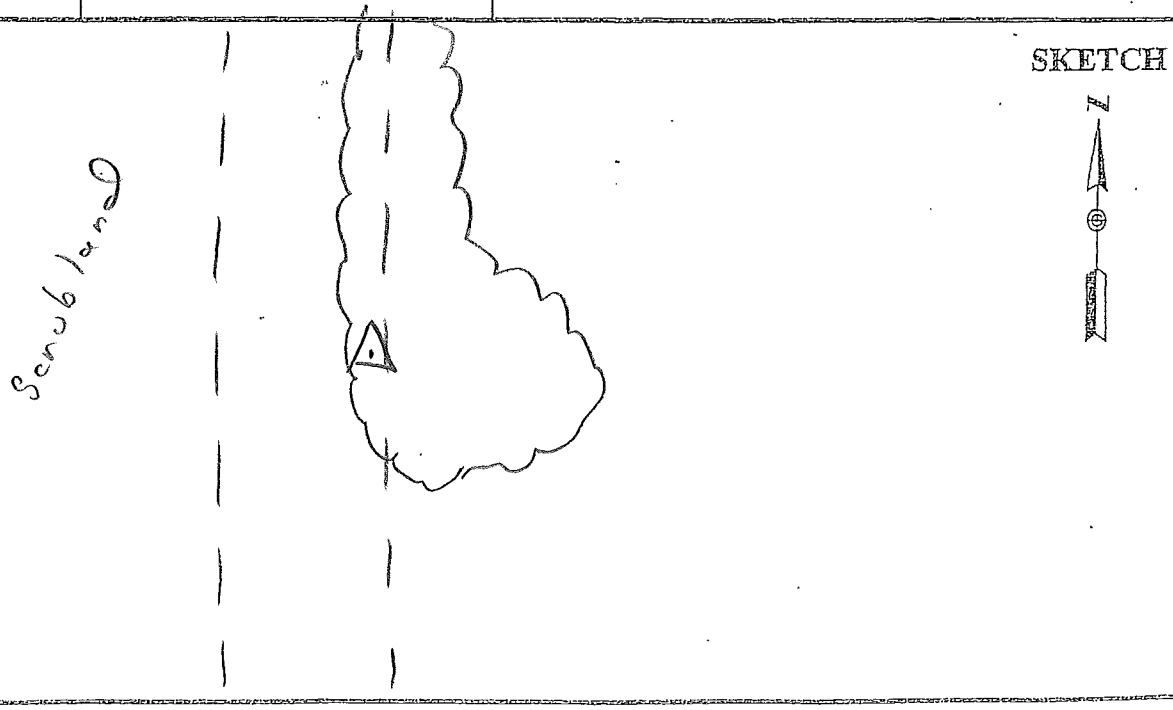
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1426	2.7	4/6
1448		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pt brush

PROJECT 1110814
OPERATOR MB
DATE 9.4.11

SITE NUMBER 12
SITE NAME 302

TRACKING TIMES (LOCAL) MEASURE _____
START 2:11 p.
STOP 2:30 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.462

STATION DESCRIPTIONS in brush

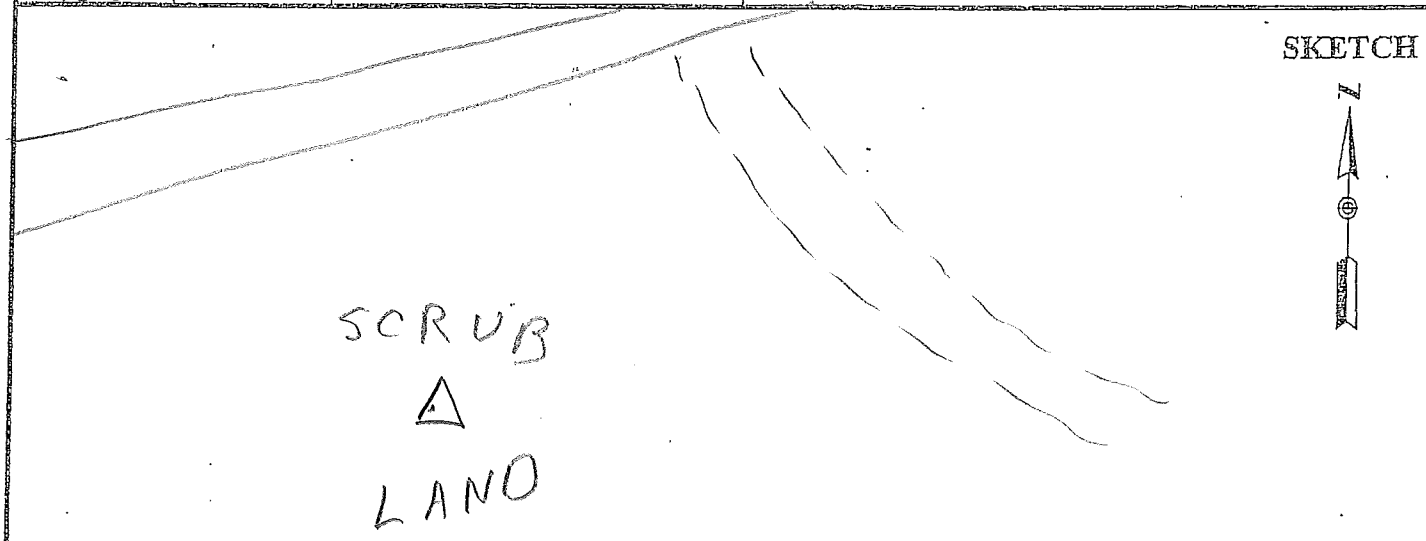
1822

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1511	1.6	9/9
1530		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 1
SITE NAME 5

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:21a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.208
1.568

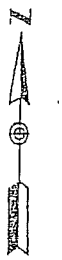
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
821	4.6	6/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 1
SITE NAME 7

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:41 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.344

STATION DESCRIPTIONS

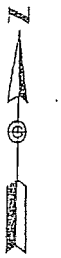
1704

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
841	2.4	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



see previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT AME

PROJECT 1110814
OPERATOR NB
DATE 9.5.11

SITE NUMBER 1
SITE NAME 1003

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:48 a.
STOP 8:11 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.398
1.758

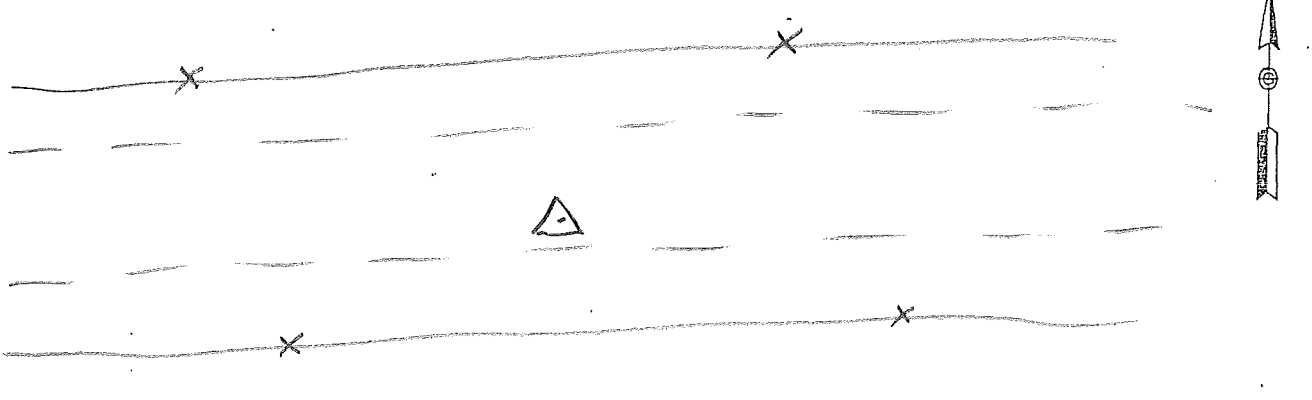
STATION DESCRIPTIONS S. lane of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
848	2.5	7/7
911		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

1PT trees

PROJECT 1110814
OPERATOR MB
DATE 9·5·11

SITE NUMBER 2
SITE NAME 403

TRACKING TIMES (LOCAL) MEASURE _____
START 8:22 a.
STOP 8:45 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: trees above + SW

HEIGHT READINGS MTS FT
1.427
1.787

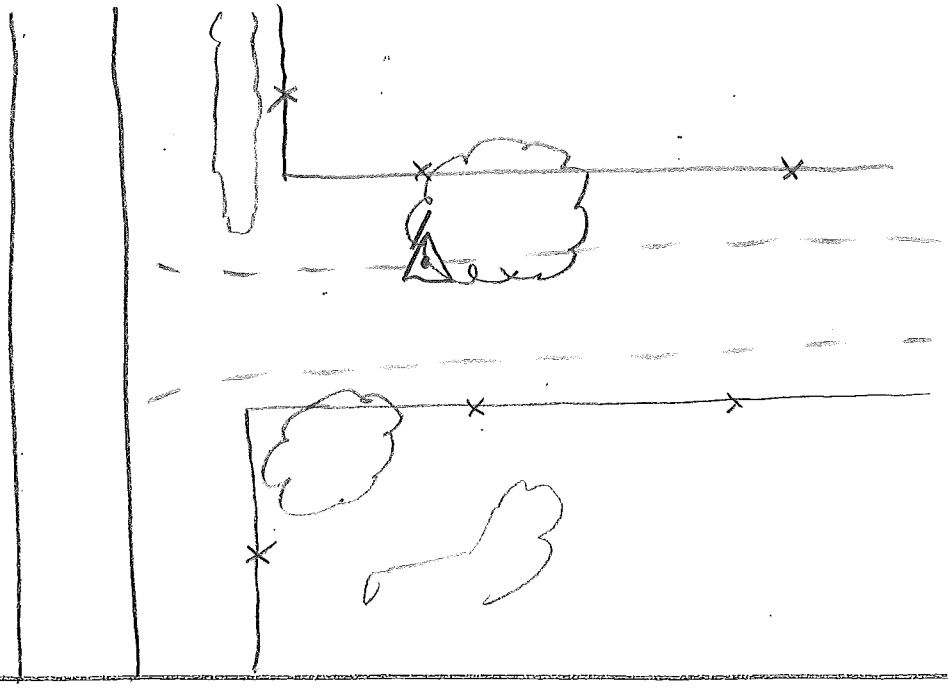
STATION DESCRIPTIONS N. edge road

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
922	2.8	6/7
945		

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT

bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 3
SITE NAME 103

TRACKING TIMES (LOCAL) MEASURE ____
START 8:50 a.
STOP 9:08 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.430
1.790

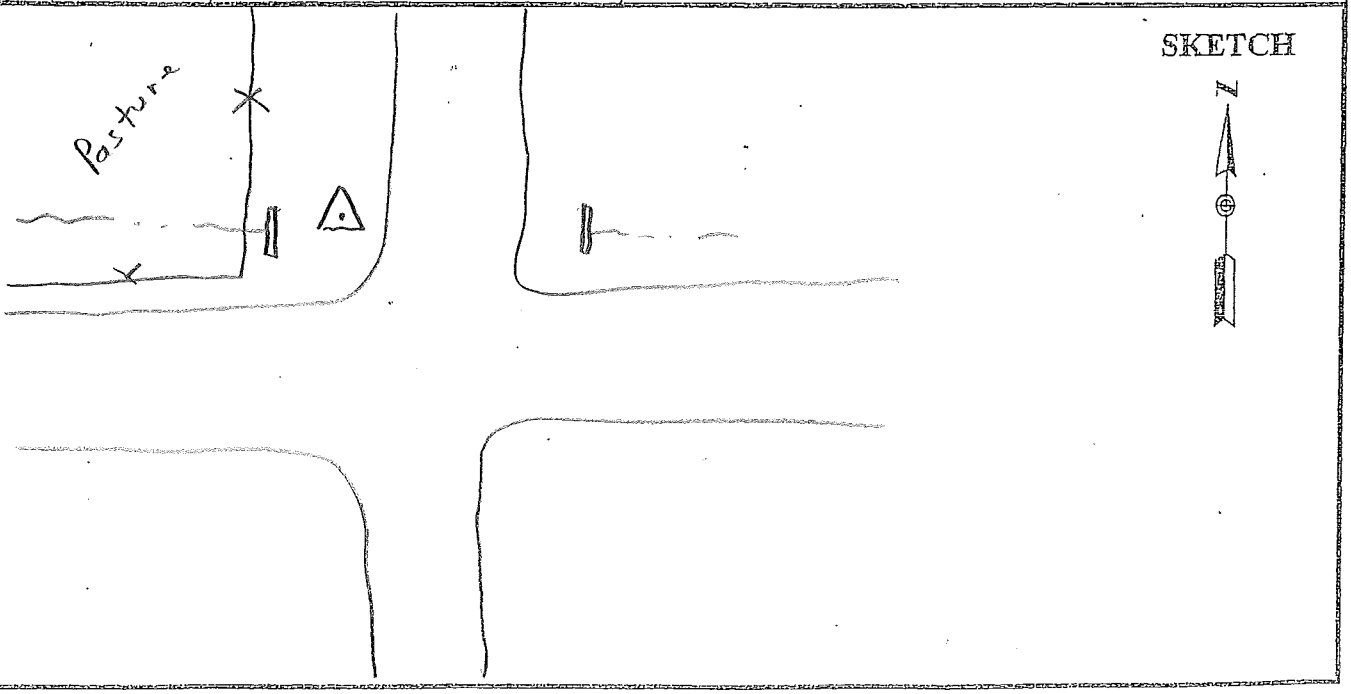
STATION DESCRIPTIONS in clearing
NW corner of intersection

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
950	5.1	9/9
1008		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 4
SITE NAME 203

TRACKING TIMES (LOCAL) MEASURE _____
START 9:18 a.
STOP 9:36 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
~~500~~ ~~0.360~~

HEIGHT READINGS MTS FT
1.305
1.665

OBSTRUCTIONS: none

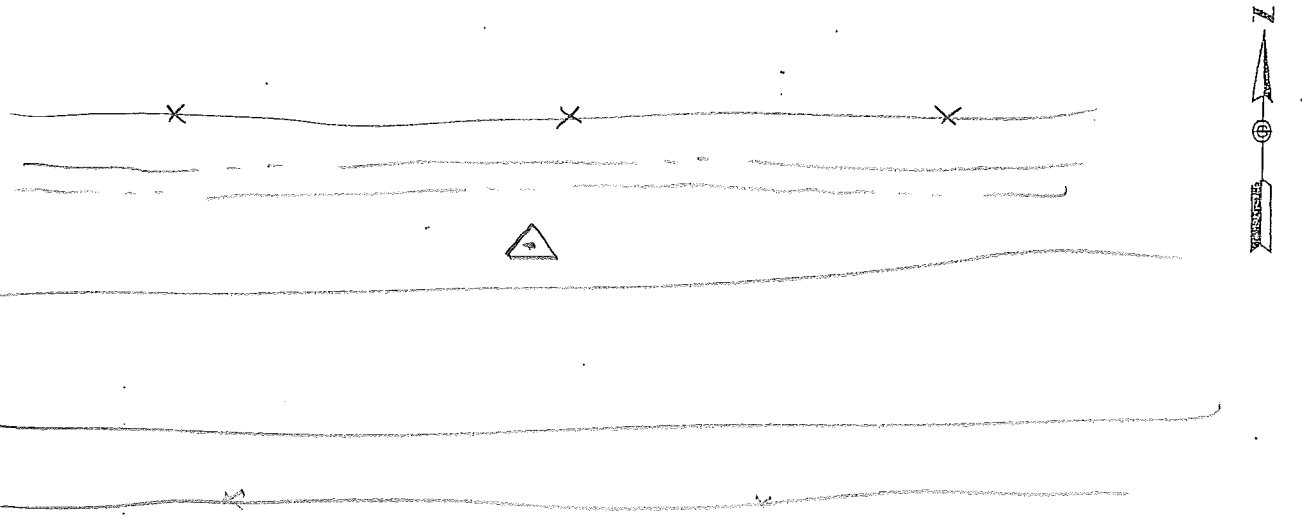
STATION DESCRIPTIONS in tall grass

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1018	6.5	10/11
1036		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT urban

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 5
SITE NAME 502

TRACKING TIMES (LOCAL) MEASURE √
START 9:45 a.
STOP 10:06 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.421

STATION DESCRIPTIONS N. shoulder

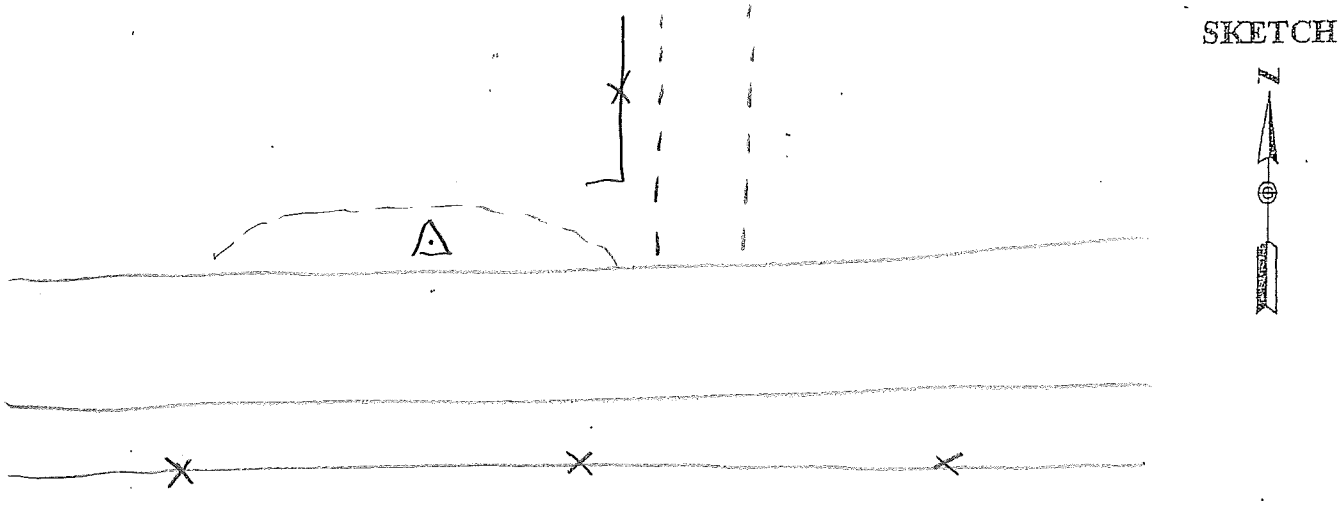
1.781

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1045	1.8	11/11
1106		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 6
SITE NAME 204

TRACKING TIMES (LOCAL) MEASURE √
START 10:40 a.
STOP 11:07 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.342

1.702

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
1140	2.3	8/8
1207		

SKETCH

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 7
SITE NAME 104

TRACKING TIMES (LOCAL) MEASURE √
START 11:16 a.
STOP 11:40 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.387

STATION DESCRIPTIONS

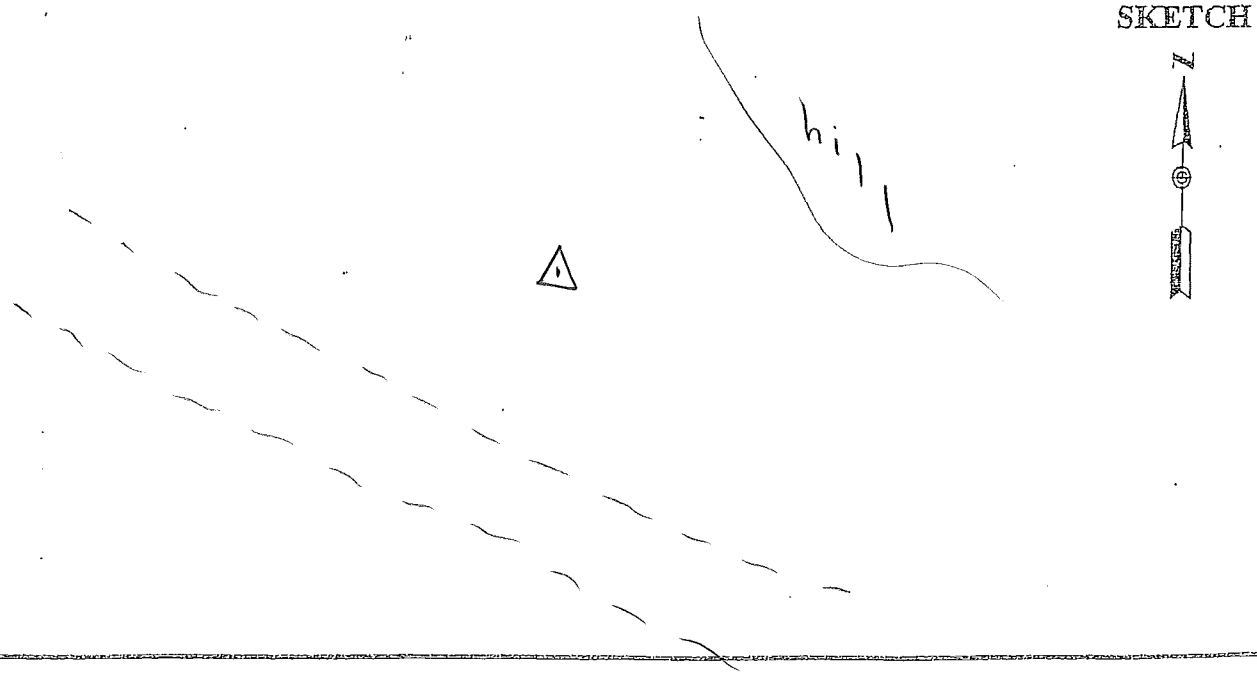
1747

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1216	2.0	8/9
1240		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 8
SITE NAME 1004

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:57a.
STOP 12:22p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.407

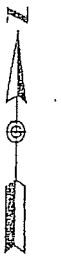
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1257	2.1	9/9
1322		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT trees

PROJECT 1110814
OPERATOR MB
DATE 9·5·11

SITE NUMBER 9
SITE NAME 404

TRACKING TIMES (LOCAL) MEASURE ____
START 12:39 p
STOP 1:04 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. ____
CONTROLLER NO. ____
SENSOR NO. ____

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.435 ____
1.795

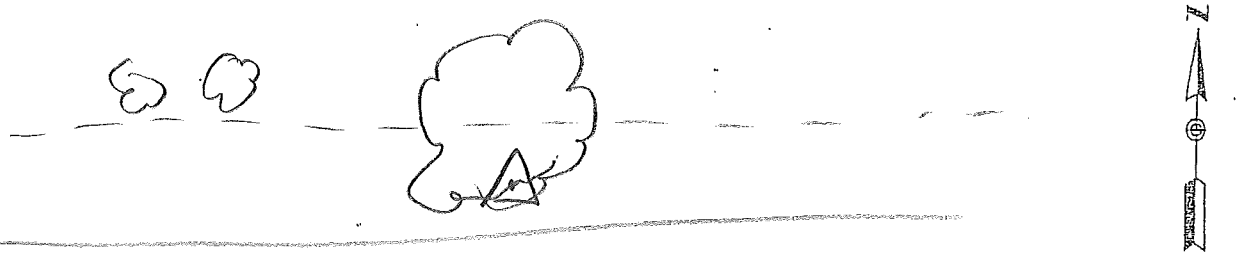
STATION DESCRIPTIONS N. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1339	3.3	6/6
1404		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT urban

PROJECT 1110814
OPERATOR NB
DATE 9.5.11

SITE NUMBER 10
SITE NAME 503

TRACKING TIMES (LOCAL) MEASURE 1/
START 1:15 p
STOP 1:40 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.403
1.763

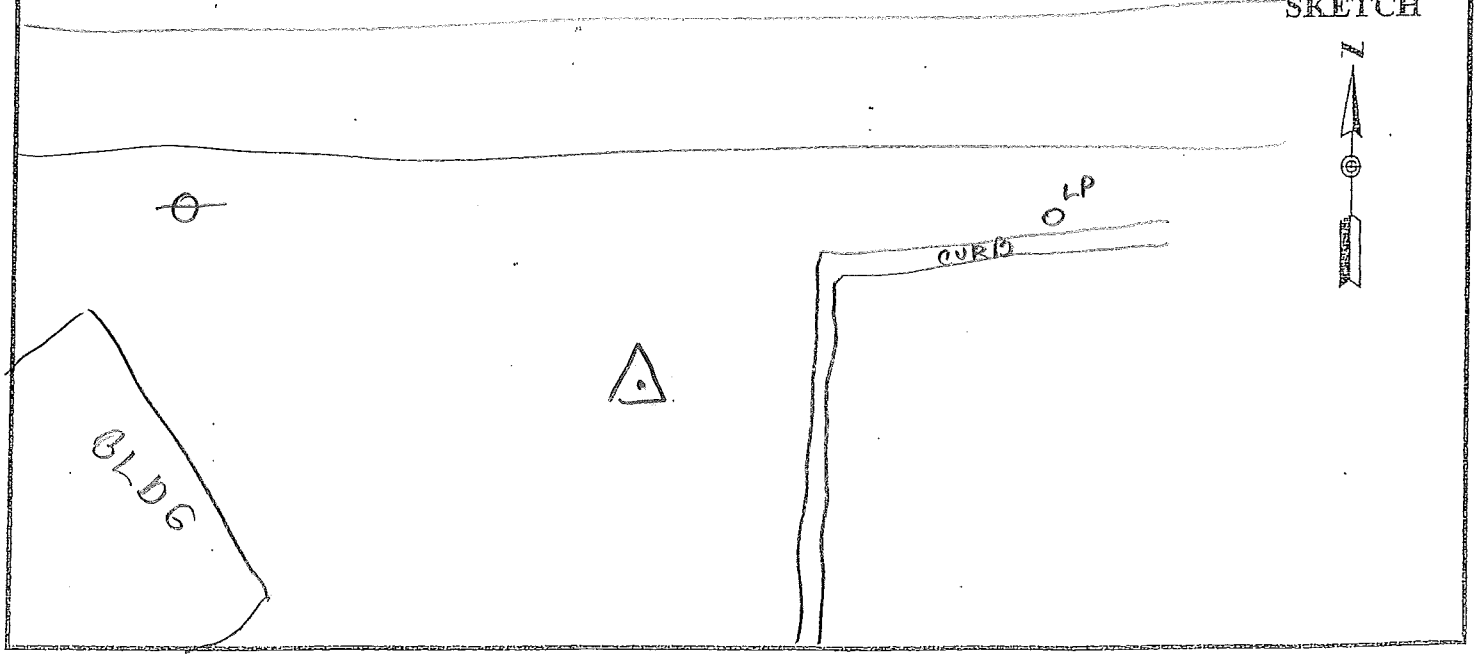
STATION DESCRIPTIONS in parking lot

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1415	1.8	9/9
1440		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT brush

PROJECT 1110814
OPERATOR NB
DATE 9.5.11

SITE NUMBER 11
SITE NAME 303

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:51p
STOP 2:17p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees SW ↔ SE

HEIGHT READINGS MTS FT
1.422

STATION DESCRIPTIONS in brush row

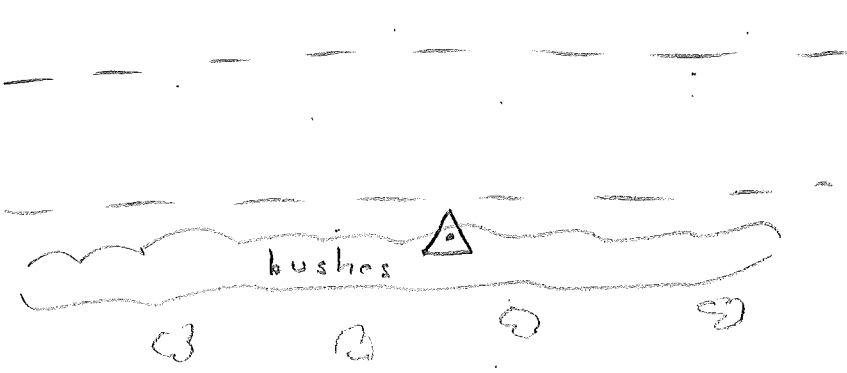
1802

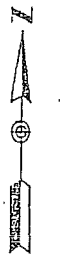
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1451	4.3	5/5
1517		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH





AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 12
SITE NAME 205

TRACKING TIMES (LOCAL) MEASURE V
START 2:26 p
STOP 2:50 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
~~399E/9500~~ ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.460

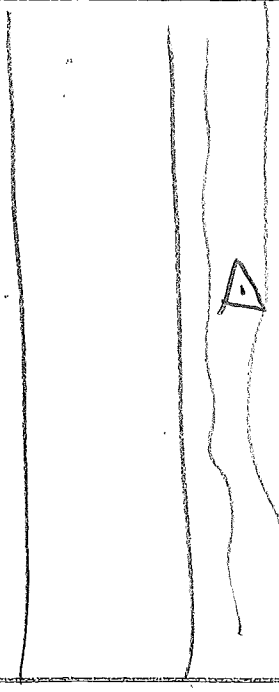
STATION DESCRIPTIONS tall grass E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1526	1.5	9/9
1550		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√ PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.5.11

SITE NUMBER 13
SITE NAME 105

TRACKING TIMES (LOCAL) MEASURE √
START 2:57 p
STOP 3:19 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
~~500~~ ~~0.360~~

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.450
1.810

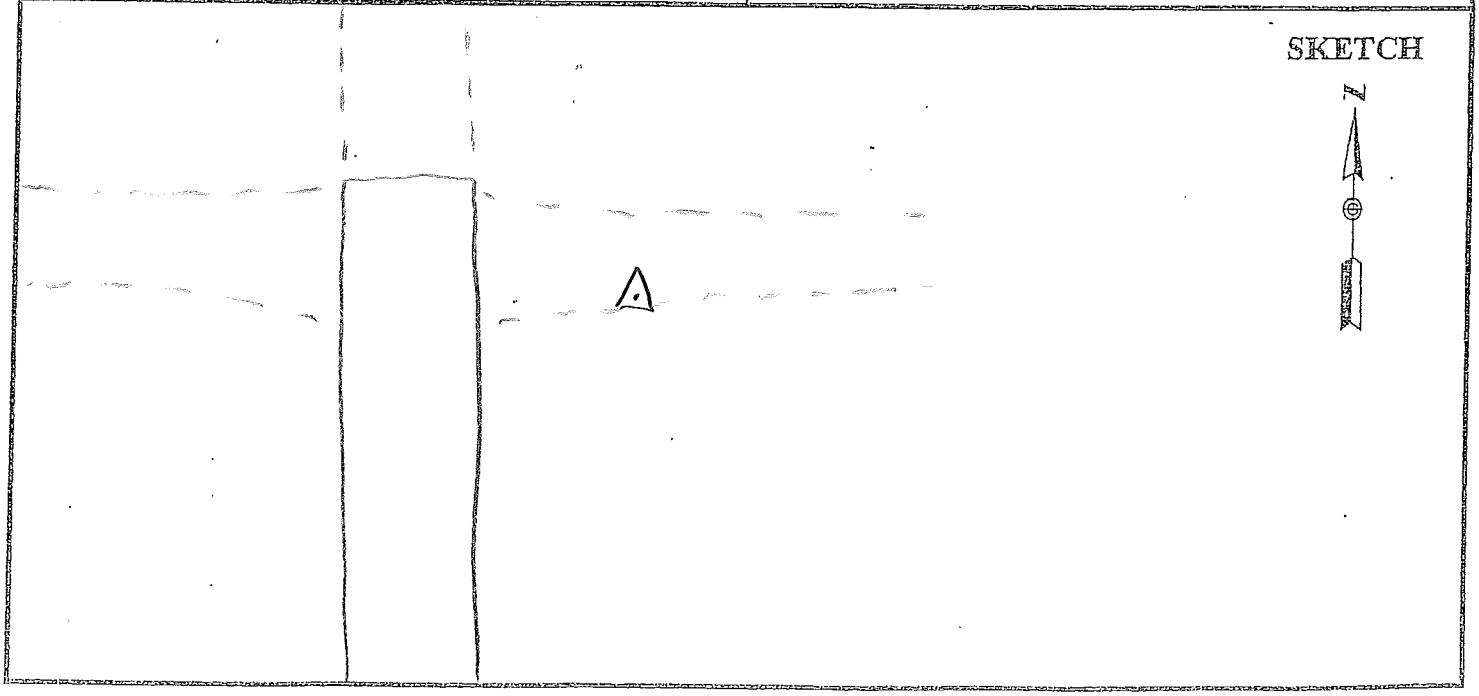
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1557	2.0	6/7
1619		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:11a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.318

STATION DESCRIPTIONS

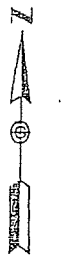
1.678

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
811	4.1	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MJ
DATE 9.6.11

SITE NUMBER 1
SITE NAME 5

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:48 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.233
1.593

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
848	2.3	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pt

AME

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 1
SITE NAME 1005

TRACKING TIMES (LOCAL) MEASURE _____
START 8:02 a.
STOP 8:37 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO. _____
SENSOR NO. _____

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
~~500~~ 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.310 _____
1.670

STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
902	2.2	10/11
937		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

JPT

brush

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 2
SITE NAME 304

TRACKING TIMES (LOCAL) MEASURE _____
START 8:44 a.
STOP 9:20 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.408

1.768

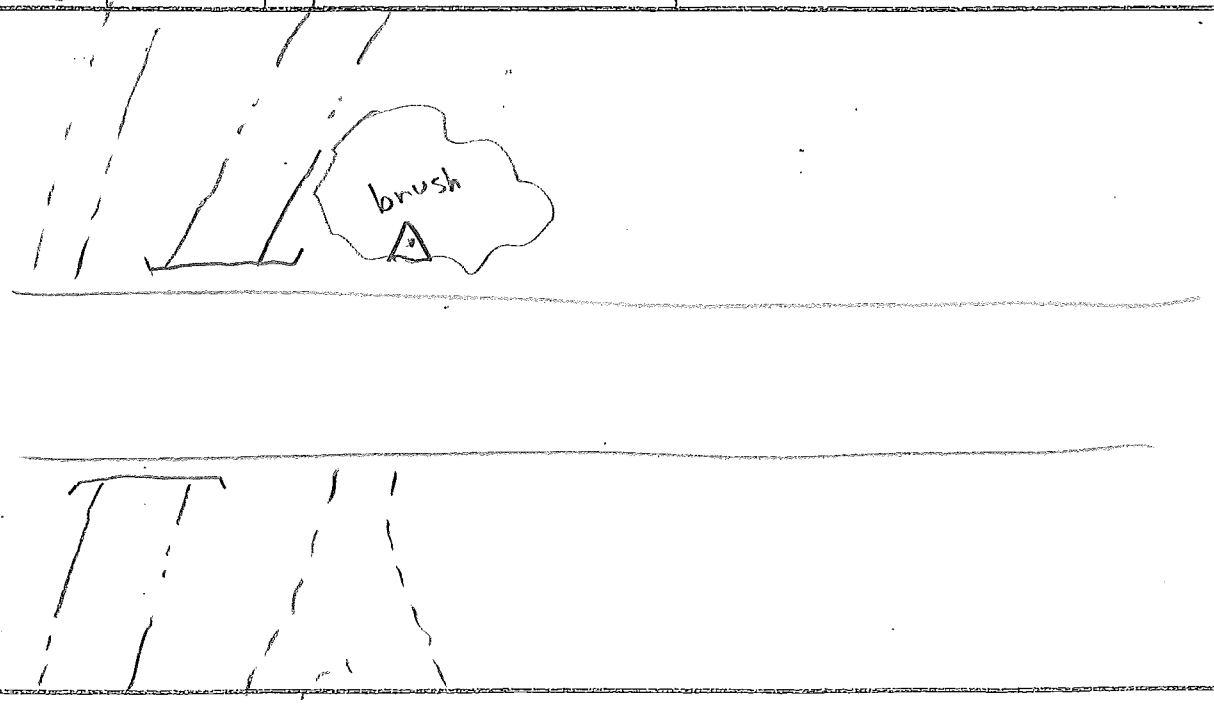
STATION DESCRIPTIONS brush, N. side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
944	4.8	9/9
1020		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pT trees

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 3
SITE NAME 405

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:27a.
STOP 10:07a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.342
1.702

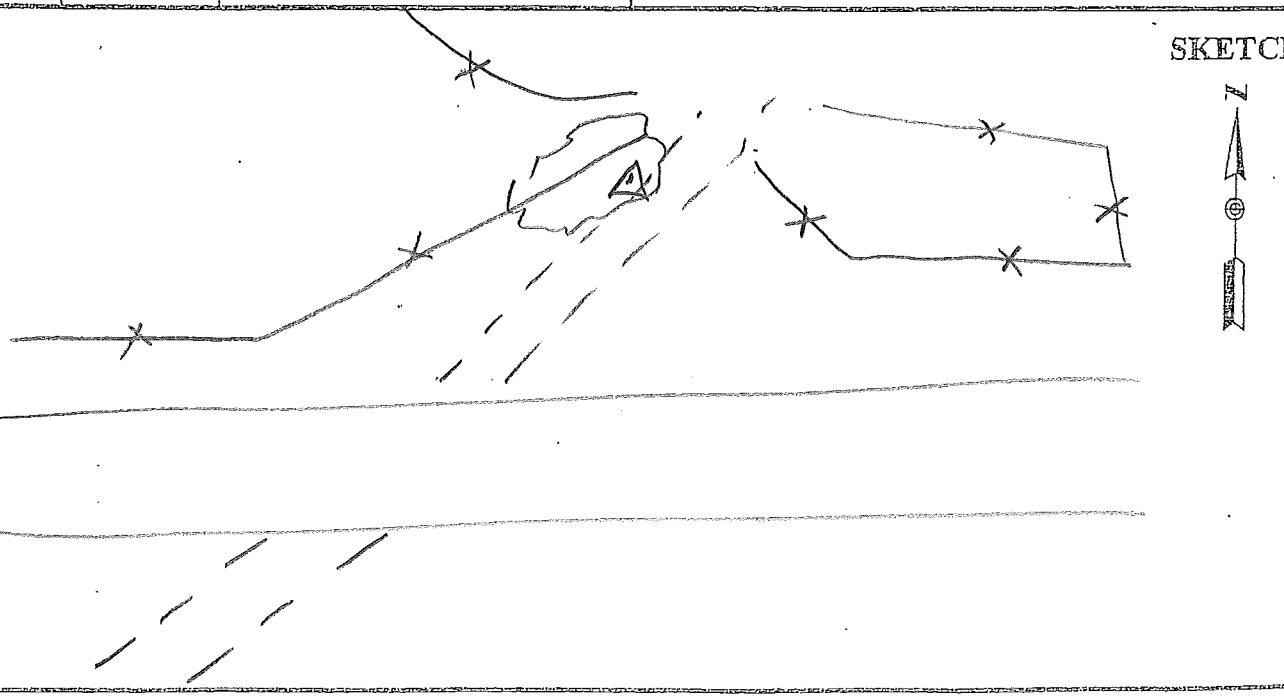
STATION DESCRIPTIONS NW of field
lane, under trees

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1027	2.1	6/10
1107		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓FT

urban

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 4
SITE NAME 504

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:41 a.
STOP 11:23 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.390

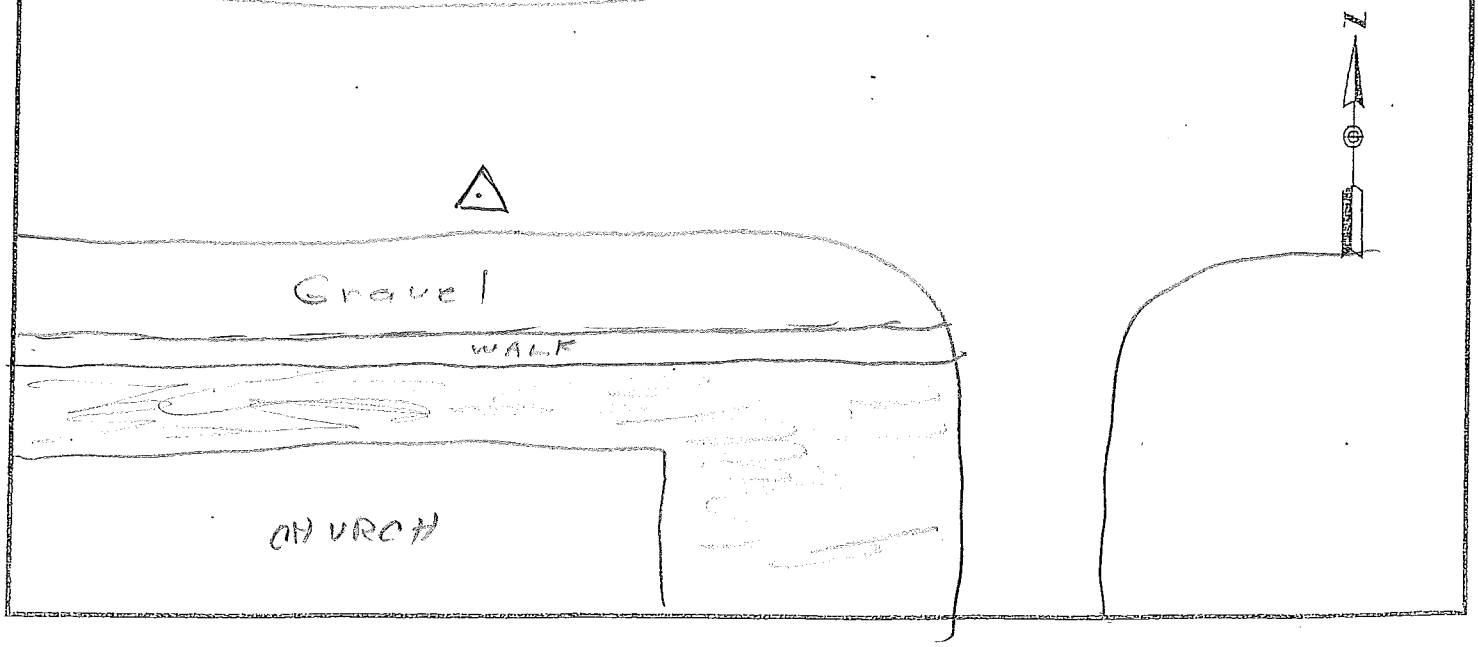
STATION DESCRIPTIONS S. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1141	1.9	8/8
1223		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√pt brush

PROJECT 1110814
OPERATOR MD
DATE 9.6.11

SITE NUMBER 5
SITE NAME 305

TRACKING TIMES (LOCAL) MEASURE ____
START 11:38 p
STOP 12:14 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.440

STATION DESCRIPTIONS in brush

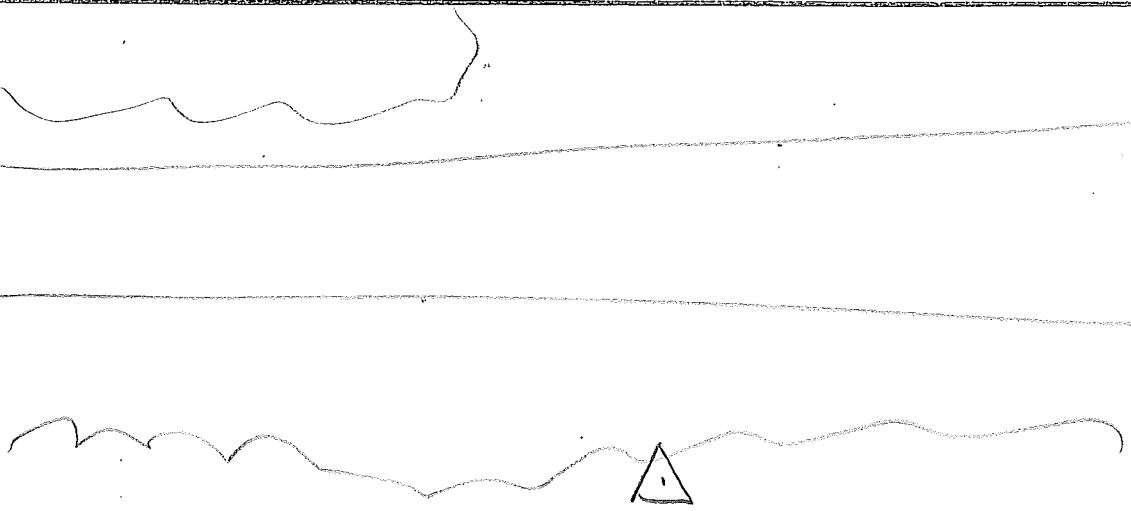
1.800

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1238	2.4	7/8
1314		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



brush

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 6
SITE NAME 106

TRACKING TIMES (LOCAL) MEASURE √
START 12:26 p
STOP 12:52 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.442
1.802

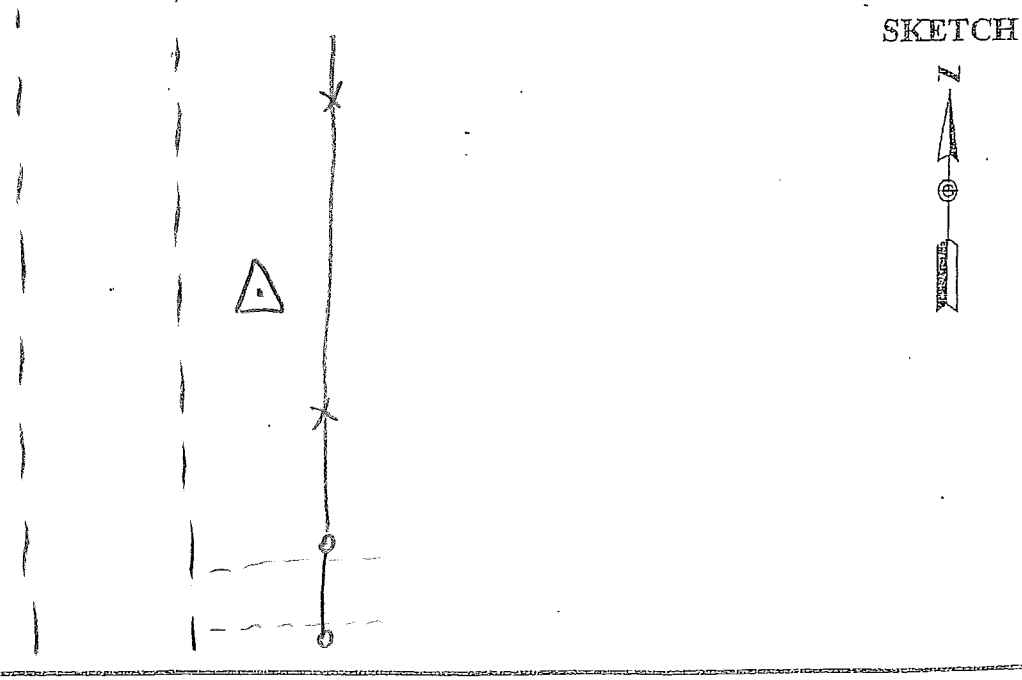
STATION DESCRIPTIONS between fence + E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1326	3.7	5/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

urban

√pt

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 7
SITE NAME 505

TRACKING TIMES (LOCAL) MEASURE √
START 1:14 p
STOP 1:40 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) 0.360

OBSTRUCTIONS: none

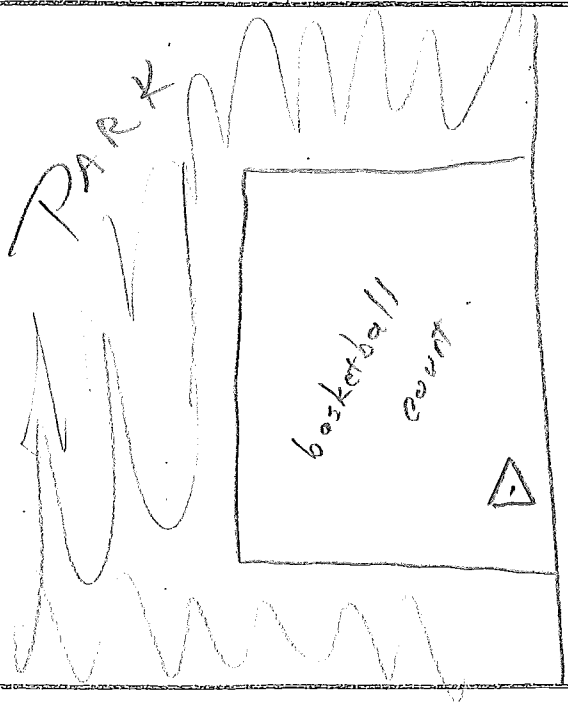
HEIGHT READINGS MTS FT
1.347
1.707

STATION DESCRIPTIONS E. side of basketball court

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1414	2.4	6/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS



SKETCH

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT AME

PROJECT 1110814
OPERATOR MG
DATE 9.6.11

SITE NUMBER 8
SITE NAME 1006

TRACKING TIMES (LOCAL) MEASURE √
START 1:47 p
STOP 2:13 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.373
1.733

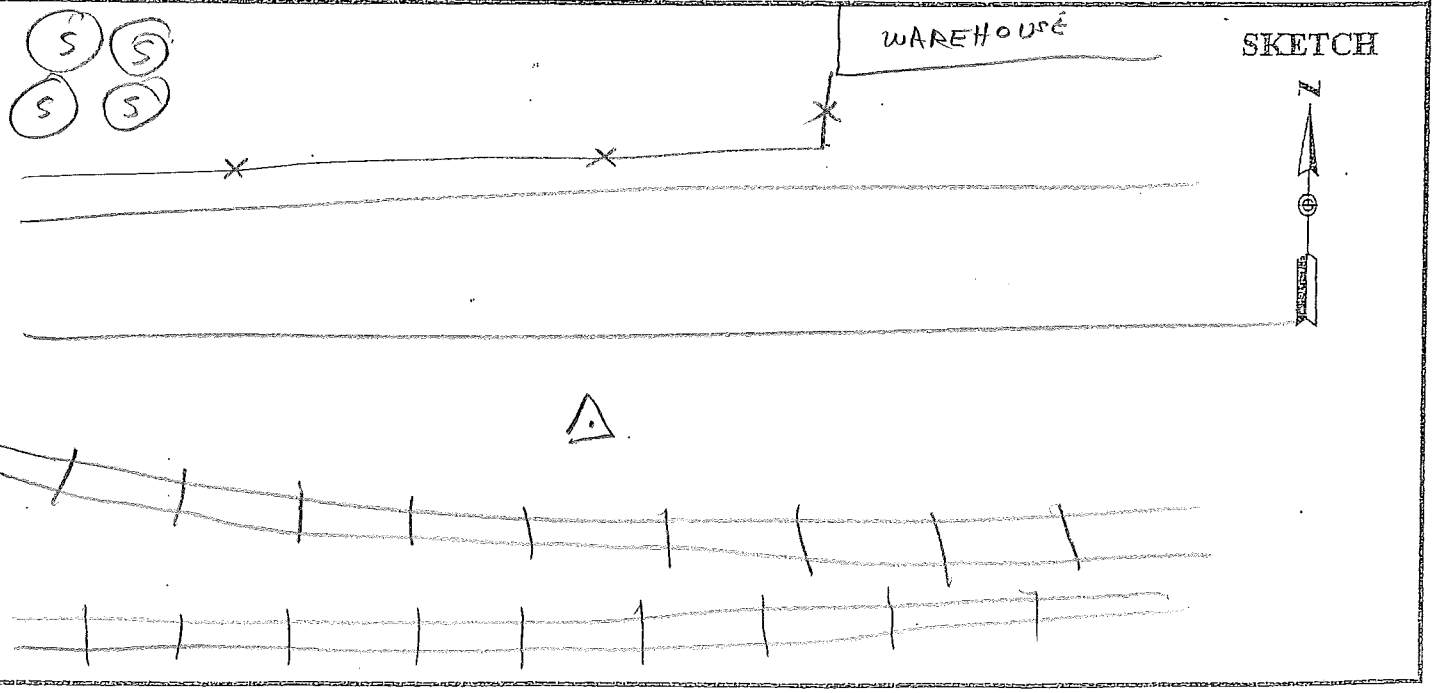
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1447	2.1	8/9
1513		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT trees

PROJECT 1110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 9
SITE NAME 406

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:31 p
STOP 2:57 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.410
1.770

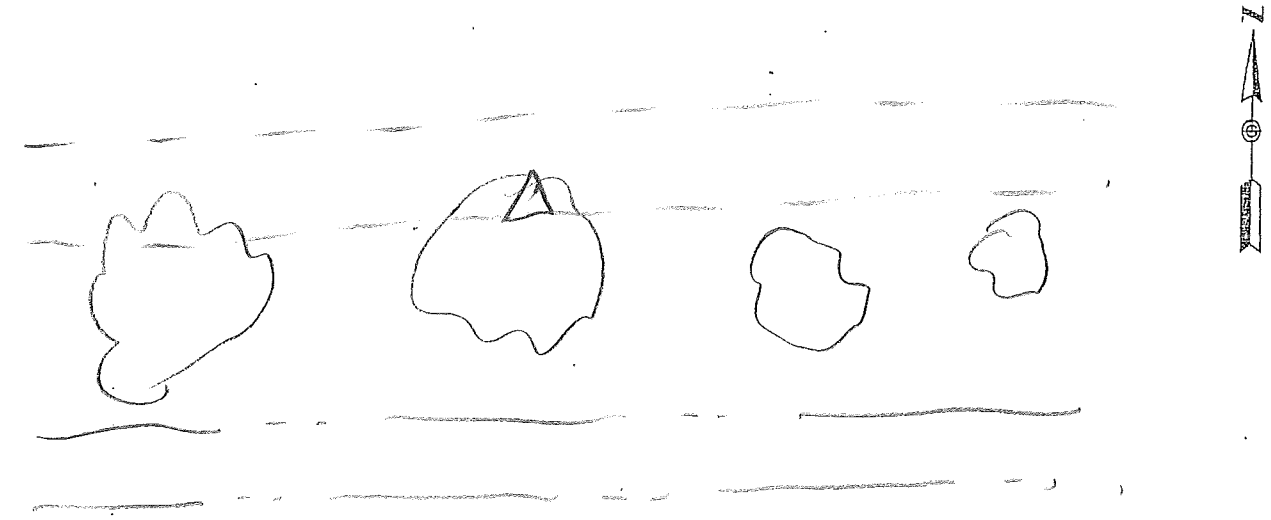
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1531	1.9	7/7
1557		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT

bare earth

PROJECT 110814
OPERATOR MB
DATE 9.6.11

SITE NUMBER 10
SITE NAME 107

TRACKING TIMES (LOCAL) MEASURE ✓
START 3:10 p
STOP 3:45 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.413
1.773

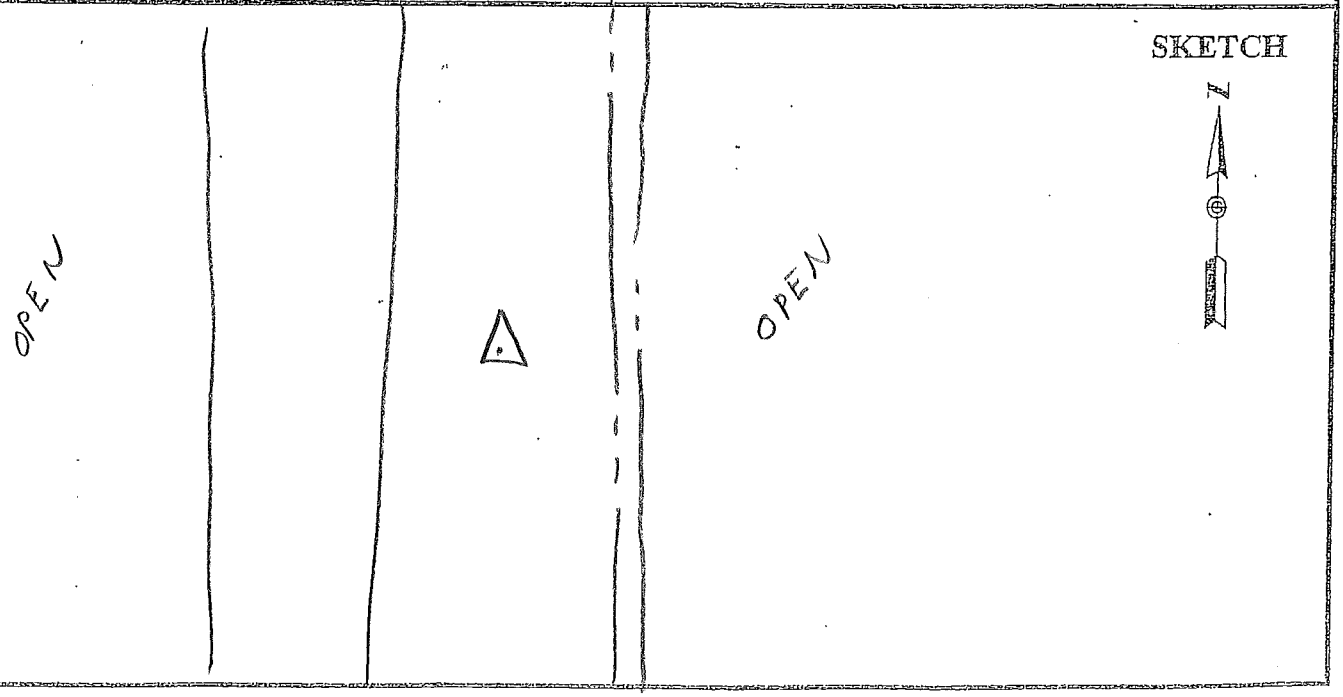
STATION DESCRIPTIONS E. side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1610	2.1	8/8
1645		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:05 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.375

1.735

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
805	2.2	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

Sec
Previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base √PT urban

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 2
SITE NAME 506

TRACKING TIMES (LOCAL) MEASURE √
START 12:26 p
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.408

1.768

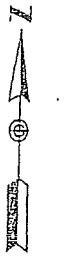
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1326	3.5	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



see previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 1
SITE NAME 6

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:32a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.267

1.587

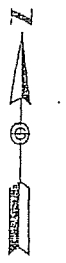
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
832	2.2	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See Previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pt

tall weeds

PROJECT 1110814
OPERATOR MS
DATE 9.7.11

SITE NUMBER 1
SITE NAME 206

TRACKING TIMES (LOCAL) MEASURE √
START 7:41 a.
STOP 8:09 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.263
1.623

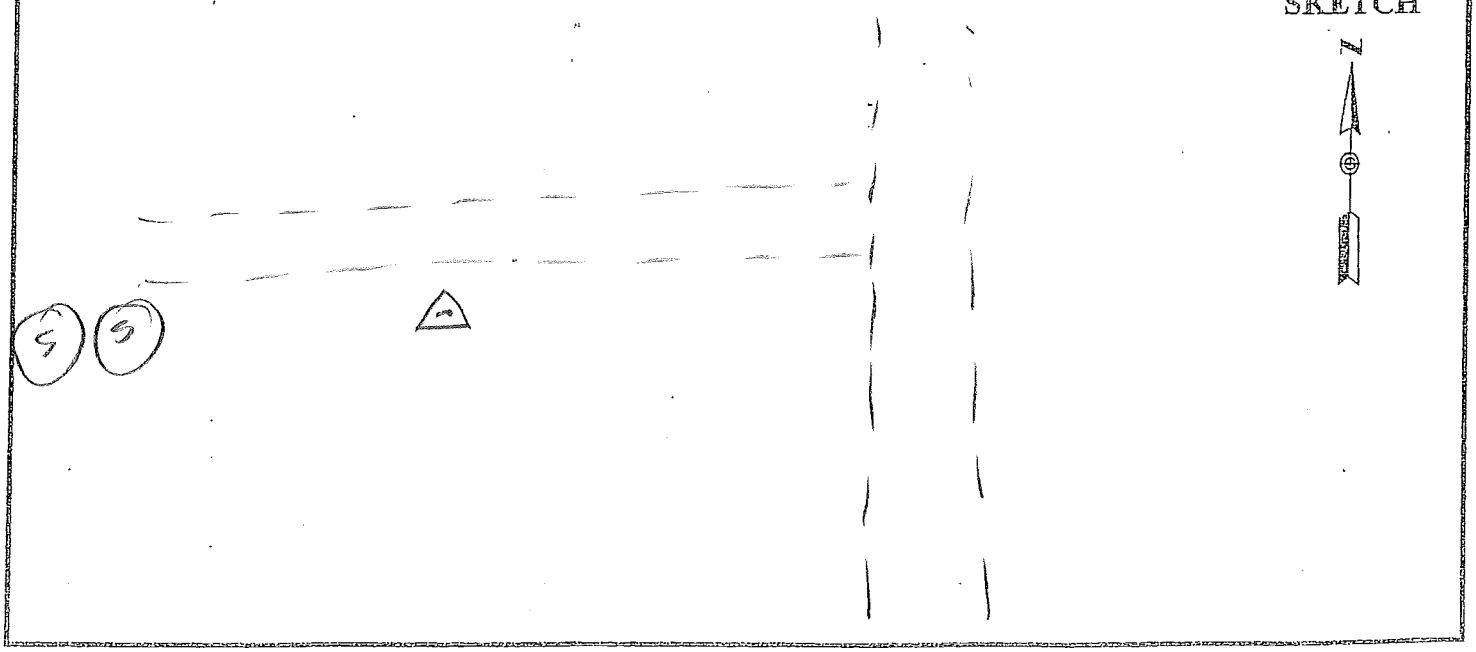
STATION DESCRIPTIONS S. side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
841	2.4	10/11
909		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VRT brush

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 2
SITE NAME 306

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:24 a.
STOP 8:48 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.411
1.771

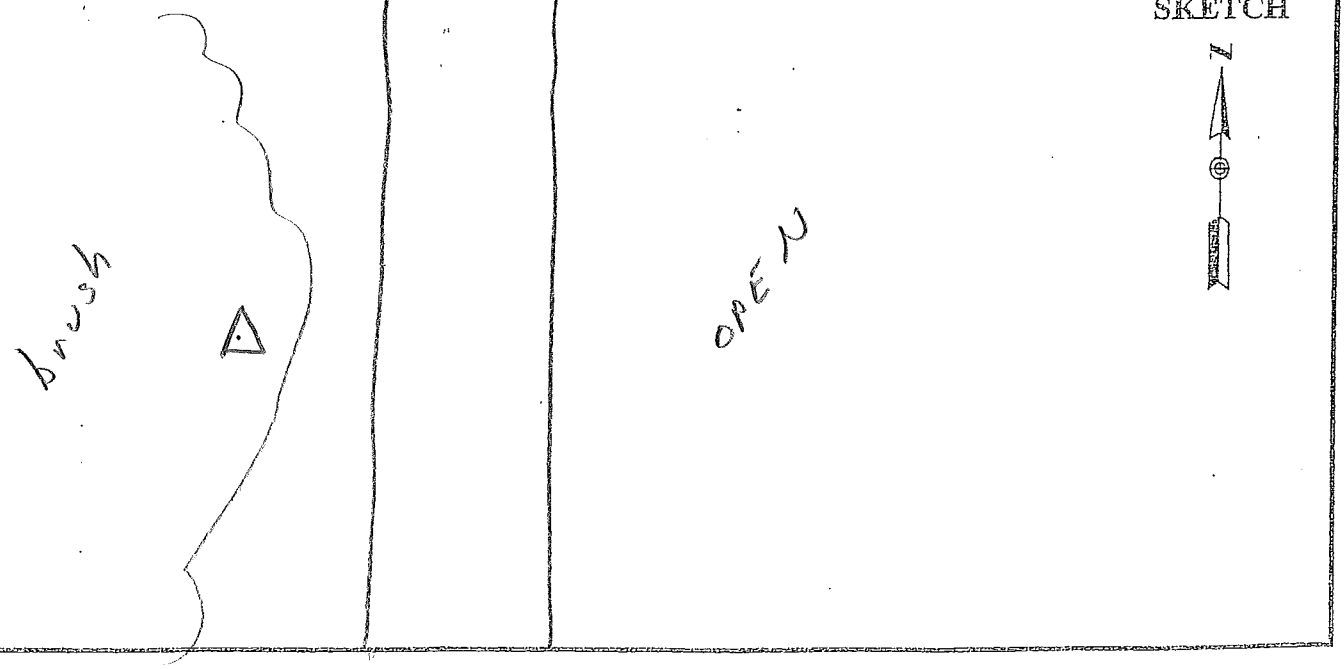
STATION DESCRIPTIONS in brush
W. of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
924	5.2	9/10
948		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√pt trees

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 3
SITE NAME 407

TRACKING TIMES (LOCAL) MEASURE √
START 8:59 a.
STOP 9:22 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.425
1.785

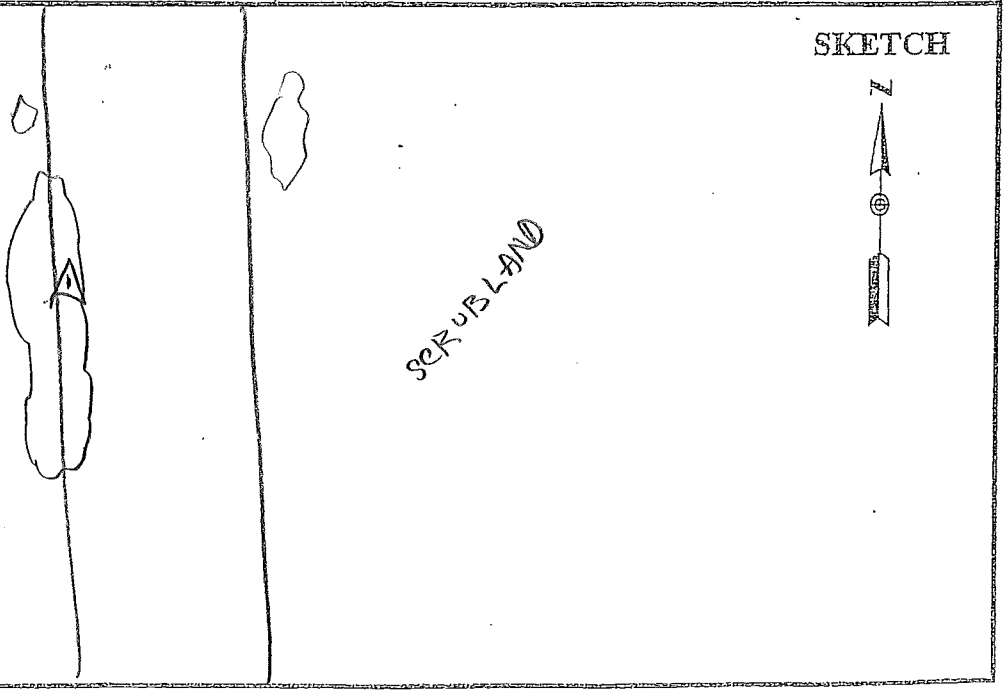
STATION DESCRIPTIONS W. side road under trees

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
959	3.1	7/9
1022		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 4
SITE NAME 108

TRACKING TIMES (LOCAL) MEASURE √
START 9:35 a.
STOP 10:00 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.387
1.747

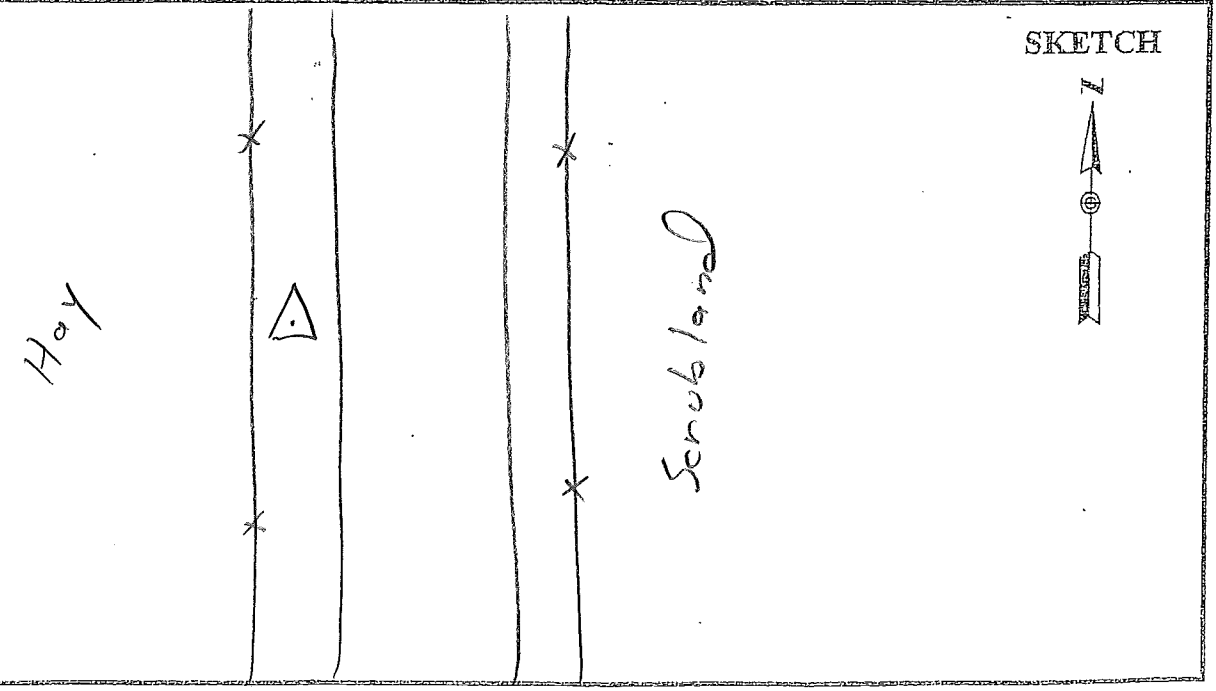
STATION DESCRIPTIONS W. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1035	1.8	10/10
1100		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT trees

PROJECT 1110814
OPERATOR MD
DATE 9.7.11

SITE NUMBER 5
SITE NAME 408

TRACKING TIMES (LOCAL) MEASURE √
START 10:12 a.
STOP 10:39 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: under trees

HEIGHT READINGS MTS FT
1.432
1.792

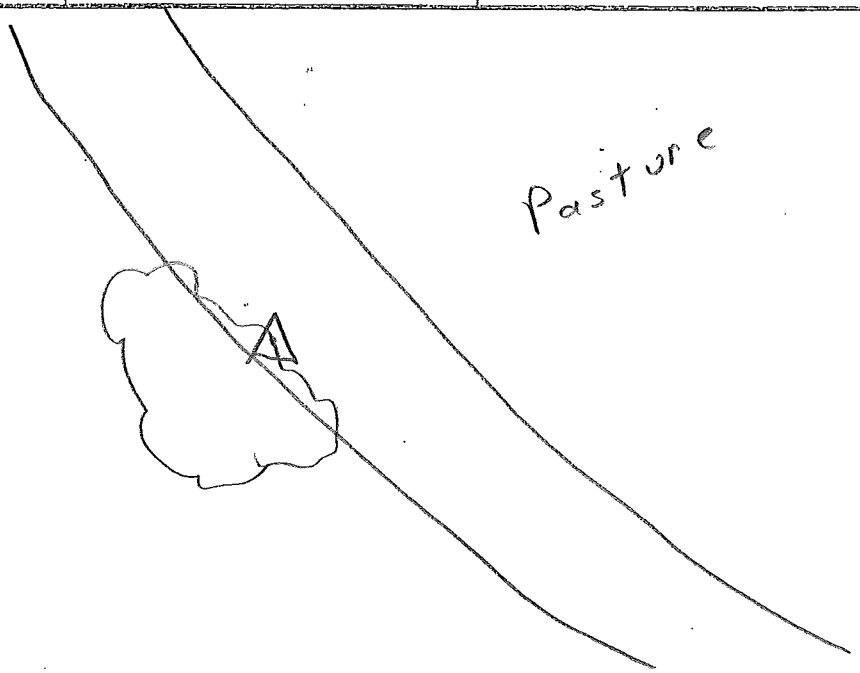
STATION DESCRIPTIONS SW side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1112	2.4	4/7
1139		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 6
SITE NAME 1007

TRACKING TIMES (LOCAL) MEASURE √
START 10:44 a.
STOP 11:10 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
~~500~~ 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.415
1.775

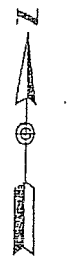
STATION DESCRIPTIONS S. paved shoulder

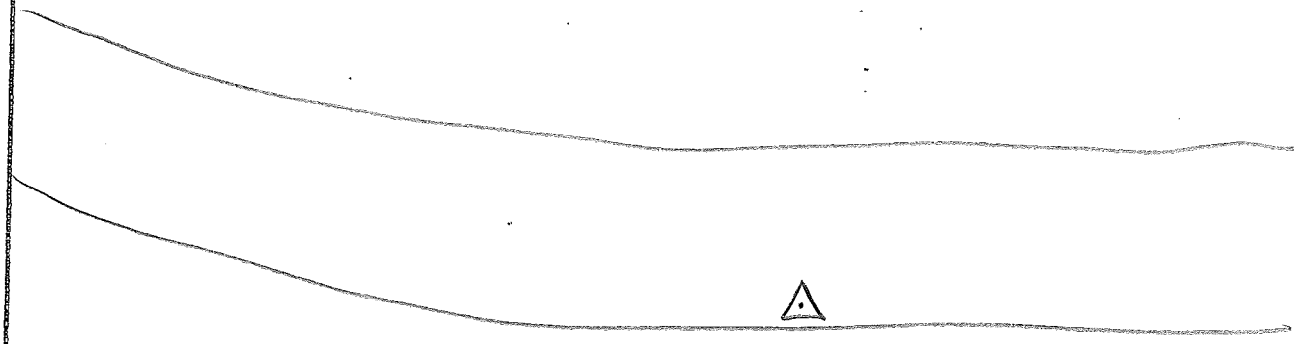
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1144	1.6	10/10
1210		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH





AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT urban

PROJECT 1110814
OPERATOR MS
DATE 9.7.11

SITE NUMBER 7
SITE NAME 506

TRACKING TIMES (LOCAL) MEASURE √
START 11:18 a.
STOP 11:45 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.338

STATION DESCRIPTIONS set 6" nail ± 3' N. of E/W fence; ± 18' E. of "Center Lane Only" sign; ± 11' S. of S. edge of pavement and ± 32' W. of ~~"X-160"~~ "East 160" sign

1698

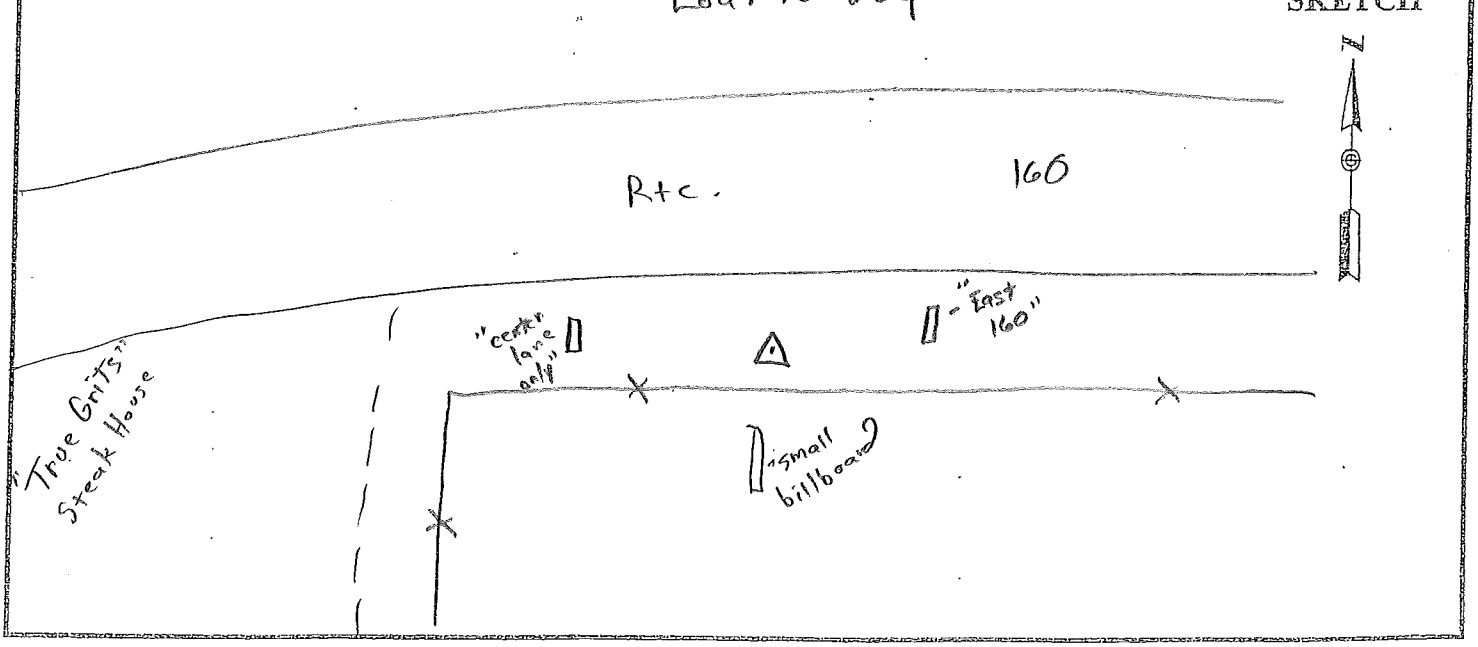
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1218	2.3	8/9
1245		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

37 28 22.4'
105 51 23.7'

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9·7·11

SITE NUMBER 8
SITE NAME 207

TRACKING TIMES (LOCAL) MEASURE √
START 12:35 p
STOP 1:03 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.403
1.763

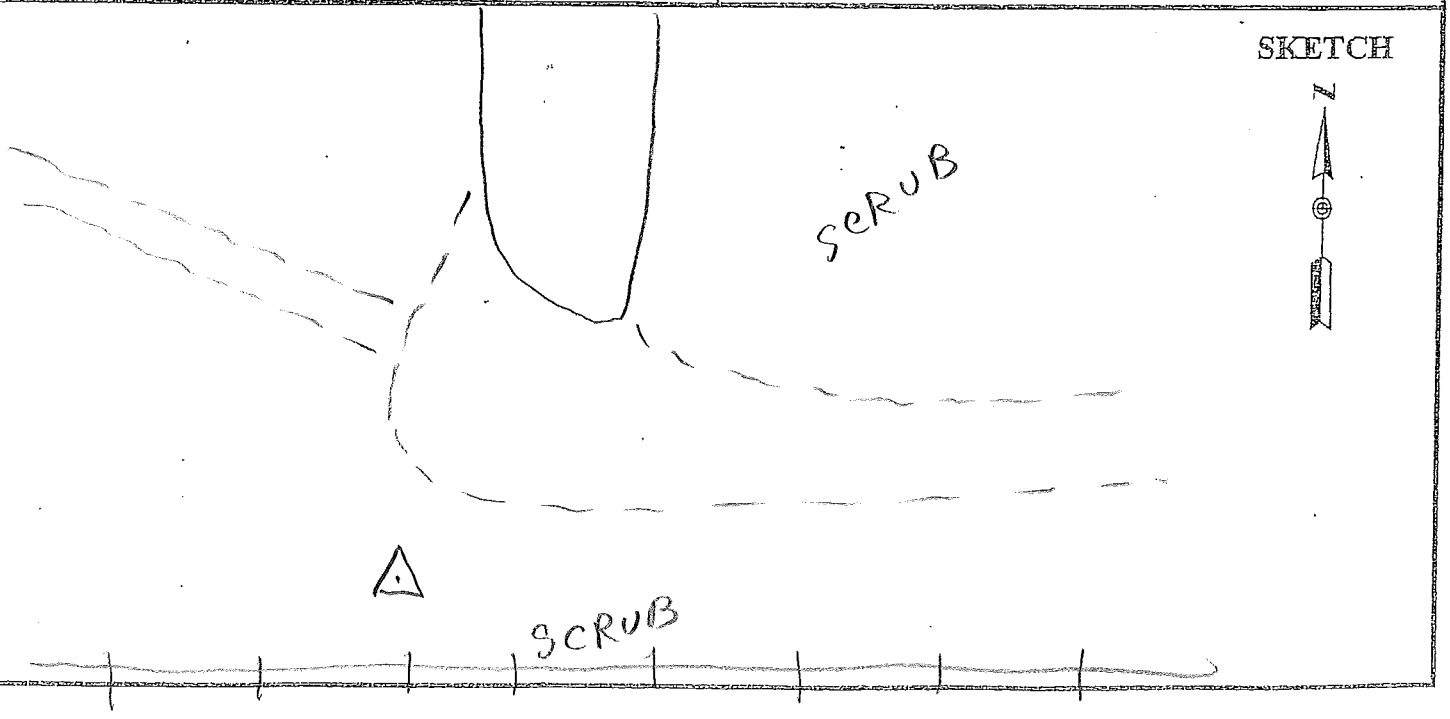
STATION DESCRIPTIONS in brush area
SW corner of intersection

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1335	3.2	8/8
1403		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT brush

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 9
SITE NAME 307

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:20 p
STOP 1:52 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.402
1.762

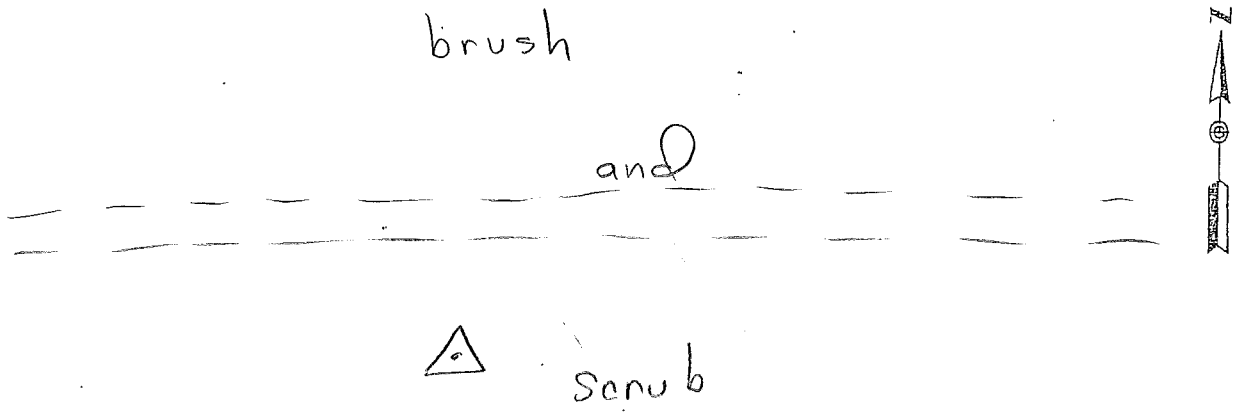
STATION DESCRIPTIONS in brush on S. side of 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1420	3.8	7/7
1452		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT AME

PROJECT 1110814
OPERATOR MB
DATE 9.2.11

SITE NUMBER 10
SITE NAME 1008

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:11 p
STOP 2:39 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.447

STATION DESCRIPTIONS N. side of road

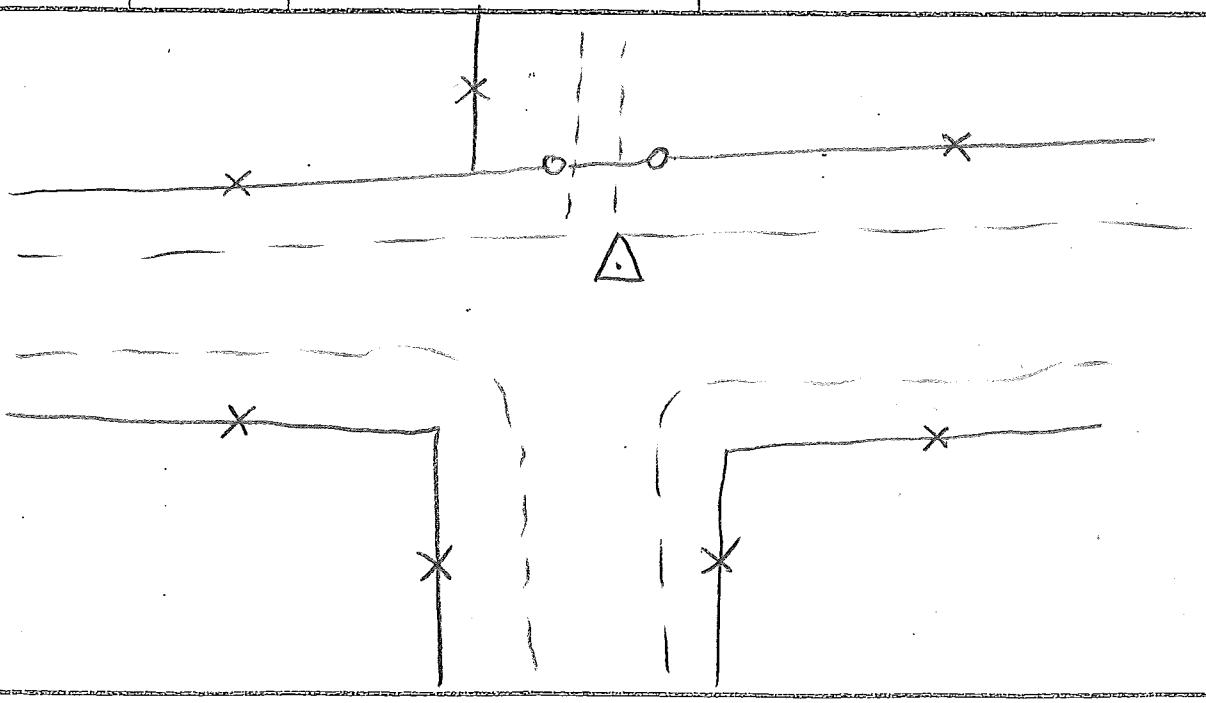
1807

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1511	2.9	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 1/pt brush

PROJECT 1110814
OPERATOR MB
DATE 9.7.11

SITE NUMBER 11
SITE NAME 308

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:48 p
STOP 3:13 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.513
1.873

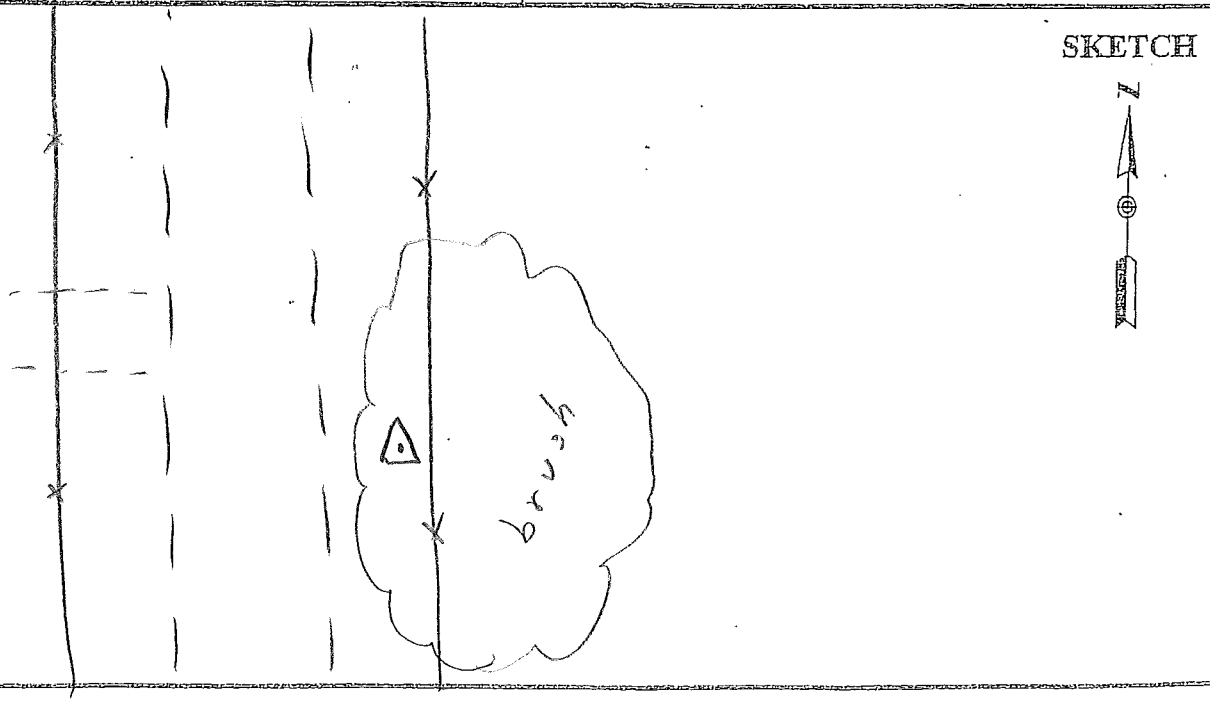
STATION DESCRIPTIONS in brush E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1548	2.0	7/7
1613		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT urban

PROJECT 1110817
OPERATOR MB
DATE 9.7.11

SITE NUMBER 12
SITE NAME 507

TRACKING TIMES (LOCAL) MEASURE √
START 3:41 p
STOP 4:08 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.436
1.796

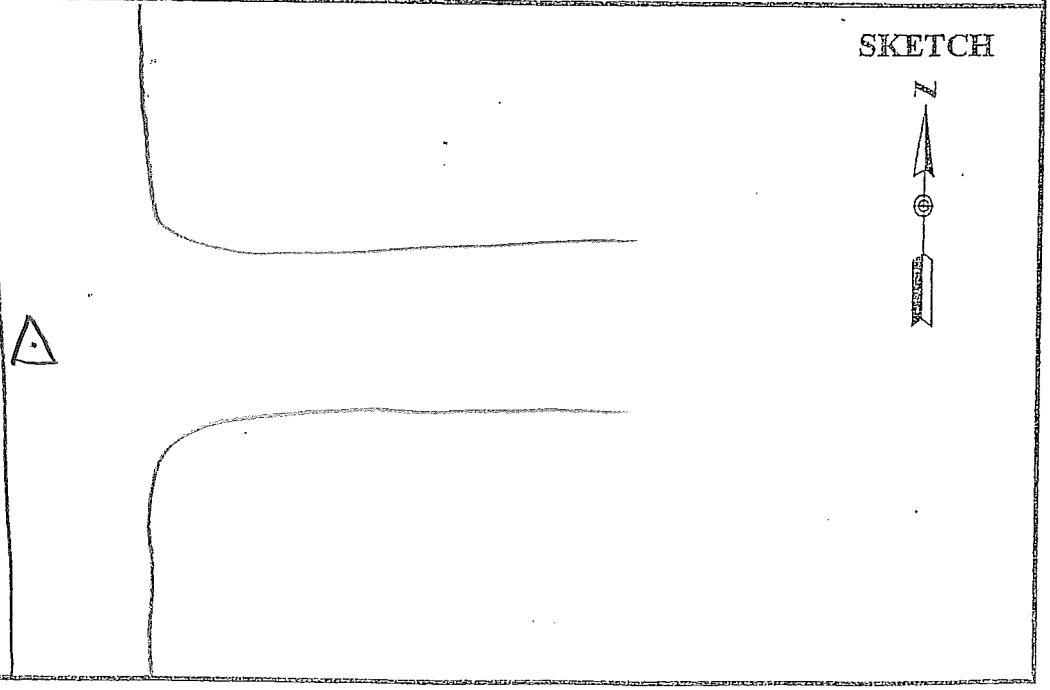
STATION DESCRIPTIONS W. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1641	2.6	7/7
1708		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base

urban VRT

PROJECT 1110814
OPERATOR NB
DATE 9.8.11

SITE NUMBER 1
SITE NAME 506

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:06 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.290

1.650

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
806	3.4	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base

PROJECT 1110814
OPERATOR MJ
DATE 9.8.11

SITE NUMBER 1
SITE NAME 3

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:29a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.304

1.664

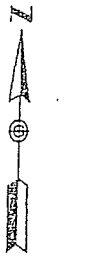
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
829	2.1	8/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

1/pt bare earth

PROJECT 1110814
OPERATOR NB
DATE 9.8.11

SITE NUMBER 1
SITE NAME 109

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:40 a.
STOP 8:04 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.460
1.820

OBSTRUCTIONS: none

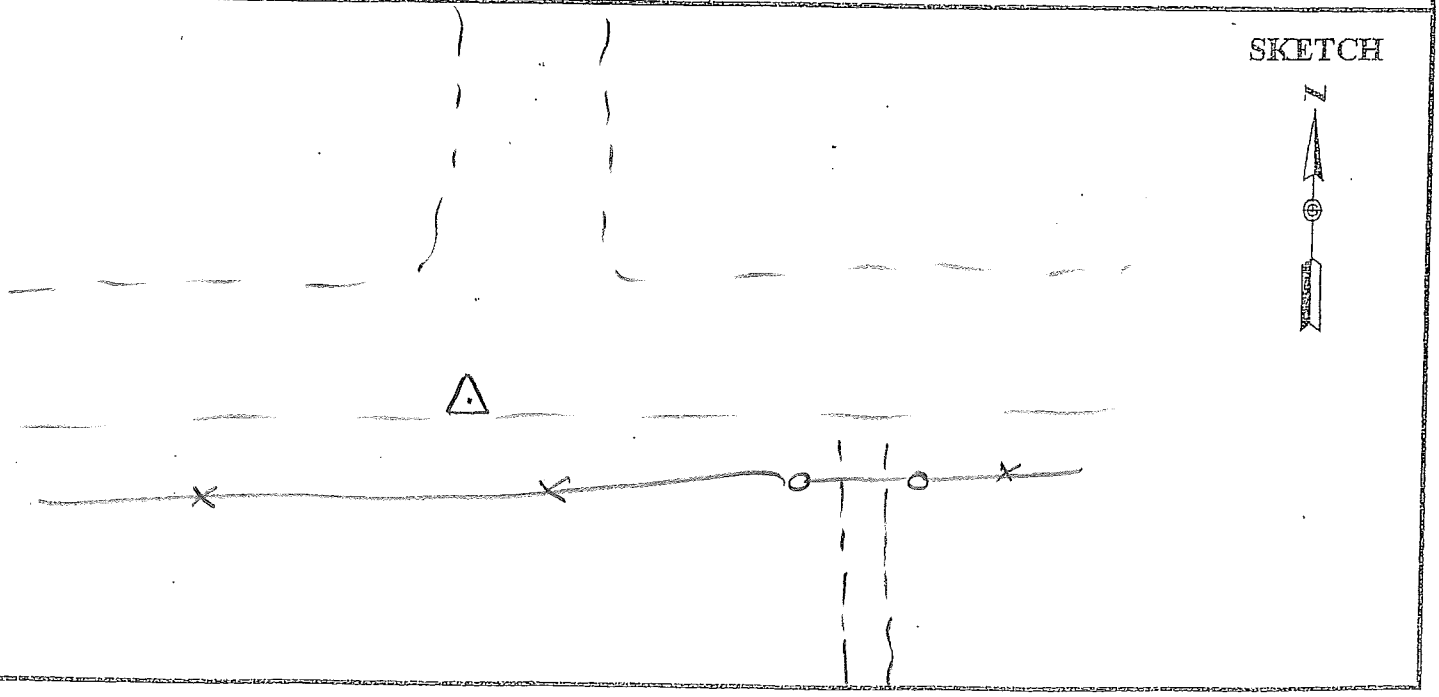
STATION DESCRIPTIONS S. lane of E/W road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
840	2.2	11

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT. tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.8.11

SITE NUMBER 2
SITE NAME 208

TRACKING TIMES (LOCAL) MEASURE √
START 8:16 a.
STOP 8:41 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.353

1713

OBSTRUCTIONS: none

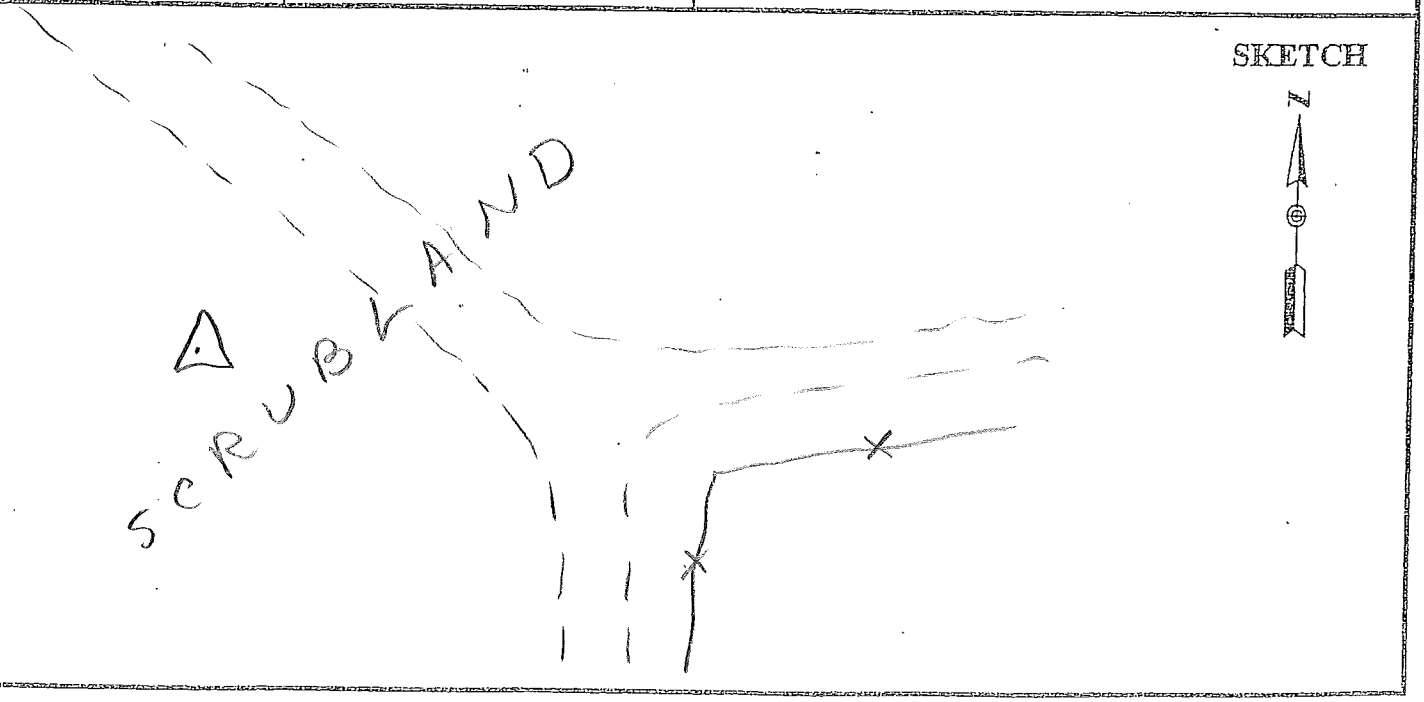
STATION DESCRIPTIONS in tall scrub area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
916	2.2	9/10
941		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.8.11

SITE NUMBER 3
SITE NAME 1009

TRACKING TIMES (LOCAL) MEASURE √
START 8:50a.
STOP 9:18a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
~~500~~ 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.418
1.778

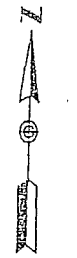
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
950	6.4	10/10
1008		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



SCRUB

SCRUB

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT bare earth

PROJECT 110814
OPERATOR MB
DATE 9·8·11

SITE NUMBER 4
SITE NAME 110

TRACKING TIMES (LOCAL) MEASURE _____
START 9:53 a.
STOP 10:46 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees E

HEIGHT READINGS MTS FT
1.359
1.719

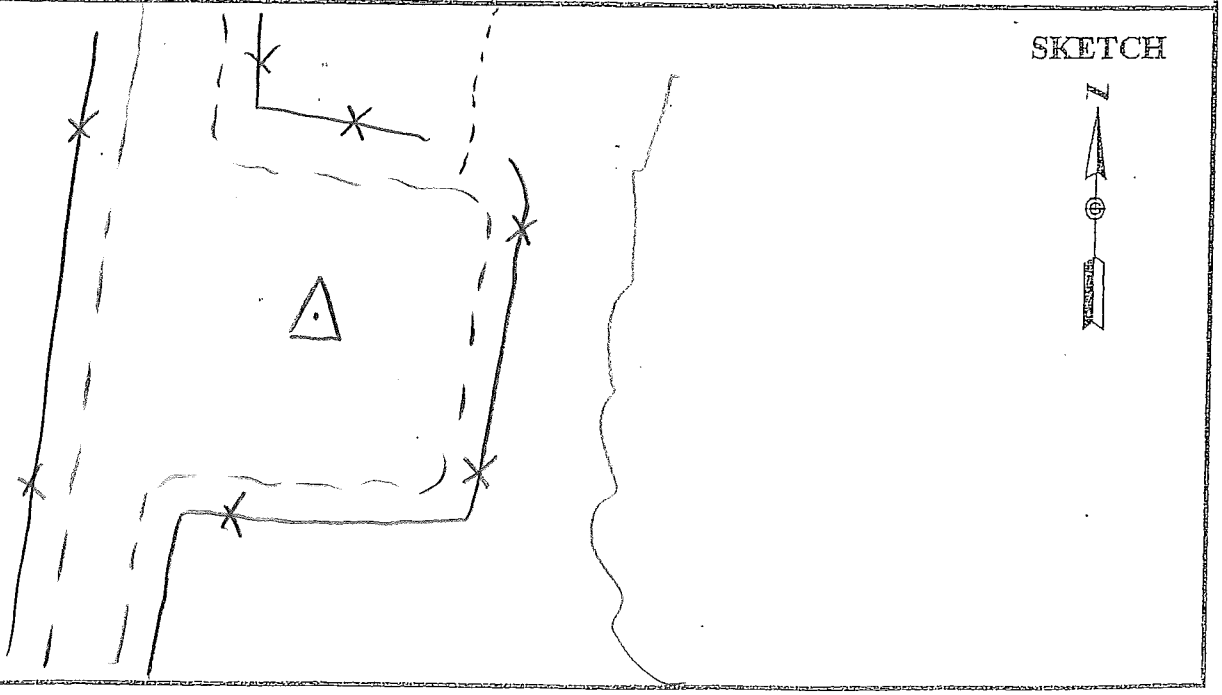
STATION DESCRIPTIONS in center of pull-off

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1053	4.6	9/9
1146		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.8.11

SITE NUMBER 6
SITE NAME 209

TRACKING TIMES (LOCAL) MEASURE √
START 12:03 p
STOP 12:36 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.422

1782

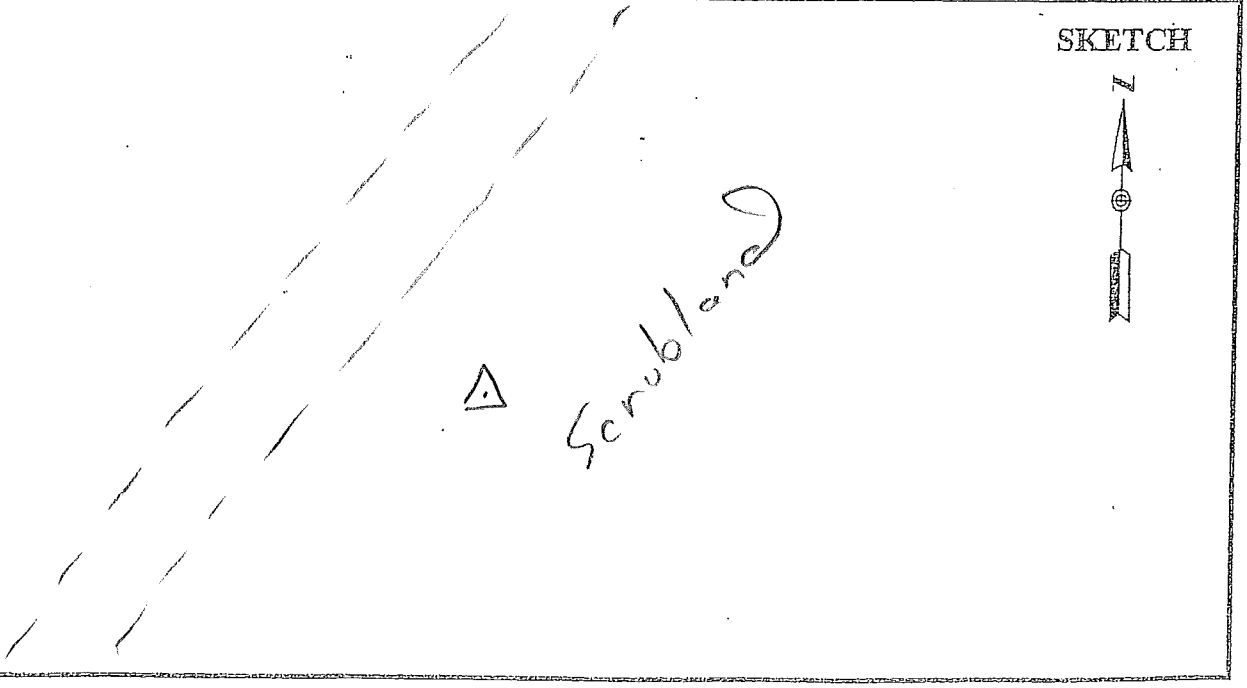
STATION DESCRIPTIONS scrubs on SE side of roads

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1303	2.6	7/7
1336		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT brush

PROJECT 1110814
OPERATOR MB
DATE 9.8.11

SITE NUMBER 7
SITE NAME ~~213~~ 309

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:48 p
STOP 1:26 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.411

OBSTRUCTIONS: none

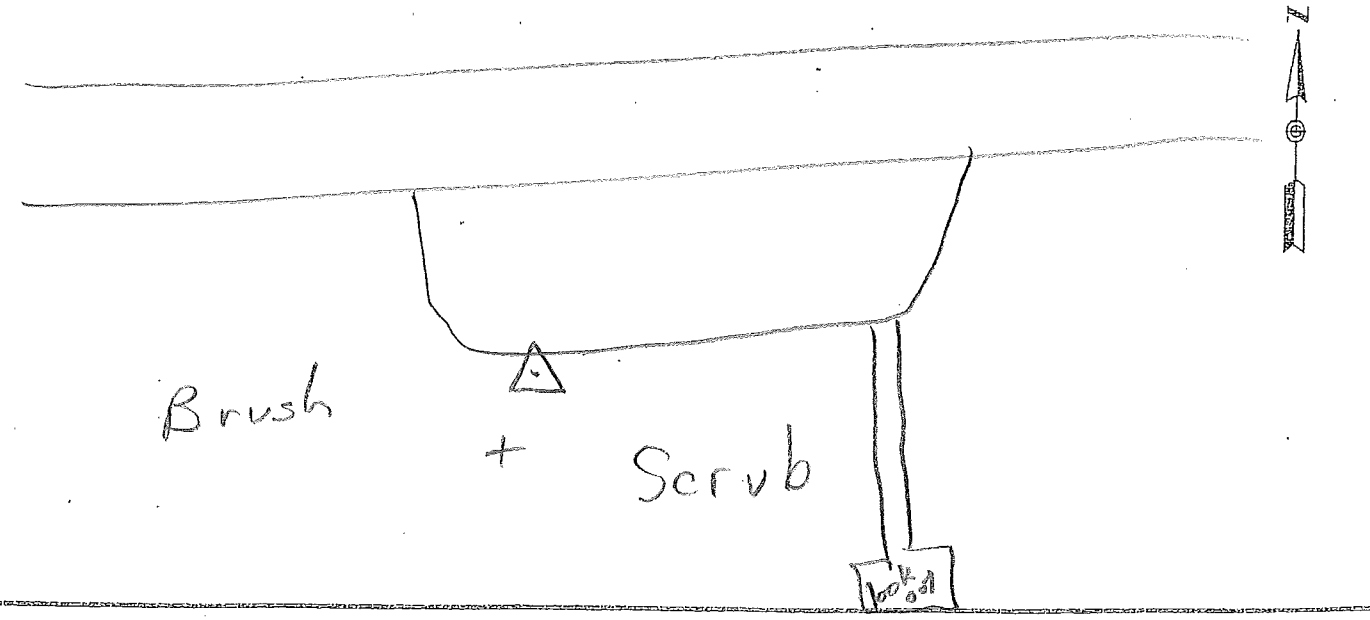
STATION DESCRIPTIONS in brush

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1348	2.1	8/8
1426		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

JPT AME

PROJECT 1110814
OPERATOR MB
DATE 9.8.11

SITE NUMBER 8
SITE NAME 1010

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:40 p
STOP 2:16 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/~~9500~~ 500 ~~0.389~~ 0.360

HEIGHT READINGS MTS FT
1.438
1.798

OBSTRUCTIONS: none

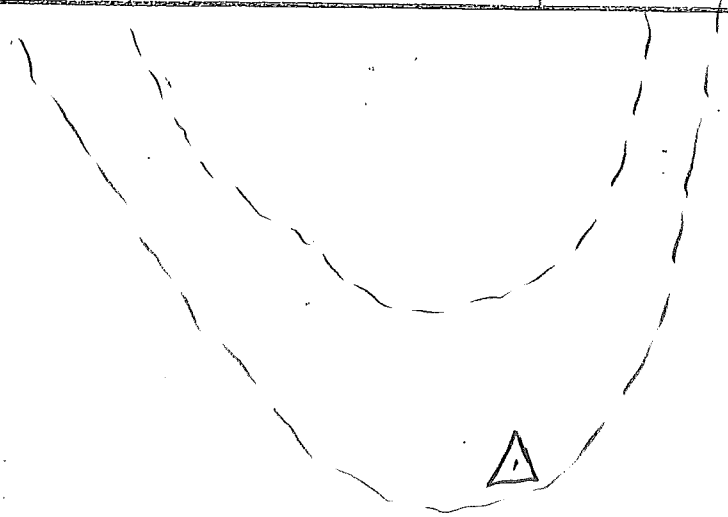
STATION DESCRIPTIONS S. side of switchback

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1440	2.3	8/9
1516		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 1/PT tall weeds

PROJECT	1110814	SITE NUMBER	9
OPERATOR	MB	SITE NAME	210
DATE	9.8.11		

TRACKING TIMES (LOCAL) MEASURE ______

START 2:32 p

STOP 3:02 p

SENSOR TYPE 500 9500 399 299

MEMORY CARD 704

BATTERY NO. ______

CONTROLLER NO. ______

SENSOR NO. ______

SENSOR CONSTANT

299/399	0.441
399E/9500	0.389
(500)	(0.360)

OBSTRUCTIONS: none

HEIGHT READINGS

MTS	FT
1.368	

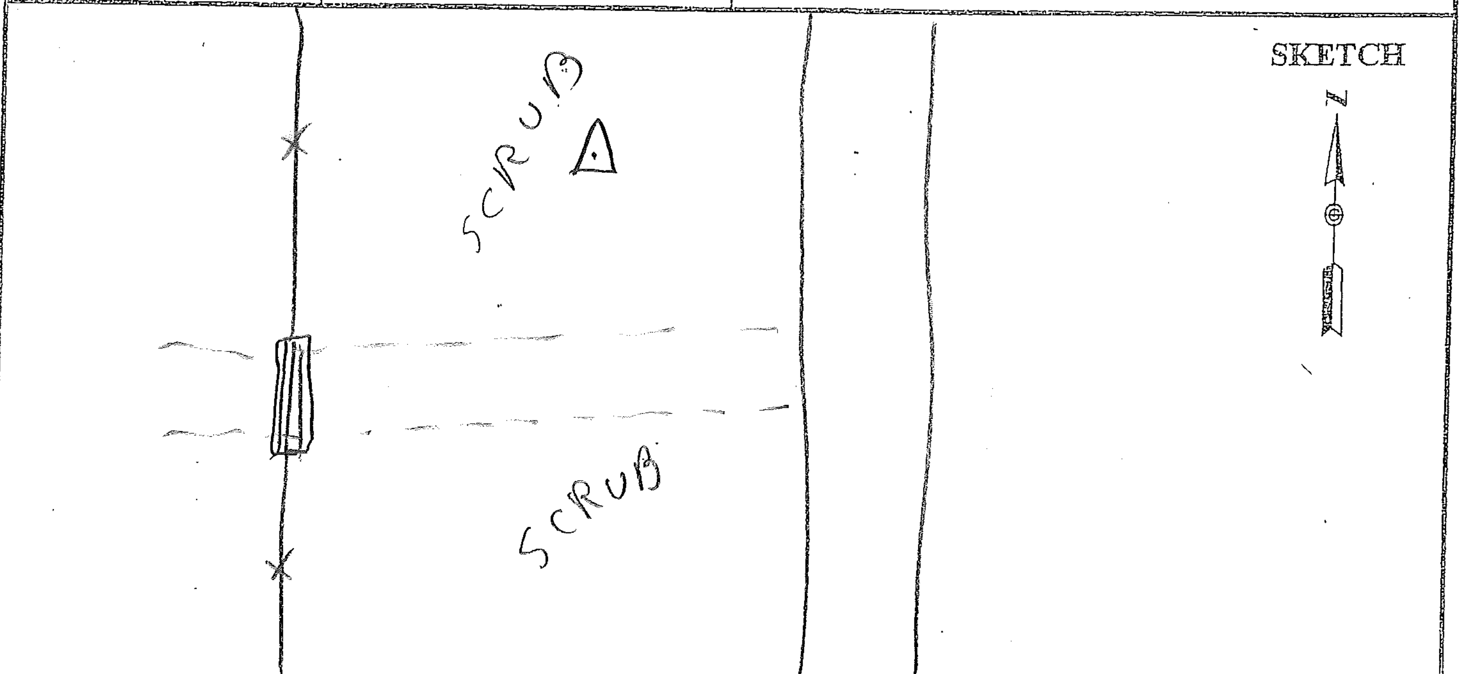
STATION DESCRIPTIONS in tall scrub

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES	
1532	2.3	6/6	
1602			

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MS
DATE 9.9.11

SITE NUMBER 1
SITE NAME 3

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:27 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.308

1.668

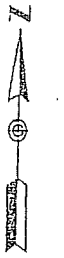
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
827	5.4	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



see previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base H+V Control

PROJECT 1110814
OPERATOR NB
DATE 9.9.11

SITE NUMBER 1
SITE NAME K 75

TRACKING TIMES (LOCAL) MEASURE 1/
START 7:50a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.252
1.612

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
850	2.3	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

brush

PROJECT 110814
OPERATOR NB
DATE 9.9.11

SITE NUMBER 1
SITE NAME 310

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:55 a.
STOP 8:20 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.438
1.798

OBSTRUCTIONS: none

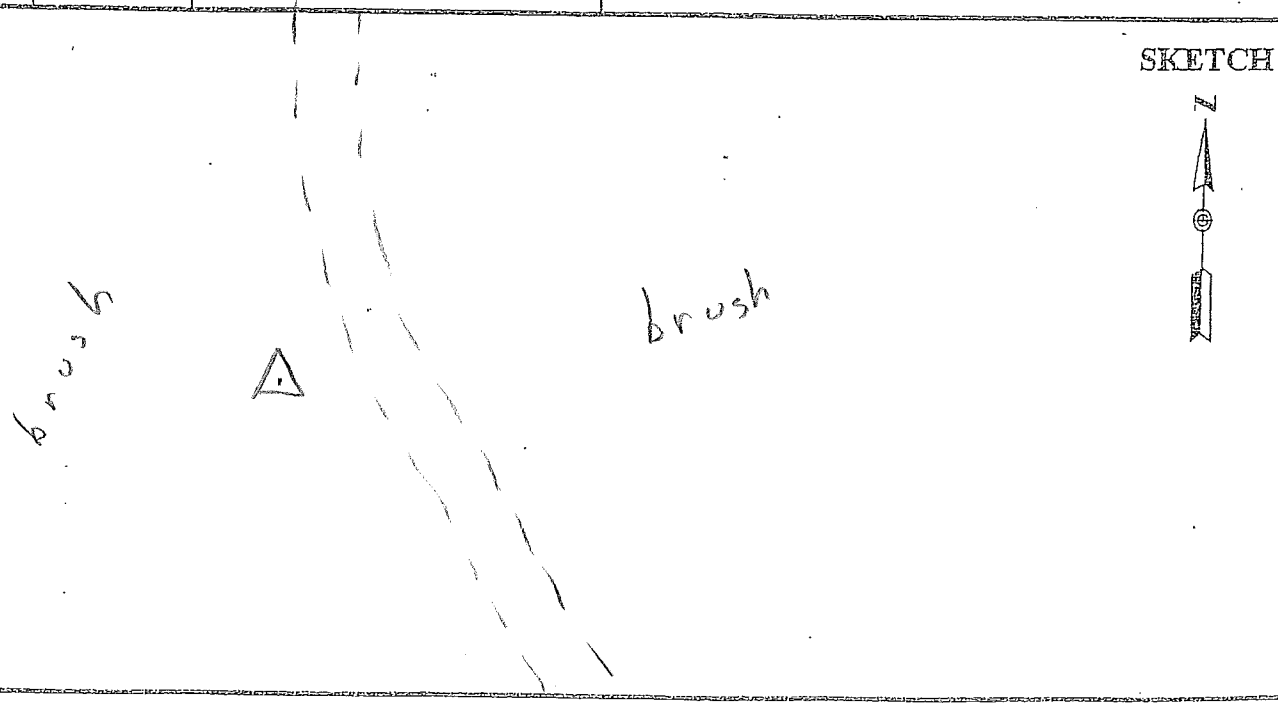
STATION DESCRIPTIONS in brush W. side of 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
855	3.8	10/10
920		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 2
SITE NAME 211

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:35 a.
STOP 9:02 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.280
1.640

OBSTRUCTIONS: none

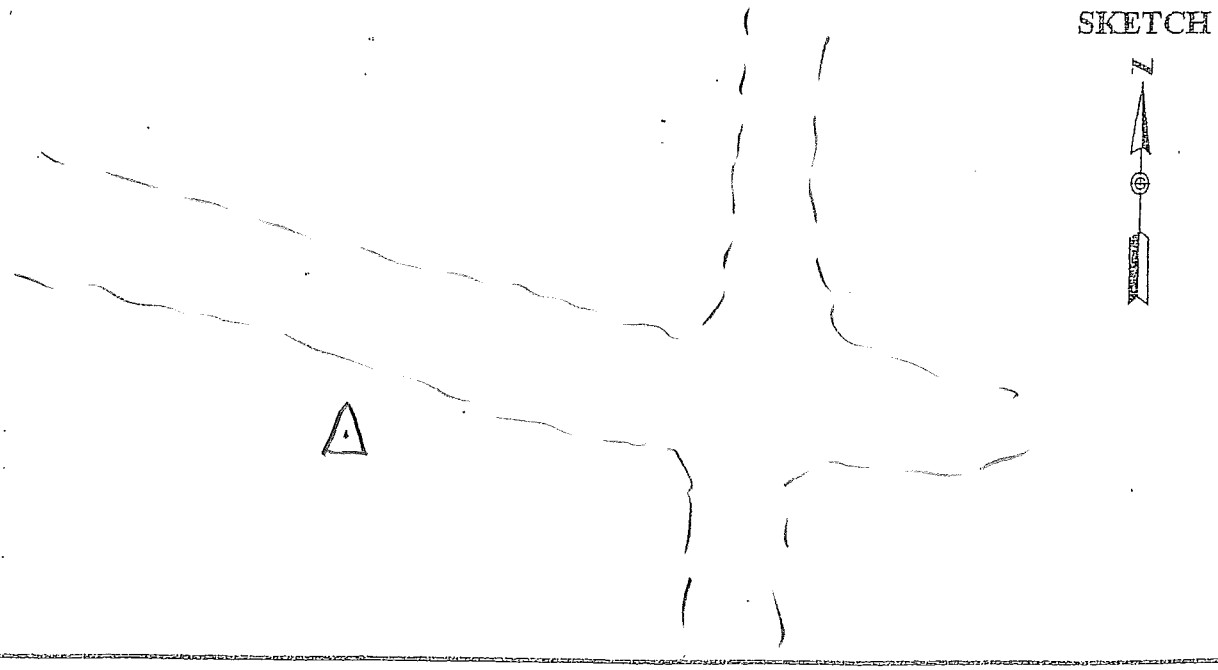
STATION DESCRIPTIONS tall weeds
S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
935	3.1	8/8
1002		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT trees

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 3
SITE NAME 409

TRACKING TIMES (LOCAL) MEASURE √
START 9:16 a.
STOP 9:43 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.427
1.787

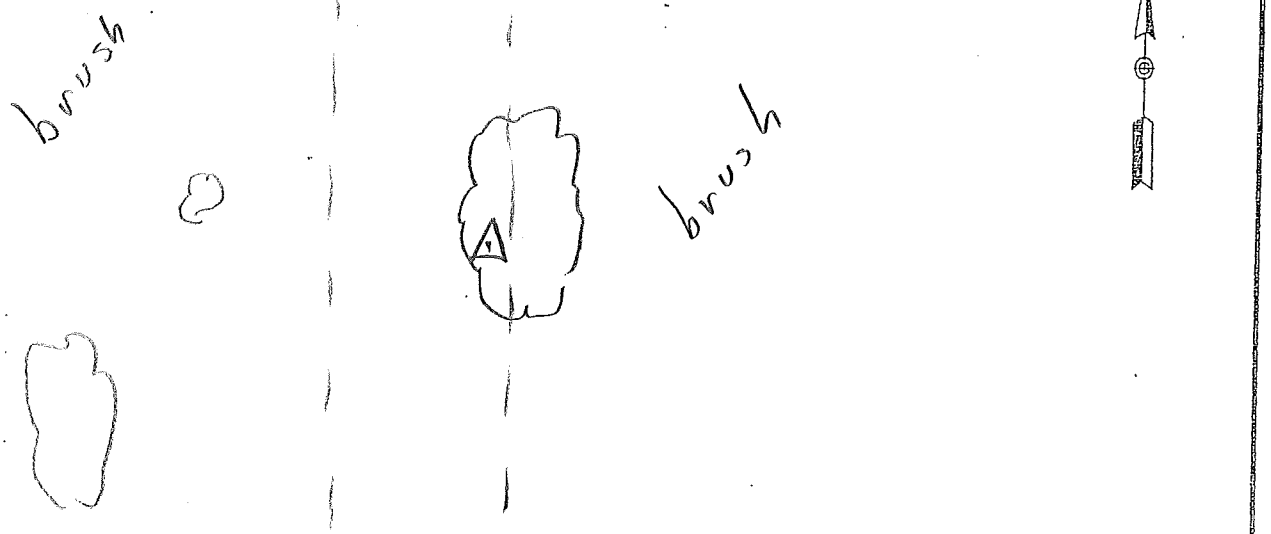
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1016	3.4	6/7
1043		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT Urban

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 4
SITE NAME 508

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:49 a.
STOP 10:14 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.405
1.765

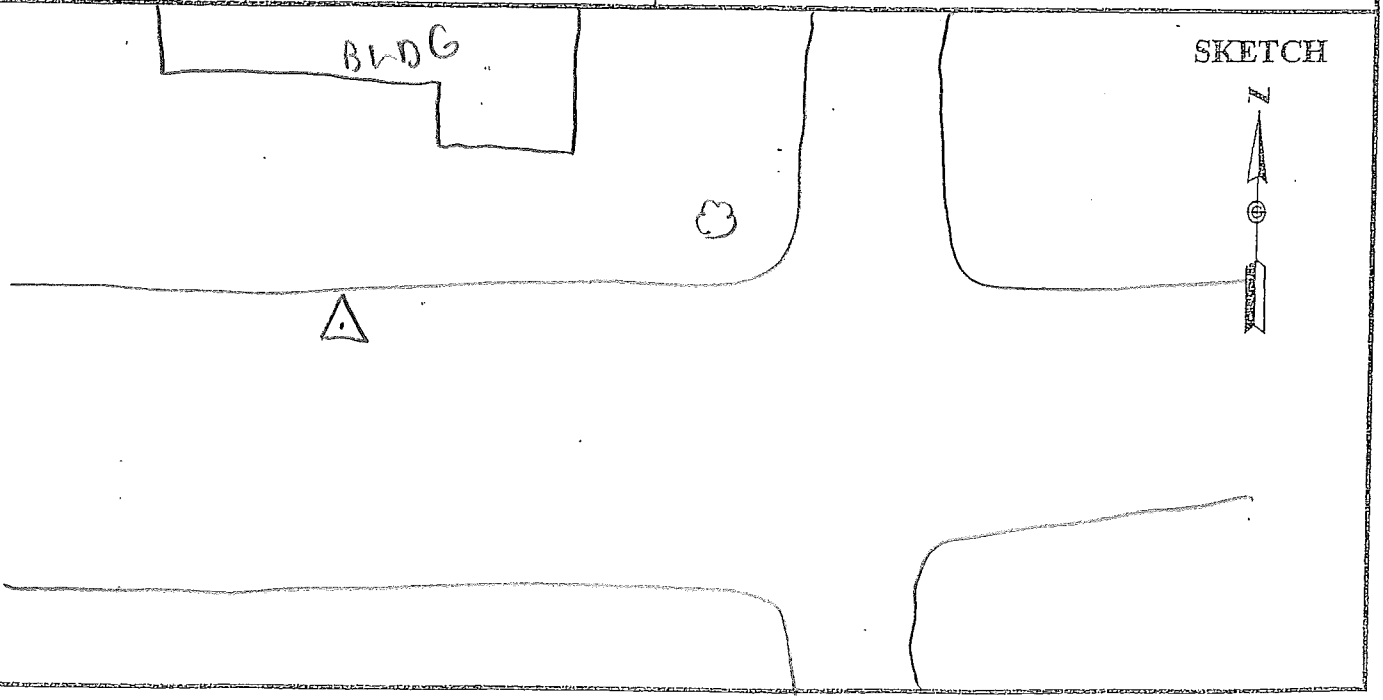
STATION DESCRIPTIONS N. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1049	1.5	11/11
1114		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT trees

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 5
SITE NAME 410

TRACKING TIMES (LOCAL) MEASURE √
START 10:27 a.
STOP 10:48 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.416
1.776

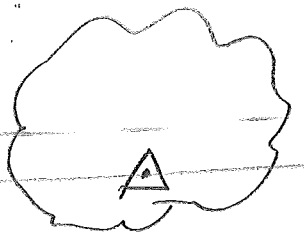
STATION DESCRIPTIONS N. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1127	2.0	6/8
1148		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT urban

PROJECT 110814
OPERATOR MS
DATE 9.9.11

SITE NUMBER 6
SITE NAME 510

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:02 a.
STOP 11:23 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.440
1.800

OBSTRUCTIONS: tree NE
PP NE

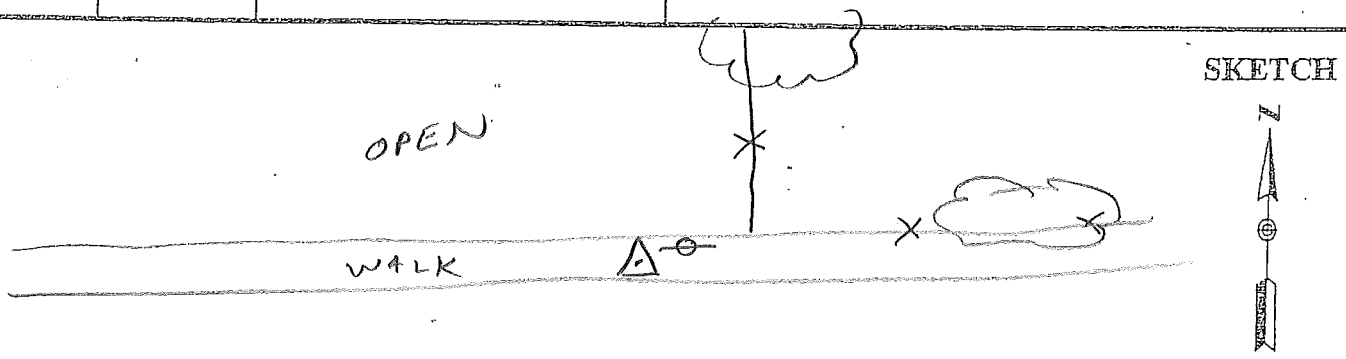
STATION DESCRIPTIONS on sidewalk

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1202	2.5	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 7
SITE NAME 1011

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:34a.
STOP 11:58a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/~~9500~~ ~~0.389~~
~~500~~ 0.360

HEIGHT READINGS MTS FT
1.461
1.821

OBSTRUCTIONS: none

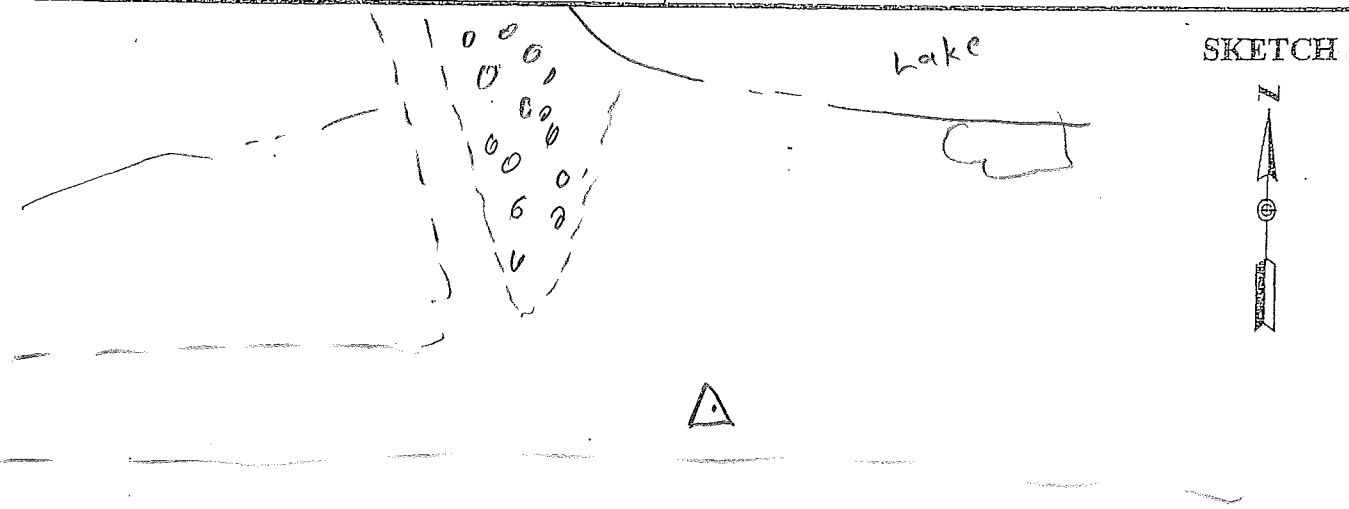
STATION DESCRIPTIONS in gravel road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1234	3.8	6/6
1258		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VRT

brush

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 8
SITE NAME 311

TRACKING TIMES (LOCAL) MEASURE _____
START 12:12 p
STOP 12:33 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.450 _____
1.810

OBSTRUCTIONS: none

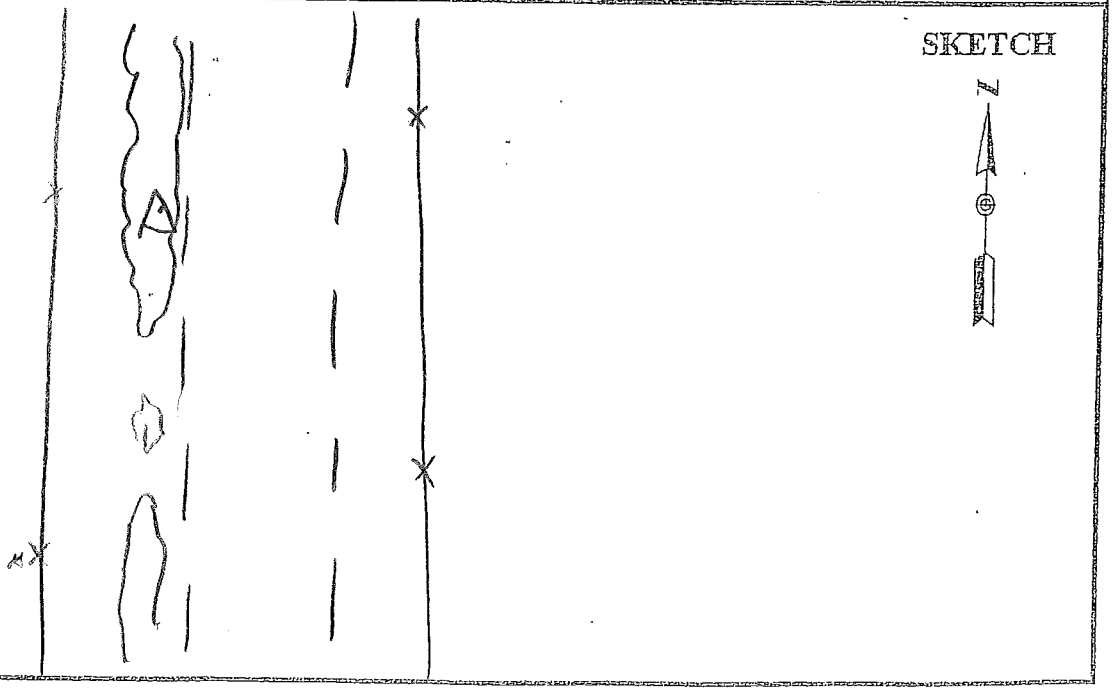
STATION DESCRIPTIONS brush on W. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1312	3.5	4/7
1333		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 111014
OPERATOR MB
DATE 9.9.11

SITE NUMBER 9
SITE NAME 111

TRACKING TIMES (LOCAL) MEASURE √
START 12:45 p
STOP 1:05 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.385

STATION DESCRIPTIONS E. side road

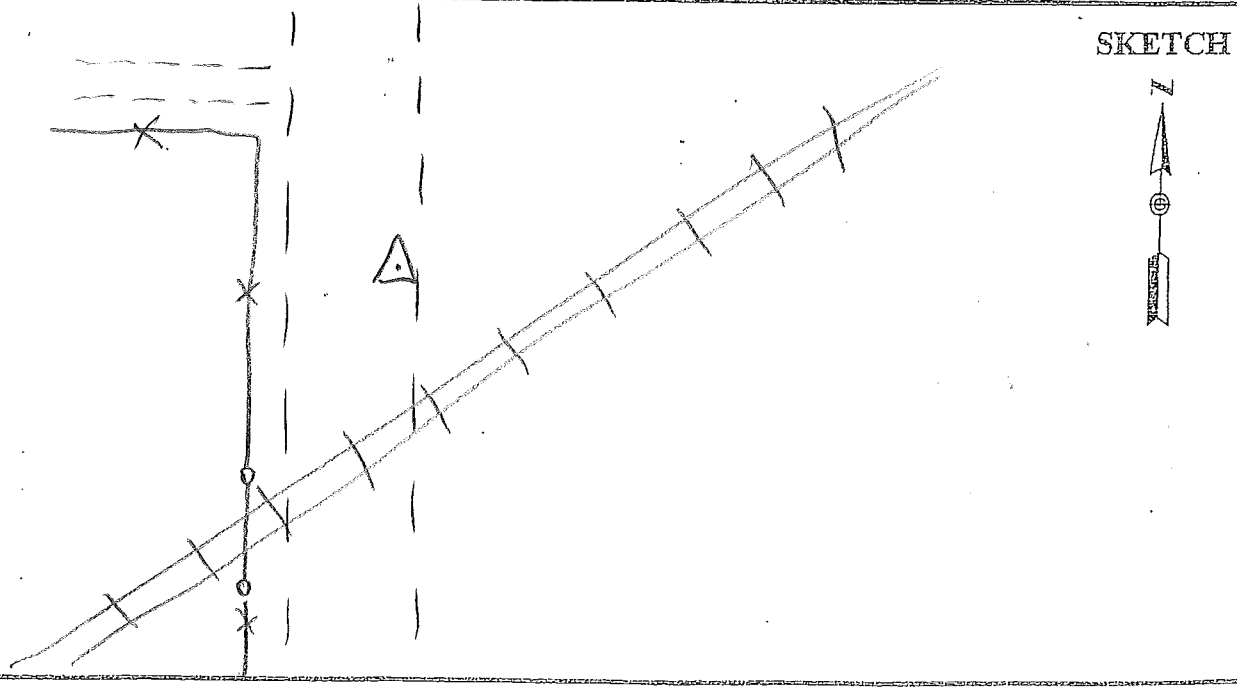
1745

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1345	3.2	7/9
1405		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 10
SITE NAME 212

TRACKING TIMES (LOCAL) MEASURE √
START 1:16 p
STOP 1:35 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.414
1.774

OBSTRUCTIONS: none

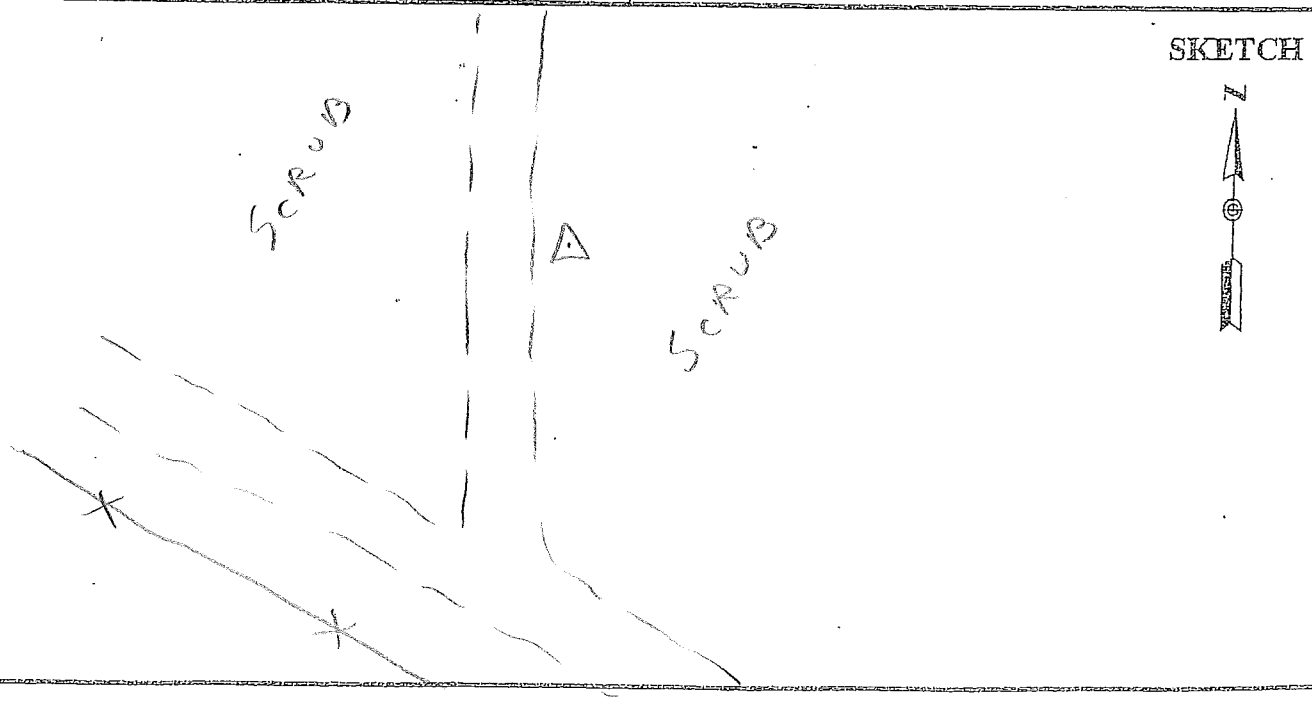
STATION DESCRIPTIONS tall scrub on E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1416	1.5	10/10
1435		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT

bare earth

PROJECT 1110814
OPERATOR NB
DATE 9.9.11

SITE NUMBER 11
SITE NAME 112

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:45 p
STOP 2:05 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500
~~500~~ 0.360

HEIGHT READINGS MTS FT
1.422
1.782

OBSTRUCTIONS: none

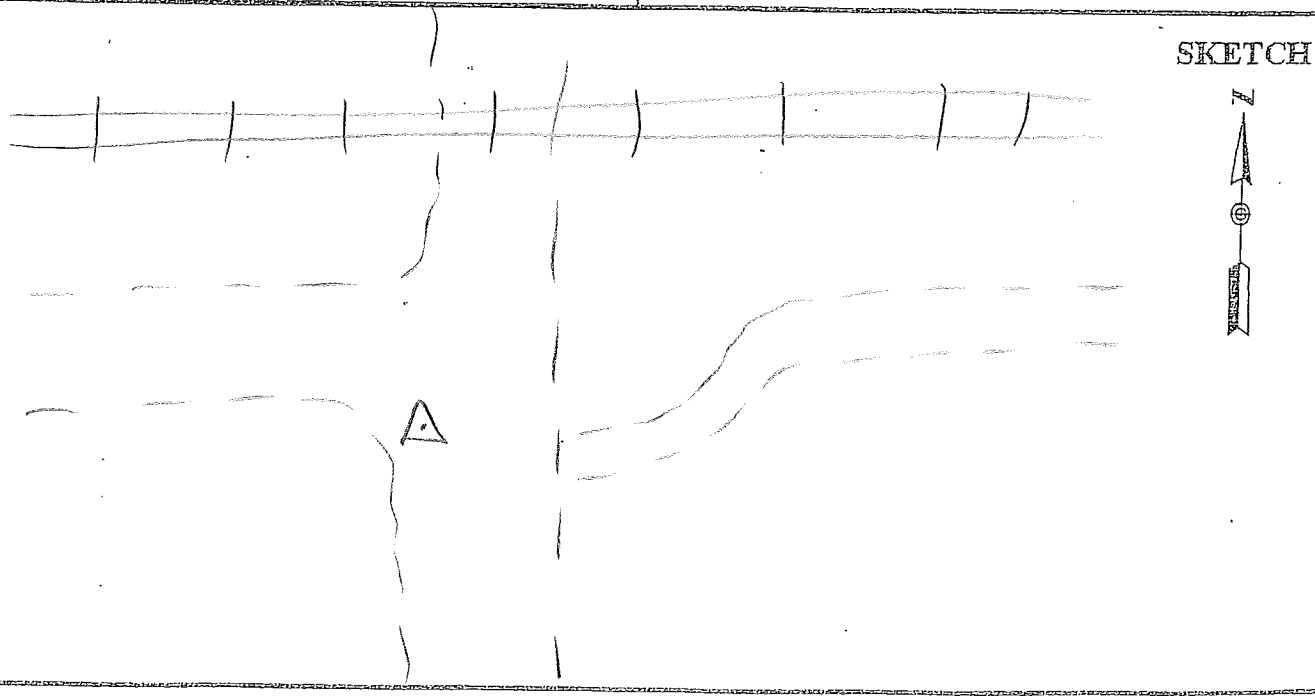
STATION DESCRIPTIONS SW corner at intersection

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1445	2.0	7/8
1505		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT

brush

PROJECT 1110814
OPERATOR MB
DATE 9.9.11

SITE NUMBER 12
SITE NAME 312

TRACKING TIMES (LOCAL) MEASURE √
START 2:20 p
STOP 2:41 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.310
1.670

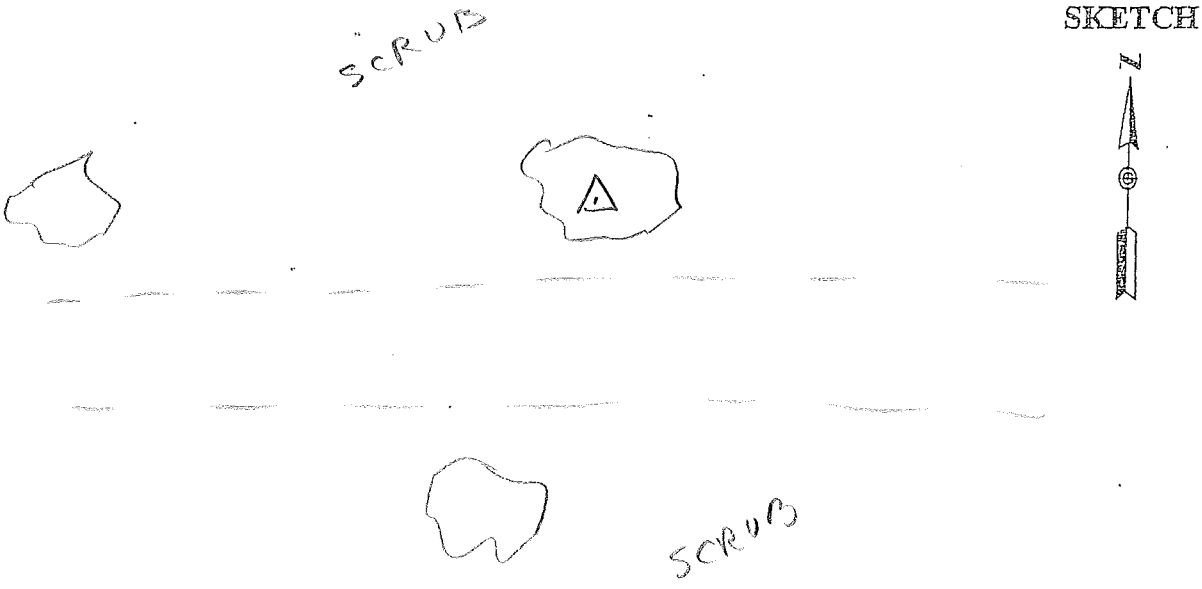
STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1520	2.2	6/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 1
SITE NAME 4

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:32a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.381
1.741

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
832	4.2	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

see previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base H + V Control

PROJECT 1110814
OPERATOR MS
DATE 9.10.11

SITE NUMBER 1
SITE NAME J65

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:04 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO. C13
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
.939

1299

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
904	2.7	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT AME

PROJECT 1110814
OPERATOR MJ
DATE 9.10.11

SITE NUMBER 1
SITE NAME 1012

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:16 a.
STOP 8:49 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.352
1.712

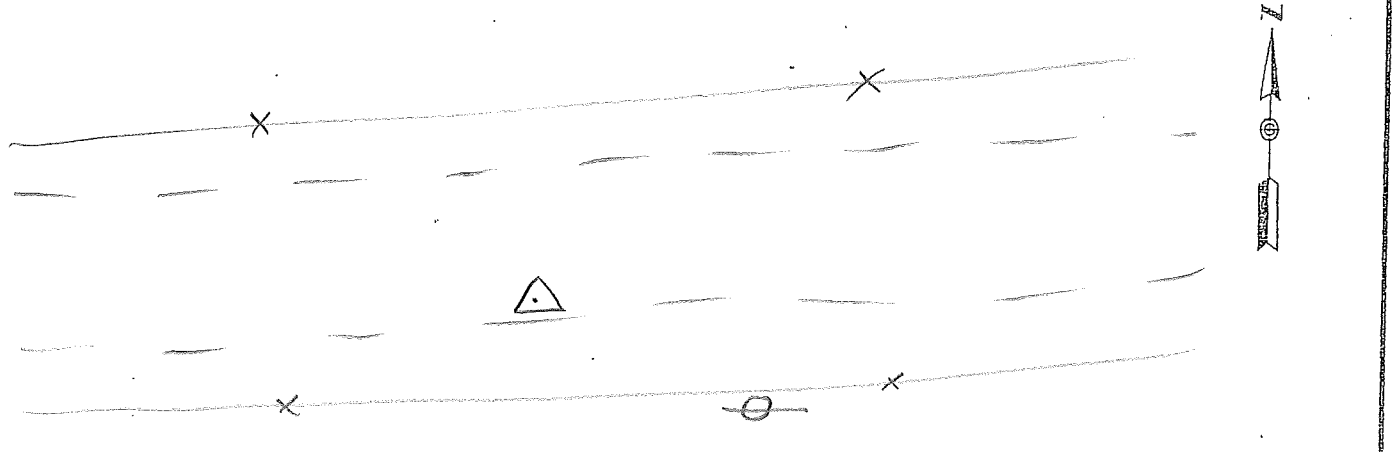
STATION DESCRIPTIONS S. lane of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
916	2.1	10/10
949		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VRT

bare earth

PROJECT 110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 2
SITE NAME 113

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:57a.
STOP 9:31a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.392

1752

OBSTRUCTIONS: none

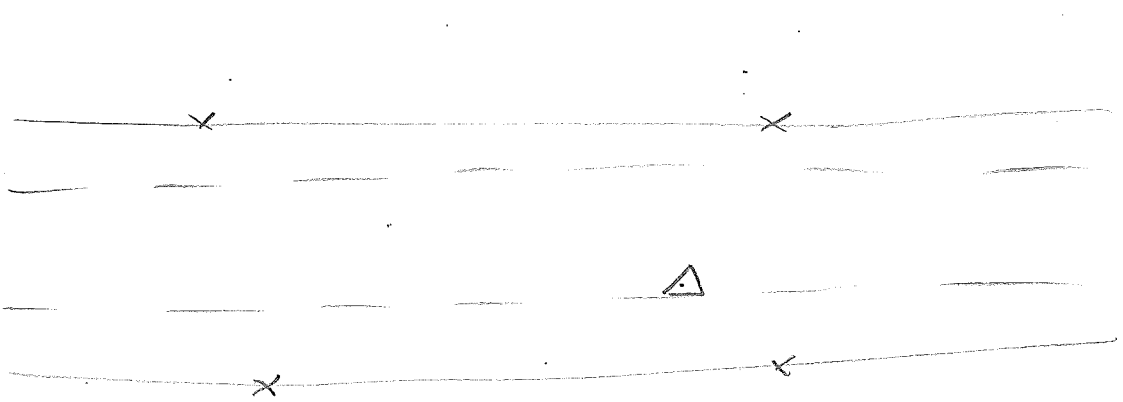
STATION DESCRIPTIONS S. side road shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
957	2.2	9/10
1031		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT brush

PROJECT 1110814
OPERATOR MD
DATE 9.10.11

SITE NUMBER 3
SITE NAME 313

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:40 a.
STOP 10:13 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.345
1.705

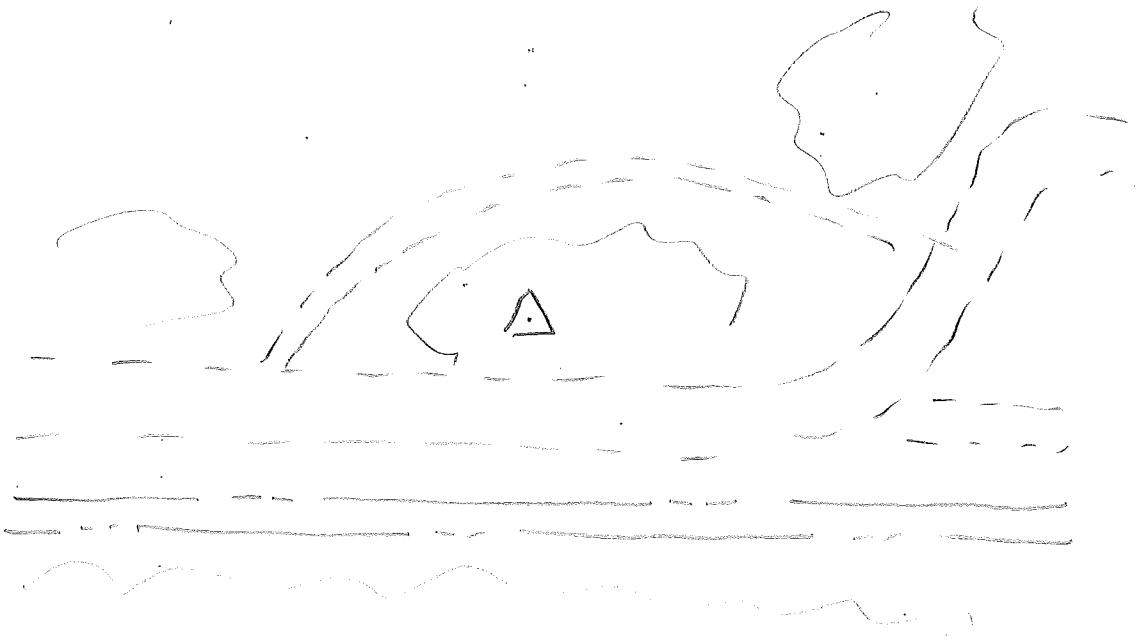
STATION DESCRIPTIONS brush on N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1040	1.6	11/11

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT trees

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 4
SITE NAME 411

TRACKING TIMES (LOCAL) MEASURE _____
START 10:25 a.
STOP 10:53 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. _____
CONTROLLER NO. _____
SENSOR NO. _____

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.430 _____
1.790

OBSTRUCTIONS: under trees

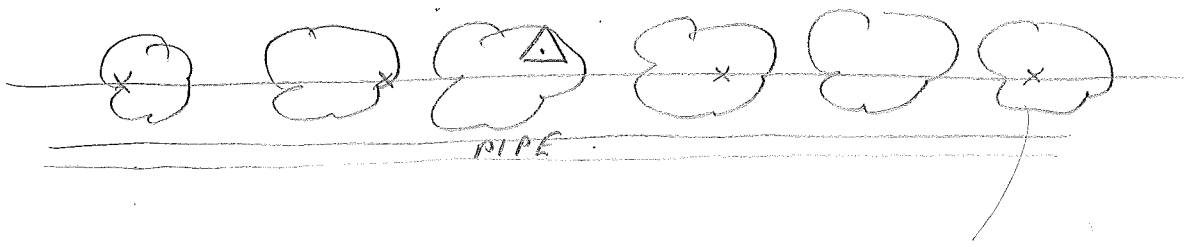
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1125	4.7	5/5
1153		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 5
SITE NAME 213

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:00 a.
STOP 11:31 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
~~500~~ 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.430
1.790

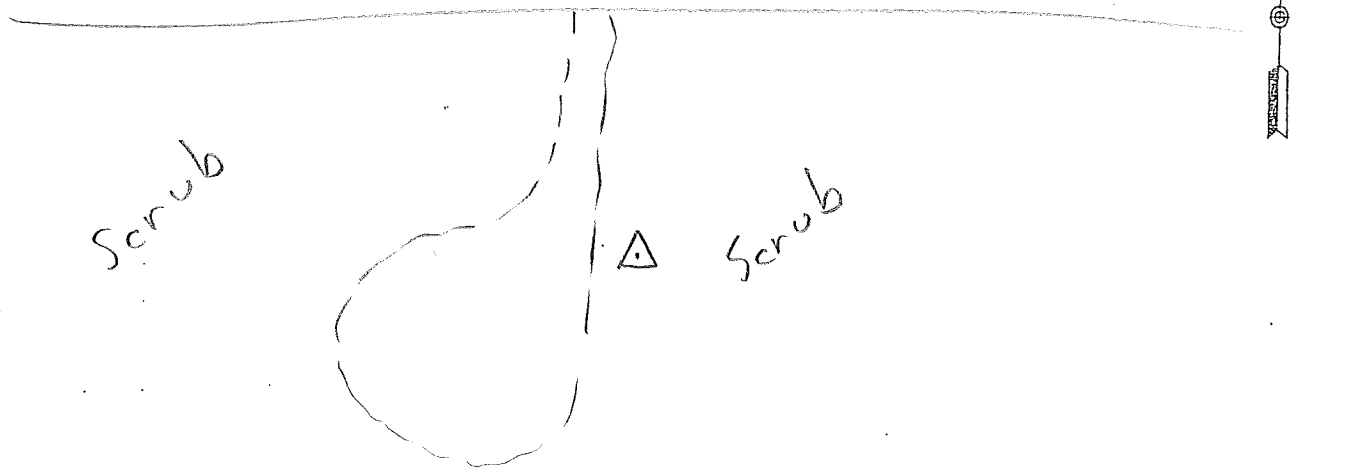
STATION DESCRIPTIONS in tall scrub

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1200	2.7	7/7
1231		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√NT urban

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 6
SITE NAME 511

TRACKING TIMES (LOCAL) MEASURE √
START 11:50 a.
STOP 12:32 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.365
1.725

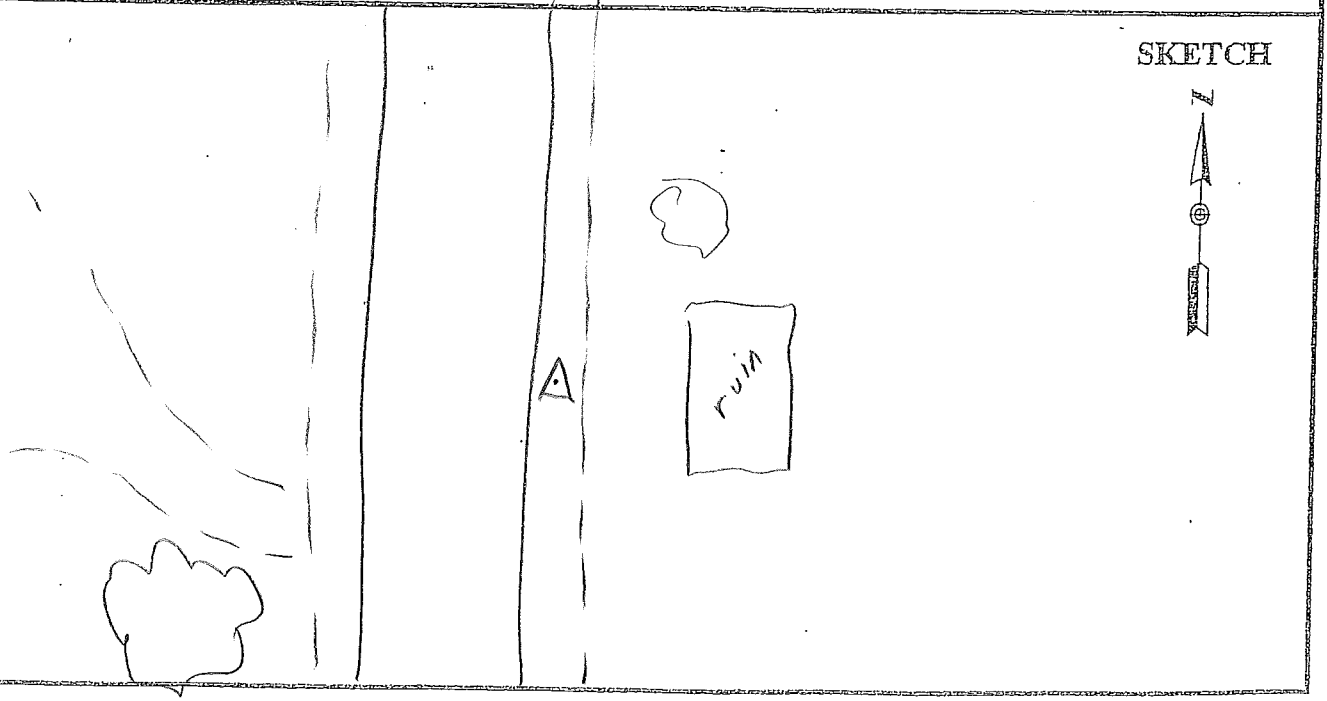
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1250	2.6	8/8
1332		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT trees

PROJECT 1110814
OPERATOR MD
DATE 9.10.11

SITE NUMBER 7
SITE NAME 412

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:44 p
STOP 1:20 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS trees above

HEIGHT READINGS MTS FT
1.435
1795

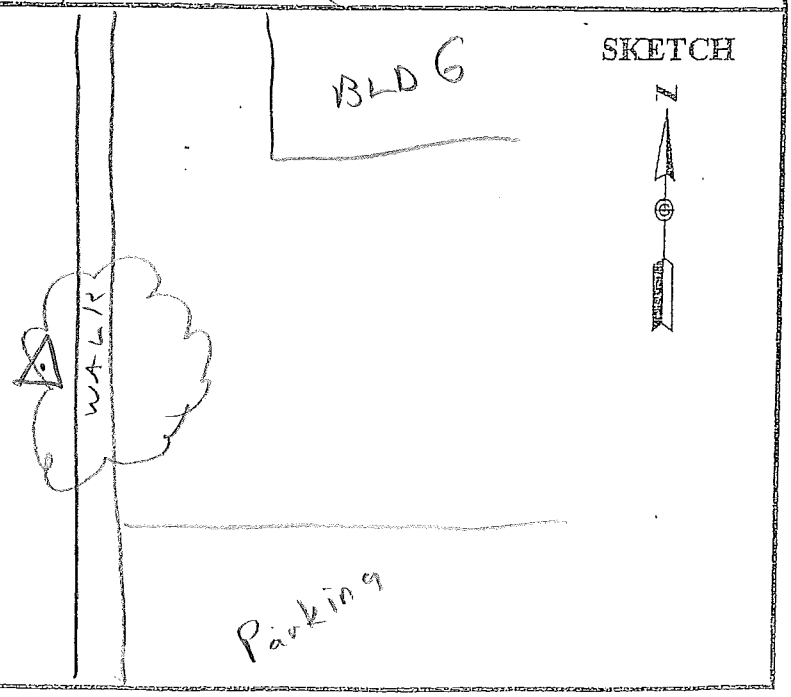
STATION DESCRIPTIONS E. side street

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1344	1.9	8/8
1420		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT AMC

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 8
SITE NAME 1013

TRACKING TIMES (LOCAL) MEASURE √
START 1:32 p
STOP 2:01 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.368

STATION DESCRIPTIONS N. side wood

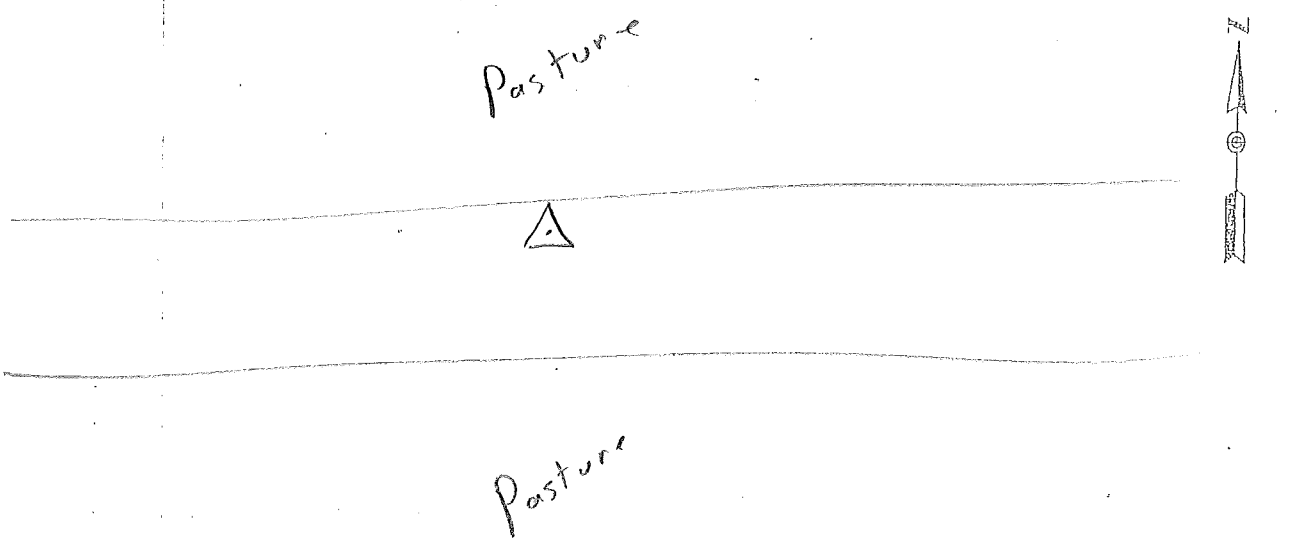
1728

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1432	2.0	7/8
1501		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT urban

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 9
SITE NAME 512

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:11 p
STOP 2:36 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

HEIGHT READINGS MTS FT
1.453

1813

OBSTRUCTIONS: none

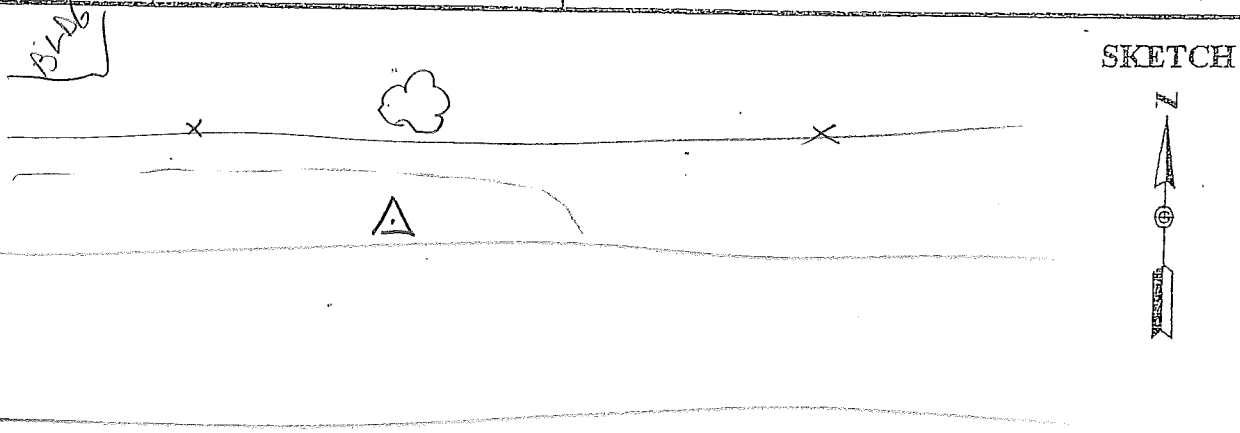
STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1511	4.2	5/5

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.10.11

SITE NUMBER 10
SITE NAME 114

TRACKING TIMES (LOCAL) MEASURE √
START 2:47 p
STOP 3:13 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.428
1.788

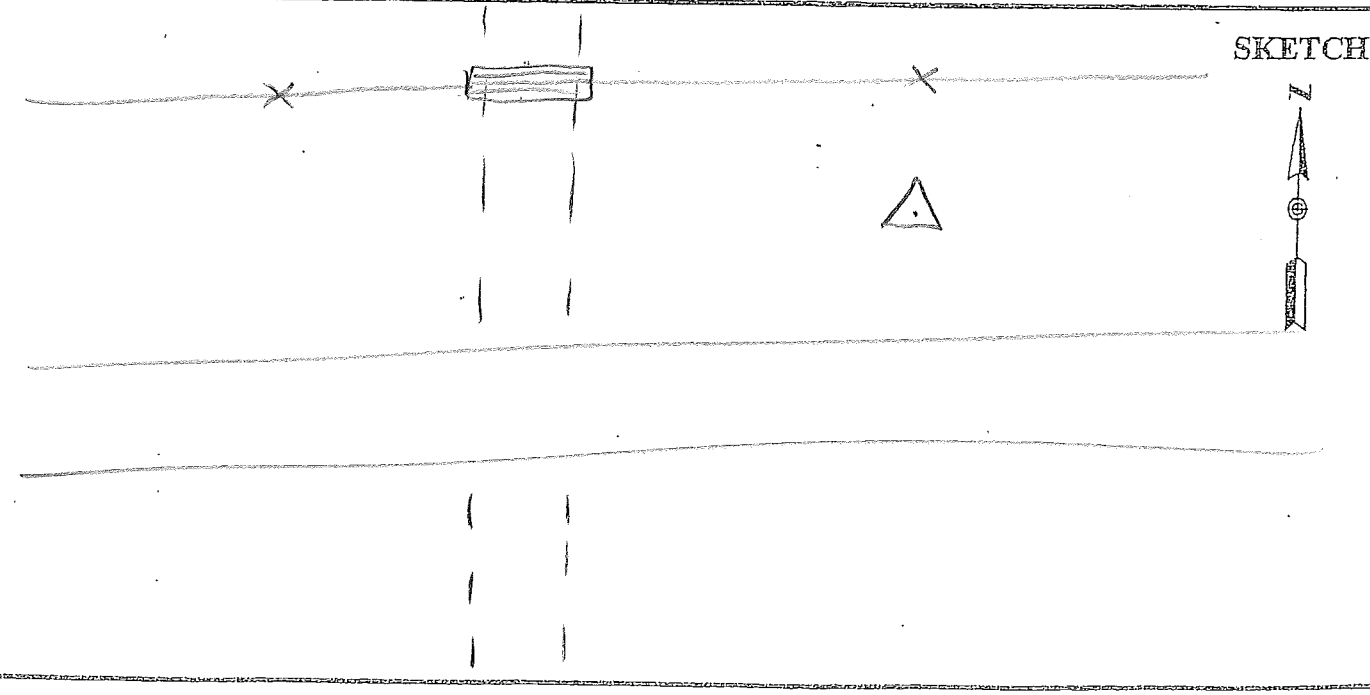
STATION DESCRIPTIONS N. of road, S. of fence

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1547	2.1	7/7
1613		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base Control

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 1
SITE NAME J 65

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:36 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
.940

1.300

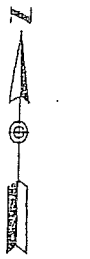
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
830	3.6	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 1
SITE NAME 2

TRACKING TIMES (LOCAL) MEASURE V
START 8:06 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.336
1.696

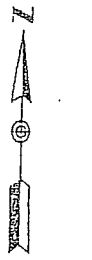
STATION DESCRIPTIONS Fnd 6" nail

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
906	5.0	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT urban

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 1
SITE NAME 513

TRACKING TIMES (LOCAL) MEASURE _____
START 8:18 a.
STOP 9:54 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees W

HEIGHT READINGS MTS FT
1.428

1.788

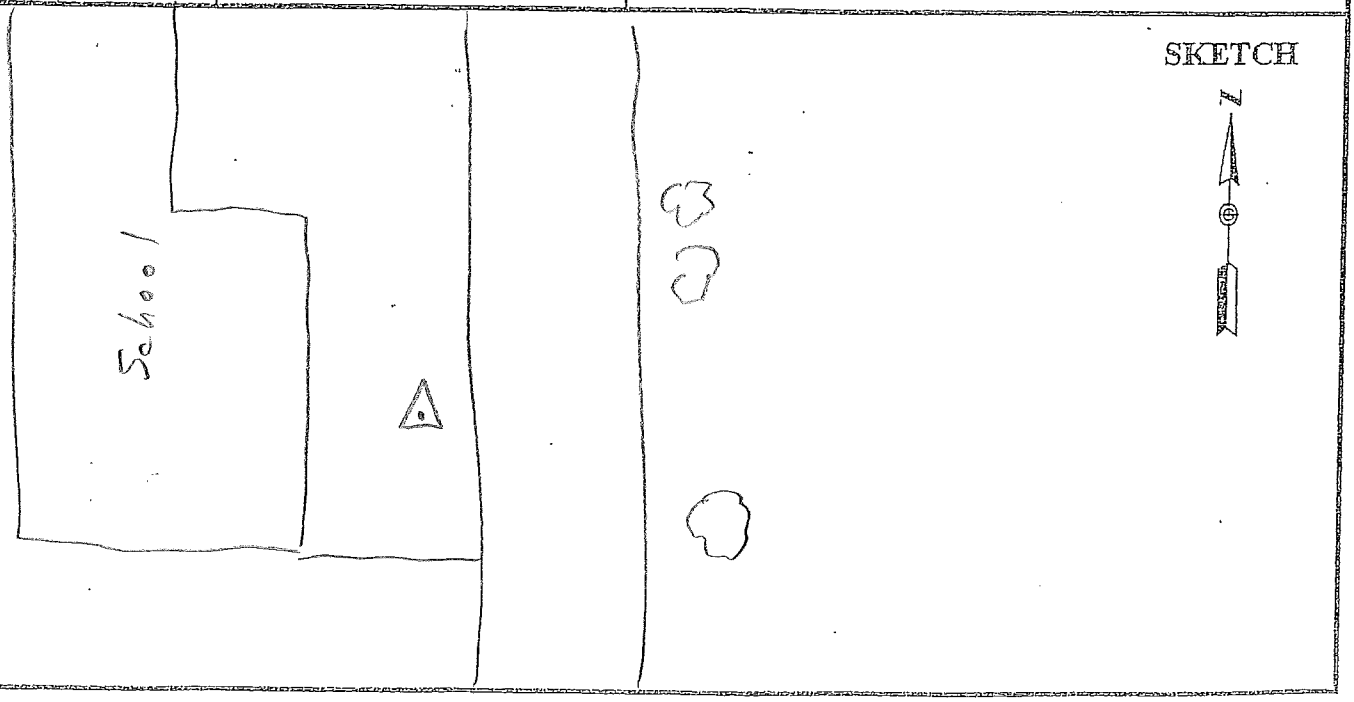
STATION DESCRIPTIONS in parking area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
918	4.3	7/7
954		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

trees

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 2
SITE NAME 412

TRACKING TIMES (LOCAL) MEASURE √
START 9:05 a.
STOP 9:39 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.476
1.836

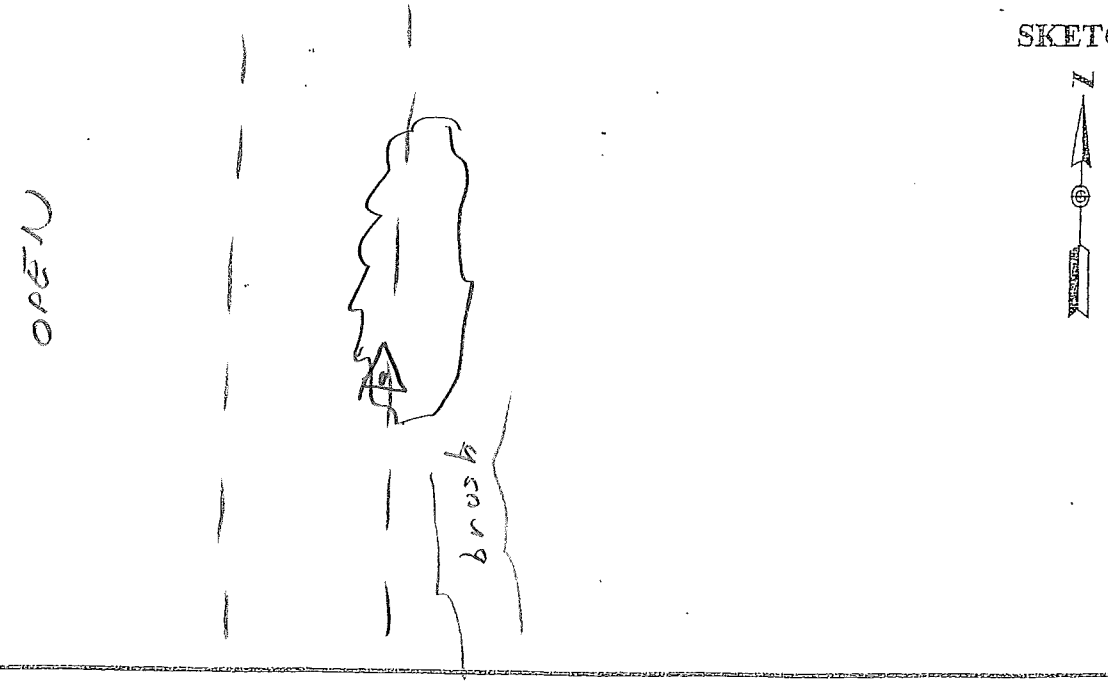
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1005	4.2	9/9
1039		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT trees

PROJECT 1110814
OPERATOR MB
DATE 9·11·11

SITE NUMBER 3
SITE NAME 413

TRACKING TIMES (LOCAL) MEASURE _____
START 9:57a.
STOP 10:33a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.374 _____
1.734

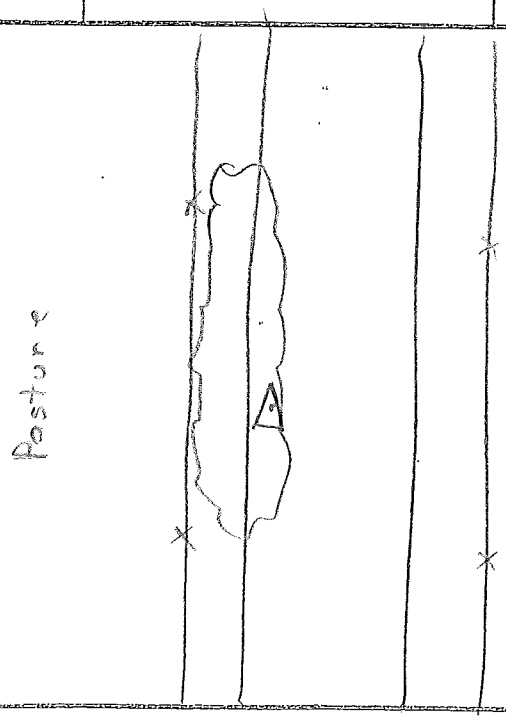
STATION DESCRIPTIONS W. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1057	1.4	8/11
1133		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VRT urban

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 4
SITE NAME 514

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:39 a.
STOP 11:16 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.460
1.820

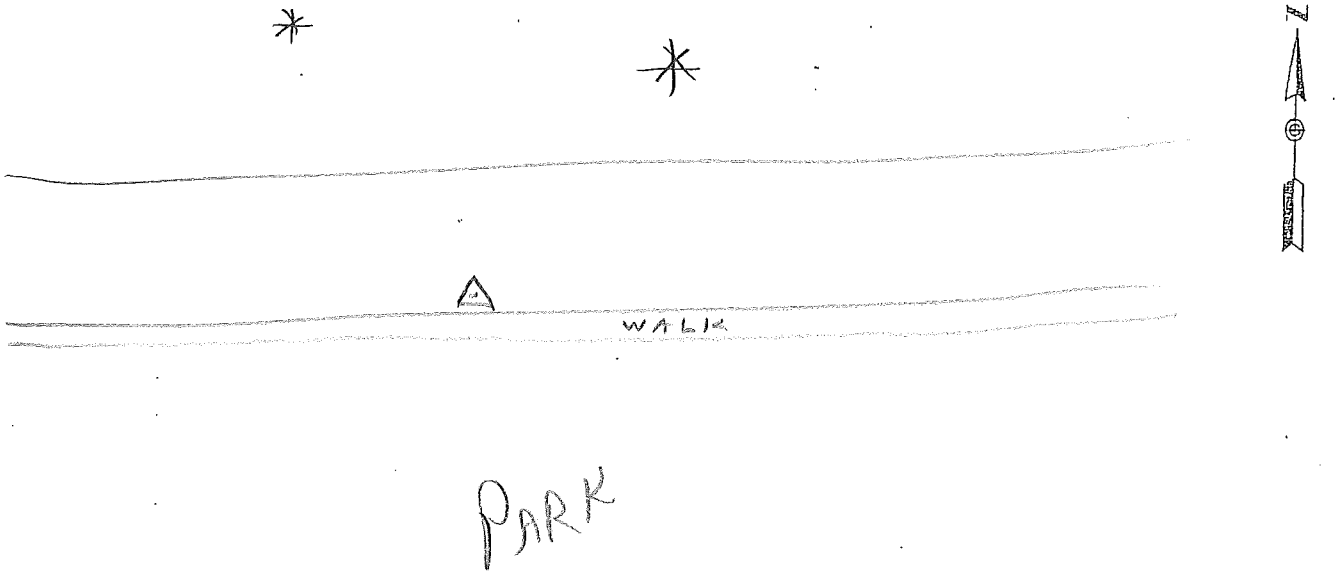
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1139	2.0	9/9
1216		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pr

tall weeds

PROJECT 1110814
OPERATOR NB
DATE 9-11-11

SITE NUMBER 5
SITE NAME 214

TRACKING TIMES (LOCAL) MEASURE 1/
START 11:25 a.
STOP 11:58 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/~~9500~~ 500 ~~0.339~~ 0.360

OBSTRUCTIONS: trees NW

HEIGHT READINGS MTS FT
1,440
1,800

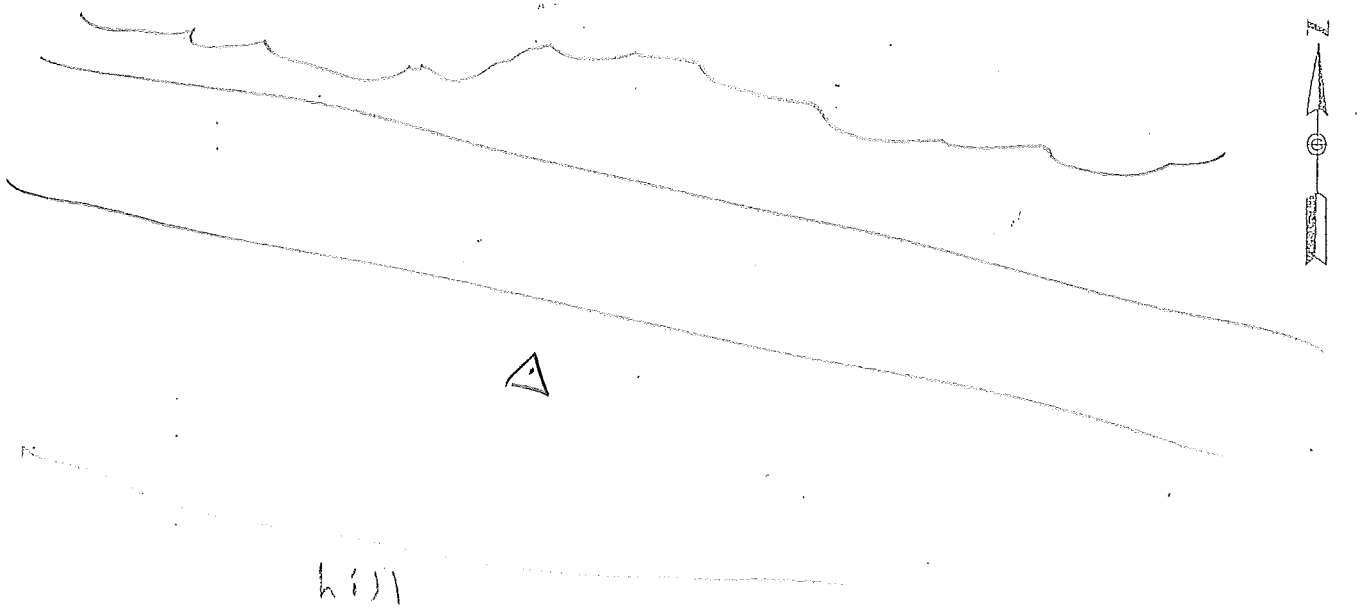
STATION DESCRIPTIONS tall scrub S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1225	2.4	8/8
1258		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 6
SITE NAME 115

TRACKING TIMES (LOCAL) MEASURE ____
START 12:15 p
STOP 12:39 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.589~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.419
1.779

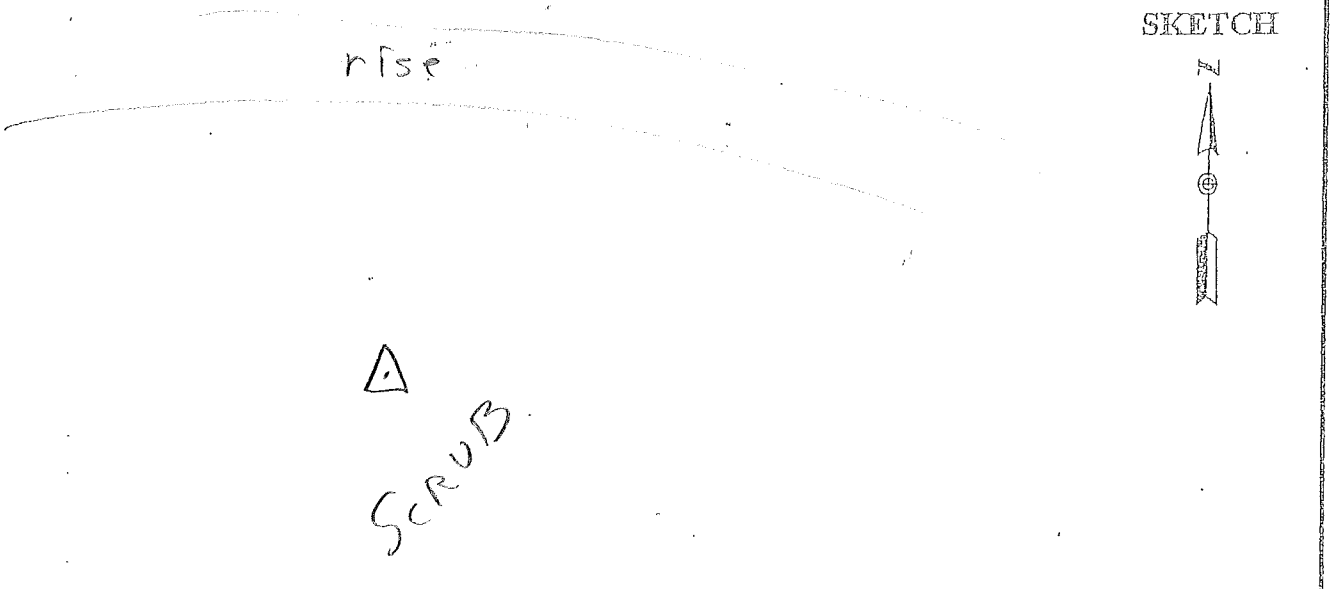
STATION DESCRIPTIONS cleaning in scrubland

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1315	3.3	7/8
1339		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

brush

√PT

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 7
SITE NAME 314

TRACKING TIMES (LOCAL) MEASURE √
START 12:52 p
STOP 1:16 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.363
1.723

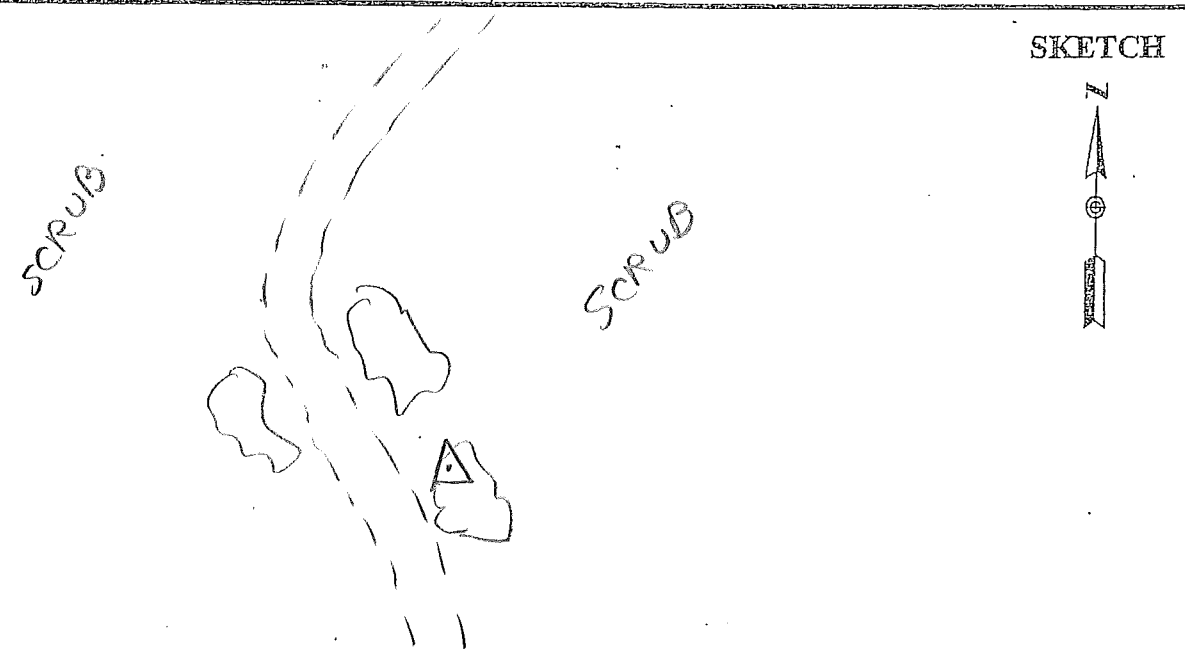
STATION DESCRIPTIONS brush on E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1352	2.4	9/9
1316		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT AME

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 8
SITE NAME 1014

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:30 p
STOP 1:56 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.441

STATION DESCRIPTIONS E. side road

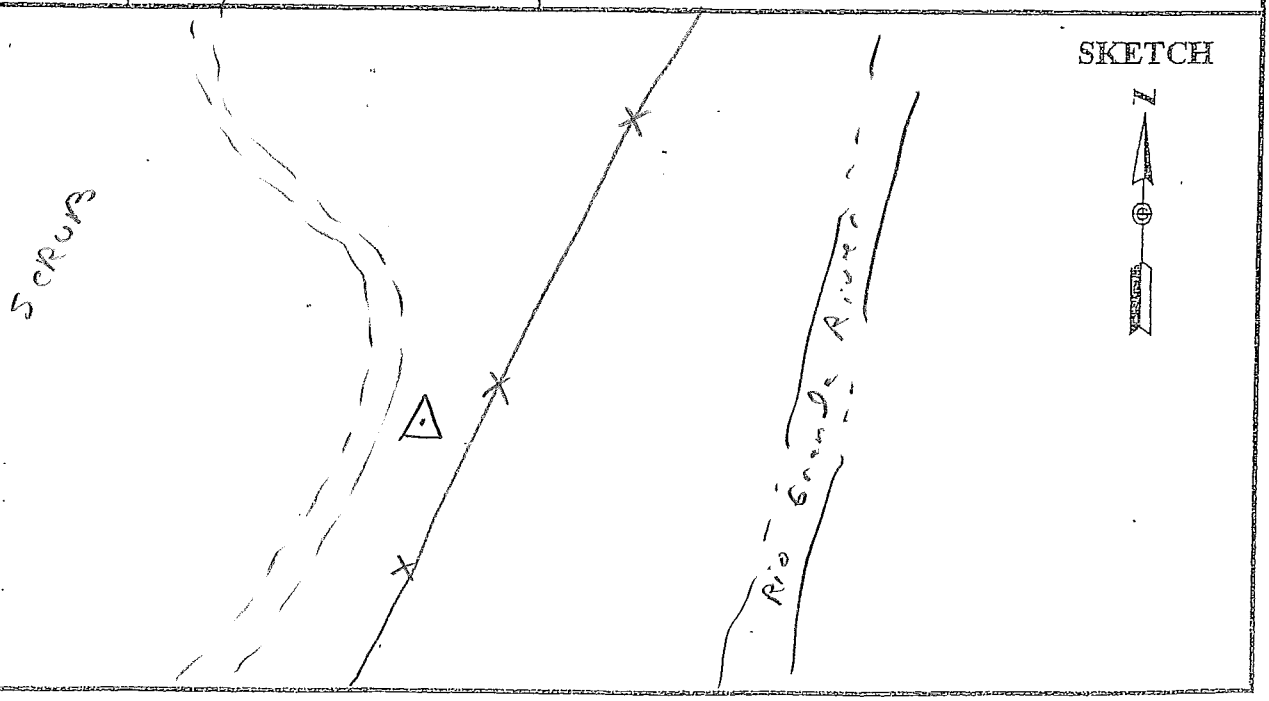
1801

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1430	2.1	6/6
1456		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT brush

PROJECT 1110814
OPERATOR MB
DATE 9.11.11

SITE NUMBER 9
SITE NAME 315

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:06 p
STOP 2:32 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.434
1.794

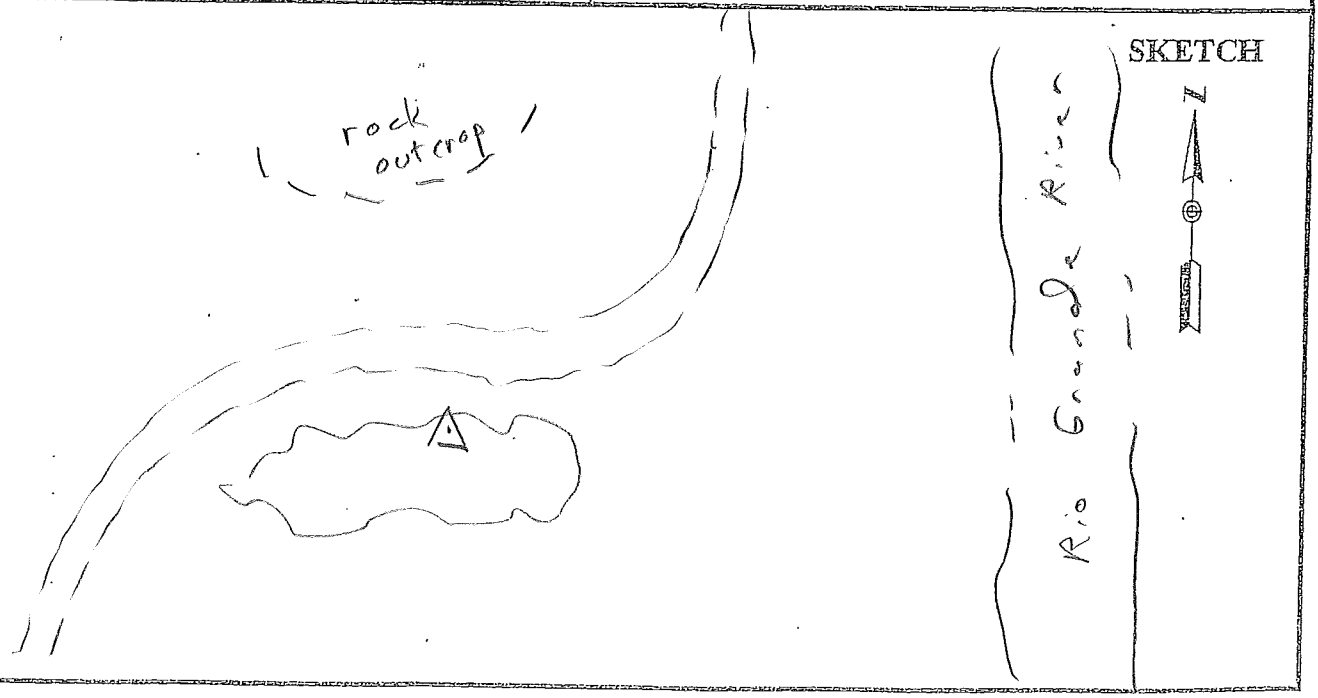
STATION DESCRIPTIONS in brush

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1506	1.7	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base √PT

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 1
SITE NAME 506

TRACKING TIMES (LOCAL) MEASURE √
START 6:57a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.373
1.733

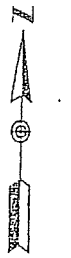
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
757	6.0	9/9

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base

PROJECT 110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:22a
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.371
1.731

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
822	2.3	7/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pt trees

PROJECT 1110814
OPERATOR MA
DATE 9-12-11

SITE NUMBER 1
SITE NAME 414

TRACKING TIMES (LOCAL) MEASURE ____
START 7:34 a
STOP 8:00 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.339~~
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.317
1.677

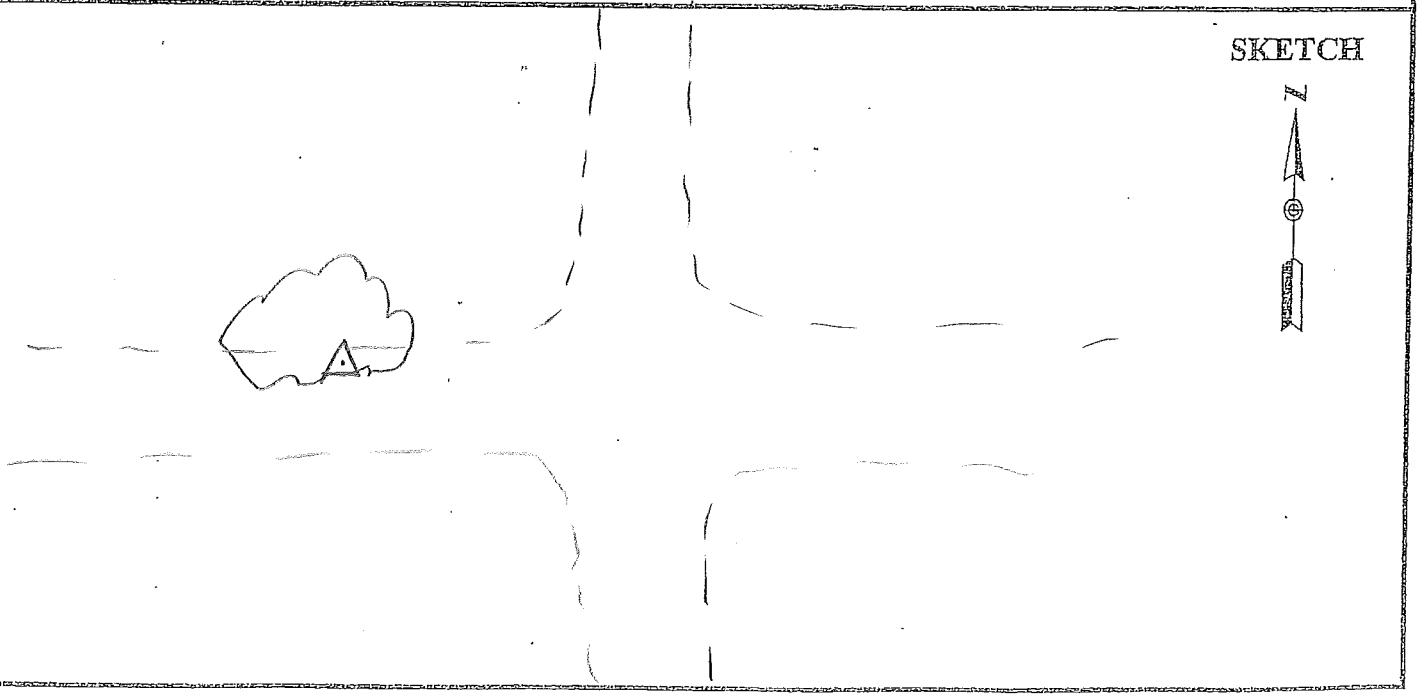
STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
834	2.3	11/11
900		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT tall weeds

PROJECT 1110814
OPERATOR MS
DATE 9.12.11

SITE NUMBER 2
SITE NAME 215

TRACKING TIMES (LOCAL) MEASURE _____
START 8:10 a.
STOP 8:39 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
~~500~~ ~~0.360~~

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.428 _____
1.788

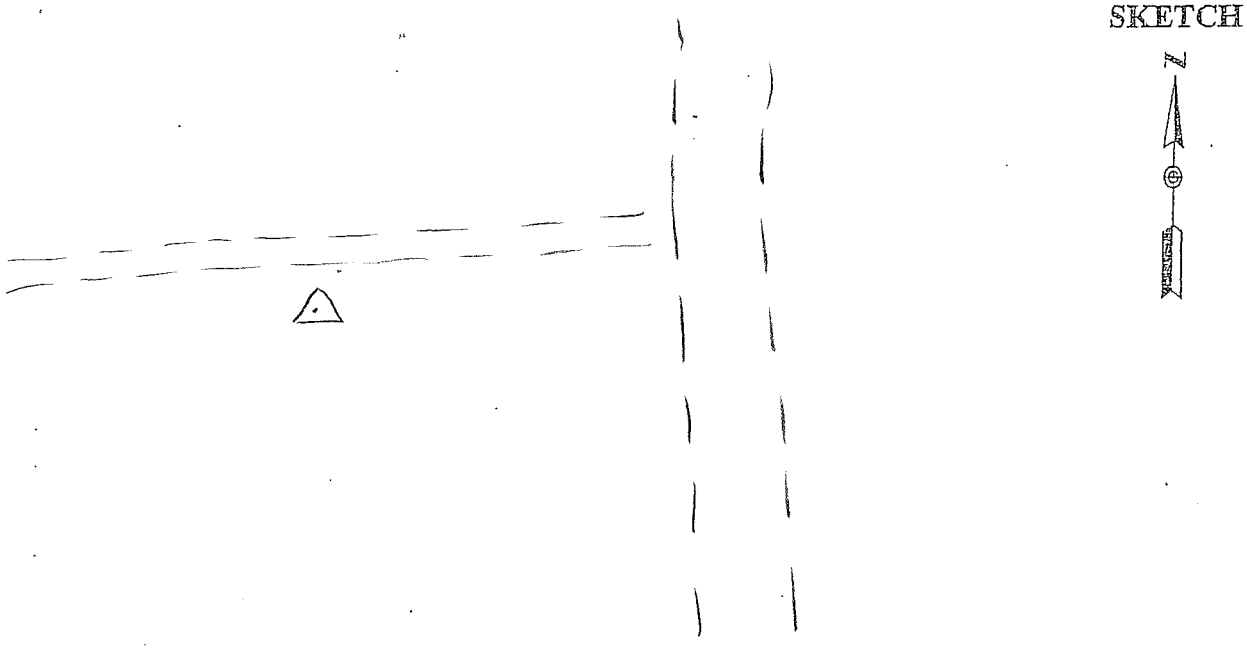
STATION DESCRIPTIONS in grass
5. of 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
910	5.8	8/10
939		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT brush

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 3
SITE NAME 316

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:45 a.
STOP 9:14 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.452
1.817

OBSTRUCTIONS: none

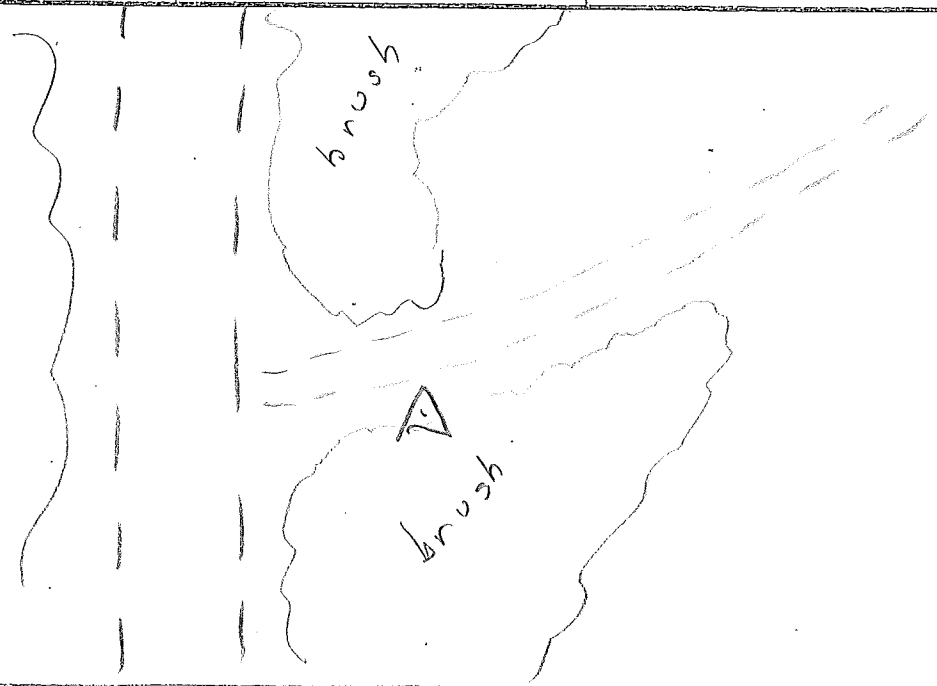
STATION DESCRIPTIONS S. side of 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
945	2.0	10/11
1014		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT AME

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 4
SITE NAME 1015

TRACKING TIMES (LOCAL) MEASURE _____
START 9:28a
STOP 10:01a

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
~~500~~ 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.448 _____
1.808

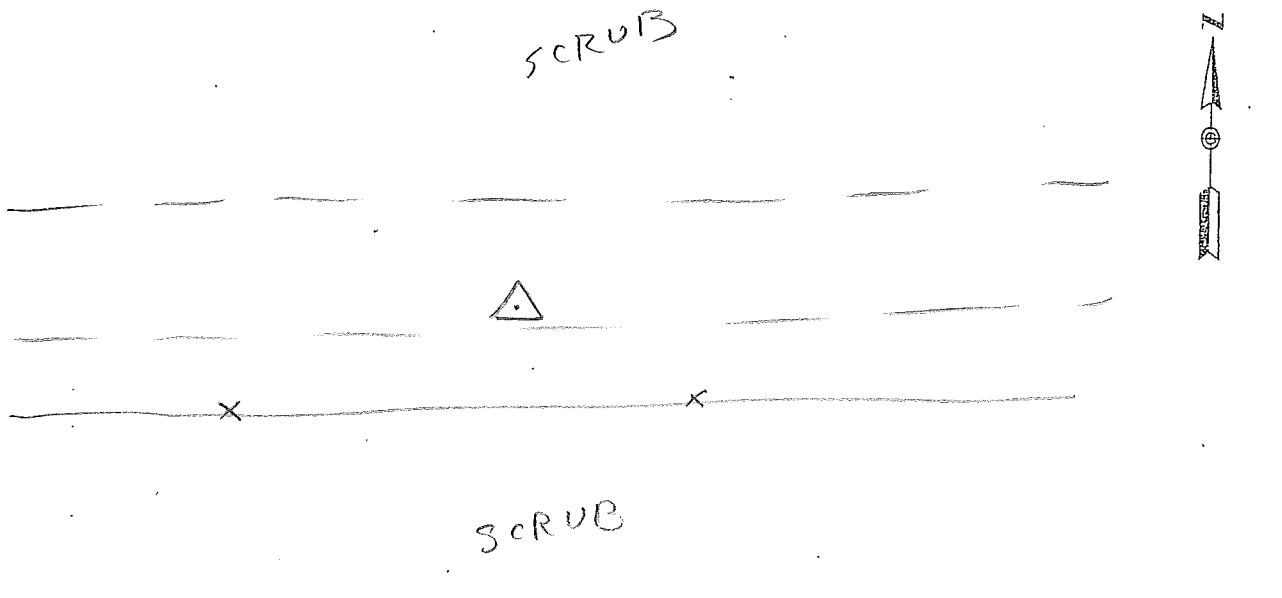
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1028	1.7	11/12
1101		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

1pt

bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 5
SITE NAME 116

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:13a.
STOP 10:40a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.413
1.773

OBSTRUCTIONS: none

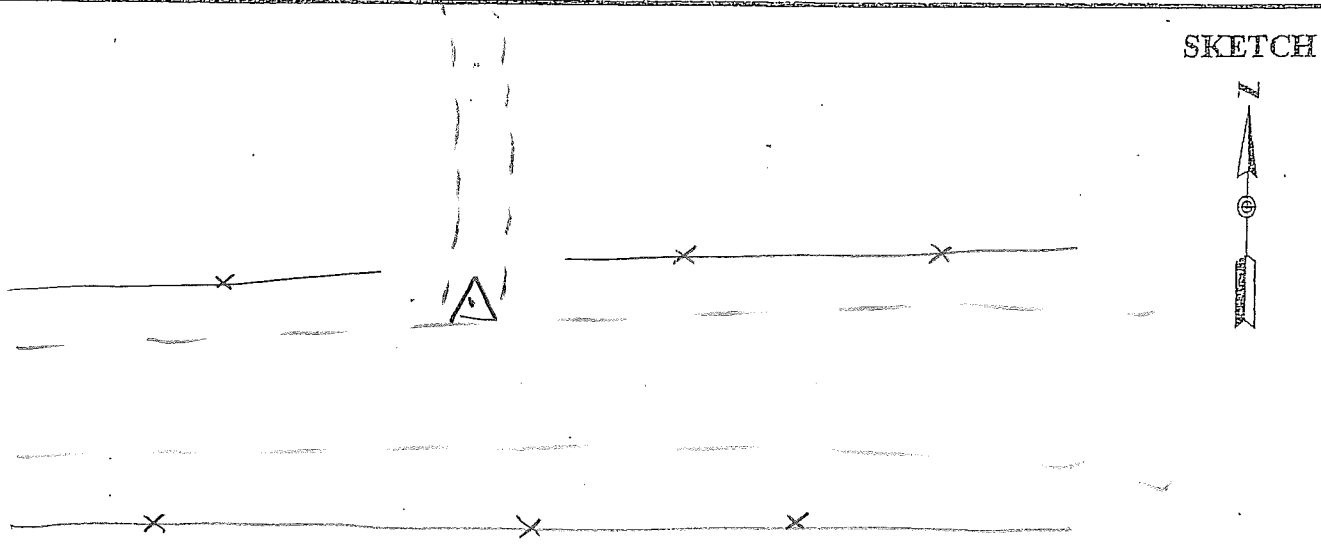
STATION DESCRIPTIONS in Rtrack N.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1113	1.9	9/9
1140		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT AME

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 6
SITE NAME 1016

TRACKING TIMES (LOCAL) MEASURE V
START 10:57a.
STOP 11:21a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.448
1.808

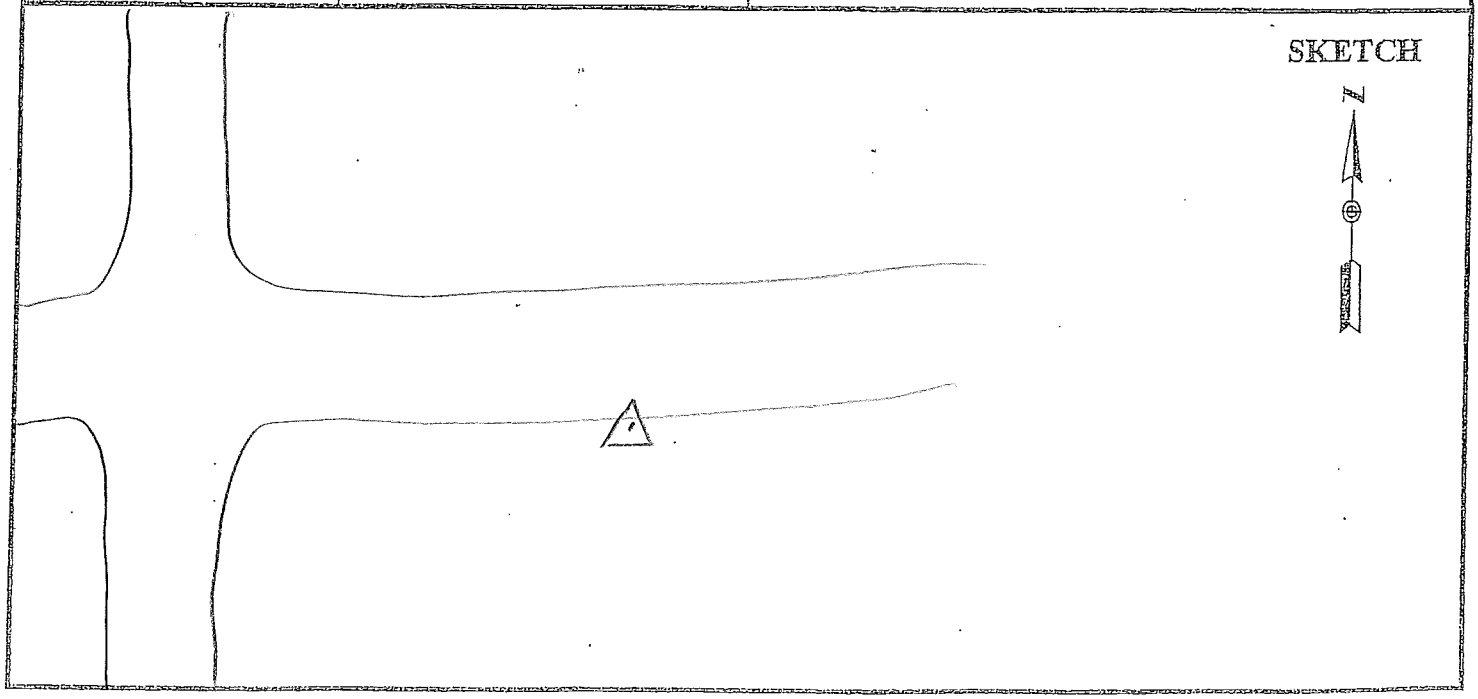
STATION DESCRIPTIONS S. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1157	2.4	9/9
1221		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT

urban

PROJECT 111081M
OPERATOR MB
DATE 9.12.11

SITE NUMBER 7
SITE NAME 515

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:35 a.
STOP 11:55 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.415
1.775

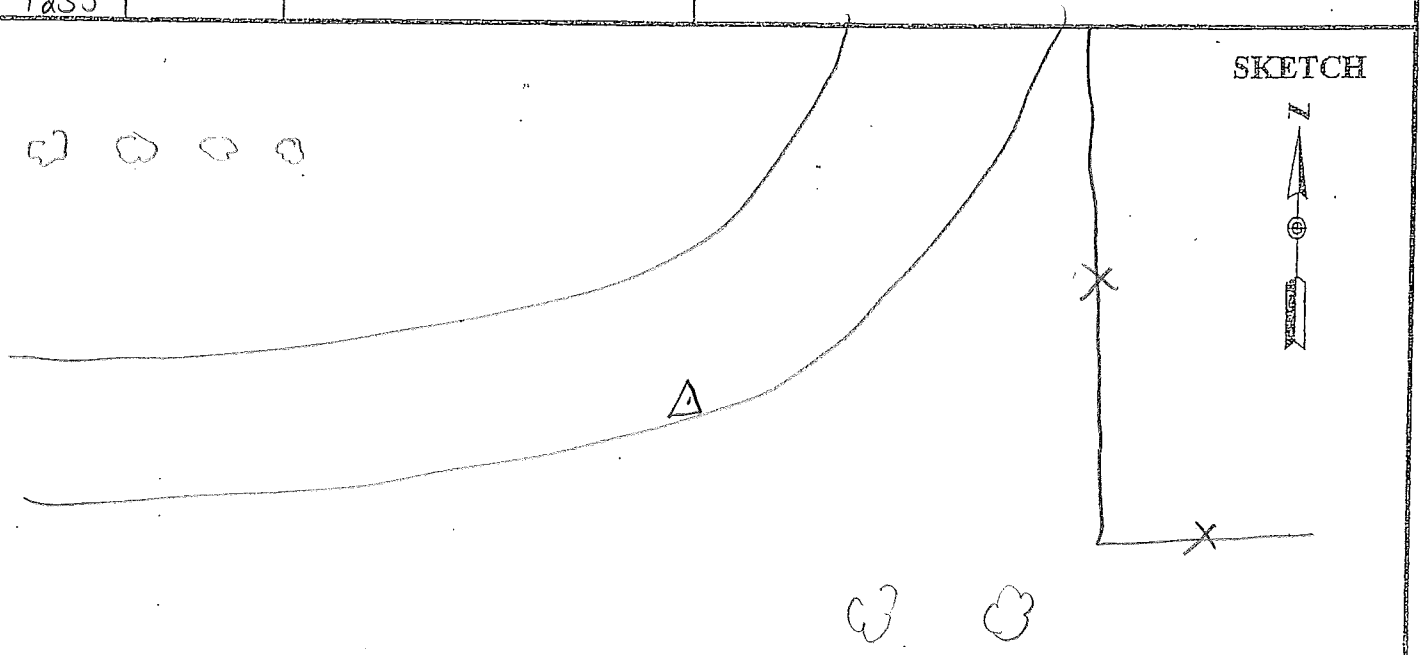
STATION DESCRIPTIONS SE side street

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1235	3.3	9/9
1255		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT trees

PROJECT 1110814
OPERATOR MD
DATE 9.12.11

SITE NUMBER 8
SITE NAME 415

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:02 p
STOP 12:21 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0360)

HEIGHT READINGS MTS FT
1.385
1.745

OBSTRUCTIONS: trees above

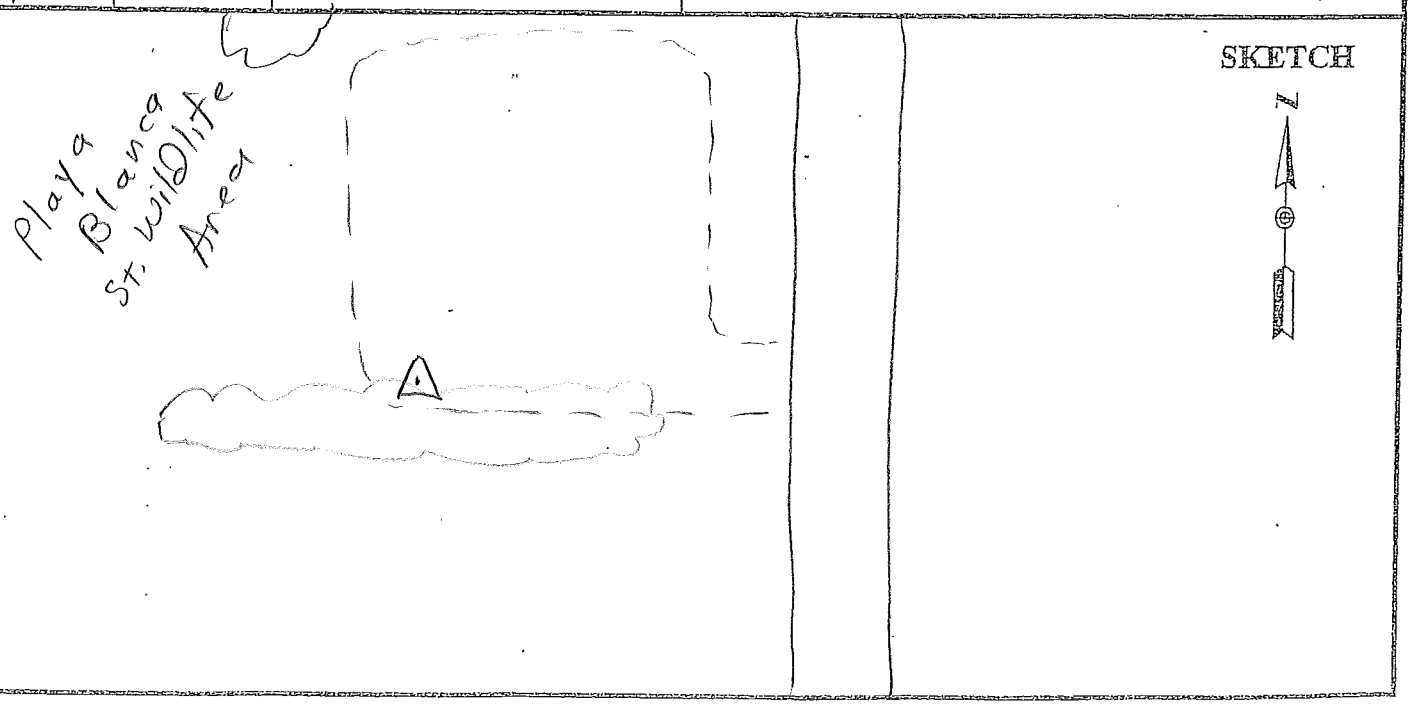
STATION DESCRIPTIONS SW corner of clearing

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1302	3.5	6/7
1321		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 9
SITE NAME 117

TRACKING TIMES (LOCAL) MEASURE √
START 12:36 p
STOP 12:54 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

HEIGHT READINGS MTS FT
1.412
1.772

OBSTRUCTIONS: none

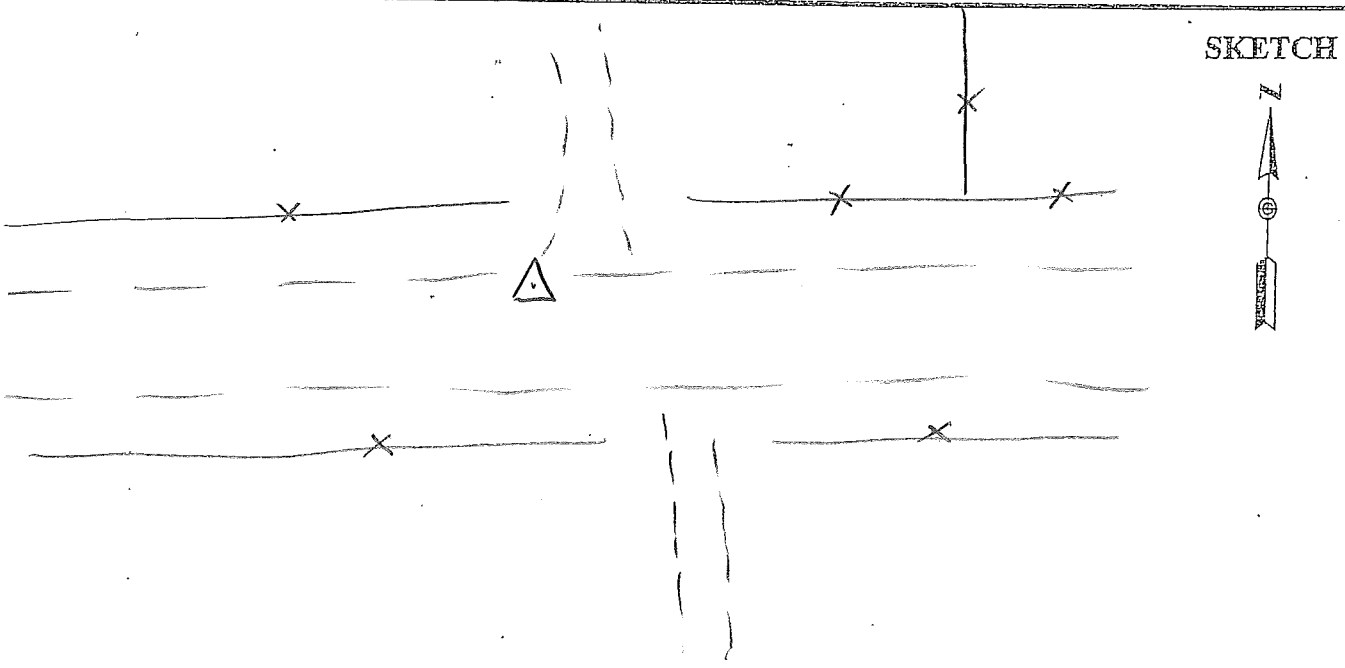
STATION DESCRIPTIONS N. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1336	1.8	8/9
1354		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT trees

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 10
SITE NAME 416

TRACKING TIMES (LOCAL) MEASURE √
START 1:05 p
STOP 1:26 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.390
1.750

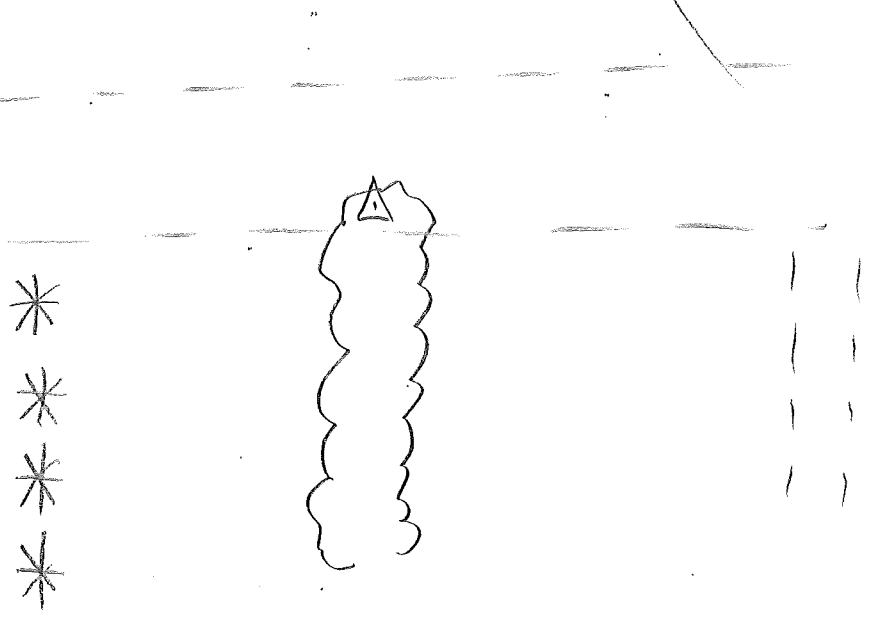
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1405	1.8	7/7
1426		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT

tall weeds

PROJECT 1110814
OPERATOR MB
DATE 9-12-11

SITE NUMBER 11
SITE NAME 216

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:35 p
STOP 1:57 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.357

STATION DESCRIPTIONS S. side road

1717

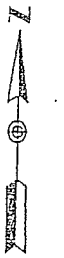
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1435	3.0	7/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

CORRALS



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 12
SITE NAME 1017

TRACKING TIMES (LOCAL) MEASURE _____
START 2:05 p
STOP 2:23 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~ 0.360
500

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.450
1.810

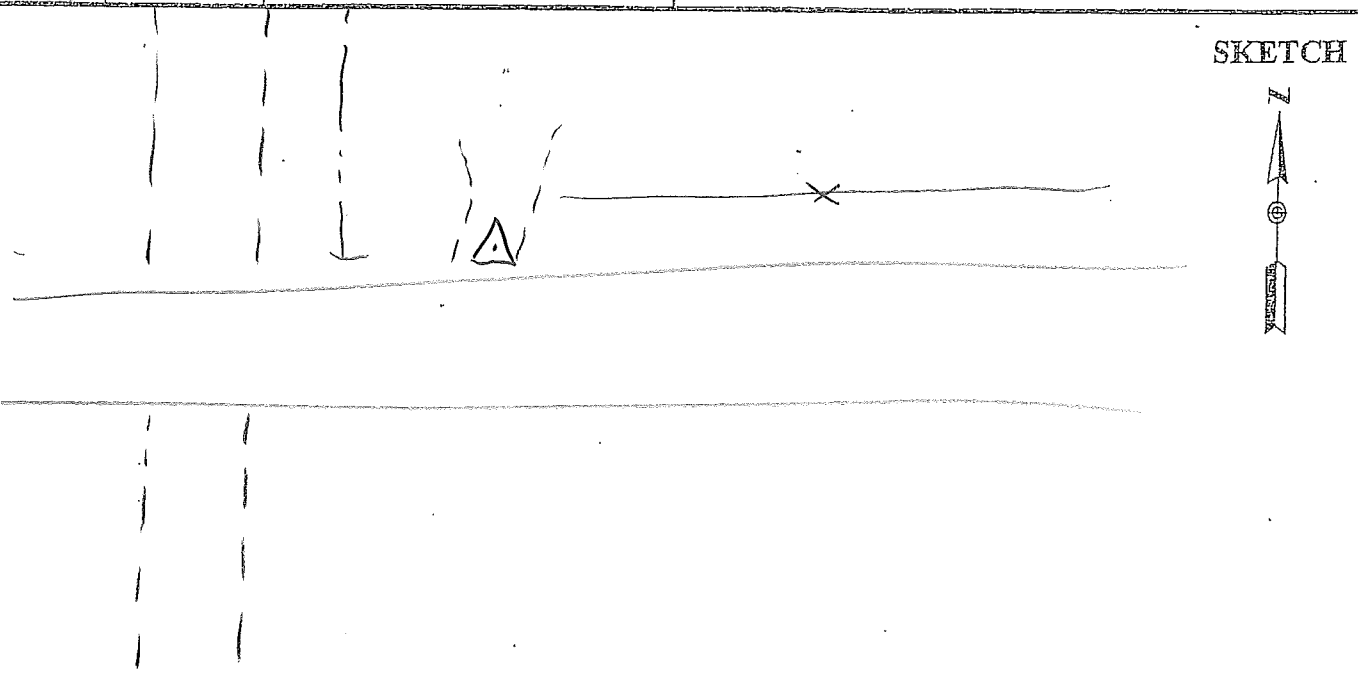
STATION DESCRIPTIONS in field
entrance

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1505	1.9	7/7
1583		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pt tall

PROJECT 1110814
OPERATOR MB
DATE 9.12.11

SITE NUMBER 13
SITE NAME 217

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:38 p
STOP 3:02 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.460

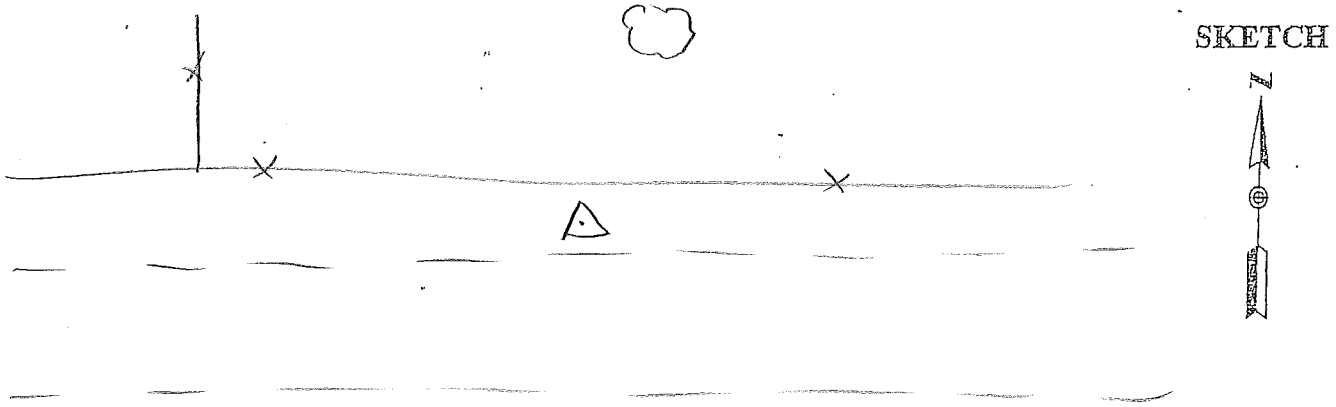
STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1538	4.2	6/7
1602		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE _____
START 6:59a.
STOP _____

SENSOR TYPE 500 9500 399 299
MEMORY CARD 232
BATTERY NO. C13
CONTROLLER NO. _____
SENSOR NO. _____

SENSOR CONSTANT 299/399 0.441
399E/9500, 500 ~~0.389~~ 0.360

OBSTRUCTIONS: _____

HEIGHT READINGS MTS FT
1.346 _____
1.706

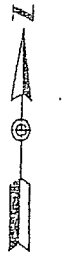
STATION DESCRIPTIONS _____

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
759	3.1	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

Base

PROJECT 110814
OPERATOR MJ
DATE 9.13.11

SITE NUMBER 1
SITE NAME 2

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:32 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 704
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.395
1.695

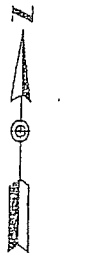
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
832	2.3	8/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT trees

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 1
SITE NAME 417

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:39 a.
STOP 8:14 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.401
1.761

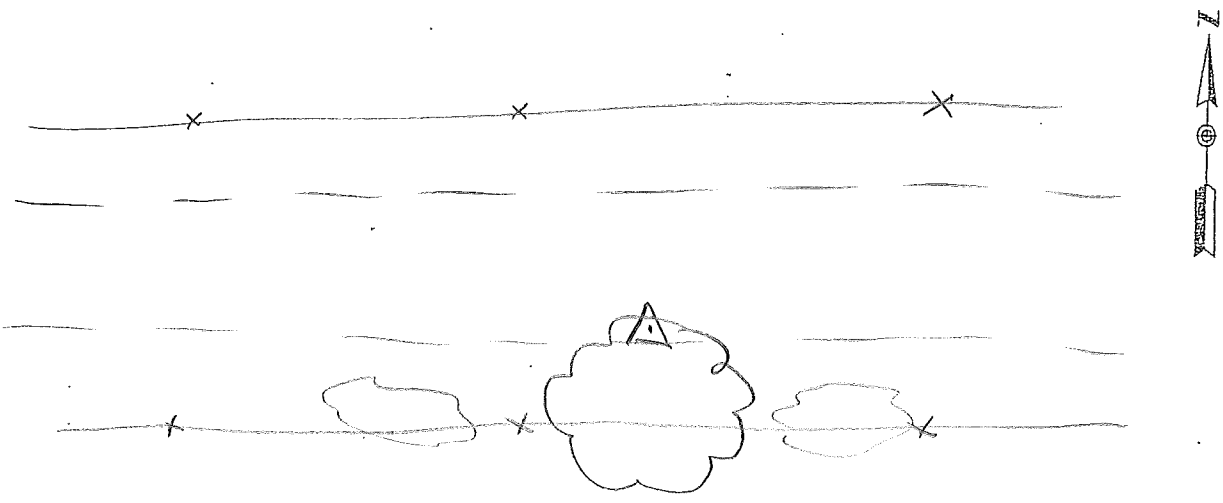
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
839	2.3	9/10
914		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT urban

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 2
SITE NAME 516

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:27 a.
STOP 8:56 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.452
1.811

OBSTRUCTIONS: none

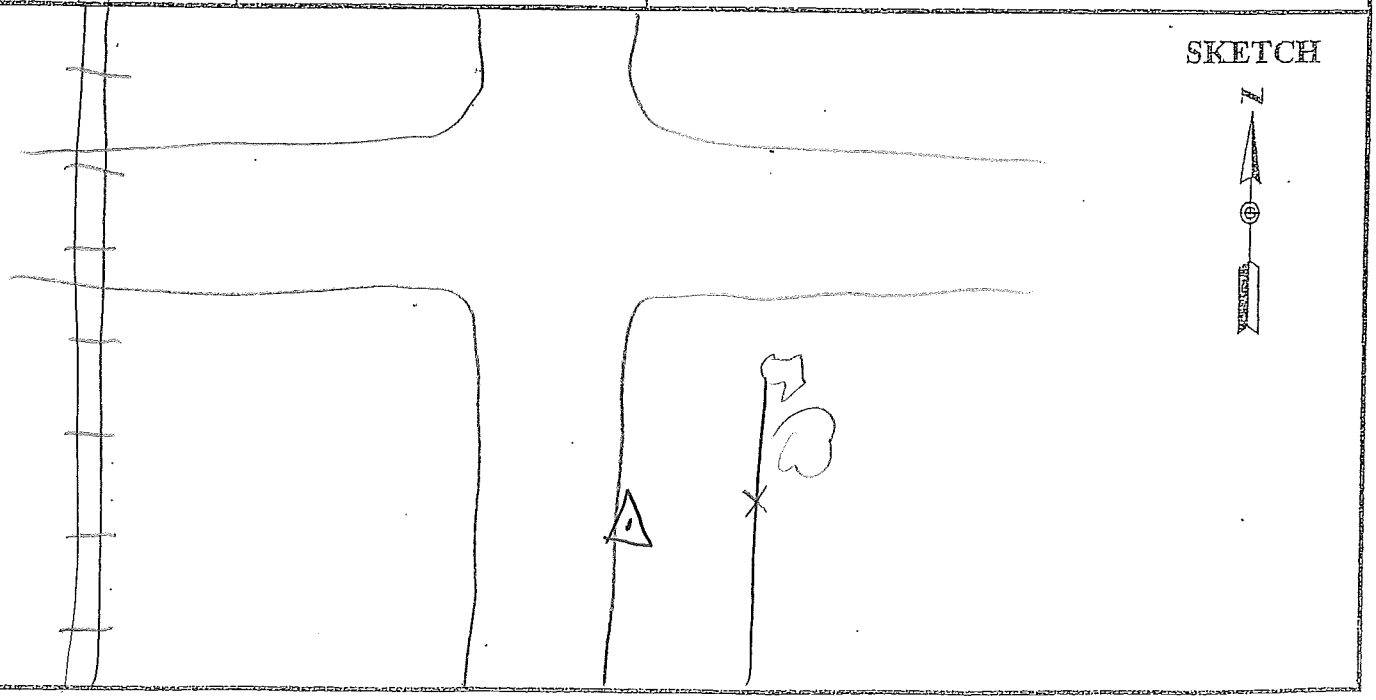
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
927	2.1	10/10
956		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT tall

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 3
SITE NAME 218

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:06 a.
STOP 9:32 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 ~~0.360~~

OBSTRUCTIONS: tree SW

HEIGHT READINGS MTS FT
1.366
1.726

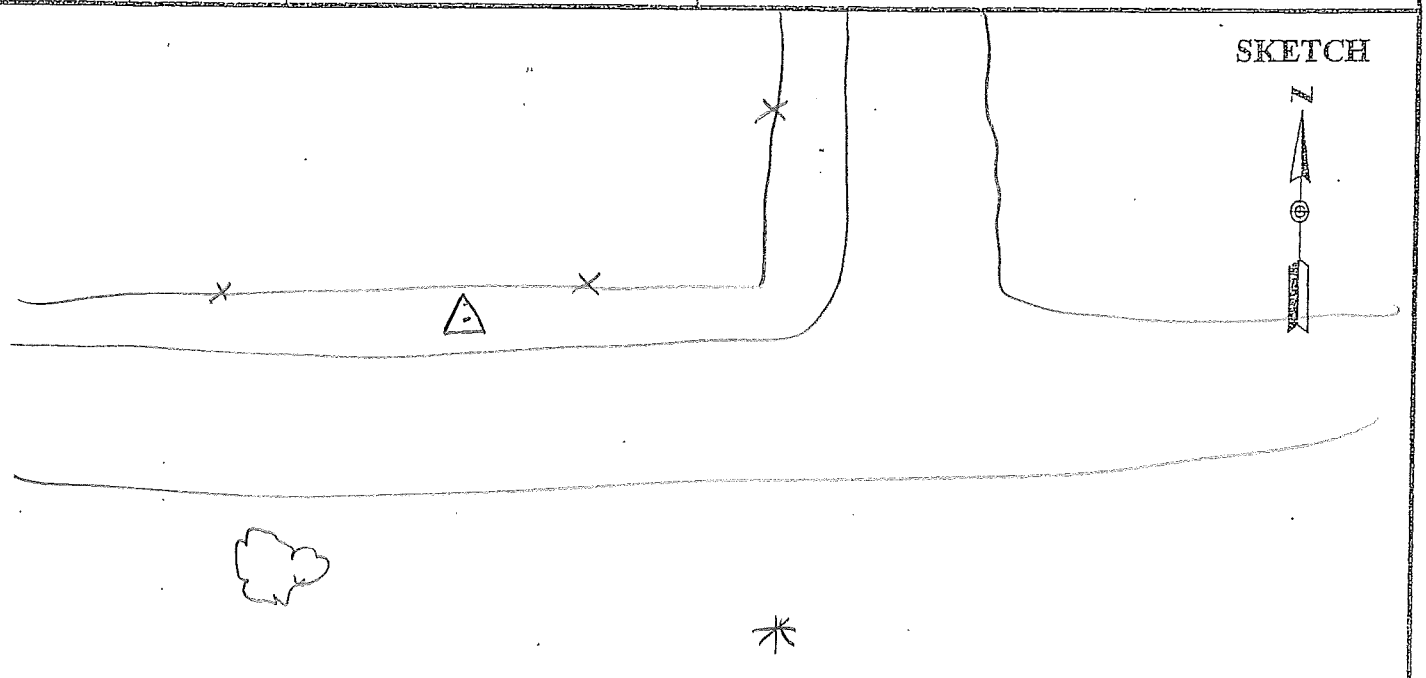
STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1006	3.8	7/7
1032		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT AME

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 4
SITE NAME 1918

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:38 a.
STOP 10:04 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: tree NE

HEIGHT READINGS MTS FT
1.412
1.772

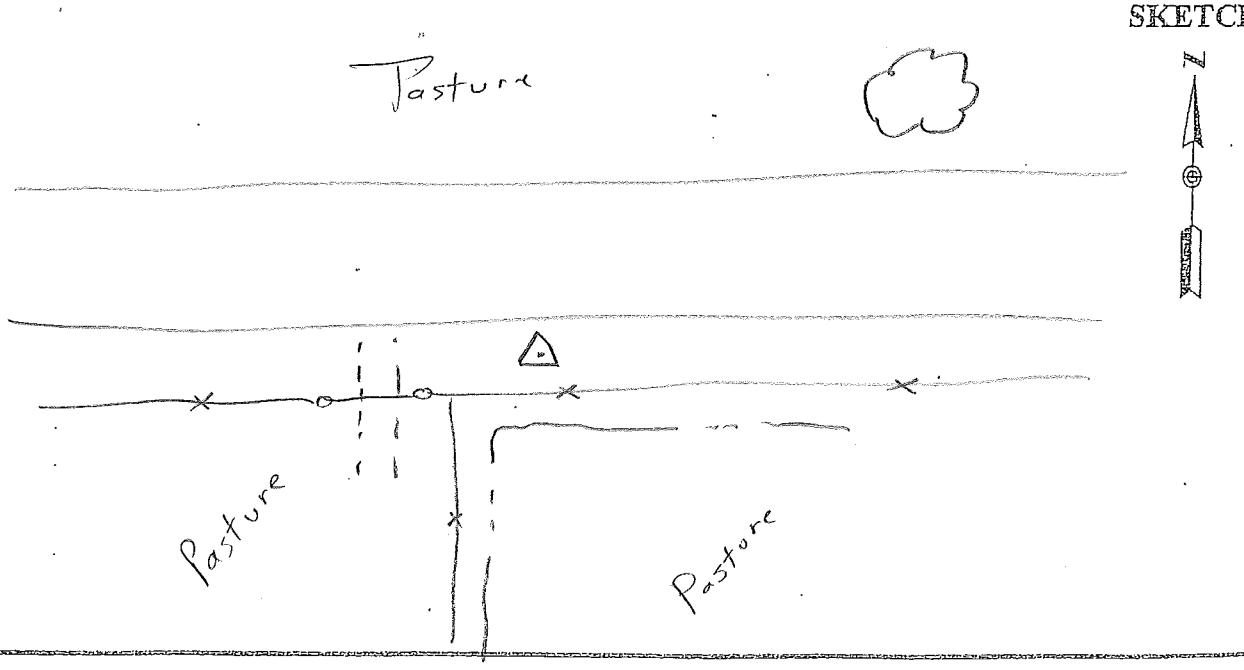
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1038	1.8	8/8
1104		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT trees

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 5
SITE NAME 418

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:12 a.
STOP 10:39 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

HEIGHT READINGS MTS FT
1.430
1.790

OBSTRUCTIONS: trees above

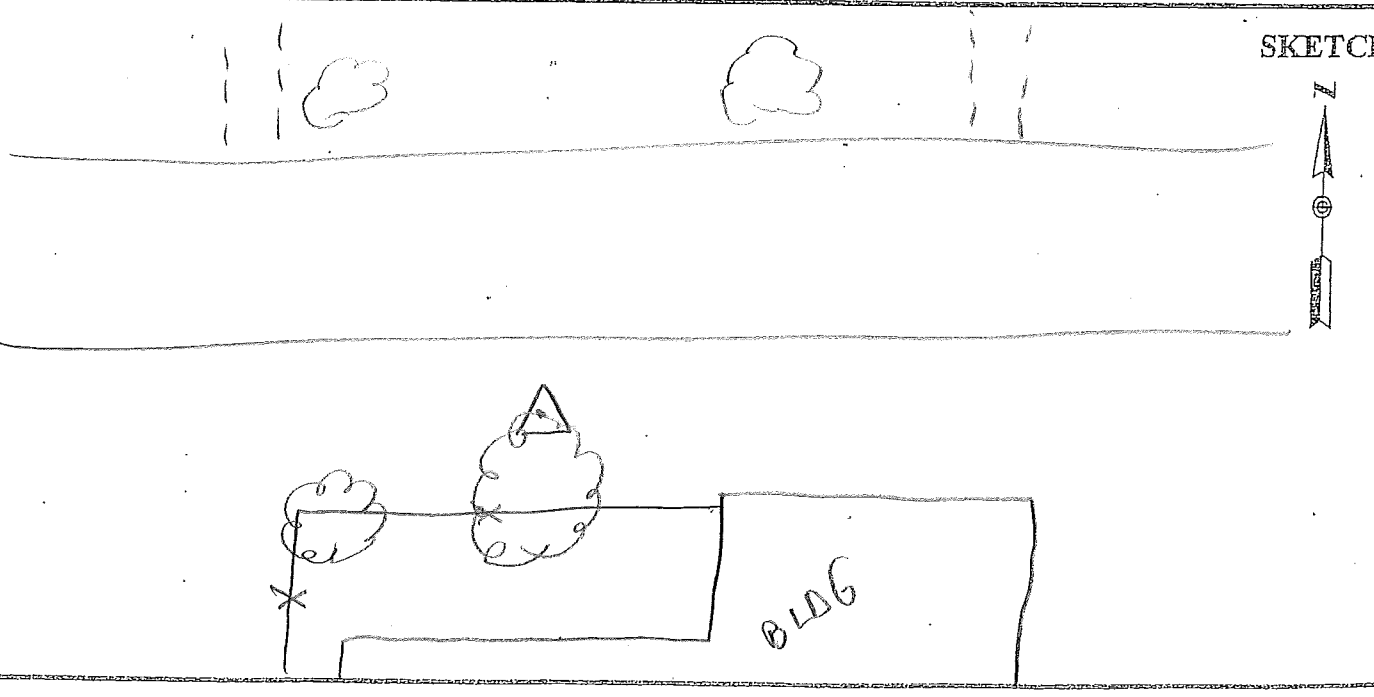
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1112	4.7	5/5
1139		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



37

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT urban

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 6
SITE NAME 517

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:43 a.
STOP 11:10 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
~~399E/9500~~ ~~0.389~~
500 0.360

HEIGHT READINGS MTS FT
1.419
1.779

OBSTRUCTIONS: none

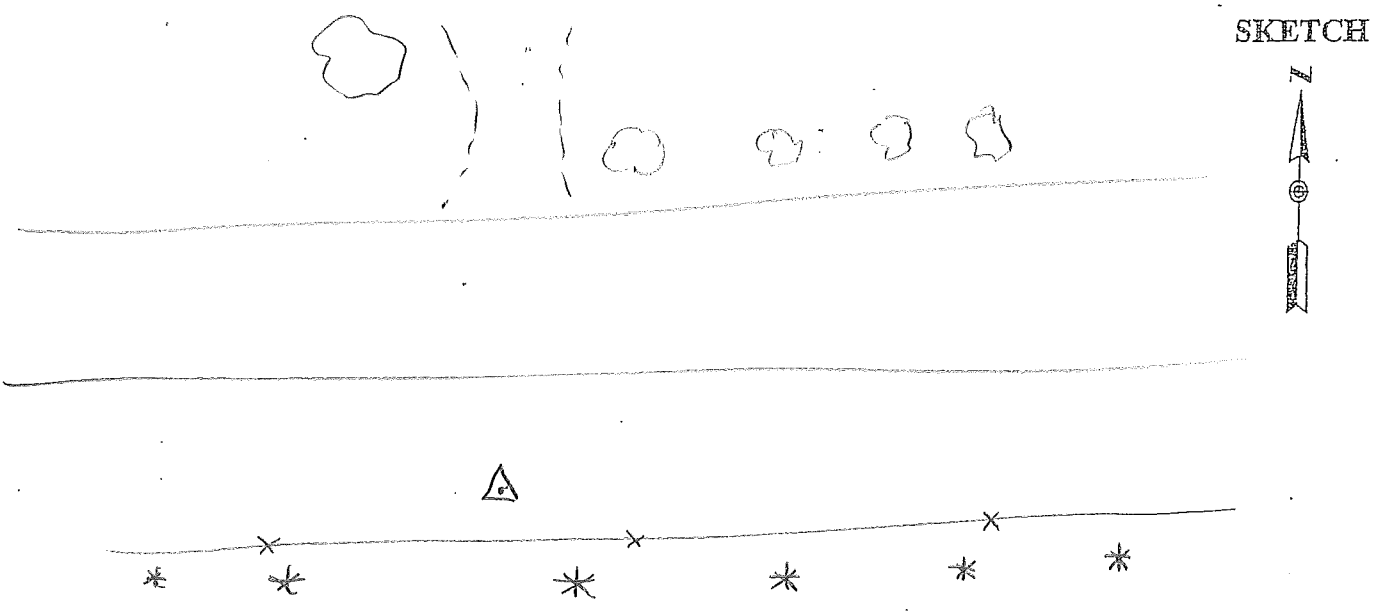
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1143	2.3	8/9
1210		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT trees

PROJECT 1110814
OPERATOR MS
DATE 9.13.11

SITE NUMBER 7
SITE NAME 419

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:21 a.
STOP 11:46 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

HEIGHT READINGS MTS FT
1.418
1.778

OBSTRUCTIONS: trees above + W

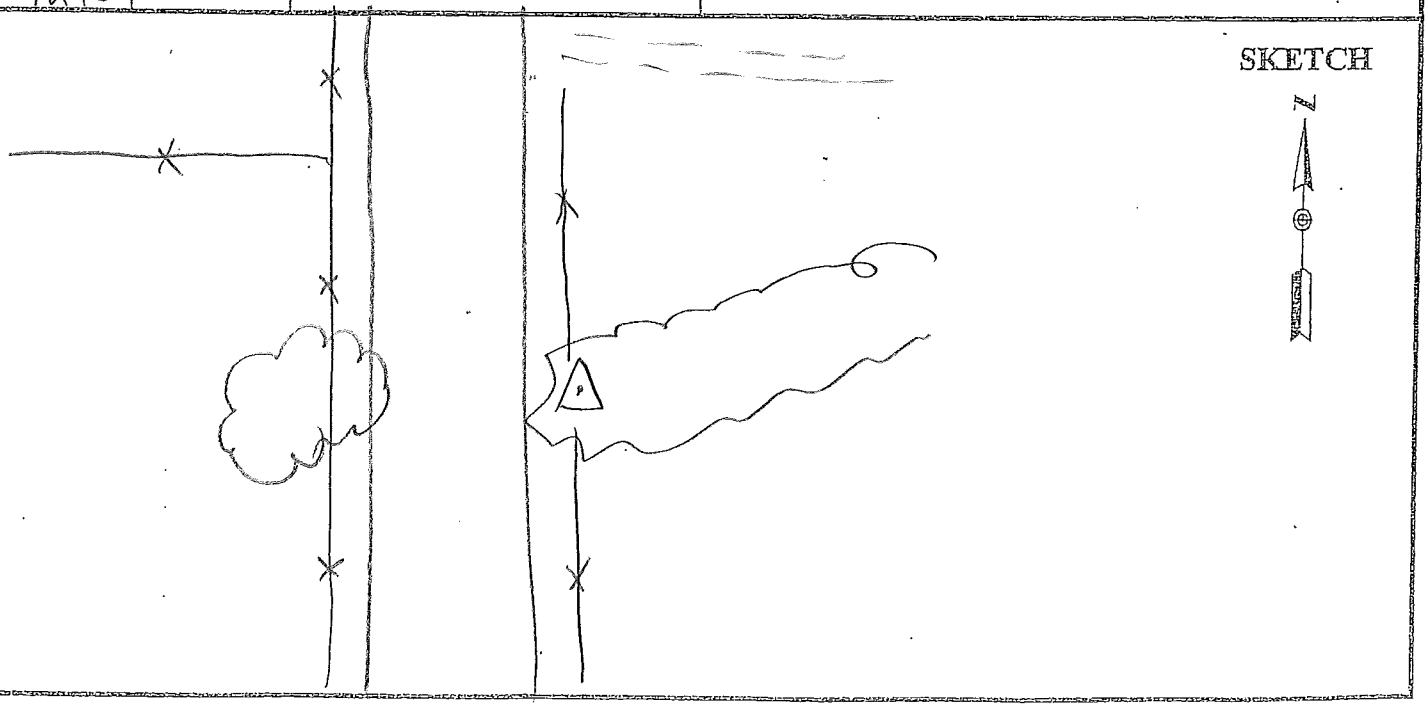
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1221	2.3	7/7
1246		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT brush

PROJECT 1110814
OPERATOR MB
DATE 9·13·11

SITE NUMBER 8
SITE NAME 317

TRACKING TIMES (LOCAL) MEASURE √
START 11:55 a
STOP 12:17 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~500~~ ~~0.389~~ 0.360

HEIGHT READINGS MTS FT
1.513
1.873

OBSTRUCTIONS: tree NE
tall brush SE

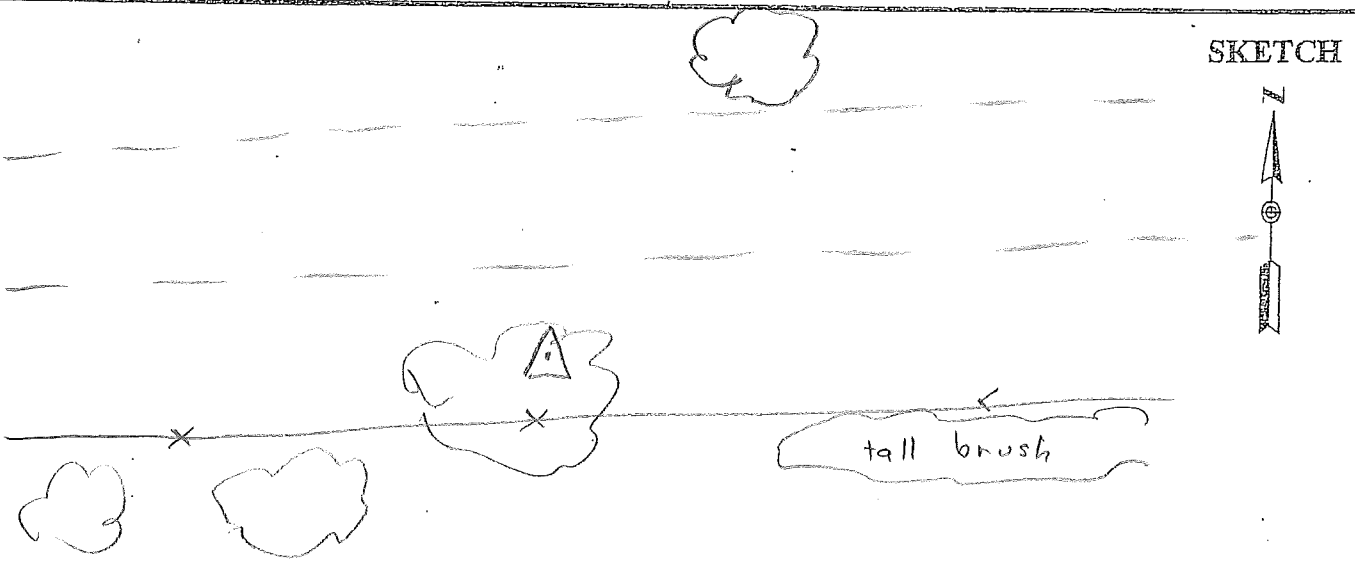
STATION DESCRIPTIONS brush on S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1255	2.6	5/8
1317		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT bare earth

PROJECT 110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 9
SITE NAME 118

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:24 p
STOP 12:46 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.411
1.771

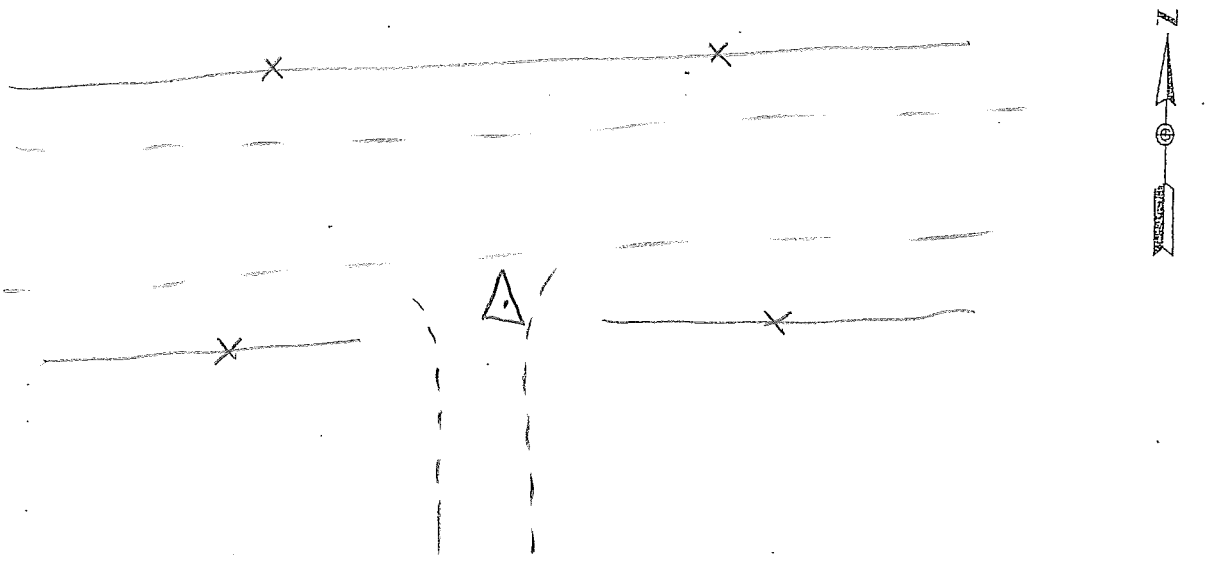
STATION DESCRIPTIONS in field entrance

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1324	1.8	8/9
1346		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT

brush

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 10
SITE NAME 318

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:56 p
STOP 1:21 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
(500) (0.360)

OBSTRUCTIONS: tall brush NW ↔ NE

HEIGHT READINGS MTS FT
1.444
1.804

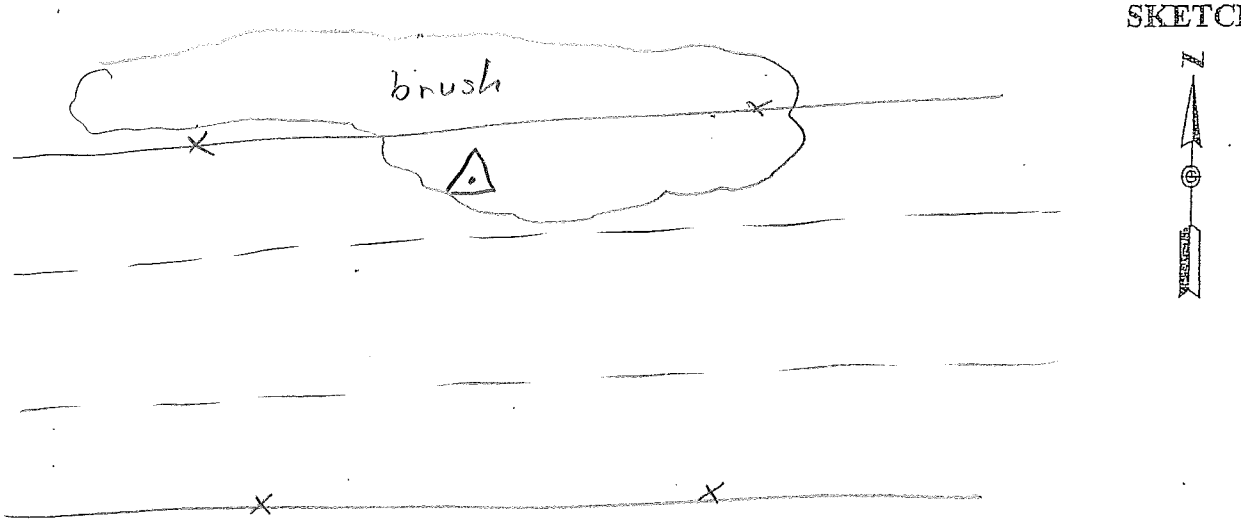
STATION DESCRIPTIONS N. side road in brush

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1356	2.8	7/7
1421		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √pt AME

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 11
SITE NAME 1019

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:28 p
STOP 1:53 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) (0.360)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.390 1
1.750

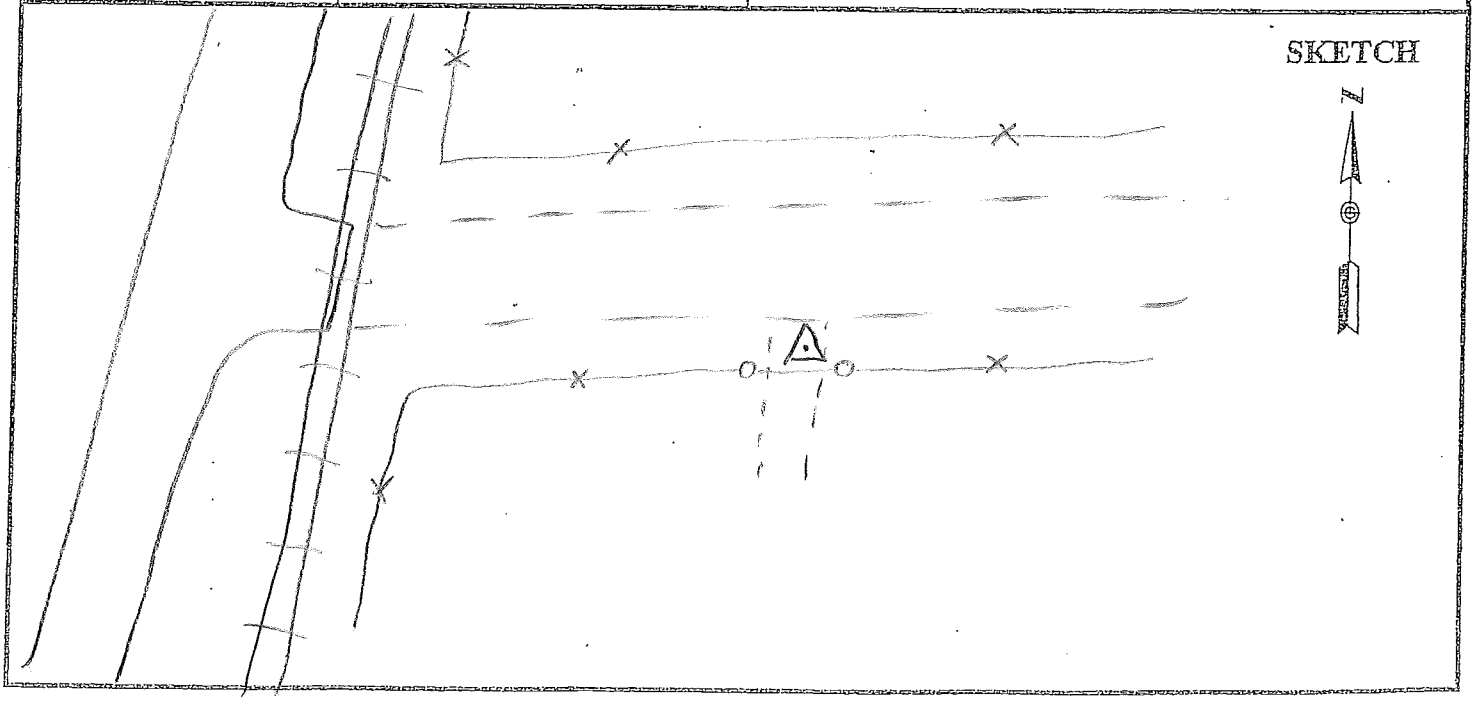
STATION DESCRIPTIONS at field entrance

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1428	3.2	8/8
1453		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT

-bare earth

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 12
SITE NAME 119

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:01 p
STOP 2:29 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.418
1.778

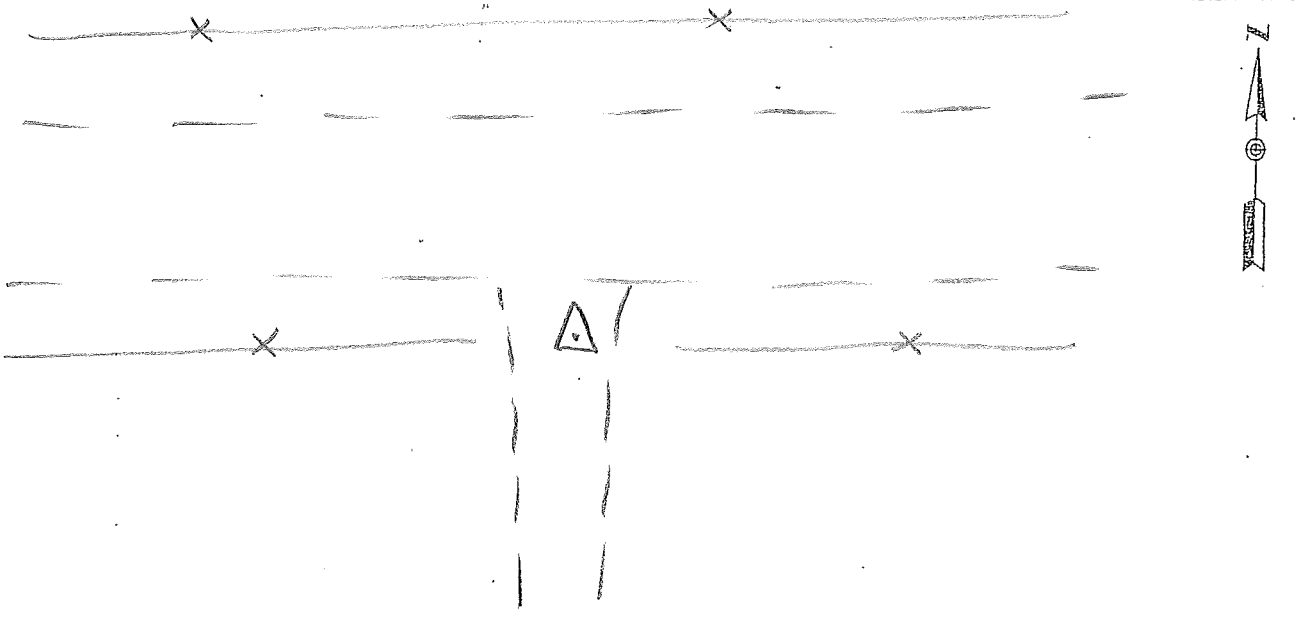
STATION DESCRIPTIONS in field
entrance

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1501	1.9	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 ✓PT brush

PROJECT 1110814
OPERATOR MB
DATE 9.13.11

SITE NUMBER 13
SITE NAME 319

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:44 p
STOP 3:17 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.404
1.764

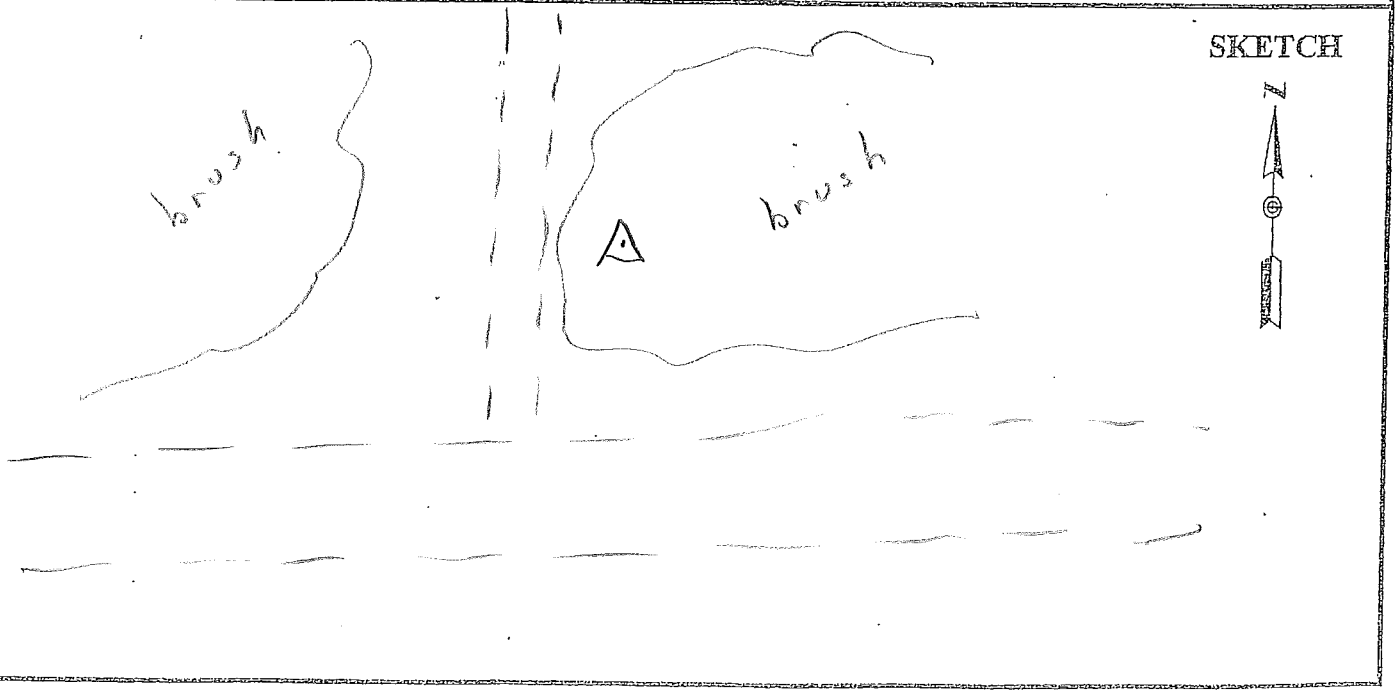
STATION DESCRIPTIONS E. side of 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1544	1.8	6/6
1617		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base

PROJECT 110814
OPERATOR MB
DATE 9-14-11

SITE NUMBER 1
SITE NAME 2

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:22 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 603
BATTERY NO. 08
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
~~500~~ 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.266

STATION DESCRIPTIONS

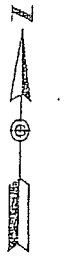
1626

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
822	2.2	11/11

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 Base H + V Control

PROJECT 111014
OPERATOR MD
DATE 9.14.11

SITE NUMBER 1
SITE NAME ANTONITO

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:59 a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.323

STATION DESCRIPTIONS

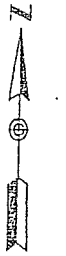
1683

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
859	3.2	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See Previous

AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VOT

urban

PROJECT 1110814
OPERATOR NB
DATE 9.14.11

SITE NUMBER 1
SITE NAME 518

TRACKING TIMES (LOCAL) MEASURE V
START 8:09a.
STOP 8:42a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT
299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.447

STATION DESCRIPTIONS in paved pull-off

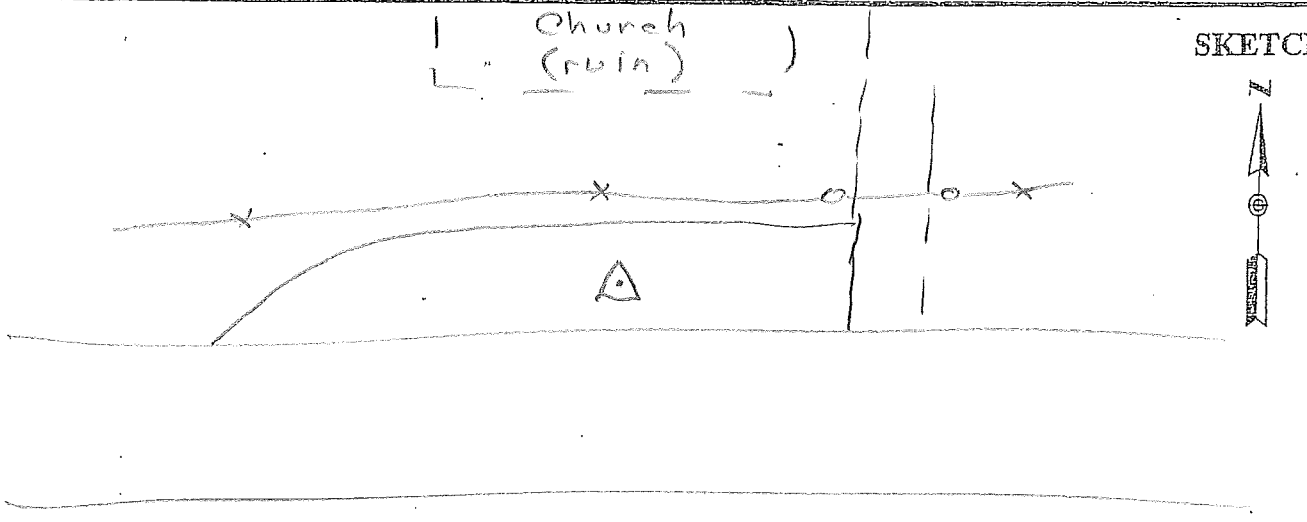
1807

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
909	2.7	9/9
942		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

√PT

bare earth

PROJECT 1110814
OPERATOR MD
DATE 9.14.11

SITE NUMBER 2
SITE NAME 120

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:48 a.
STOP 9:19 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
(500) 0.360

HEIGHT READINGS MTS FT
1.435
1.795

OBSTRUCTIONS: none

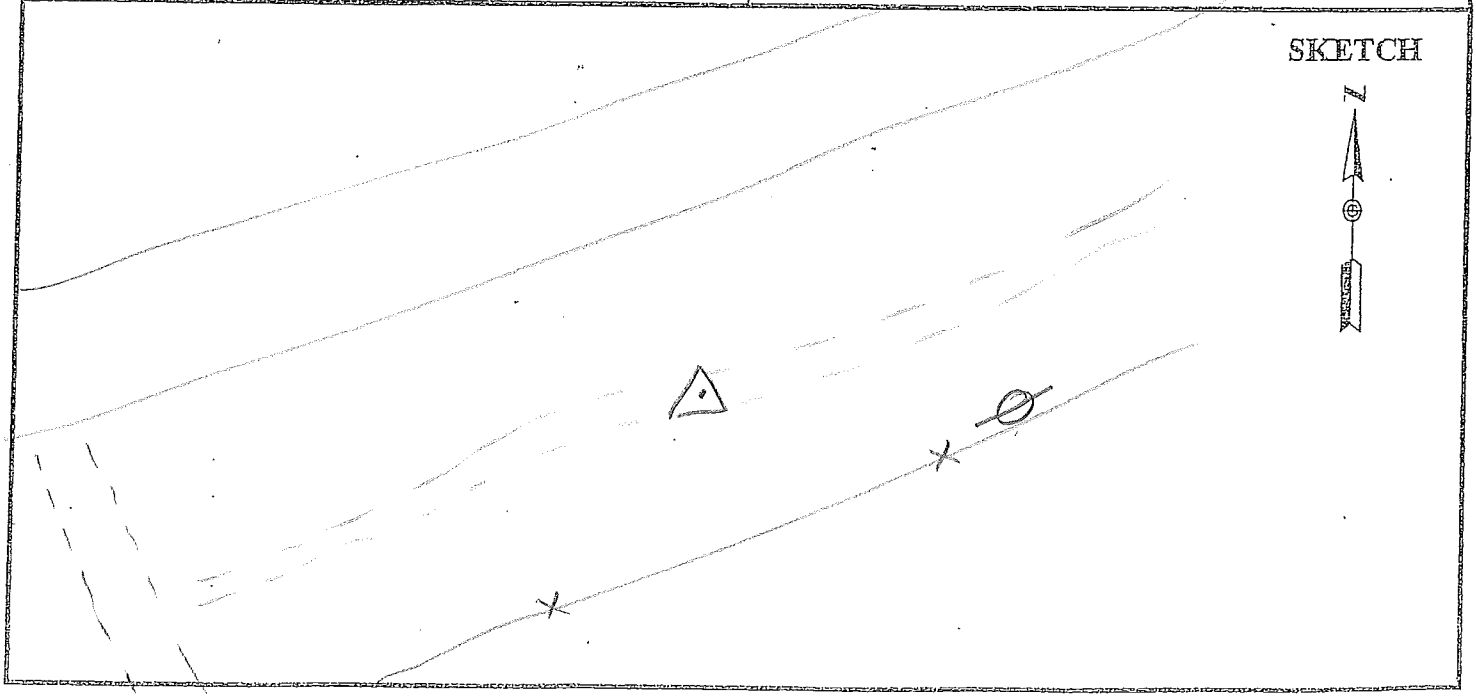
STATION DESCRIPTIONS in 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
948	2.0	11/11
1019		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 VPT

tall

PROJECT 1110814
OPERATOR NB
DATE 9.14.11

SITE NUMBER 3
SITE NAME 219

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:23a.
STOP 9:54a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.434

STATION DESCRIPTIONS in brush by fence

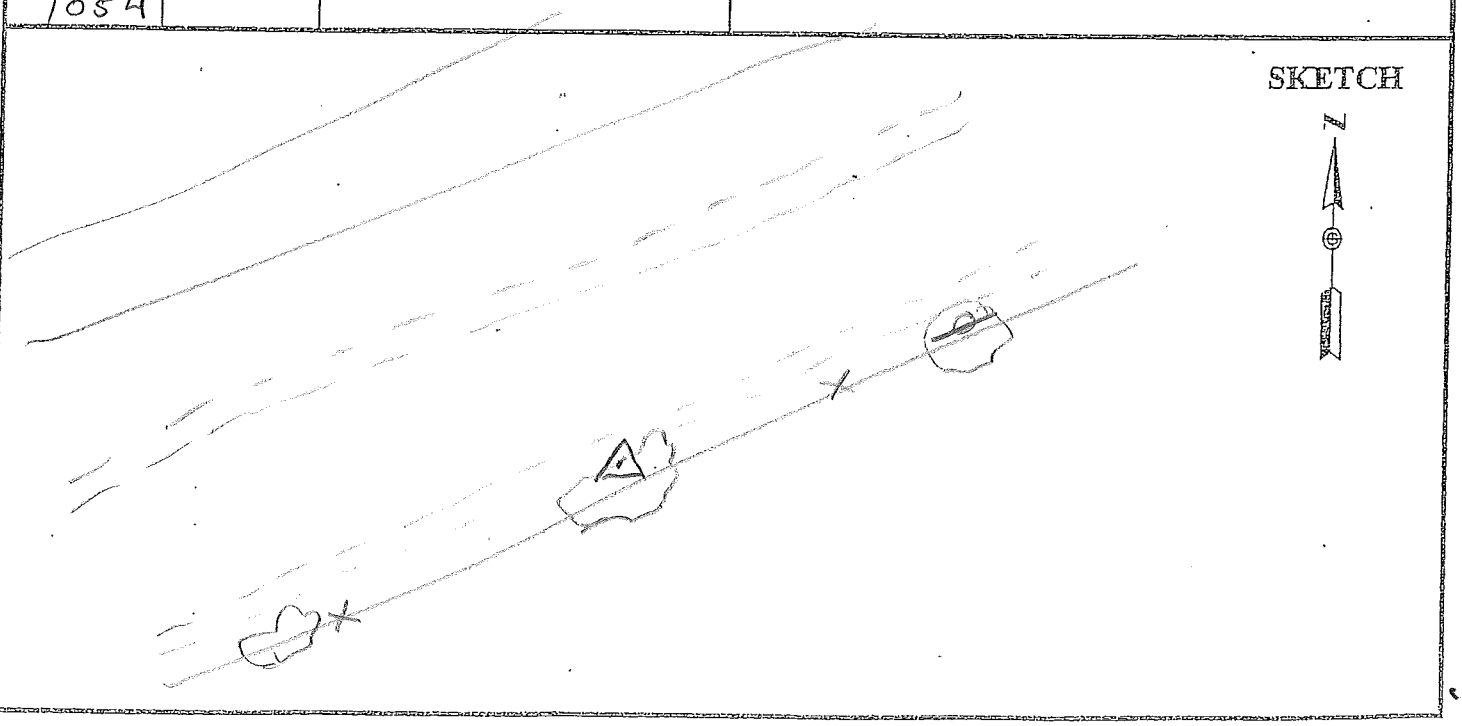
1794

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1023	1.6	12/12
1054		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 1/PT urban

PROJECT 1110814
OPERATOR MB
DATE 9.14.11

SITE NUMBER 4
SITE NAME 519

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:02 a.
STOP 10:30 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 ~~0.389~~
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.443

STATION DESCRIPTIONS E. side road

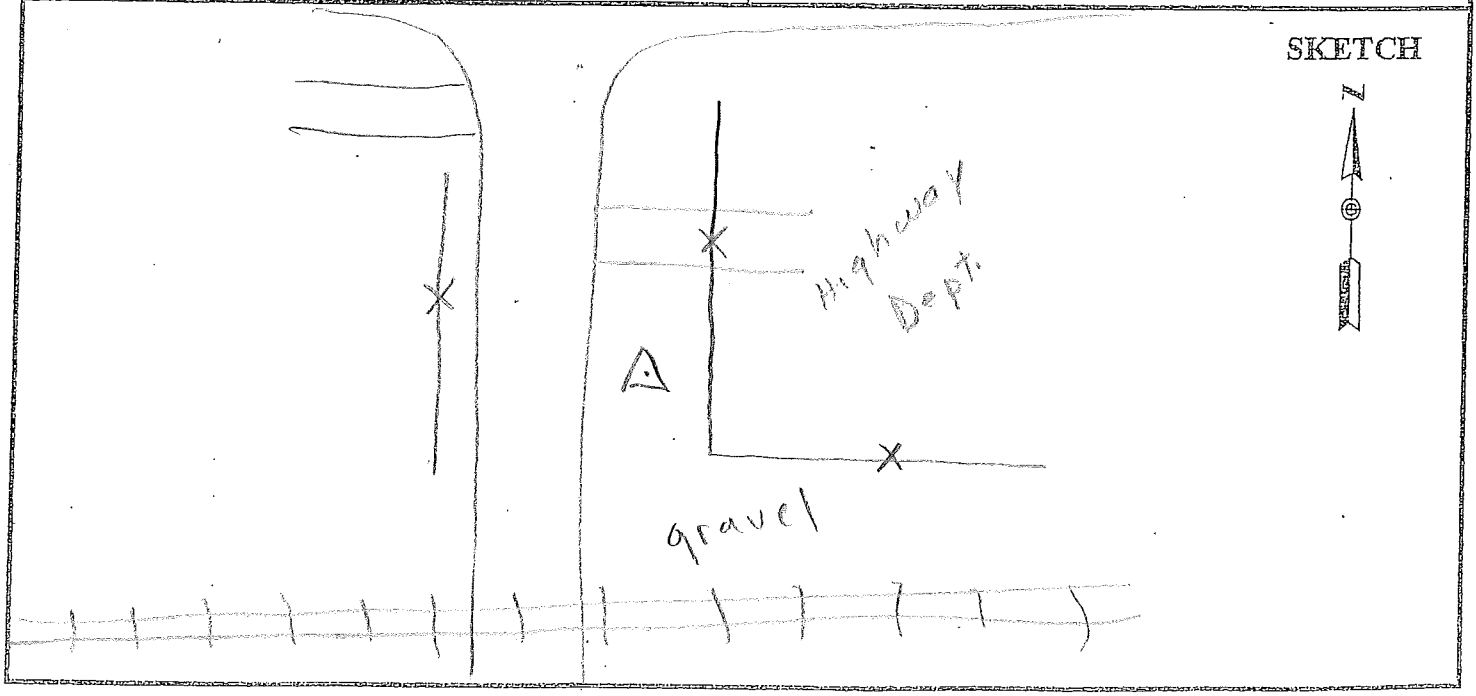
1803

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1102	1.5	10/10
1130		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 1/FT trees

PROJECT 111081
OPERATOR MS
DATE 9.14.11

SITE NUMBER 5
SITE NAME 420

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:36 a.
STOP 11:04 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
~~500~~ ~~0.360~~

HEIGHT READINGS MTS FT
1.440

1,800

OBSTRUCTIONS: trees above

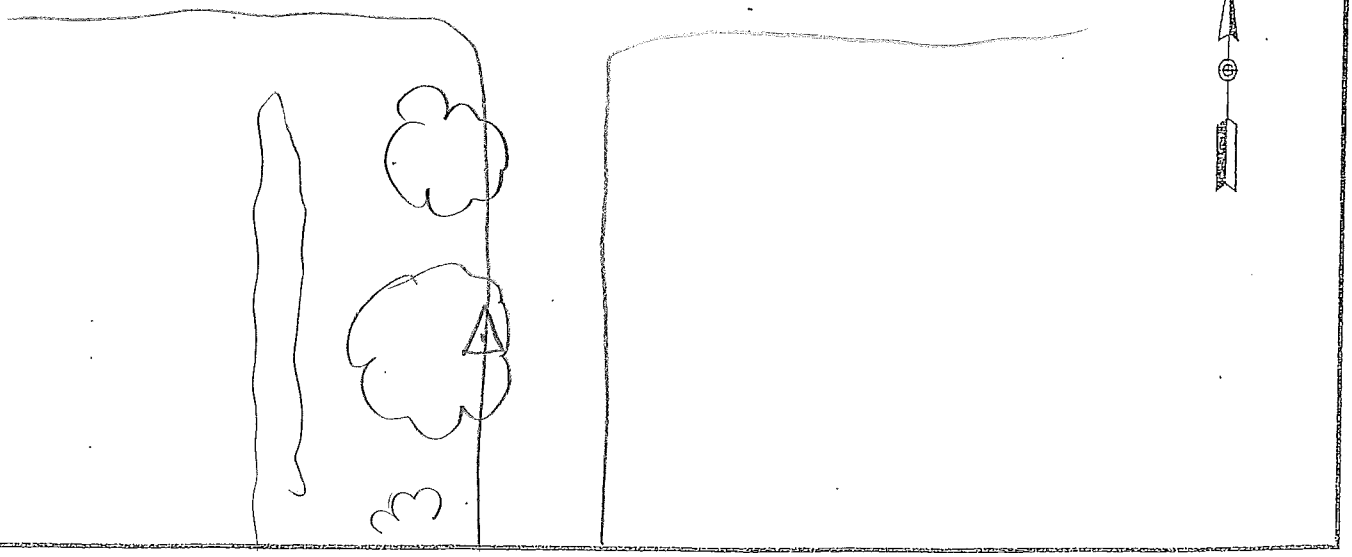
STATION DESCRIPTIONS W. side street

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1136	2.9	7/7
1204		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT AME

PROJECT 1110814
OPERATOR MB
DATE 9.14.11

SITE NUMBER 6
SITE NAME 1020

TRACKING TIMES (LOCAL) MEASURE √
START 11:12 a.
STOP 11:38 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.412
1.772

OBSTRUCTIONS: trees SW

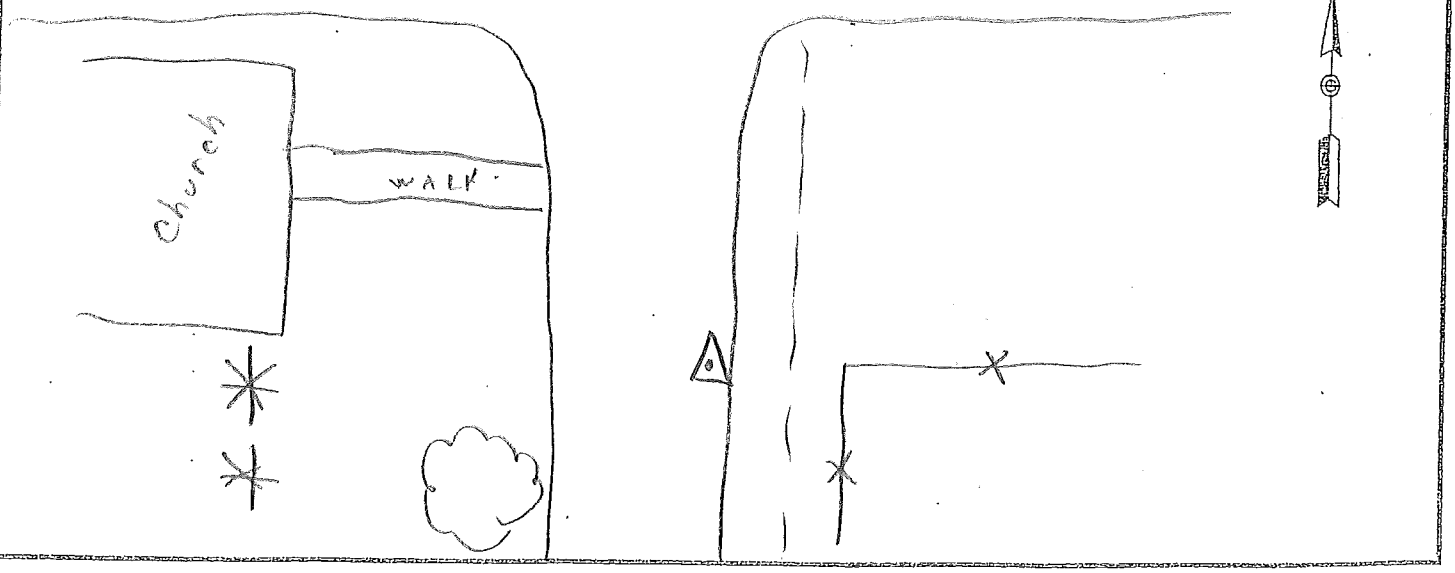
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1212	5.3	9/9
1238		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083

VPT trees

PROJECT 111014
OPERATOR NB
DATE 9.14.11

SITE NUMBER 7
SITE NAME 421

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:48a.
STOP 12:07p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: trees above

HEIGHT READINGS MTS FT
1.470
1.830

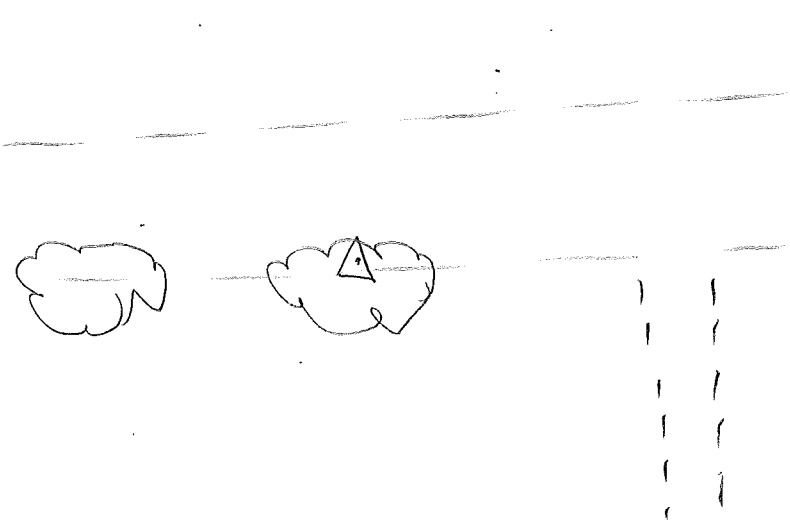
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1248	3.5	7/7
1307		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 JPT tall

PROJECT 1110814
OPERATOR MB
DATE 9.14.11

SITE NUMBER 8
SITE NAME 220

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:17 P
STOP 12:35 P

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.500
1.860

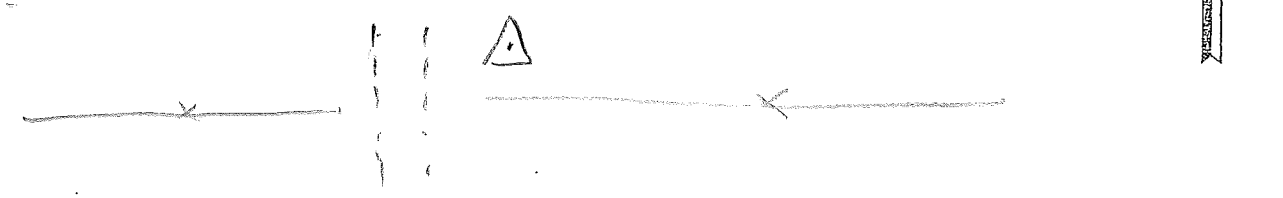
STATION DESCRIPTIONS S. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1317	3.5	8/8
1335		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 √PT brush

PROJECT 1110814
OPERATOR MC
DATE 9.14.11

SITE NUMBER 9
SITE NAME 320

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:03 p
STOP 1:23 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 731
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

SENSOR CONSTANT 299/399 0.441
399E/9500 0.389
500 0.360

HEIGHT READINGS MTS FT
1.413
1.773

OBSTRUCTIONS: none

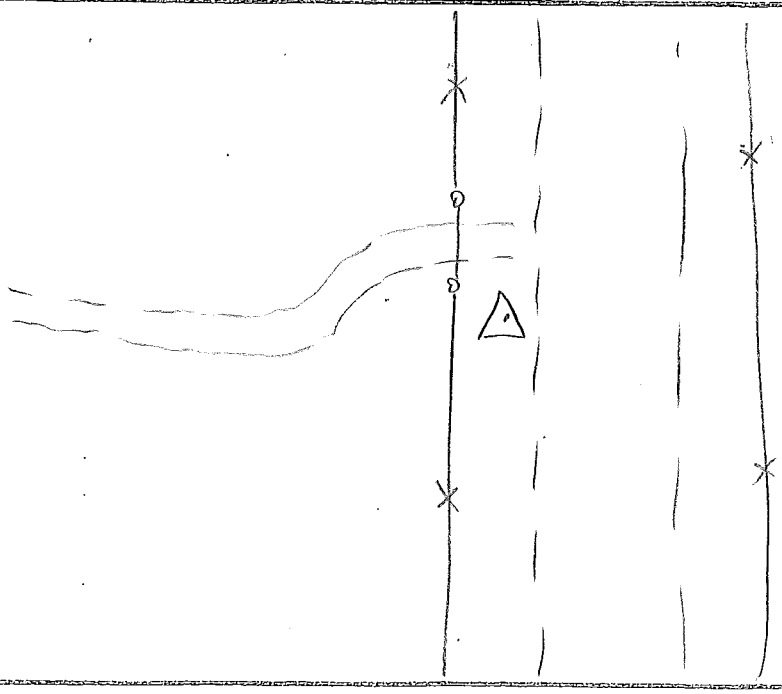
STATION DESCRIPTIONS W. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1403	1.7	9/9
1423		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



09:56:26, Tue Jan 03, 2012

INI file: C:\WINNT\GEOLAB.INI
Input file: V:\1110814\G~ON-6SF\SURVEY\GEO\C.IOB
Output file: V:\1110814\G~ON-6SF\SURVEY\GEO\C.LST

Geoid File: C:\GEOLAB2\G2009U06.GEO

PARAMETERS		OBSERVATIONS	
Description	Number	Description	Number
No. of Stations	145	Directions	0
Coord Parameters	418	Distances	0
Free Latitudes	140	Azimuths	0
Free Longitudes	140	Vertical Angles	0
Free Heights	138	Zenithal Angles	0
Fixed Coordinates	17	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.	903
Rotation Pars.	0		
Translation Pars.	0		
	--------		--------
Total Parameters	418	Total Observations	903
Degrees of Freedom =		485	

SUMMARY OF SELECTED OPTIONS

OPTION	SELECTION
Computation Mode	Adjustment
Maximum Iterations	5
Convergence Criterion	0.00100
Confidence Level for Statistics	95.000
Covariance Matrix Computation	Connected Portion Only
Residual Rejection Criterion	Tau Max
Confidence Region Types	3D Station Relative
Relative Confidence Regions	Connected Only
Variance Factor (VF) Known	Yes
CMULT (Multiply Parm Cov With VF)	Yes
RMULT (Multiply Res Cov With VF)	No
Force Convergence in Max Iters	Yes
Distances Affect 3D	No
Full Inverse Computed	No
Normals Reordered	Yes
Coordinates Generated	No
Geoid Interpolation Method	Bi-Linear

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
NEO	000	1	4146316.945 0.006	406477.085 0.006	2320.206 0.004	UTM 13
SFMC		1	0.99970774	0-38 35.508944		UTM 13
NEO	000	10	4202176.638 0.014	441018.696 0.014	2486.461 0.014	UTM 13
SFMC		10	0.99964285	0-24 47.120338		UTM 13
NEO	000	100	4202174.319 0.014	441017.012 0.014	2486.658 0.014	UTM 13
SFMC		100	0.99964285	0-24 47.161673		UTM 13
NEO	000	1000	4208708.657 0.009	424951.534 0.009	2311.407 0.009	UTM 13
SFMC		1000	0.99966937	0-31 36.180270		UTM 13
NEO	000	1001	4212945.050 0.007	400356.258 0.007	2344.688 0.007	UTM 13
SFMC		1001	0.99972228	0-42 0.917387		UTM 13
NEO	000	1002	4212349.696 0.005	408343.419 0.005	2322.038 0.005	UTM 13
SFMC		1002	0.99970347	0-38 38.447780		UTM 13
NEO	000	1003	4194679.580 0.007	397361.930 0.007	2323.247 0.006	UTM 13
SFMC		1003	0.99972975	0-43 1.341390		UTM 13
NEO	000	1004	4178613.633 0.008	389364.805 0.008	2363.700 0.008	UTM 13
SFMC		1004	0.99975076	0-46 7.951994		UTM 13
NEO	000	1005	4170487.908 0.009	395032.271 0.008	2353.349 0.008	UTM 13
SFMC		1005	0.99973571	0-43 39.284931		UTM 13
NEO	000	1006	4160077.418 0.011	398666.358 0.011	2335.938 0.010	UTM 13
SFMC		1006	0.99972648	0-42 0.092232		UTM 13
NEO	000	1007	4149333.078 0.011	423570.941 0.011	2299.910 0.011	UTM 13
SFMC		1007	0.99967195	0-31 34.215370		UTM 13
NEO	000	1008	4152556.735 0.008	430641.417 0.008	2296.156 0.008	UTM 13
SFMC		1008	0.99965925	0-28 40.806864		UTM 13
NEO	000	1009	4152551.969 0.004	444469.514 0.004	2318.139 0.004	UTM 13
SFMC		1009	0.99963798	0-22 57.756418		UTM 13
NEO	000	101	4212943.908 0.007	400356.849 0.007	2344.615 0.007	UTM 13
SFMC		101	0.99972228	0-42 0.901522		UTM 13
NEO	000	1010	4163752.908 0.009	448575.439 0.009	2507.784 0.009	UTM 13
SFMC		1010	0.99963257	0-21 20.545472		UTM 13
NEO	000	1011	4137820.517 0.006	452157.017 0.006	2357.378 0.006	UTM 13
SFMC		1011	0.99962819	0-19 41.359537		UTM 13
NEO	000	1012	4107519.805 0.010	447365.852 0.010	2343.655 0.009	UTM 13
SFMC		1012	0.99963413	0-21 26.881798		UTM 13
NEO	000	1013	4117694.661	454680.420	2374.594	UTM 13

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
			0.010	0.010	0.009	
SFMC		1013	0.99962530	0-18 31.738969	UTM 13	
NEO	000	1014	4114437.112	434716.126	2277.893	UTM 13
			0.011	0.011	0.010	
SFMC		1014	0.99965250	0-26 39.738732	UTM 13	
NEO	000	1015	4139977.396	398998.523	2379.491	UTM 13
			0.009	0.009	0.008	
SFMC		1015	0.99972566	0-41 35.468466	UTM 13	
NEO	000	1016	4146265.732	408156.602	2316.105	UTM 13
			0.006	0.006	0.005	
SFMC		1016	0.99970390	0-37 53.897530	UTM 13	
NEO	000	1017	4139681.008	416210.881	2305.349	UTM 13
			0.008	0.008	0.008	
SFMC		1017	0.99968648	0-34 30.083865	UTM 13	
NEO	000	1018	4126872.911	403937.044	2366.190	UTM 13
			0.011	0.011	0.010	
SFMC		1018	0.99971367	0-39 23.373043	UTM 13	
NEO	000	1019	4132377.383	416694.238	2308.638	UTM 13
			0.009	0.009	0.008	
SFMC		1019	0.99968548	0-34 13.255562	UTM 13	
NEO	000	102	4212854.807	404654.084	2330.241	UTM 13
			0.005	0.005	0.005	
SFMC		102	0.99971196	0-40 12.141560	UTM 13	
NEO	000	1020	4105147.741	409394.364	2409.138	UTM 13
			0.009	0.009	0.002	
SFMC		1020	0.99970113	0-36 53.398742	UTM 13	
NEO	000	103	4188158.387	399009.106	2327.548	UTM 13
			0.008	0.008	0.007	
SFMC		103	0.99972562	0-42 14.564112	UTM 13	
NEO	000	104	4183375.774	383765.820	2474.193	UTM 13
			0.011	0.011	0.010	
SFMC		104	0.99976640	0-48 32.478327	UTM 13	
NEO	000	105	4188094.705	408787.769	2310.904	UTM 13
			0.010	0.010	0.010	
SFMC		105	0.99970247	0-38 9.158425	UTM 13	
NEO	000	106	4159867.270	394497.921	2351.357	UTM 13
			0.011	0.011	0.011	
SFMC		106	0.99973710	0-43 43.549631	UTM 13	
NEO	000	107	4172663.887	403579.060	2329.877	UTM 13
			0.008	0.008	0.008	
SFMC		107	0.99971451	0-40 7.768885	UTM 13	
NEO	000	108	4152312.009	420961.305	2302.867	UTM 13
			0.010	0.010	0.010	
SFMC		108	0.99967695	0-32 40.780740	UTM 13	
NEO	000	109	4152574.810	439133.016	2297.968	UTM 13
			0.006	0.006	0.006	
SFMC		109	0.99964563	0-25 10.158316	UTM 13	
NEO	000	110	4179092.079	455853.573	2552.502	UTM 13
			0.019	0.019	0.019	
SFMC		110	0.99962400	0-18 24.807320	UTM 13	
NEO	000	111	4142552.626	453499.653	2355.613	UTM 13
			0.005	0.005	0.005	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
SFMC		111	0.99962663	0-19 9.978452		UTM 13
NEO	000	112	4143868.992 0.006	448833.984 0.006	2339.610 0.006	UTM 13
SFMC		112	0.99963225	0-21 5.897617		UTM 13
NEO	000	113	4107537.770 0.011	450006.554 0.011	2349.827 0.009	UTM 13
SFMC		113	0.99963079	0-20 22.329223		UTM 13
NEO	000	114	4115553.591 0.009	447244.442 0.009	2330.196 0.007	UTM 13
SFMC		114	0.99963428	0-21 33.236034		UTM 13
NEO	000	115	4115259.326 0.011	431065.609 0.011	2381.931 0.010	UTM 13
SFMC		115	0.99965854	0-28 9.634783		UTM 13
NEO	000	116	4139905.625 0.007	405383.412 0.007	2333.104 0.006	UTM 13
SFMC		116	0.99971027	0-38 57.698544		UTM 13
NEO	000	117	4141325.317 0.008	417000.503 0.008	2303.241 0.007	UTM 13
SFMC		117	0.99968486	0-34 11.676793		UTM 13
NEO	000	118	4131675.723 0.010	410020.007 0.010	2326.921 0.008	UTM 13
SFMC		118	0.99969973	0-36 57.216911		UTM 13
NEO	000	119	4132317.188 0.010	422981.622 0.010	2303.000 0.009	UTM 13
SFMC		119	0.99967307	0-31 38.276490		UTM 13
NEO	000	120	4102356.507 0.009	404056.104 0.009	2451.246 0.004	UTM 13
SFMC		120	0.99971340	0-39 1.641519		UTM 13
NEO	000	121	4200525.620 0.007	420231.046 0.007	2301.074 0.007	UTM 13
SFMC		121	0.99967837	0-33 30.096963		UTM 13
NEO	000	2	4122643.172 0.007	417701.622 0.007	2318.847 0.004	UTM 13
SFMC		2	0.99968343	0-33 42.006864		UTM 13
NEO	000	200	4202105.771 0.007	422048.349 0.007	2302.547 0.007	UTM 13
SFMC		200	0.99967484	0-32 45.315530		UTM 13
NEO	000	201	4212967.373 0.007	400362.699 0.007	2343.994 0.007	UTM 13
SFMC		201	0.99972227	0-42 0.772697		UTM 13
NEO	000	202	4212261.739 0.005	410858.371 0.005	2317.087 0.005	UTM 13
SFMC		202	0.99969787	0-37 34.781558		UTM 13
NEO	000	203	4188238.623 0.008	395298.816 0.008	2334.562 0.007	UTM 13
SFMC		203	0.99973502	0-43 47.723217		UTM 13
NEO	000	204	4183837.270 0.012	380989.388 0.012	2548.868 0.012	UTM 13
SFMC		204	0.99977445	0-49 42.468186		UTM 13
NEO	000	205	4186021.810 0.010	408649.337 0.010	2312.868 0.010	UTM 13
SFMC		205	0.99970278	0-38 11.091726		UTM 13

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
NEO	000	206	4164652.318 0.007	414720.528 0.007	2311.846 0.006	UTM 13
SFMC		206	0.99968958	0-35 24.074052		UTM 13
NEO	000	207	4146911.059 0.006	425921.312 0.006	2296.894 0.005	UTM 13
SFMC		207	0.99966759	0-30 34.526432		UTM 13
NEO	000	208	4152456.920 0.005	441551.717 0.005	2307.012 0.005	UTM 13
SFMC		208	0.99964208	0-24 10.098261		UTM 13
NEO	000	209	4168717.323 0.012	440180.293 0.012	2301.359 0.012	UTM 13
SFMC		209	0.99964407	0-24 51.982169		UTM 13
NEO	000	210	4152564.772 0.003	446775.919 0.003	2332.203 0.003	UTM 13
SFMC		210	0.99963489	0-22 0.542450		UTM 13
NEO	000	211	4141056.767 0.002	463148.161 0.002	2484.125 0.002	UTM 13
SFMC		211	0.99961673	0-15 10.931562		UTM 13
NEO	000	212	4146829.051 0.005	449683.180 0.005	2348.520 0.005	UTM 13
SFMC		212	0.99963119	0-20 46.088574		UTM 13
NEO	000	213	4115449.311 0.010	454359.866 0.010	2387.456 0.008	UTM 13
SFMC		213	0.99962566	0-18 38.782373		UTM 13
NEO	000	214	4114779.638 0.010	421861.139 0.010	2335.204 0.008	UTM 13
SFMC		214	0.99967521	0-31 54.910388		UTM 13
NEO	000	215	4147242.260 0.007	401600.051 0.007	2326.995 0.006	UTM 13
SFMC		215	0.99971927	0-40 36.962025		UTM 13
NEO	000	216	4139753.936 0.008	411729.704 0.008	2312.797 0.007	UTM 13
SFMC		216	0.99969598	0-36 20.825322		UTM 13
NEO	000	217	4139659.255 0.008	421803.894 0.008	2299.614 0.007	UTM 13
SFMC		217	0.99967532	0-32 11.912521		UTM 13
NEO	000	218	4126861.619 0.010	407933.938 0.010	2340.407 0.008	UTM 13
SFMC		218	0.99970441	0-37 45.053724		UTM 13
NEO	000	219	4102376.181 0.009	404132.500 0.009	2451.383 0.004	UTM 13
SFMC		219	0.99971322	0-38 59.792432		UTM 13
NEO	000	220	4112168.599 0.010	415401.456 0.010	2356.029 0.006	UTM 13
SFMC		220	0.99968816	0-34 31.421283		UTM 13
NEO	000	3	4152559.798 0.003	446766.706 0.003	2332.129 0.003	UTM 13
SFMC		3	0.99963490	0-22 0.768874		UTM 13
NEO	000	300	4207687.983 0.010	428647.332 0.010	2317.377 0.010	UTM 13
SFMC		300	0.99966270	0-30 2.219331		UTM 13
NEO	000	301	4212960.402	400361.192	2344.036	UTM 13

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING / STD DEV	EASTING / STD DEV	O-HEIGHT / STD DEV	MAPPROJ
			0.007	0.007	0.007	
SFMC		301	0.99972227	0-42 0.805112		UTM 13
NEO	000	302	4217585.991	407929.410	2348.683	UTM 13
			0.004	0.003	0.005	
SFMC		302	0.99970440	0-38 52.865757		UTM 13
NEO	000	303	4179191.797	408680.929	2318.304	UTM 13
			0.009	0.009	0.009	
SFMC		303	0.99970271	0-38 5.231984		UTM 13
NEO	000	304	4170565.725	389790.748	2371.819	UTM 13
			0.010	0.010	0.010	
SFMC		304	0.99974960	0-45 50.106997		UTM 13
NEO	000	305	4167908.416	387205.491	2377.747	UTM 13
			0.012	0.012	0.012	
SFMC		305	0.99975671	0-46 52.169898		UTM 13
NEO	000	306	4158867.627	417981.757	2307.424	UTM 13
			0.008	0.008	0.007	
SFMC		306	0.99968286	0-33 59.024745		UTM 13
NEO	000	307	4146080.496	429940.923	2295.376	UTM 13
			0.007	0.007	0.006	
SFMC		307	0.99966046	0-28 54.526792		UTM 13
NEO	000	308	4152979.331	427406.450	2298.065	UTM 13
			0.007	0.007	0.007	
SFMC		308	0.99966491	0-30 1.304107		UTM 13
NEO	000	309	4168550.287	446890.932	2344.876	UTM 13
			0.011	0.011	0.011	
SFMC		309	0.99963474	0-22 4.551238		UTM 13
NEO	000	310	4142450.948	460591.685	2409.508	UTM 13
			0.000	0.000	0.000	
SFMC		310	0.99961913	0-16 14.564133		UTM 13
NEO	000	311	4139843.373	452334.192	2353.256	UTM 13
			0.006	0.006	0.006	
SFMC		311	0.99962799	0-19 37.760240		UTM 13
NEO	000	312	4145581.811	447759.326	2335.833	UTM 13
			0.005	0.005	0.006	
SFMC		312	0.99963362	0-21 33.204392		UTM 13
NEO	000	313	4109161.833	450857.411	2355.556	UTM 13
			0.010	0.010	0.009	
SFMC		313	0.99962975	0-20 2.164398		UTM 13
NEO	000	314	4112464.899	430736.962	2376.088	UTM 13
			0.012	0.012	0.010	
SFMC		314	0.99965910	0-28 16.142087		UTM 13
NEO	000	315	4115303.549	435069.694	2278.090	UTM 13
			0.011	0.011	0.010	
SFMC		315	0.99965193	0-26 31.525509		UTM 13
NEO	000	316	4147035.317	401644.146	2328.575	UTM 13
			0.007	0.007	0.006	
SFMC		316	0.99971916	0-40 35.706286		UTM 13
NEO	000	317	4131730.696	408168.458	2335.329	UTM 13
			0.010	0.010	0.008	
SFMC		317	0.99970388	0-37 42.872024		UTM 13
NEO	000	318	4131592.464	415017.463	2312.356	UTM 13
			0.009	0.009	0.007	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
SFMC		318	0.99968896	0-34 54.040326		UTM 13
NEO	000	319	4128288.431 0.010	424842.469 0.010	2302.902 0.008	UTM 13
SFMC		319	0.99966958	0-30 49.989173		UTM 13
NEO	000	320	4109972.728 0.010	419147.264 0.010	2350.141 0.007	UTM 13
SFMC		320	0.99968053	0-32 58.301649		UTM 13
NEO	000	4	4130156.606 0.009	435850.117 0.009	2289.591 0.008	UTM 13
SFMC		4	0.99965069	0-26 20.030536		UTM 13
NEO	000	400	4216159.495 0.007	399793.846 0.008	2348.704 0.011	UTM 13
SFMC		400	0.99972367	0-42 17.779632		UTM 13
NEO	000	401	4212349.471 0.005	408350.180 0.005	2322.030 0.005	UTM 13
SFMC		401	0.99970345	0-38 38.276630		UTM 13
NEO	000	402	4211124.483 0.005	419053.954 0.004	2313.429 0.005	UTM 13
SFMC		402	0.99968070	0-34 6.763701		UTM 13
NEO	000	403	4192171.398 0.007	399223.086 0.007	2321.467 0.007	UTM 13
SFMC		403	0.99972509	0-42 12.487003		UTM 13
NEO	000	404	4178580.379 0.007	402159.129 0.007	2330.059 0.006	UTM 13
SFMC		404	0.99971791	0-40 47.913057		UTM 13
NEO	000	405	4171001.528 0.011	386803.518 0.011	2383.305 0.011	UTM 13
SFMC		405	0.99975782	0-47 5.023922		UTM 13
NEO	000	406	4159319.104 0.010	403451.389 0.010	2325.786 0.010	UTM 13
SFMC		406	0.99971482	0-40 0.530043		UTM 13
NEO	000	407	4156371.482 0.009	417954.652 0.009	2306.932 0.008	UTM 13
SFMC		407	0.99968291	0-33 58.044436		UTM 13
NEO	000	408	4149882.603 0.011	422449.744 0.011	2301.615 0.011	UTM 13
SFMC		408	0.99967408	0-32 2.342305		UTM 13
NEO	000	409	4141954.953 0.002	463348.234 0.002	2413.533 0.003	UTM 13
SFMC		409	0.99961655	0-15 6.251082		UTM 13
NEO	000	410	4143275.099 0.004	454782.873 0.004	2364.940 0.005	UTM 13
SFMC		410	0.99962518	0-18 38.508363		UTM 13
NEO	000	411	4115504.732 0.009	450643.876 0.009	2367.518 0.007	UTM 13
SFMC		411	0.99963001	0-20 9.889305		UTM 13
NEO	000	412	4123270.204 0.008	420907.487 0.008	2315.771 0.005	UTM 13
SFMC		412	0.99967706	0-32 23.651463		UTM 13
NEO	000	413	4116270.508 0.009	417590.553 0.009	2336.564 0.006	UTM 13
SFMC		413	0.99968366	0-33 40.532143		UTM 13

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
NEO	000	414	4147952.880 0.006	404853.684 0.006	2320.889 0.005	UTM 13
SFMC		414	0.99971151	0-39 16.946867		UTM 13
NEO	000	415	4147762.620 0.007	417687.816 0.007	2304.121 0.006	UTM 13
SFMC		415	0.99968345	0-33 58.956089		UTM 13
NEO	000	416	4141369.369 0.008	412470.506 0.008	2311.917 0.007	UTM 13
SFMC		416	0.99969437	0-36 3.663872		UTM 13
NEO	000	417	4121834.862 0.007	417569.189 0.007	2320.978 0.004	UTM 13
SFMC		417	0.99968370	0-33 44.726460		UTM 13
NEO	000	418	4126896.591 0.012	401392.019 0.012	2384.944 0.011	UTM 13
SFMC		418	0.99971978	0-40 25.989840		UTM 13
NEO	000	419	4128068.850 0.010	408002.321 0.010	2340.002 0.010	UTM 13
SFMC		419	0.99970425	0-37 44.262233		UTM 13
NEO	000	420	4103746.121 0.008	410211.144 0.008	2404.752 0.001	UTM 13
SFMC		420	0.99969931	0-36 32.446172		UTM 13
NEO	000	421	4112225.487 0.010	411926.725 0.010	2369.330 0.006	UTM 13
SFMC		421	0.99969555	0-35 56.524562		UTM 13
NEO	000	5	4178488.421 0.006	398188.779 0.006	2339.240 0.005	UTM 13
SFMC		5	0.99972767	0-42 27.146217		UTM 13
NEO	000	500	4205969.331 0.008	420139.010 0.008	2305.930 0.008	UTM 13
SFMC		500	0.99967855	0-33 35.965882		UTM 13
NEO	000	501	4216215.086 0.007	399720.726 0.007	2348.730 0.007	UTM 13
SFMC		501	0.99972385	0-42 19.676608		UTM 13
NEO	000	502	4188779.111 0.008	390386.851 0.008	2384.831 0.008	UTM 13
SFMC		502	0.99974799	0-45 51.444685		UTM 13
NEO	000	503	4178441.157 0.007	402095.444 0.007	2330.877 0.006	UTM 13
SFMC		503	0.99971806	0-40 49.395377		UTM 13
NEO	000	504	4170987.744 0.014	381007.186 0.014	2402.843 0.014	UTM 13
SFMC		504	0.99977440	0-49 29.616600		UTM 13
NEO	000	505	4159957.486 0.011	397556.957 0.011	2337.920 0.010	UTM 13
SFMC		505	0.99972927	0-42 27.575448		UTM 13
NEO	000	506	4147683.456 0.006	424252.255 0.006	2298.588 0.005	UTM 13
SFMC		506	0.99967067	0-31 16.325208		UTM 13
NEO	000	507	4167430.706 0.009	422793.146 0.009	2303.978 0.008	UTM 13
SFMC		507	0.99967342	0-32 4.776453		UTM 13
NEO	000	508	4176267.216	454821.048	2489.140	UTM 13

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
			0.013	0.013	0.013	
SFMC		508	0.99962514	0-18 49.610056	UTM 13	
NEO	000	509	4142398.549	461620.013	2418.792	UTM 13
			0.001	0.001	0.001	
SFMC		509	0.99961814	0-15 49.118457	UTM 13	
NEO	000	510	4143329.106	454388.541	2362.581	UTM 13
			0.004	0.004	0.004	
SFMC		510	0.99962563	0-18 48.282034	UTM 13	
NEO	000	511	4112986.565	466160.878	2490.843	UTM 13
			0.016	0.015	0.015	
SFMC		511	0.99961411	0-13 48.846433	UTM 13	
NEO	000	512	4118733.354	450066.749	2356.842	UTM 13
			0.009	0.009	0.007	
SFMC		512	0.99963071	0-20 25.325448	UTM 13	
NEO	000	513	4123752.796	419512.188	2318.833	UTM 13
			0.007	0.007	0.004	
SFMC		513	0.99967980	0-32 58.245607	UTM 13	
NEO	000	514	4114559.949	416241.668	2344.775	UTM 13
			0.009	0.009	0.007	
SFMC		514	0.99968642	0-34 12.452897	UTM 13	
NEO	000	515	4149374.136	418457.771	2303.964	UTM 13
			0.007	0.007	0.006	
SFMC		515	0.99968190	0-33 40.945834	UTM 13	
NEO	000	516	4126013.618	414898.264	2317.816	UTM 13
			0.008	0.008	0.005	
SFMC		516	0.99968921	0-34 53.168783	UTM 13	
NEO	000	517	4126896.722	401689.552	2382.295	UTM 13
			0.012	0.012	0.011	
SFMC		517	0.99971905	0-40 18.671761	UTM 13	
NEO	000	518	4102626.570	401374.907	2469.052	UTM 13
			0.010	0.010	0.006	
SFMC		518	0.99971982	0-40 7.275994	UTM 13	
NEO	000	519	4102722.448	409376.037	2411.215	UTM 13
			0.008	0.008	0.001	
SFMC		519	0.99970117	0-36 52.093772	UTM 13	
NEO	000	6	4165429.898	414835.072	2312.268	UTM 13
			0.007	0.007	0.006	
SFMC		6	0.99968934	0-35 21.757408	UTM 13	
NEO	000	7	4194698.220	396030.729	2328.925	UTM 13
			0.007	0.007	0.006	
SFMC		7	0.99973314	0-43 34.827393	UTM 13	
NEO	000	8	4217596.395	407932.295	2349.298	UTM 13
			0.003	0.003	0.003	
SFMC		8	0.99970439	0-38 52.800525	UTM 13	
NEO	000	9	4202113.159	420639.447	2302.627	UTM 13
			0.007	0.007	0.007	
SFMC		9	0.99967757	0-33 20.835710	UTM 13	
NEO	111	ALS B	4144116.803	423419.394	2297.665	UTM 13
			0.000	0.000	0.000	
SFMC		ALS B	0.99967224	0-31 34.752789	UTM 13	
NEO	001	ANTONITO	4102858.648	409622.340	2409.621	UTM 13
			0.008	0.008	0.000	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
SFMC		ANTONITO	0.99970062	0-36 46.181006		UTM 13
NEO	000	J65	4115557.135 0.009	447230.941 0.009	2330.711 0.007	UTM 13
SFMC		J65	0.99963430	0-21 33.568469		UTM 13
NEO	111	K75	4142392.998 0.000	460643.904 0.000	2409.347 0.000	UTM 13
SFMC		K75	0.99961908	0-16 13.254452		UTM 13
NEO	111	MIRAGE	4217347.454 0.000	419435.919 0.000	2326.427 0.000	UTM 13
SFMC		MIRAGE	0.99967994	0-34 1.212124		UTM 13
NEO	111	R33	4176798.396 0.000	422583.218 0.000	2304.929 0.000	UTM 13
SFMC		R33	0.99967382	0-32 15.886880		UTM 13
NEO	111	T163	4171062.218 0.000	378764.208 0.000	2409.876 0.000	UTM 13
SFMC		T163	0.99978104	0-50 25.644858		UTM 13
NEO	001	Z269	4219529.448 0.025	393498.560 0.025	2407.696 0.000	UTM 13
SFMC		Z269	0.99973969	0-45 0.106159		UTM 13

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	1	N 37 27 32.37729	0.006	W106 03 26.91550	0.006	2303.527	0.004
PLH	000	10	N 37 57 55.04834	0.014	W105 40 17.28896	0.014	2471.299	0.014
PLH	000	100	N 37 57 54.97270	0.014	W105 40 17.35728	0.014	2471.497	0.014
PLH	000	1000	N 38 01 22.69545	0.009	W105 51 18.18429	0.009	2295.736	0.009
PLH	000	1001	N 38 03 31.58621	0.007	W106 08 8.94539	0.007	2329.245	0.007
PLH	000	1002	N 38 03 15.31248	0.005	W106 02 40.96489	0.005	2306.630	0.005
PLH	000	1003	N 37 53 37.85288	0.007	W106 10 2.40016	0.007	2307.247	0.006
PLH	000	1004	N 37 44 53.30667	0.008	W106 15 20.92329	0.008	2347.398	0.008
PLH	000	1005	N 37 40 32.10418	0.009	W106 11 25.15952	0.008	2336.843	0.008
PLH	000	1006	N 37 34 55.83884	0.011	W106 08 51.63356	0.011	2319.359	0.010
PLH	000	1007	N 37 29 15.89494	0.011	W105 51 52.30579	0.011	2283.146	0.011
PLH	000	1008	N 37 31 2.49952	0.008	W105 47 5.50611	0.008	2279.375	0.008
PLH	000	1009	N 37 31 5.71500	0.004	W105 37 42.21543	0.004	2301.502	0.004
PLH	000	101	N 38 03 31.54941	0.007	W106 08 8.92060	0.007	2329.173	0.007
PLH	000	1010	N 37 37 10.01044	0.009	W105 34 57.78498	0.009	2491.709	0.009
PLH	000	1011	N 37 23 9.25950	0.006	W105 32 25.61145	0.006	2340.636	0.006
PLH	000	1012	N 37 06 45.10172	0.010	W105 35 32.73095	0.010	2326.724	0.009
PLH	000	1013	N 37 12 16.65157	0.010	W105 30 38.57667	0.010	2357.763	0.009
PLH	000	1014	N 37 10 26.68916	0.011	W105 44 7.43420	0.011	2261.078	0.010
PLH	000	1015	N 37 24 3.86974	0.009	W106 08 28.15870	0.009	2362.982	0.008
PLH	000	1016	N 37 27 31.32198	0.006	W106 02 18.53701	0.006	2299.407	0.005
PLH	000	1017	N 37 24 0.43427	0.008	W105 56 48.03441	0.008	2288.578	0.008
PLH	000	1018	N 37 17 0.59587	0.011	W106 05 1.20702	0.011	2349.581	0.010
PLH	000	1019	N 37 20 3.62113	0.009	W105 56 25.41772	0.009	2291.905	0.008
PLH	000	102	N 38 03 30.32602	0.005	W106 05 12.56794	0.005	2314.838	0.005
PLH	000	1020	N 37 05 17.67741	0.009	W106 01 10.12523	0.009	2392.695	0.002

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	103	N 37 50 6.96447	0.008	W106 08 51.68835	0.008	2311.319	0.007
PLH	000	104	N 37 47 25.28702	0.011	W106 19 12.40804	0.011	2458.160	0.010
PLH	000	105	N 37 50 8.60815	0.010	W106 02 11.66311	0.010	2294.706	0.010
PLH	000	106	N 37 34 47.33497	0.011	W106 11 41.44931	0.011	2334.892	0.011
PLH	000	107	N 37 41 46.07570	0.008	W106 05 37.34637	0.008	2313.386	0.008
PLH	000	108	N 37 30 51.75620	0.010	W105 53 39.71513	0.010	2286.138	0.010
PLH	000	109	N 37 31 5.24394	0.006	W105 41 19.60814	0.006	2281.153	0.006
PLH	000	110	N 37 45 29.08160	0.019	W105 30 4.24237	0.019	2537.041	0.019
PLH	000	111	N 37 25 43.05461	0.005	W105 31 32.08549	0.005	2338.974	0.005
PLH	000	112	N 37 26 24.88154	0.006	W105 34 42.25038	0.006	2322.918	0.006
PLH	000	113	N 37 06 46.20588	0.011	W105 33 45.73910	0.011	2332.923	0.009
PLH	000	114	N 37 11 5.76848	0.009	W105 35 39.68947	0.009	2313.275	0.007
PLH	000	115	N 37 10 52.42394	0.011	W105 46 35.73336	0.011	2365.210	0.010
PLH	000	116	N 37 24 3.96829	0.007	W106 04 8.46778	0.007	2316.450	0.006
PLH	000	117	N 37 24 54.04039	0.008	W105 56 16.58639	0.008	2286.456	0.007
PLH	000	118	N 37 19 38.61373	0.010	W106 00 56.30416	0.010	2310.239	0.008
PLH	000	119	N 37 20 3.62218	0.010	W105 52 9.91360	0.010	2286.232	0.009
PLH	000	120	N 37 03 45.20023	0.009	W106 04 45.04217	0.009	2434.788	0.004
PLH	000	121	N 37 56 55.76567	0.007	W105 54 28.50458	0.007	2285.235	0.007
PLH	000	2	N 37 14 48.10755	0.007	W105 55 40.60268	0.007	2302.197	0.004
PLH	000	200	N 37 57 47.59821	0.007	W105 53 14.66630	0.007	2286.704	0.007
PLH	000	201	N 38 03 32.31292	0.007	W106 08 8.69235	0.007	2328.551	0.007
PLH	000	202	N 38 03 13.36357	0.005	W106 00 57.74405	0.005	2301.665	0.005
PLH	000	203	N 37 50 8.06110	0.008	W106 11 23.49412	0.008	2318.355	0.007
PLH	000	204	N 37 47 38.97031	0.012	W106 21 6.17068	0.012	2532.924	0.012
PLH	000	205	N 37 49 1.30927	0.010	W106 02 16.38371	0.010	2296.618	0.010

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	206	N 37 37 30.12677	0.007	W105 57 59.07678	0.007	2295.273	0.006
PLH	000	207	N 37 27 58.00007	0.006	W105 50 15.72732	0.006	2280.106	0.005
PLH	000	208	N 37 31 1.98196	0.005	W105 39 41.04712	0.005	2290.260	0.005
PLH	000	209	N 37 39 49.25740	0.012	W105 40 41.69548	0.012	2284.801	0.012
PLH	000	210	N 37 31 6.61993	0.003	W105 36 8.26473	0.003	2315.675	0.003
PLH	000	211	N 37 24 56.08026	0.002	W105 24 59.23238	0.002	2467.660	0.002
PLH	000	212	N 37 28 1.09681	0.005	W105 34 8.42062	0.005	2331.923	0.005
PLH	000	213	N 37 11 3.73466	0.010	W105 30 51.08658	0.010	2370.617	0.008
PLH	000	214	N 37 10 34.24954	0.010	W105 52 48.81543	0.010	2318.616	0.008
PLH	000	215	N 37 28 0.57489	0.007	W106 06 45.85008	0.007	2310.401	0.006
PLH	000	216	N 37 24 1.30217	0.008	W105 59 50.30834	0.008	2296.075	0.007
PLH	000	217	N 37 24 1.48900	0.008	W105 53 0.56184	0.008	2282.813	0.007
PLH	000	218	N 37 17 1.68449	0.010	W106 02 18.90923	0.010	2323.750	0.008
PLH	000	219	N 37 03 45.86670	0.009	W106 04 41.95819	0.009	2434.926	0.004
PLH	000	220	N 37 09 7.50403	0.010	W105 57 9.68377	0.010	2339.516	0.006
PLH	000	3	N 37 31 6.45661	0.003	W105 36 8.63872	0.003	2315.600	0.003
PLH	000	300	N 38 00 50.65681	0.010	W105 48 46.24624	0.010	2301.757	0.010
PLH	000	301	N 38 03 32.08620	0.007	W106 08 8.75066	0.007	2328.593	0.007
PLH	000	302	N 38 06 5.02947	0.004	W106 03 0.37896	0.003	2333.459	0.005
PLH	000	303	N 37 45 19.73937	0.009	W106 02 11.99487	0.009	2301.931	0.009
PLH	000	304	N 37 40 32.41532	0.010	W106 14 59.13406	0.010	2355.438	0.010
PLH	000	305	N 37 39 5.08033	0.012	W106 16 43.17045	0.012	2361.429	0.012
PLH	000	306	N 37 34 23.51485	0.008	W105 55 43.71340	0.008	2290.776	0.007
PLH	000	307	N 37 27 32.17988	0.007	W105 47 31.82019	0.007	2278.550	0.006
PLH	000	308	N 37 31 15.31487	0.007	W105 49 17.42928	0.007	2281.325	0.007
PLH	000	309	N 37 39 45.32432	0.011	W105 36 7.75444	0.011	2328.720	0.011

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	310	N 37 25 40.94047	0.000	W105 26 43.50192	0.000	2393.003	0.000
PLH	000	311	N 37 24 14.93070	0.006	W105 32 18.87623	0.006	2336.548	0.006
PLH	000	312	N 37 27 20.24241	0.005	W105 35 26.41949	0.005	2319.145	0.006
PLH	000	313	N 37 07 39.06859	0.010	W105 33 11.64724	0.010	2338.664	0.009
PLH	000	314	N 37 09 21.66279	0.012	W105 46 48.12881	0.012	2359.379	0.010
PLH	000	315	N 37 10 54.89230	0.011	W105 43 53.36821	0.011	2261.266	0.010
PLH	000	316	N 37 27 53.87791	0.007	W106 06 43.95582	0.007	2311.980	0.006
PLH	000	317	N 37 19 39.74491	0.010	W106 02 11.55454	0.010	2318.659	0.008
PLH	000	318	N 37 19 37.60697	0.009	W105 57 33.22679	0.009	2295.641	0.007
PLH	000	319	N 37 17 53.45149	0.010	W105 50 52.83021	0.010	2286.153	0.008
PLH	000	320	N 37 07 57.44808	0.010	W105 54 36.99006	0.010	2333.604	0.007
PLH	000	4	N 37 18 57.03835	0.009	W105 43 26.32614	0.009	2272.741	0.008
PLH	000	400	N 38 05 15.63781	0.007	W106 08 33.64230	0.008	2333.386	0.011
PLH	000	401	N 38 03 15.30765	0.005	W106 02 40.68740	0.005	2306.622	0.005
PLH	000	402	N 38 02 39.24172	0.005	W105 55 21.03424	0.004	2297.845	0.005
PLH	000	403	N 37 52 17.23478	0.007	W106 08 44.95036	0.007	2305.366	0.007
PLH	000	404	N 37 44 57.47602	0.007	W106 06 38.18449	0.007	2313.635	0.006
PLH	000	405	N 37 40 45.24315	0.011	W106 17 1.29931	0.011	2367.002	0.011
PLH	000	406	N 37 34 33.08894	0.010	W106 05 36.20909	0.010	2309.132	0.010
PLH	000	407	N 37 33 2.51978	0.009	W105 55 43.81262	0.009	2290.252	0.008
PLH	000	408	N 37 29 33.38801	0.011	W105 52 38.16626	0.011	2284.856	0.011
PLH	000	409	N 37 25 25.25391	0.002	W105 24 51.25362	0.002	2397.107	0.003
PLH	000	410	N 37 26 6.72657	0.004	W105 30 40.03293	0.004	2348.348	0.005
PLH	000	411	N 37 11 4.85239	0.009	W105 33 21.80782	0.009	2350.633	0.007
PLH	000	412	N 37 15 9.45249	0.008	W105 53 30.72676	0.008	2299.098	0.005
PLH	000	413	N 37 11 21.30171	0.009	W105 55 42.57519	0.009	2319.991	0.006

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE STD DEV	LONGITUDE STD DEV	ELIP-HEIGHT STD DEV
PLH	000	414	N 37 28 24.85658 0.006	W106 04 33.74731 0.006	2304.231 0.005
PLH	000	415	N 37 28 23.12096 0.007	W105 55 51.21530 0.007	2287.348 0.006
PLH	000	416	N 37 24 53.96776 0.008	W105 59 20.87012 0.008	2295.179 0.007
PLH	000	417	N 37 14 21.83869 0.007	W105 55 45.65560 0.007	2304.338 0.004
PLH	000	418	N 37 17 0.40546 0.012	W106 06 44.55664 0.012	2368.396 0.011
PLH	000	419	N 37 17 40.87748 0.010	W106 02 16.67060 0.010	2323.342 0.010
PLH	000	420	N 37 04 32.48295 0.008	W106 00 36.44144 0.008	2388.309 0.001
PLH	000	421	N 37 09 8.19434 0.010	W105 59 30.55705 0.010	2352.839 0.006
PLH	000	5	N 37 44 52.93308 0.006	W106 09 20.35337 0.006	2322.786 0.005
PLH	000	500	N 37 59 52.34410 0.008	W105 54 34.45398 0.008	2290.195 0.008
PLH	000	501	N 38 05 17.41197 0.007	W106 08 36.67155 0.007	2333.413 0.007
PLH	000	502	N 37 50 23.51664 0.008	W106 14 44.70272 0.008	2368.728 0.008
PLH	000	503	N 37 44 52.93489 0.007	W106 06 40.71892 0.007	2314.450 0.006
PLH	000	504	N 37 40 42.15464 0.014	W106 20 57.87045 0.014	2386.668 0.014
PLH	000	505	N 37 34 51.50582 0.011	W106 09 36.79785 0.011	2321.367 0.010
PLH	000	506	N 37 28 22.57395 0.006	W105 51 23.95339 0.006	2281.808 0.005
PLH	000	507	N 37 39 2.84011 0.009	W105 52 30.83919 0.009	2287.424 0.008
PLH	000	508	N 37 43 57.24301 0.013	W105 30 45.80719 0.013	2473.582 0.013
PLH	000	509	N 37 25 39.39581 0.001	W105 26 1.65112 0.001	2402.314 0.001
PLH	000	510	N 37 26 8.40930 0.004	W105 30 56.09105 0.004	2345.984 0.004
PLH	000	511	N 37 09 45.62648 0.016	W105 22 52.06738 0.015	2474.389 0.015
PLH	000	512	N 37 12 49.50838 0.009	W105 33 45.99177 0.009	2339.961 0.007
PLH	000	513	N 37 15 24.68053 0.007	W105 54 27.54976 0.007	2302.161 0.004
PLH	000	514	N 37 10 25.36775 0.009	W105 56 36.58959 0.009	2328.231 0.007
PLH	000	515	N 37 29 15.65256 0.007	W105 55 20.51417 0.007	2287.204 0.006
PLH	000	516	N 37 16 36.55800 0.008	W105 57 35.76817 0.008	2301.143 0.005

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	517	N 37 17 0.52308	0.012	W106 06 32.47571	0.012	2365.738	0.011
PLH	000	518	N 37 03 52.96113	0.010	W106 06 33.72080	0.010	2452.603	0.006
PLH	000	519	N 37 03 58.97907	0.008	W106 01 9.81374	0.008	2394.770	0.001
PLH	000	6	N 37 37 55.39269	0.007	W105 57 54.73069	0.007	2295.705	0.006
PLH	000	7	N 37 53 37.91360	0.007	W106 10 56.90376	0.007	2312.937	0.006
PLH	000	8	N 38 06 5.36803	0.003	W106 03 0.26535	0.003	2334.073	0.003
PLH	000	9	N 37 57 47.39843	0.007	W105 54 12.40325	0.007	2286.807	0.007
PLH	111	ALS B	N 37 26 26.60415	0.000	W105 51 56.52421	0.000	2280.864	0.000
PLH	001	ANTONITO	N 37 04 3.48388	0.008	W106 00 59.90013	0.008	2393.176	0.000
PLH	000	J65	N 37 11 5.88073	0.009	W105 35 40.23793	0.009	2313.789	0.007
PLH	111	K75	N 37 25 39.06808	0.000	W105 26 41.36608	0.000	2392.842	0.000
PLH	111	MIRAGE	N 38 06 1.24915	0.000	W105 55 7.88973	0.000	2311.012	0.000
PLH	111	R33	N 37 44 6.70476	0.000	W105 52 42.98984	0.000	2288.494	0.000
PLH	111	T163	N 37 40 43.51303	0.000	W106 22 29.46041	0.000	2393.746	0.000
PLH	001	Z269	N 38 07 2.36269	0.025	W106 12 53.83321	0.025	2392.498	0.000

Geoid Values:

CODE	NAME	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	1	+ 0 0 0.2	+ 0 0 1.9	-16.680
GEOI	10	- 0 0 9.5	- 0 0 9.7	-15.161
GEOI	100	- 0 0 9.5	- 0 0 9.7	-15.161
GEOI	1000	- 0 0 8.0	- 0 0 3.5	-15.671
GEOI	1001	- 0 0 8.2	- 0 0 1.5	-15.443
GEOI	1002	- 0 0 7.8	+ 0 0 0.2	-15.408
GEOI	1003	- 0 0 6.8	+ 0 0 1.6	-16.000
GEOI	1004	- 0 0 2.9	+ 0 0 4.5	-16.302
GEOI	1005	- 0 0 1.3	+ 0 0 2.0	-16.506
GEOI	1006	+ 0 0 0.7	+ 0 0 3.3	-16.579
GEOI	1007	- 0 0 2.2	+ 0 0 0.2	-16.765
GEOI	1008	- 0 0 1.9	+ 0 0 2.6	-16.781
GEOI	1009	- 0 0 6.1	- 0 0 7.4	-16.637
GEOI	101	- 0 0 8.2	- 0 0 1.5	-15.443
GEOI	1010	- 0 0 3.2	- 0 0 11.7	-16.074
GEOI	1011	- 0 0 3.3	- 0 0 0.7	-16.742
GEOI	1012	- 0 0 0.6	- 0 0 1.5	-16.931
GEOI	1013	- 0 0 0.3	- 0 0 2.5	-16.831
GEOI	1014	+ 0 0 0.2	+ 0 0 4.1	-16.815
GEOI	1015	+ 0 0 0.7	+ 0 0 5.0	-16.509
GEOI	1016	+ 0 0 0.2	+ 0 0 2.0	-16.698
GEOI	1017	+ 0 0 0.8	+ 0 0 1.5	-16.771
GEOI	1018	+ 0 0 0.7	+ 0 0 2.4	-16.609
GEOI	1019	+ 0 0 1.4	+ 0 0 1.2	-16.733
GEOI	102	- 0 0 8.2	- 0 0 1.3	-15.403
GEOI	1020	+ 0 0 0.3	+ 0 0 0.3	-16.443
GEOI	103	- 0 0 6.4	+ 0 0 0.2	-16.229
GEOI	104	- 0 0 4.3	+ 0 0 5.6	-16.033
GEOI	105	- 0 0 5.6	- 0 0 1.3	-16.198
GEOI	106	+ 0 0 2.0	+ 0 0 4.9	-16.466
GEOI	107	- 0 0 2.9	- 0 0 1.4	-16.491
GEOI	108	- 0 0 2.3	+ 0 0 0.3	-16.728
GEOI	109	- 0 0 4.1	- 0 0 4.1	-16.814
GEOI	110	- 0 0 4.3	- 0 0 5.3	-15.461
GEOI	111	- 0 0 7.0	- 0 0 2.4	-16.639
GEOI	112	- 0 0 3.9	- 0 0 3.8	-16.692
GEOI	113	- 0 0 0.4	- 0 0 2.1	-16.905
GEOI	114	- 0 0 0.6	- 0 0 1.3	-16.921
GEOI	115	+ 0 0 1.0	+ 0 0 4.1	-16.721
GEOI	116	+ 0 0 0.3	+ 0 0 1.8	-16.654
GEOI	117	+ 0 0 0.4	+ 0 0 1.0	-16.785
GEOI	118	+ 0 0 0.6	+ 0 0 1.0	-16.681
GEOI	119	+ 0 0 1.0	+ 0 0 0.4	-16.768
GEOI	120	+ 0 0 0.0	- 0 0 0.2	-16.457
GEOI	121	- 0 0 3.5	+ 0 0 3.0	-15.839
GEOI	2	+ 0 0 2.3	+ 0 0 0.6	-16.650
GEOI	200	- 0 0 4.2	+ 0 0 2.2	-15.843
GEOI	201	- 0 0 8.2	- 0 0 1.5	-15.443
GEOI	202	- 0 0 6.6	+ 0 0 1.8	-15.421
GEOI	203	- 0 0 7.0	+ 0 0 1.1	-16.207
GEOI	204	- 0 0 6.0	+ 0 0 4.7	-15.944
GEOI	205	- 0 0 4.9	- 0 0 0.7	-16.250
GEOI	206	- 0 0 2.5	- 0 0 0.1	-16.573

Geoid Values:

CODE	NAME	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	207	- 0 0 1.8	+ 0 0 0.8	-16.788
GEOI	208	- 0 0 5.0	- 0 0 5.4	-16.752
GEOI	209	- 0 0 1.0	- 0 0 7.0	-16.558
GEOI	210	- 0 0 7.3	- 0 0 8.3	-16.527
GEOI	211	- 0 0 7.4	- 0 0 6.5	-16.465
GEOI	212	- 0 0 6.9	- 0 0 5.2	-16.597
GEOI	213	- 0 0 0.3	- 0 0 2.6	-16.839
GEOI	214	+ 0 0 1.8	+ 0 0 1.3	-16.588
GEOI	215	+ 0 0 0.3	+ 0 0 3.5	-16.595
GEOI	216	+ 0 0 0.9	+ 0 0 1.9	-16.722
GEOI	217	+ 0 0 0.3	+ 0 0 0.2	-16.802
GEOI	218	+ 0 0 0.6	+ 0 0 0.5	-16.657
GEOI	219	+ 0 0 0.0	- 0 0 0.2	-16.457
GEOI	220	+ 0 0 2.1	+ 0 0 1.6	-16.512
GEOI	3	- 0 0 7.3	- 0 0 8.2	-16.530
GEOI	300	- 0 0 9.8	- 0 0 6.2	-15.620
GEOI	301	- 0 0 8.2	- 0 0 1.5	-15.443
GEOI	302	- 0 0 6.5	+ 0 0 1.5	-15.224
GEOI	303	- 0 0 3.2	+ 0 0 0.5	-16.373
GEOI	304	- 0 0 1.2	+ 0 0 4.4	-16.381
GEOI	305	+ 0 0 0.1	+ 0 0 4.4	-16.318
GEOI	306	- 0 0 2.7	+ 0 0 0.2	-16.649
GEOI	307	- 0 0 1.6	+ 0 0 2.0	-16.826
GEOI	308	- 0 0 1.7	+ 0 0 1.7	-16.740
GEOI	309	- 0 0 1.0	- 0 0 12.4	-16.156
GEOI	310	- 0 0 9.7	- 0 0 4.8	-16.505
GEOI	311	- 0 0 3.6	- 0 0 1.2	-16.708
GEOI	312	- 0 0 4.2	- 0 0 4.7	-16.687
GEOI	313	- 0 0 0.0	- 0 0 2.4	-16.892
GEOI	314	+ 0 0 0.2	+ 0 0 4.2	-16.709
GEOI	315	+ 0 0 0.3	+ 0 0 4.0	-16.824
GEOI	316	+ 0 0 0.3	+ 0 0 3.5	-16.595
GEOI	317	+ 0 0 0.3	+ 0 0 1.0	-16.670
GEOI	318	+ 0 0 1.2	+ 0 0 1.3	-16.715
GEOI	319	+ 0 0 1.3	+ 0 0 0.8	-16.749
GEOI	320	+ 0 0 1.0	+ 0 0 1.8	-16.538
GEOI	4	+ 0 0 0.1	+ 0 0 1.3	-16.850
GEOI	400	- 0 0 8.5	- 0 0 1.1	-15.317
GEOI	401	- 0 0 7.8	+ 0 0 0.2	-15.408
GEOI	402	- 0 0 5.8	+ 0 0 1.6	-15.583
GEOI	403	- 0 0 6.7	+ 0 0 1.0	-16.101
GEOI	404	- 0 0 3.3	- 0 0 1.6	-16.424
GEOI	405	- 0 0 1.6	+ 0 0 4.1	-16.303
GEOI	406	- 0 0 1.3	+ 0 0 1.4	-16.654
GEOI	407	- 0 0 2.5	+ 0 0 0.0	-16.679
GEOI	408	- 0 0 2.3	+ 0 0 0.1	-16.758
GEOI	409	- 0 0 7.3	- 0 0 6.2	-16.426
GEOI	410	- 0 0 7.8	- 0 0 2.9	-16.592
GEOI	411	- 0 0 0.6	- 0 0 2.0	-16.886
GEOI	412	+ 0 0 2.6	+ 0 0 0.9	-16.673
GEOI	413	+ 0 0 2.3	+ 0 0 1.1	-16.573
GEOI	414	+ 0 0 0.4	+ 0 0 2.5	-16.657
GEOI	415	- 0 0 1.8	+ 0 0 0.4	-16.773

Geoid Values:

CODE	NAME	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	416	+ 0 0 0.6	+ 0 0 1.8	-16.738
GEOI	417	+ 0 0 2.5	+ 0 0 0.7	-16.640
GEOI	418	+ 0 0 0.6	+ 0 0 4.3	-16.549
GEOI	419	+ 0 0 0.5	+ 0 0 0.7	-16.660
GEOI	420	+ 0 0 0.2	+ 0 0 0.4	-16.443
GEOI	421	+ 0 0 2.5	+ 0 0 0.6	-16.491
GEOI	5	- 0 0 3.4	- 0 0 0.8	-16.454
GEOI	500	- 0 0 5.1	+ 0 0 2.6	-15.735
GEOI	501	- 0 0 8.5	- 0 0 1.1	-15.317
GEOI	502	- 0 0 6.5	+ 0 0 3.9	-16.103
GEOI	503	- 0 0 3.3	- 0 0 1.6	-16.427
GEOI	504	- 0 0 1.1	+ 0 0 3.4	-16.174
GEOI	505	+ 0 0 1.1	+ 0 0 3.9	-16.553
GEOI	506	- 0 0 1.9	+ 0 0 0.2	-16.780
GEOI	507	- 0 0 2.7	+ 0 0 1.1	-16.553
GEOI	508	- 0 0 3.5	- 0 0 7.6	-15.559
GEOI	509	- 0 0 9.7	- 0 0 5.7	-16.478
GEOI	510	- 0 0 7.5	- 0 0 2.9	-16.598
GEOI	511	- 0 0 0.9	- 0 0 7.9	-16.453
GEOI	512	- 0 0 1.1	- 0 0 1.6	-16.882
GEOI	513	+ 0 0 2.6	+ 0 0 0.9	-16.671
GEOI	514	+ 0 0 2.2	+ 0 0 1.3	-16.544
GEOI	515	- 0 0 2.2	+ 0 0 0.2	-16.760
GEOI	516	+ 0 0 1.6	+ 0 0 0.8	-16.674
GEOI	517	+ 0 0 0.7	+ 0 0 4.4	-16.557
GEOI	518	+ 0 0 0.1	+ 0 0 1.2	-16.449
GEOI	519	- 0 0 0.3	+ 0 0 0.3	-16.445
GEOI	6	- 0 0 2.5	- 0 0 0.0	-16.563
GEOI	7	- 0 0 6.9	+ 0 0 1.6	-15.988
GEOI	8	- 0 0 6.5	+ 0 0 1.5	-15.224
GEOI	9	- 0 0 4.0	+ 0 0 2.6	-15.820
GEOI	ALS B	- 0 0 0.7	+ 0 0 0.0	-16.801
GEOI	ANTONITO	- 0 0 0.3	+ 0 0 0.3	-16.445
GEOI	J65	- 0 0 0.6	- 0 0 1.3	-16.921
GEOI	K75	- 0 0 9.7	- 0 0 4.8	-16.505
GEOI	MIRAGE	- 0 0 5.1	- 0 0 0.1	-15.415
GEOI	R33	- 0 0 2.6	+ 0 0 0.7	-16.435
GEOI	T163	- 0 0 1.1	+ 0 0 3.3	-16.130
GEOI	Z269	- 0 0 7.3	+ 0 0 0.5	-15.197

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 0~#Y-6SF.ASC,obs#:		1				
DXCT		4	1012	7551.44360	-0.005	-0.285
				0.020	0.018	0.20
DYCT		4	1012	-16339.20500	-0.006	-0.350
				0.020	0.018	0.25
DZCT		4	1012	-17943.60040	-0.016	-0.895
				0.020	0.018	0.64
GROUP: 0~#Y-6SF.ASC,obs#:		2				
DXCT		J65	1012	-1129.77020	0.001	0.285
				0.006	0.002	0.06
DYCT		J65	1012	-4737.56730	0.001	0.350
				0.006	0.002	0.08
DZCT		J65	1012	-6402.39180	0.002	0.895
				0.006	0.002	0.20
GROUP: 0~#Y-6SF.ASC,obs#:		3				
DXCT		4	1013	16195.44070	-0.003	-0.167
				0.018	0.016	0.12
DYCT		4	1013	-12359.75840	-0.012	-0.773
				0.018	0.016	0.54
DZCT		4	1013	-9776.08110	0.012	0.730
				0.018	0.016	0.51
GROUP: 0~#Y-6SF.ASC,obs#:		4				
DXCT		J65	1013	7514.22960	0.000	0.172
				0.006	0.002	0.04
DYCT		J65	1013	-758.12750	0.001	0.777
				0.006	0.002	0.19
DZCT		J65	1013	1765.15830	-0.001	-0.734
				0.006	0.002	0.18
GROUP: 0~#Y-6SF.ASC,obs#:		5				
DXCT		4	113	10101.04520	-0.003	-0.146
				0.021	0.019	0.10
DYCT		4	113	-17033.80620	0.006	0.335
				0.021	0.019	0.24
DZCT		4	113	-17912.70890	-0.013	-0.693
				0.021	0.019	0.49
GROUP: 0~#Y-6SF.ASC,obs#:		6				
DXCT		J65	113	1419.83400	0.000	0.146
				0.007	0.002	0.03
DYCT		J65	113	-5432.15450	-0.001	-0.336
				0.007	0.002	0.08
DZCT		J65	113	-6371.49700	0.001	0.694
				0.007	0.002	0.16
GROUP: 0~#Y-6SF.ASC,obs#:		7				
DXCT		4	114	8693.78440	0.006	0.475
				0.014	0.013	0.34
DYCT		4	114	-11606.91000	0.007	0.536
				0.014	0.013	0.39
DZCT		4	114	-11544.28040	-0.015	-1.131
				0.014	0.013	0.82
GROUP: 0~#Y-6SF.ASC,obs#:		8				
DXCT		J65	114	12.58260	-0.000	0.000*
				0.000	0.000	0.56

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		J65	114	-5.25810	-0.000	0.000*
				0.001	0.000	1.44
DZCT		J65	114	-3.06910	0.000	0.000*
				0.000	0.000	1.26
GROUP: 0~#Y-6SF.ASC,obs#: 9						
DXCT		4	213	15531.72820	0.006	0.356
				0.018	0.017	0.25
DYCT		4	213	-13596.98520	0.006	0.333
				0.018	0.017	0.24
DZCT		4	213	-11559.60600	-0.003	-0.155
				0.018	0.017	0.11
GROUP: 0~#Y-6SF.ASC,obs#: 10						
DXCT		J65	213	6850.52660	-0.001	-0.357
				0.006	0.002	0.08
DYCT		J65	213	-1995.33440	-0.001	-0.334
				0.006	0.002	0.07
DZCT		J65	213	-18.38240	0.000	0.157
				0.006	0.002	0.03
GROUP: 0~#Y-6SF.ASC,obs#: 11						
DXCT		4	313	11174.76340	-0.005	-0.248
				0.020	0.019	0.18
DYCT		4	313	-16316.24080	-0.000	-0.023
				0.020	0.019	0.02
DZCT		4	313	-16609.35500	0.002	0.112
				0.020	0.019	0.08
GROUP: 0~#Y-6SF.ASC,obs#: 12						
DXCT		J65	313	2493.55030	0.000	0.248
				0.006	0.002	0.05
DYCT		J65	313	-4714.59660	0.000	0.026
				0.006	0.002	0.01
DZCT		J65	313	-5068.12630	-0.000	-0.113
				0.006	0.002	0.02
GROUP: 0~#Y-6SF.ASC,obs#: 13						
DXCT		4	411	11958.44150	0.003	0.189
				0.016	0.015	0.14
DYCT		4	411	-12565.51390	0.003	0.188
				0.016	0.015	0.14
DZCT		4	411	-11544.24200	0.017	1.146
				0.016	0.015	0.84
GROUP: 0~#Y-6SF.ASC,obs#: 14						
DXCT		J65	411	3277.23630	-0.000	-0.189
				0.003	0.000	0.02
DYCT		J65	411	-963.86630	-0.000	-0.152
				0.003	0.000	0.02
DZCT		J65	411	-2.99760	-0.000	-1.136
				0.003	0.000	0.14
GROUP: 0~#Y-6SF.ASC,obs#: 15						
DXCT		4	511	26516.45190	-0.002	-0.079
				0.027	0.023	0.05
DYCT		4	511	-18228.34970	0.011	0.475
				0.027	0.023	0.32
DZCT		4	511	-13416.27380	-0.017	-0.731

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.027	0.023	0.49
GROUP: 0~#Y-6SF.ASC,obs#:		16				
DXCT		J65	511	17835.24140	0.001	0.077
				0.015	0.007	0.03
DYCT		J65	511	-6626.69060	-0.003	-0.480
				0.015	0.007	0.18
DZCT		J65	511	-1875.06950	0.005	0.734
				0.015	0.007	0.27
GROUP: 0~#Y-6SF.ASC,obs#:		17				
DXCT		4	512	11909.39780	-0.003	-0.209
				0.014	0.013	0.15
DYCT		4	512	-10517.44010	-0.025	-1.876
				0.014	0.013	1.35
DZCT		4	512	-8979.84260	0.026	1.995
				0.014	0.013	1.42
GROUP: 0~#Y-6SF.ASC,obs#:		18				
DXCT		J65	512	3228.18680	0.000	0.256
				0.003	0.001	0.04
DYCT		J65	512	1084.17850	0.001	1.928
				0.003	0.001	0.34
DZCT		J65	512	2561.41120	-0.001	-2.045
				0.003	0.001	0.35
GROUP: 0~#Y-6SF.ASC,obs#:		19				
DXCT		4	J65	8681.20620	0.002	0.146
				0.014	0.013	0.10
DYCT		4	J65	-11601.65450	0.010	0.742
				0.014	0.013	0.53
DZCT		4	J65	-11541.21240	-0.014	-1.060
				0.014	0.013	0.76
GROUP: 0~@Y-6SF.ASC,obs#:		20				
DXCT		3	1011	2874.63140	-0.004	-0.359
				0.012	0.010	0.23
DYCT		3	1011	-10112.16820	0.010	1.009
				0.012	0.010	0.66
DZCT		3	1011	-11668.12510	-0.002	-0.159
				0.012	0.010	0.10
GROUP: 0~@Y-6SF.ASC,obs#:		21				
DXCT		K75	1011	-8900.09880	0.001	0.361
				0.007	0.004	0.14
DYCT		K75	1011	-402.43410	-0.004	-1.009
				0.008	0.004	0.40
DZCT		K75	1011	-3701.74260	0.001	0.154
				0.007	0.004	0.06
GROUP: 0~@Y-6SF.ASC,obs#:		22				
DXCT		3	111	4915.33140	0.003	0.421
				0.009	0.008	0.27
DYCT		3	111	-7687.44000	0.016	2.133
				0.009	0.008	1.36
DZCT		3	111	-7901.47800	-0.011	-1.384
				0.009	0.008	0.88
GROUP: 0~@Y-6SF.ASC,obs#:		23				
DXCT		K75	111	-6859.38940	-0.001	-0.432

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.006	0.003	0.16
DYCT		K75	111	2022.30230	-0.006	-2.147
				0.006	0.003	0.83
DZCT		K75	111	64.89220	0.004	1.405
				0.006	0.003	0.54
GROUP: 0~@Y-6SF.ASC,obs#:		24				
DXCT		3	112	623.49500	-0.021	-5.094
				0.007	0.004	2.33
					^^^^^^^^^^^^^^^^	
DYCT		3	112	-5665.82680	-0.018	-4.281
				0.007	0.004	1.99
					^^^^^^^^^^^^^^^^	
DZCT		3	112	-6886.94250	-0.004	-1.083
				0.007	0.004	0.49
GROUP: 0~@Y-6SF.ASC,obs#:		25				
DXCT		K75	112	-11151.28690	0.036	5.044
				0.009	0.007	3.01
					^^^^^^^^^^^^^^^^	
DYCT		K75	112	4043.84510	0.030	4.230
				0.009	0.007	2.54
					^^^^^^^^^^^^^^^^	
DZCT		K75	112	1079.42940	0.008	1.182
				0.009	0.007	0.71
GROUP: 0~@Y-6SF.ASC,obs#:		26				
DXCT		3	211	13966.24130	0.005	0.301
				0.015	0.015	0.23
DYCT		3	211	-11212.03490	-0.010	-0.643
				0.016	0.015	0.48
DZCT		3	211	-8973.84360	-0.002	-0.111
				0.016	0.015	0.08
GROUP: 0~@Y-6SF.ASC,obs#:		27				
DXCT		K75	211	2191.52070	-0.000	-0.293
				0.002	0.000	0.03
DYCT		K75	211	-1502.32490	0.000	0.633
				0.002	0.000	0.07
DZCT		K75	211	-1007.46060	0.000	0.085
				0.002	0.000	0.01
GROUP: 0~@Y-6SF.ASC,obs#:		28				
DXCT		3	212	1907.25710	-0.006	-2.559
				0.005	0.002	0.91
DYCT		3	212	-4157.78760	-0.000	-0.134
				0.005	0.002	0.05
DZCT		3	212	-4525.85220	0.003	1.094
				0.005	0.002	0.39
GROUP: 0~@Y-6SF.ASC,obs#:		29				
DXCT		K75	212	-9867.49360	0.020	2.557
				0.009	0.008	1.66
DYCT		K75	212	5551.93100	0.001	0.129
				0.009	0.008	0.08
DZCT		K75	212	3440.54340	-0.008	-1.091
				0.009	0.008	0.71
GROUP: 0~@Y-6SF.ASC,obs#:		30				

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DXCT		3	310	11733.41520	-0.012	-0.970
				0.013	0.013	0.73
DYCT		3	310	-9661.98390	-0.041	-3.198
				0.013	0.013	2.41
DZCT		3	310	-7920.44720	0.018	1.416
				0.013	0.013	1.07
GROUP: 0~@Y-6SF.ASC,obs#:		31				
DXCT		K75	310	-41.32250	0.000	0.000*
				0.000	0.000	0.23
DYCT		K75	310	47.69470	0.000	0.000*
				0.000	0.000	0.66
DZCT		K75	310	45.95580	-0.000	0.000*
				0.000	0.000	0.37
GROUP: 0~@Y-6SF.ASC,obs#:		32				
DXCT		3	311	3364.68440	0.003	0.285
				0.011	0.009	0.18
DYCT		3	311	-8968.40160	0.012	1.392
				0.011	0.009	0.89
DZCT		3	311	-10061.55150	0.003	0.382
				0.011	0.009	0.24
GROUP: 0~@Y-6SF.ASC,obs#:		33				
DXCT		K75	311	-8410.03730	-0.001	-0.286
				0.007	0.003	0.11
DYCT		K75	311	741.33550	-0.005	-1.392
				0.007	0.003	0.56
DZCT		K75	311	-2095.16210	-0.001	-0.378
				0.007	0.003	0.15
GROUP: 0~@Y-6SF.ASC,obs#:		34				
DXCT		3	312	-142.93780	-0.002	-0.844
				0.006	0.003	0.30
DYCT		3	312	-4371.20260	0.005	1.752
				0.006	0.003	0.68
DZCT		3	312	-5533.75010	-0.000	-0.131
				0.006	0.003	0.05
GROUP: 0~@Y-6SF.ASC,obs#:		35				
DXCT		K75	312	-11917.67300	0.008	0.896
				0.010	0.009	0.59
DYCT		K75	312	5338.53780	-0.016	-1.777
				0.010	0.009	1.18
DZCT		K75	312	2432.63380	0.000	0.052
				0.010	0.009	0.03
GROUP: 0~@Y-6SF.ASC,obs#:		36				
DXCT		3	409	14315.61010	0.062	3.860
				0.016	0.016	3.14
DYCT		3	409	-10683.19110	0.055	3.252
				0.017	0.017	2.79
DZCT		3	409	-8302.11220	-0.019	-1.219
				0.016	0.015	0.95
GROUP: 0~@Y-6SF.ASC,obs#:		37				
DXCT		K75	409	2540.94800	-0.001	-3.862
				0.002	0.000	0.44
DYCT		K75	409	-973.41510	-0.001	-3.218

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.003	0.000	0.44
DZCT		K75	409	-335.74670	0.001	1.462
				0.002	0.000	0.19
GROUP: 0~@Y-6SF.ASC,obs#:		38				
DXCT		3	410	6265.56020	0.013	1.607
				0.010	0.008	1.07
DYCT		3	410	-7609.54790	0.012	1.388
				0.010	0.008	0.95
DZCT		3	410	-7316.06450	-0.003	-0.306
				0.010	0.008	0.20
GROUP: 0~@Y-6SF.ASC,obs#:		39				
DXCT		K75	410	-5509.14870	-0.003	-1.637
				0.005	0.002	0.54
DYCT		K75	410	2100.18680	-0.003	-1.425
				0.005	0.002	0.53
DZCT		K75	410	650.31700	0.001	0.352
				0.005	0.002	0.12
GROUP: 0~@Y-6SF.ASC,obs#:		40				
DXCT		3	509	12715.92060	-0.001	-0.078
				0.014	0.014	0.06
DYCT		3	509	-9971.05750	-0.036	-2.647
				0.014	0.014	2.02
DZCT		3	509	-7952.62060	0.020	1.446
				0.014	0.014	1.09
GROUP: 0~@Y-6SF.ASC,obs#:		41				
DXCT		K75	509	941.19430	0.000	0.000*
				0.001	0.000	0.04
DYCT		K75	509	-261.37430	0.000	0.000*
				0.001	0.000	0.25
DZCT		K75	509	13.78390	-0.000	0.000*
				0.001	0.000	0.12
GROUP: 0~@Y-6SF.ASC,obs#:		42				
DXCT		3	510	5893.96970	0.017	2.141
				0.009	0.008	1.40
DYCT		3	510	-7471.72930	0.024	3.017
				0.009	0.008	1.99
DZCT		3	510	-7276.29300	-0.003	-0.402
				0.009	0.008	0.26
GROUP: 0~@Y-6SF.ASC,obs#:		43				
DXCT		K75	510	-5880.73400	-0.005	-2.159
				0.005	0.002	0.75
DYCT		K75	510	2238.02130	-0.007	-3.031
				0.005	0.002	1.08
DZCT		K75	510	690.08760	0.001	0.421
				0.005	0.002	0.15
GROUP: 0~@Y-6SF.ASC,obs#:		44				
DXCT		3	K75	11774.72020	0.005	0.387
				0.013	0.013	0.29
DYCT		3	K75	-9709.71050	-0.009	-0.728
				0.013	0.013	0.55
DZCT		3	K75	-7966.38530	0.001	0.046
				0.013	0.013	0.03

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 0~_Y-6SF.ASC,obs#:		45				
DXCT		J65	1014	-12236.61180	0.006	1.107
				0.010	0.005	0.45
DYCT		J65	1014	2716.51860	0.009	1.796
				0.010	0.005	0.73
DZCT		J65	1014	-994.82530	-0.004	-0.691
				0.010	0.005	0.28
GROUP: 0~_Y-6SF.ASC,obs#:		46				
DXCT		2	1014	15127.98750	-0.013	-1.119
				0.015	0.012	0.69
DYCT		2	1014	-9323.39540	-0.021	-1.806
				0.015	0.012	1.11
DZCT		2	1014	-6445.57860	0.008	0.705
				0.015	0.012	0.43
GROUP: 0~_Y-6SF.ASC,obs#:		47				
DXCT		J65	115	-15650.94880	-0.000	-0.048
				0.013	0.009	0.03
DYCT		J65	115	4091.96210	-0.001	-0.066
				0.013	0.009	0.04
DZCT		J65	115	-299.55550	-0.002	-0.182
				0.013	0.009	0.10
GROUP: 0~_Y-6SF.ASC,obs#:		48				
DXCT		2	115	11713.63110	0.000	0.048
				0.012	0.008	0.02
DYCT		2	115	-7947.98320	0.001	0.066
				0.012	0.008	0.03
DZCT		2	115	-5750.30010	0.001	0.182
				0.012	0.008	0.09
GROUP: 0~_Y-6SF.ASC,obs#:		49				
DXCT		J65	2	-27364.57940	-0.001	-0.056
				0.023	0.023	0.04
DYCT		J65	2	12039.94590	-0.002	-0.074
				0.023	0.023	0.06
DZCT		J65	2	5450.73690	0.005	0.208
				0.023	0.023	0.16
GROUP: 0~_Y-6SF.ASC,obs#:		50				
DXCT		J65	214	-24590.51380	0.017	0.966
				0.020	0.018	0.68
DYCT		J65	214	6312.93130	-0.011	-0.603
				0.020	0.018	0.42
DZCT		J65	214	-774.28850	0.004	0.211
				0.020	0.018	0.15
GROUP: 0~_Y-6SF.ASC,obs#:		51				
DXCT		2	214	2774.08620	-0.002	-0.965
				0.007	0.002	0.24
DYCT		2	214	-5727.02500	0.001	0.602
				0.007	0.002	0.15
DZCT		2	214	-6225.02590	-0.000	-0.212
				0.007	0.002	0.05
GROUP: 0~_Y-6SF.ASC,obs#:		52				
DXCT		J65	314	-16403.90160	-0.004	-0.426
				0.013	0.009	0.22

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		J65	314	2552.25880	0.010	1.091
				0.013	0.009	0.57
DZCT		J65	314	-2533.51760	0.005	0.537
				0.013	0.009	0.28
GROUP: 0~_Y-6SF.ASC,obs#:		53				
DXCT		2	314	10960.67170	0.004	0.426
				0.013	0.009	0.22
DYCT		2	314	-9487.66640	-0.009	-1.091
				0.013	0.009	0.57
DZCT		2	314	-7984.24990	-0.005	-0.537
				0.013	0.009	0.28
GROUP: 0~_Y-6SF.ASC,obs#:		54				
DXCT		J65	315	-11760.02890	-0.004	-0.855
				0.009	0.005	0.34
DYCT		J65	315	3128.16300	-0.003	-0.653
				0.009	0.005	0.26
DZCT		J65	315	-301.73000	0.004	0.851
				0.009	0.005	0.34
GROUP: 0~_Y-6SF.ASC,obs#:		55				
DXCT		2	315	15604.53740	0.010	0.876
				0.015	0.012	0.54
DYCT		2	315	-8911.79260	0.008	0.688
				0.015	0.012	0.44
DZCT		2	315	-5752.45720	-0.010	-0.876
				0.015	0.012	0.55
GROUP: 0~_Y-6SF.ASC,obs#:		56				
DXCT		2	412	3189.11430	0.000	0.188
				0.003	0.000	0.02
DYCT		2	412	-492.16090	0.000	0.378
				0.003	0.000	0.04
DZCT		2	412	522.11040	-0.000	-0.588
				0.003	0.000	0.06
GROUP: 0~_Y-6SF.ASC,obs#:		57				
DXCT		J65	412	-24175.46320	-0.003	-0.149
				0.022	0.021	0.11
DYCT		J65	412	11547.79170	-0.008	-0.368
				0.023	0.022	0.30
DZCT		J65	412	5972.83930	0.013	0.579
				0.023	0.022	0.46
GROUP: 0~_Y-6SF.ASC,obs#:		58				
DXCT		J65	413	-28473.91300	0.012	0.530
				0.023	0.022	0.39
DYCT		J65	413	8330.23490	-0.052	-2.376
				0.023	0.022	1.76
DZCT		J65	413	382.64280	-0.022	-1.004
				0.023	0.022	0.74
GROUP: 0~_Y-6SF.ASC,obs#:		59				
DXCT		2	413	-1109.32030	-0.000	-0.478
				0.005	0.001	0.08
DYCT		2	413	-3709.76420	0.003	2.335
				0.005	0.001	0.43
DZCT		2	413	-5068.12170	0.001	0.935

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.005	0.001	0.16
GROUP: 0~_Y-6SF.ASC,obs#:		60				
DXCT		J65	513	-25445.43050	-0.008	-0.381
				0.022	0.022	0.28
DYCT		J65	513	12202.61630	-0.010	-0.459
				0.023	0.022	0.35
DZCT		J65	513	6348.50420	0.002	0.100
				0.023	0.022	0.08
GROUP: 0~_Y-6SF.ASC,obs#:		61				
DXCT		2	513	1919.14190	0.000	0.431
				0.002	0.000	0.03
DYCT		2	513	162.66200	0.000	0.497
				0.002	0.000	0.04
DZCT		2	513	897.76480	-0.000	-0.199
				0.002	0.000	0.02
GROUP: 0~_Y-6SF.ASC,obs#:		62				
DXCT		J65	514	-30043.53620	-0.005	-0.202
				0.024	0.023	0.15
DYCT		J65	514	7687.42680	-0.015	-0.645
				0.024	0.023	0.47
DZCT		J65	514	-986.70570	-0.018	-0.798
				0.024	0.023	0.58
GROUP: 0~_Y-6SF.ASC,obs#:		63				
DXCT		2	514	-2678.96040	0.000	0.203
				0.006	0.002	0.04
DYCT		2	514	-4352.53300	0.001	0.644
				0.006	0.002	0.12
DZCT		2	514	-6437.46660	0.001	0.797
				0.006	0.002	0.15
GROUP: 0~1Z-6SF.ASC,obs#:		64				
DXCT		506	1	-17351.09450	-0.002	-0.127
				0.014	0.013	0.10
DYCT		506	1	3963.91230	0.006	0.446
				0.014	0.013	0.34
DZCT		506	1	-1215.53440	-0.003	-0.233
				0.014	0.013	0.18
GROUP: 0~1Z-6SF.ASC,obs#:		65				
DXCT		506	1015	-25566.36150	-0.009	-0.487
				0.020	0.019	0.35
DYCT		506	1015	2217.94180	-0.003	-0.158
				0.020	0.019	0.11
DZCT		506	1015	-6285.84640	-0.001	-0.057
				0.020	0.019	0.04
GROUP: 0~1Z-6SF.ASC,obs#:		66				
DXCT		1	1015	-8215.27580	0.001	0.487
				0.008	0.003	0.13
DYCT		1	1015	-1745.97990	0.000	0.158
				0.008	0.003	0.04
DZCT		1	1015	-5070.31010	0.000	0.057
				0.008	0.003	0.02
GROUP: 0~1Z-6SF.ASC,obs#:		67				
DXCT		506	1016	-15740.08020	-0.013	-1.058

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.013	0.012	0.79
DYCT		506	1016	3483.34110	-0.025	-2.054
				0.013	0.012	1.54
DZCT		506	1016	-1243.88070	0.002	0.192
				0.013	0.012	0.14
GROUP: 0~1Z-6SF.ASC,obs#:		68				
DXCT		1	1016	1611.00310	0.000	1.139
				0.001	0.000	0.09
DYCT		1	1016	-480.60240	0.000	2.096
				0.001	0.000	0.19
DZCT		1	1016	-28.34080	-0.000	-0.310
				0.001	0.000	0.03
GROUP: 0~1Z-6SF.ASC,obs#:		69				
DXCT		506	1017	-9012.84520	0.000	0.006
				0.009	0.006	0.00
DYCT		506	1017	-2547.89500	-0.006	-1.061
				0.009	0.006	0.56
DZCT		506	1017	-6415.20970	0.002	0.316
				0.009	0.006	0.17
GROUP: 0~1Z-6SF.ASC,obs#:		70				
DXCT		1	1017	8338.25110	-0.000	-0.009
				0.009	0.006	0.00
DYCT		1	1017	-6511.82640	0.007	1.060
				0.009	0.006	0.58
DZCT		1	1017	-5199.66830	-0.002	-0.312
				0.009	0.006	0.17
GROUP: 0~1Z-6SF.ASC,obs#:		71				
DXCT		506	116	-19416.91670	-0.010	-0.676
				0.016	0.015	0.49
DYCT		506	116	482.82220	-0.025	-1.658
				0.016	0.015	1.21
DZCT		506	116	-6311.70510	0.009	0.624
				0.016	0.015	0.45
GROUP: 0~1Z-6SF.ASC,obs#:		72				
DXCT		1	116	-2065.83150	0.001	0.677
				0.005	0.002	0.16
DYCT		1	116	-3481.12320	0.003	1.659
				0.005	0.002	0.39
DZCT		1	116	-5096.15740	-0.001	-0.625
				0.005	0.002	0.14
GROUP: 0~1Z-6SF.ASC,obs#:		73				
DXCT		506	117	-7992.61910	0.007	1.472
				0.007	0.005	0.70
DYCT		506	117	-1793.11560	0.010	2.156
				0.007	0.005	1.03
DZCT		506	117	-5103.27860	-0.001	-0.139
				0.007	0.005	0.07
GROUP: 0~1Z-6SF.ASC,obs#:		74				
DXCT		1	117	9358.49370	-0.010	-1.471
				0.009	0.007	0.84
DYCT		1	117	-5757.00950	-0.014	-2.155
				0.009	0.007	1.24

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		1	117	-3887.74260	0.001	0.134
				0.009	0.007	0.08
GROUP: 0~1Z-6SF.ASC,obs#:		75				
DXCT		506	215	-21905.12990	-0.002	-0.114
				0.018	0.017	0.08
DYCT		506	215	5821.92140	-0.004	-0.261
				0.018	0.017	0.19
DZCT		506	215	-521.10490	0.018	1.076
				0.018	0.017	0.80
GROUP: 0~1Z-6SF.ASC,obs#:		76				
DXCT		1	215	-4554.03570	0.000	0.115
				0.004	0.001	0.02
DYCT		1	215	1857.99850	0.000	0.266
				0.004	0.001	0.04
DZCT		1	215	694.45170	-0.001	-1.078
				0.004	0.001	0.18
GROUP: 0~1Z-6SF.ASC,obs#:		77				
DXCT		506	216	-13321.56990	0.000	0.048
				0.011	0.010	0.03
DYCT		506	216	-1303.94740	-0.011	-1.096
				0.012	0.010	0.72
DZCT		506	216	-6389.39240	0.001	0.152
				0.011	0.010	0.10
GROUP: 0~1Z-6SF.ASC,obs#:		78				
DXCT		1	216	4029.52690	-0.000	-0.042
				0.007	0.003	0.02
DYCT		1	216	-5267.87980	0.003	1.097
				0.007	0.003	0.41
DZCT		1	216	-5173.85290	-0.000	-0.157
				0.007	0.003	0.06
GROUP: 0~1Z-6SF.ASC,obs#:		79				
DXCT		506	217	-3623.95170	0.000	0.052
				0.007	0.003	0.02
DYCT		506	217	-4059.19590	0.001	0.388
				0.007	0.003	0.13
DZCT		506	217	-6392.86710	-0.002	-0.589
				0.007	0.003	0.20
GROUP: 0~1Z-6SF.ASC,obs#:		80				
DXCT		1	217	13727.14520	-0.001	-0.048
				0.013	0.011	0.03
DYCT		1	217	-8023.10870	-0.004	-0.384
				0.013	0.011	0.26
DZCT		1	217	-5177.33790	0.007	0.586
				0.013	0.011	0.40
GROUP: 0~1Z-6SF.ASC,obs#:		81				
DXCT		506	316	-21895.60760	-0.002	-0.137
				0.017	0.017	0.10
DYCT		506	316	5687.07950	0.009	0.553
				0.018	0.017	0.41
DZCT		506	316	-684.06640	0.006	0.377
				0.018	0.017	0.28
GROUP: 0~1Z-6SF.ASC,obs#:		82				

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		1	316	-4544.51380	0.000	0.136
				0.004	0.001	0.02
DYCT		1	316	1723.17100	-0.000	-0.551
				0.004	0.001	0.09
DZCT		1	316	531.47780	-0.000	-0.375
				0.004	0.001	0.06
GROUP: 0~1Z-6SF.ASC,obs#:		83				
DXCT		506	414	-18657.47000	-0.030	-2.048
				0.015	0.015	1.55
DYCT		506	414	5364.16580	-0.033	-2.222
				0.016	0.015	1.73
DZCT		506	414	69.52400	-0.011	-0.771
				0.015	0.015	0.59
GROUP: 0~1Z-6SF.ASC,obs#:		84				
DXCT		1	414	-1306.40450	0.001	2.332
				0.002	0.000	0.24
DYCT		1	414	1400.21330	0.001	2.369
				0.002	0.000	0.31
DZCT		1	414	1285.04990	0.000	0.581
				0.002	0.000	0.07
GROUP: 0~1Z-6SF.ASC,obs#:		85				
DXCT		506	415	-6316.62450	0.007	2.733
				0.005	0.002	1.02
DYCT		506	415	1804.69400	0.000	0.040
				0.005	0.003	0.02
DZCT		506	415	16.75770	0.001	0.587
				0.005	0.003	0.23
GROUP: 0~1Z-6SF.ASC,obs#:		86				
DXCT		1	415	11034.49810	-0.020	-2.737
				0.009	0.007	1.74
DYCT		1	415	-2159.22390	-0.000	-0.039
				0.009	0.007	0.02
DZCT		1	415	1232.30110	-0.004	-0.606
				0.009	0.007	0.39
GROUP: 0~1Z-6SF.ASC,obs#:		87				
DXCT		1	416	4997.77840	-0.002	-0.633
				0.006	0.003	0.24
DYCT		1	416	-4518.23350	-0.003	-0.984
				0.006	0.003	0.38
DZCT		1	416	-3884.21990	-0.000	-0.159
				0.006	0.003	0.06
GROUP: 0~1Z-6SF.ASC,obs#:		88				
DXCT		506	416	-12353.32520	0.006	0.636
				0.010	0.009	0.41
DYCT		506	416	-554.32680	0.009	0.986
				0.010	0.009	0.64
DZCT		506	416	-5099.75940	0.001	0.167
				0.011	0.009	0.11
GROUP: 0~1Z-6SF.ASC,obs#:		89				
DXCT		506	515	-5320.47260	0.004	2.259
				0.005	0.002	0.74
DYCT		506	515	2545.72550	0.000	0.022

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.005	0.002	0.01
DZCT		506	515	1302.33160	-0.001	-0.506
				0.005	0.002	0.17
GROUP: 0~1Z-6SF.ASC,obs#:		90				
DXCT		1	515	12030.64660	-0.019	-2.258
				0.010	0.008	1.50
DYCT		1	515	-1418.19270	-0.000	-0.005
				0.010	0.008	0.00
DZCT		1	515	2517.86400	0.004	0.501
				0.010	0.008	0.33
GROUP: 0~3Z-6SF.ASC,obs#:		91				
DXCT		1	1018	-5514.12810	-0.008	-0.652
				0.015	0.012	0.39
DYCT		1	1018	-10757.07240	-0.021	-1.748
				0.015	0.012	1.08
DZCT		1	1018	-15456.63250	0.001	0.070
				0.015	0.012	0.04
GROUP: 0~3Z-6SF.ASC,obs#:		92				
DXCT		2	1018	-12610.51410	0.004	0.649
				0.011	0.006	0.29
DYCT		2	1018	6151.95500	0.011	1.746
				0.011	0.006	0.78
DZCT		2	1018	3280.43320	-0.000	-0.061
				0.011	0.006	0.03
GROUP: 0~3Z-6SF.ASC,obs#:		93				
DXCT		1	1019	7655.23510	0.002	0.202
				0.013	0.011	0.13
DYCT		1	1019	-10929.34810	0.013	1.129
				0.014	0.011	0.74
DZCT		1	1019	-11002.09000	0.014	1.289
				0.013	0.011	0.84
GROUP: 0~3Z-6SF.ASC,obs#:		94				
DXCT		2	1019	558.86400	-0.001	-0.203
				0.008	0.004	0.07
DYCT		2	1019	5979.72860	-0.004	-1.130
				0.008	0.004	0.42
DZCT		2	1019	7734.99360	-0.005	-1.289
				0.008	0.004	0.47
GROUP: 0~3Z-6SF.ASC,obs#:		95				
DXCT		1	118	1109.14240	0.001	0.099
				0.012	0.009	0.06
DYCT		1	118	-9556.64160	0.007	0.757
				0.012	0.009	0.45
DZCT		1	118	-11604.19730	0.000	0.021
				0.012	0.009	0.01
GROUP: 0~3Z-6SF.ASC,obs#:		96				
DXCT		2	118	-5987.23030	-0.001	-0.098
				0.009	0.005	0.04
DYCT		2	118	7352.42900	-0.004	-0.757
				0.009	0.005	0.35
DZCT		2	118	7132.86750	-0.000	-0.025
				0.009	0.005	0.01

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 0~3Z-6SF.ASC,obs#:		97				
DXCT		1	119	13707.54050	0.013	0.907
				0.017	0.015	0.61
DYCT		1	119	-12649.24130	0.008	0.547
				0.017	0.015	0.37
DZCT		1	119	-11005.49440	0.004	0.288
				0.017	0.015	0.19
GROUP: 0~3Z-6SF.ASC,obs#:		98				
DXCT		2	119	6611.18300	-0.003	-0.905
				0.009	0.004	0.31
DYCT		2	119	4259.82860	-0.002	-0.544
				0.009	0.004	0.19
DZCT		2	119	7731.57540	-0.001	-0.296
				0.009	0.004	0.10
GROUP: 0~3Z-6SF.ASC,obs#:		99				
DXCT		1	2	7096.38020	-0.006	-0.309
				0.020	0.020	0.23
DYCT		1	2	-16909.04410	-0.016	-0.791
				0.020	0.020	0.60
DZCT		1	2	-18737.06030	-0.004	-0.211
				0.020	0.020	0.16
GROUP: 0~3Z-6SF.ASC,obs#:		100				
DXCT		1	218	-1659.52790	-0.008	-0.614
				0.015	0.013	0.40
DYCT		1	218	-11824.27660	-0.007	-0.521
				0.015	0.013	0.35
DZCT		1	218	-15445.55880	-0.008	-0.644
				0.015	0.013	0.43
GROUP: 0~3Z-6SF.ASC,obs#:		101				
DXCT		2	218	-8755.91220	0.002	0.614
				0.008	0.004	0.22
DYCT		2	218	5084.77440	0.002	0.523
				0.008	0.004	0.19
DZCT		2	218	3291.49490	0.002	0.648
				0.008	0.004	0.23
GROUP: 0~3Z-6SF.ASC,obs#:		102				
DXCT		1	317	-668.09660	-0.004	-0.487
				0.011	0.008	0.27
DYCT		1	317	-9031.10210	0.003	0.337
				0.011	0.008	0.19
DZCT		1	317	-11571.35960	0.008	1.005
				0.011	0.008	0.55
GROUP: 0~3Z-6SF.ASC,obs#:		103				
DXCT		2	317	-7764.47780	0.003	0.488
				0.010	0.006	0.24
DYCT		2	317	7877.96260	-0.002	-0.335
				0.010	0.007	0.17
DZCT		2	317	7165.71960	-0.007	-1.005
				0.010	0.007	0.50
GROUP: 0~3Z-6SF.ASC,obs#:		104				
DXCT		1	318	5915.09750	-0.001	-0.090
				0.013	0.011	0.06

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		1	318	-10941.09180	0.004	0.347
				0.013	0.011	0.23
DZCT		1	318	-11637.74970	0.011	0.999
				0.013	0.011	0.65
GROUP: 0~3Z-6SF.ASC,obs#: 105						
DXCT		2	318	-1181.27790	0.000	0.091
				0.007	0.003	0.03
DYCT		2	318	5967.97310	-0.001	-0.351
				0.007	0.003	0.13
DZCT		2	318	7099.32920	-0.003	-1.000
				0.007	0.003	0.36
GROUP: 0~3Z-6SF.ASC,obs#: 106						
DXCT		1	319	14868.95350	0.006	0.320
				0.020	0.018	0.23
DYCT		1	319	-15508.98130	-0.022	-1.198
				0.020	0.018	0.86
DZCT		1	319	-14198.25060	0.018	0.991
				0.020	0.018	0.71
GROUP: 0~3Z-6SF.ASC,obs#: 107						
DXCT		2	319	7772.58600	-0.001	-0.316
				0.007	0.002	0.08
DYCT		2	319	1400.05360	0.003	1.202
				0.007	0.002	0.31
DZCT		2	319	4538.83440	-0.002	-0.996
				0.007	0.002	0.25
GROUP: 0~3Z-6SF.ASC,obs#: 108						
DXCT		1	417	6841.55090	0.004	0.182
				0.021	0.020	0.14
DYCT		1	417	-17347.97040	0.004	0.212
				0.021	0.020	0.16
DZCT		1	417	-19380.66770	-0.018	-0.861
				0.021	0.020	0.65
GROUP: 0~3Z-6SF.ASC,obs#: 109						
DXCT		2	417	-254.81950	-0.000	0.000*
				0.001	0.000	0.01
DYCT		2	417	-438.90630	-0.000	0.000*
				0.001	0.000	0.02
DZCT		2	417	-643.62080	0.000	0.000*
				0.001	0.000	0.05
GROUP: 0~3Z-6SF.ASC,obs#: 110						
DXCT		1	418	-7966.19320	-0.007	-0.620
				0.016	0.012	0.36
DYCT		1	418	-10068.70820	-0.008	-0.660
				0.016	0.012	0.39
DZCT		1	418	-15449.89990	-0.007	-0.603
				0.016	0.012	0.35
GROUP: 0~3Z-6SF.ASC,obs#: 111						
DXCT		2	418	-15062.57960	0.005	0.622
				0.013	0.008	0.30
DYCT		2	418	6840.33830	0.006	0.659
				0.013	0.008	0.33
DZCT		2	418	3287.15250	0.005	0.599

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.013	0.008	0.30
GROUP: 0~3Z-6SF.ASC,obs#: 112						
DXCT		1	419	-1404.12560	0.008	0.659
				0.015	0.012	0.43
DYCT		1	419	-11135.45450	0.024	1.901
				0.015	0.012	1.28
DZCT		1	419	-14484.18380	0.002	0.141
				0.015	0.012	0.09
GROUP: 0~3Z-6SF.ASC,obs#: 113						
DXCT		2	419	-8500.48780	-0.004	-0.830
				0.009	0.005	0.36
DYCT		2	419	5773.63930	-0.011	-1.911
				0.010	0.006	0.95
DZCT		2	419	4252.88210	0.000	0.055
				0.009	0.005	0.02
GROUP: 0~3Z-6SF.ASC,obs#: 114						
DXCT		1	516	4923.31820	-0.002	-0.102
				0.017	0.016	0.07
DYCT		1	516	-14181.34520	-0.015	-0.940
				0.017	0.016	0.69
DZCT		1	516	-16075.82880	-0.002	-0.142
				0.017	0.016	0.10
GROUP: 0~3Z-6SF.ASC,obs#: 115						
DXCT		2	516	-2173.05760	0.000	0.107
				0.003	0.001	0.02
DYCT		2	516	2727.69870	0.001	0.937
				0.003	0.001	0.14
DZCT		2	516	2661.23330	0.000	0.120
				0.003	0.001	0.02
GROUP: 0~3Z-6SF.ASC,obs#: 116						
DXCT		1	517	-7678.98490	-0.006	-0.540
				0.015	0.012	0.31
DYCT		1	517	-10147.16870	-0.016	-1.385
				0.016	0.012	0.81
DZCT		1	517	-15448.62410	-0.007	-0.559
				0.016	0.012	0.33
GROUP: 0~3Z-6SF.ASC,obs#: 117						
DXCT		2	517	-14775.36960	0.004	0.543
				0.013	0.008	0.26
DYCT		2	517	6761.86370	0.011	1.384
				0.013	0.008	0.67
DZCT		2	517	3288.42940	0.004	0.555
				0.013	0.008	0.27
GROUP: 0~5Z-6SF.ASC,obs#: 118						
DXCT		2	1020	-10763.26940	-0.010	-0.695
				0.015	0.014	0.51
DYCT		2	1020	-8048.83260	-0.018	-1.229
				0.015	0.014	0.91
DZCT		2	1020	-13963.67670	-0.004	-0.296
				0.015	0.014	0.22
GROUP: 0~5Z-6SF.ASC,obs#: 119						
DXCT		ANTONITO	1020	137.91130	0.000	0.772

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.002	0.000	0.07
DYCT		ANTONITO	1020	1396.00400	0.000	1.233
				0.002	0.000	0.13
DZCT		ANTONITO	1020	1825.16440	0.000	0.243
				0.002	0.000	0.03
GROUP: 0~5Z-6SF.ASC,obs#: 120						
DXCT		2	120	-16351.57570	-0.008	-0.474
				0.019	0.018	0.35
DYCT		2	120	-8265.21890	-0.005	-0.296
				0.019	0.018	0.22
DZCT		2	120	-16213.67450	-0.017	-0.941
				0.019	0.018	0.69
GROUP: 0~5Z-6SF.ASC,obs#: 121						
DXCT		ANTONITO	120	-5450.39390	0.000	0.473
				0.004	0.001	0.08
DYCT		ANTONITO	120	1179.63010	0.000	0.291
				0.004	0.001	0.05
DZCT		ANTONITO	120	-424.84690	0.001	0.938
				0.004	0.001	0.16
GROUP: 0~5Z-6SF.ASC,obs#: 122						
DXCT		2	219	-16274.94970	0.004	0.200
				0.019	0.018	0.15
DYCT		2	219	-8274.55040	0.014	0.779
				0.019	0.018	0.58
DZCT		2	219	-16197.18660	-0.021	-1.144
				0.019	0.018	0.84
GROUP: 0~5Z-6SF.ASC,obs#: 123						
DXCT		ANTONITO	219	-5373.75520	-0.000	-0.207
				0.004	0.001	0.03
DYCT		ANTONITO	219	1170.31900	-0.001	-0.792
				0.004	0.001	0.14
DZCT		ANTONITO	219	-408.36280	0.001	1.153
				0.004	0.001	0.19
GROUP: 0~5Z-6SF.ASC,obs#: 124						
DXCT		2	220	-3865.37440	-0.003	-0.468
				0.008	0.005	0.23
DYCT		2	220	-5531.47300	-0.004	-0.657
				0.008	0.005	0.33
DZCT		2	220	-8344.26620	0.002	0.344
				0.008	0.005	0.17
GROUP: 0~5Z-6SF.ASC,obs#: 125						
DXCT		ANTONITO	220	7035.81120	0.003	0.468
				0.008	0.006	0.24
DYCT		ANTONITO	220	3913.37430	0.004	0.657
				0.008	0.006	0.34
DZCT		ANTONITO	220	7444.58300	-0.002	-0.344
				0.008	0.006	0.18
GROUP: 0~5Z-6SF.ASC,obs#: 126						
DXCT		2	320	-597.19400	0.004	0.540
				0.010	0.007	0.29
DYCT		2	320	-7816.08010	0.004	0.636
				0.010	0.007	0.34

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		2	320	-10070.03360	0.008	1.150
				0.010	0.007	0.62
GROUP: 0~5Z-6SF.ASC,obs#: 127						
DXCT		ANTONITO	320	10304.00360	-0.003	-0.540
				0.009	0.006	0.27
DYCT		ANTONITO	320	1628.78270	-0.004	-0.636
				0.009	0.006	0.32
DZCT		ANTONITO	320	5718.82650	-0.007	-1.150
				0.009	0.006	0.57
GROUP: 0~5Z-6SF.ASC,obs#: 128						
DXCT		ANTONITO	420	706.99330	-0.000	0.000*
				0.001	0.000	0.04
DYCT		ANTONITO	420	361.99610	0.000	0.000*
				0.001	0.000	0.00
DZCT		ANTONITO	420	710.61610	-0.000	-0.791
				0.001	0.000	0.10
GROUP: 0~5Z-6SF.ASC,obs#: 129						
DXCT		2	420	-10194.20340	0.006	0.394
				0.016	0.015	0.29
DYCT		2	420	-9082.86000	0.001	0.098
				0.016	0.015	0.07
DZCT		2	420	-15078.24100	0.012	0.765
				0.016	0.015	0.57
GROUP: 0~5Z-6SF.ASC,obs#: 130						
DXCT		2	421	-7208.00110	0.008	1.165
				0.009	0.007	0.65
DYCT		2	421	-4572.42320	0.003	0.456
				0.009	0.007	0.26
DZCT		2	421	-8319.24520	-0.005	-0.767
				0.009	0.007	0.43
GROUP: 0~5Z-6SF.ASC,obs#: 131						
DXCT		ANTONITO	421	3693.20240	-0.005	-1.166
				0.007	0.004	0.52
DYCT		ANTONITO	421	4872.43650	-0.002	-0.460
				0.007	0.004	0.21
DZCT		ANTONITO	421	7469.59170	0.003	0.769
				0.007	0.004	0.35
GROUP: 0~5Z-6SF.ASC,obs#: 132						
DXCT		ANTONITO	518	-7994.99140	-0.000	-0.248
				0.006	0.002	0.06
DYCT		ANTONITO	518	2049.15580	-0.001	-0.383
				0.006	0.002	0.09
DZCT		ANTONITO	518	-223.12220	-0.001	-0.271
				0.006	0.002	0.06
GROUP: 0~5Z-6SF.ASC,obs#: 133						
DXCT		2	518	-18896.18720	0.005	0.248
				0.020	0.019	0.18
DYCT		2	518	-7395.70670	0.007	0.384
				0.020	0.019	0.28
DZCT		2	518	-16011.97320	0.005	0.273
				0.020	0.019	0.20
GROUP: 0~5Z-6SF.ASC,obs#: 134						

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		2	519	-11160.12750	-0.004	-0.232
				0.017	0.016	0.17
DYCT		2	519	-9458.97390	0.015	0.911
				0.017	0.016	0.69
DZCT		2	519	-15898.72530	-0.011	-0.660
				0.017	0.016	0.49
GROUP: 0~5Z-6SF.ASC,obs#: 135						
DXCT		ANTONITO	519	-258.94050	-0.000	0.000*
				0.000	0.000	0.01
DYCT		ANTONITO	519	-14.10440	-0.000	0.000*
				0.001	0.000	0.11
DZCT		ANTONITO	519	-109.89060	0.000	0.000*
				0.000	0.000	0.06
GROUP: 0~5Z-6SF.ASC,obs#: 136						
DXCT		2	ANTONITO	-10901.18450	-0.006	-0.392
				0.017	0.016	0.29
DYCT		2	ANTONITO	-9444.84580	-0.009	-0.551
				0.017	0.016	0.41
DZCT		2	ANTONITO	-15788.84000	-0.005	-0.339
				0.017	0.016	0.25
GROUP: 0~NY-6SF.ASC,obs#: 137						
DXCT		R33	10	21772.97010	-0.002	-0.100
				0.024	0.020	0.06
DYCT		R33	10	9989.29820	-0.001	-0.060
				0.024	0.020	0.04
DZCT		R33	10	20285.83200	0.009	0.440
				0.024	0.020	0.28
GROUP: 0~NY-6SF.ASC,obs#: 138						
DXCT		9	10	19623.17470	0.001	0.100
				0.016	0.008	0.04
DYCT		9	10	-5548.47480	0.001	0.061
				0.016	0.008	0.02
DZCT		9	10	299.52090	-0.004	-0.440
				0.016	0.008	0.18
GROUP: 0~NY-6SF.ASC,obs#: 139						
DXCT		R33	100	21770.92670	0.005	0.268
				0.024	0.020	0.17
DYCT		R33	100	9988.21430	0.001	0.064
				0.024	0.020	0.04
DZCT		R33	100	20284.12250	0.000	0.012
				0.024	0.020	0.01
GROUP: 0~NY-6SF.ASC,obs#: 140						
DXCT		9	100	19621.14160	-0.002	-0.268
				0.016	0.008	0.11
DYCT		9	100	-5549.55520	-0.001	-0.065
				0.016	0.008	0.03
DZCT		9	100	297.79940	-0.000	-0.012
				0.016	0.008	0.00
GROUP: 0~NY-6SF.ASC,obs#: 141						
DXCT		R33	1000	7356.51680	0.009	0.376
				0.025	0.023	0.27
DYCT		R33	1000	18299.15220	0.001	0.053

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.025	0.023	0.04
DZCT		R33	1000	25225.08560	0.013	0.546
				0.025	0.023	0.39
GROUP: 0~NY-6SF.ASC,obs#: 142						
DXCT		9	1000	5206.73340	-0.001	-0.377
				0.006	0.001	0.07
DYCT		9	1000	2761.38220	-0.000	-0.053
				0.006	0.001	0.01
DZCT		9	1000	5238.77550	-0.001	-0.546
				0.006	0.001	0.10
GROUP: 0~NY-6SF.ASC,obs#: 143						
DXCT		R33	121	1503.54140	-0.002	-0.123
				0.018	0.017	0.09
DYCT		R33	121	14704.73810	-0.001	-0.070
				0.018	0.017	0.05
DZCT		R33	121	18729.69310	-0.012	-0.707
				0.018	0.017	0.50
GROUP: 0~NY-6SF.ASC,obs#: 144						
DXCT		9	121	-646.25330	0.000	0.000*
				0.001	0.000	0.01
DYCT		9	121	-833.03440	0.000	0.000*
				0.001	0.000	0.00
DZCT		9	121	-1256.64240	0.000	0.000*
				0.001	0.000	0.04
GROUP: 0~NY-6SF.ASC,obs#: 145						
DXCT		R33	200	3506.80780	0.005	0.291
				0.020	0.018	0.21
DYCT		R33	200	15155.34800	0.008	0.460
				0.020	0.018	0.33
DZCT		R33	200	19991.11720	0.001	0.057
				0.020	0.018	0.04
GROUP: 0~NY-6SF.ASC,obs#: 146						
DXCT		9	200	1357.02050	-0.000	0.000*
				0.001	0.000	0.01
DYCT		9	200	-382.41490	-0.000	0.000*
				0.001	0.000	0.02
DZCT		9	200	4.79480	-0.000	0.000*
				0.001	0.000	0.00
GROUP: 0~NY-6SF.ASC,obs#: 147						
DXCT		R33	300	10755.86040	0.004	0.184
				0.024	0.022	0.13
DYCT		R33	300	16697.48660	-0.001	-0.024
				0.024	0.022	0.02
DZCT		R33	300	24450.30190	-0.001	-0.023
				0.024	0.022	0.02
GROUP: 0~NY-6SF.ASC,obs#: 148						
DXCT		9	300	8606.07230	-0.000	-0.184
				0.008	0.002	0.04
DYCT		9	300	1159.71470	0.000	0.024
				0.008	0.002	0.01
DZCT		9	300	4463.97790	0.000	0.023
				0.008	0.002	0.00

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 0~NY-6SF.ASC,obs#: 149						
DXCT		R33	500	2281.32190	-0.003	-0.162
				0.023	0.021	0.12
DYCT		R33	500	17963.49030	0.012	0.571
				0.023	0.021	0.42
DZCT		R33	500	23026.02110	-0.015	-0.726
				0.023	0.021	0.53
GROUP: 0~NY-6SF.ASC,obs#: 150						
DXCT		9	500	131.52580	0.000	0.153
				0.003	0.000	0.01
DYCT		9	500	2425.73140	-0.000	-0.586
				0.003	0.000	0.06
DZCT		9	500	3039.68190	0.000	0.739
				0.003	0.000	0.07
GROUP: 0~NY-6SF.ASC,obs#: 151						
DXCT		R33	9	2149.79120	0.001	0.077
				0.020	0.018	0.06
DYCT		R33	9	15537.76880	0.003	0.137
				0.020	0.018	0.10
DZCT		R33	9	19986.31890	0.005	0.249
				0.020	0.018	0.18
GROUP: 0~PY-6SF.ASC,obs#: 152						
DXCT		MIRAGE	1001	-19092.25570	-0.012	-0.868
				0.015	0.014	0.60
DYCT		MIRAGE	1001	2507.35020	-0.008	-0.567
				0.015	0.014	0.39
DZCT		MIRAGE	1001	-3622.44450	0.019	1.413
				0.015	0.014	0.98
GROUP: 0~PY-6SF.ASC,obs#: 153						
DXCT		8	1001	-8040.66000	0.002	0.876
				0.007	0.003	0.28
DYCT		8	1001	-721.08210	0.002	0.589
				0.007	0.003	0.19
DZCT		8	1001	-3736.62500	-0.004	-1.423
				0.007	0.003	0.45
GROUP: 0~PY-6SF.ASC,obs#: 154						
DXCT		MIRAGE	1002	-11487.63220	-0.004	-0.532
				0.009	0.008	0.36
DYCT		MIRAGE	1002	10.28520	-0.007	-0.907
				0.009	0.008	0.61
DZCT		MIRAGE	1002	-4031.60570	0.006	0.762
				0.009	0.008	0.51
GROUP: 0~PY-6SF.ASC,obs#: 155						
DXCT		8	1002	-436.02750	0.001	0.541
				0.004	0.002	0.16
DYCT		8	1002	-3218.14660	0.001	0.920
				0.004	0.002	0.27
DZCT		8	1002	-4145.80190	-0.001	-0.775
				0.004	0.002	0.23
GROUP: 0~PY-6SF.ASC,obs#: 156						
DXCT		MIRAGE	101	-19091.86310	-0.002	-0.156
				0.015	0.014	0.11

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		MIRAGE	101	2506.55660	0.000	0.012
				0.015	0.014	0.01
DZCT		MIRAGE	101	-3623.39670	0.033	2.436
				0.015	0.014	1.68
GROUP: 0~PY-6SF.ASC,obs#: 157						
DXCT		8	101	-8040.25580	0.000	0.170
				0.007	0.003	0.05
DYCT		8	101	-721.86630	0.000	0.045
				0.007	0.003	0.01
DZCT		8	101	-3737.56040	-0.007	-2.435
				0.007	0.003	0.79
GROUP: 0~PY-6SF.ASC,obs#: 158						
DXCT		MIRAGE	102	-14963.32630	-0.005	-0.438
				0.012	0.011	0.31
DYCT		MIRAGE	102	1301.55580	0.013	1.186
				0.012	0.011	0.83
DZCT		MIRAGE	102	-3661.90970	-0.002	-0.195
				0.012	0.011	0.14
GROUP: 0~PY-6SF.ASC,obs#: 159						
DXCT		8	102	-3911.72180	0.001	0.425
				0.004	0.002	0.11
DYCT		8	102	-1926.85240	-0.002	-1.184
				0.005	0.002	0.32
DZCT		8	102	-3776.11580	0.000	0.207
				0.005	0.002	0.06
GROUP: 0~PY-6SF.ASC,obs#: 160						
DXCT		MIRAGE	201	-19082.35320	0.006	0.429
				0.015	0.014	0.30
DYCT		MIRAGE	201	2519.41080	0.015	1.120
				0.015	0.014	0.78
DZCT		MIRAGE	201	-3605.21510	0.011	0.791
				0.015	0.014	0.55
GROUP: 0~PY-6SF.ASC,obs#: 161						
DXCT		8	201	-8030.73630	-0.001	-0.434
				0.007	0.003	0.14
DYCT		8	201	-708.99370	-0.003	-1.109
				0.007	0.003	0.36
DZCT		8	201	-3719.40590	-0.002	-0.767
				0.007	0.003	0.24
GROUP: 0~PY-6SF.ASC,obs#: 162						
DXCT		MIRAGE	202	-9077.24830	0.003	0.475
				0.008	0.006	0.29
DYCT		MIRAGE	202	-716.75320	-0.006	-0.927
				0.008	0.006	0.57
DZCT		MIRAGE	202	-4081.98660	-0.007	-1.087
				0.008	0.006	0.67
GROUP: 0~PY-6SF.ASC,obs#: 163						
DXCT		8	202	1974.36560	-0.001	-0.473
				0.005	0.002	0.18
DYCT		8	202	-3945.18400	0.002	0.917
				0.005	0.002	0.35
DZCT		8	202	-4196.19950	0.003	1.082

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.005	0.002	0.41
GROUP: 0~PY-6SF.ASC,obs#: 164						
DXCT		MIRAGE	301	-19084.91820	-0.002	-0.184
				0.015	0.014	0.13
DYCT		MIRAGE	301	2515.62660	0.022	1.584
				0.015	0.014	1.10
DZCT		MIRAGE	301	-3610.68750	0.003	0.212
				0.015	0.014	0.15
GROUP: 0~PY-6SF.ASC,obs#: 165						
DXCT		8	301	-8033.31130	0.001	0.182
				0.007	0.003	0.06
DYCT		8	301	-712.77040	-0.004	-1.584
				0.007	0.003	0.50
DZCT		8	301	-3724.88770	-0.001	-0.210
				0.007	0.003	0.07
GROUP: 0~PY-6SF.ASC,obs#: 166						
DXCT		MIRAGE	302	-11055.94110	0.022	2.685
				0.009	0.008	1.94
DYCT		MIRAGE	302	3223.43410	0.026	3.614
				0.009	0.007	2.29
DZCT		MIRAGE	302	105.64270	-0.036	-4.336
				0.009	0.008	3.10
					^^^^^^^^^^^^^^^^	
GROUP: 0~PY-6SF.ASC,obs#: 167						
DXCT		8	302	-4.30800	-0.001	-5.714
				0.001	0.000	81.37
					^^^^^^^^^^^^^^^^	
DYCT		8	302	-4.94810	-0.014	-4.978
				0.006	0.003	1327.33
					^^^^^^^^^^^^^^^^	
DZCT		8	302	-8.60120	0.005	5.100
				0.002	0.001	417.82
					^^^^^^^^^^^^^^^^	
GROUP: 0~PY-6SF.ASC,obs#: 168						
DXCT		8	400	-8069.85950	-0.004	-1.507
				0.007	0.003	0.53
DYCT		8	400	1344.28100	0.012	2.402
				0.011	0.005	1.51
DZCT		8	400	-1207.57030	-0.013	-2.725
				0.010	0.005	1.53
GROUP: 0~PY-6SF.ASC,obs#: 169						
DXCT		MIRAGE	400	-19121.48570	0.012	0.847
				0.016	0.014	0.61
DYCT		MIRAGE	400	4572.74860	-0.032	-1.957
				0.019	0.016	1.63
DZCT		MIRAGE	400	-1093.41760	0.038	2.397
				0.018	0.016	1.95
GROUP: 0~PY-6SF.ASC,obs#: 170						
DXCT		MIRAGE	401	-11481.15040	-0.006	-0.714
				0.009	0.008	0.48
DYCT		MIRAGE	401	8.33360	-0.008	-1.023
				0.009	0.008	0.69

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		MIRAGE	401	-4031.71860	-0.003	-0.347
				0.009	0.008	0.23
GROUP: 0~PY-6SF.ASC,obs#: 171						
DXCT		8	401	-429.54750	0.001	0.736
				0.004	0.002	0.22
DYCT		8	401	-3220.09940	0.002	1.030
				0.004	0.002	0.32
DZCT		8	401	-4145.92560	0.000	0.316
				0.004	0.002	0.09
GROUP: 0~PY-6SF.ASC,obs#: 172						
DXCT		MIRAGE	402	-1359.30000	-0.000	-0.065
				0.005	0.002	0.02
DYCT		MIRAGE	402	-3596.92970	-0.003	-1.291
				0.005	0.002	0.47
DZCT		MIRAGE	402	-4913.13680	0.004	2.141
				0.005	0.002	0.72
GROUP: 0~PY-6SF.ASC,obs#: 173						
DXCT		8	402	9692.30970	0.000	0.006
				0.010	0.009	0.00
DYCT		8	402	-6825.36640	0.011	1.249
				0.010	0.009	0.84
DZCT		8	402	-5027.31780	-0.018	-2.114
				0.010	0.009	1.41
GROUP: 0~PY-6SF.ASC,obs#: 174						
DXCT		MIRAGE	501	-19183.02600	-0.002	-0.167
				0.015	0.014	0.12
DYCT		MIRAGE	501	4625.65140	0.002	0.146
				0.015	0.014	0.10
DZCT		MIRAGE	501	-1050.26840	-0.024	-1.751
				0.015	0.014	1.22
GROUP: 0~PY-6SF.ASC,obs#: 175						
DXCT		8	501	-8131.41880	0.000	0.155
				0.006	0.002	0.05
DYCT		8	501	1397.23100	-0.001	-0.204
				0.007	0.003	0.06
DZCT		8	501	-1164.50080	0.005	1.754
				0.007	0.003	0.55
GROUP: 0~PY-6SF.ASC,obs#: 176						
DXCT		MIRAGE	8	-11051.60050	-0.009	-1.135
				0.009	0.008	0.82
DYCT		MIRAGE	8	3228.43010	-0.007	-0.869
				0.009	0.008	0.62
DZCT		MIRAGE	8	114.19800	0.006	0.684
				0.009	0.008	0.49
GROUP: 0~RY-6SF.ASC,obs#: 177						
DXCT		5	1003	1778.65260	0.003	0.237
				0.013	0.012	0.18
DYCT		5	1003	9833.37160	0.011	0.935
				0.013	0.012	0.70
DZCT		5	1003	12779.37200	0.008	0.642
				0.013	0.012	0.48
GROUP: 0~RY-6SF.ASC,obs#: 178						

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		7	1003	1280.36740	-0.000	0.000*
				0.001	0.000	0.02
DYCT		7	1003	-367.89500	-0.000	-0.921
				0.001	0.000	0.08
DZCT		7	1003	-4.97280	-0.000	0.000*
				0.001	0.000	0.04
GROUP: 0~RY-6SF.ASC,obs#: 179						
DXCT		5	1004	-8482.97920	0.000	0.123
				0.007	0.003	0.04
DYCT		5	1004	2452.53560	-0.002	-0.750
				0.007	0.003	0.26
DZCT		5	1004	24.17970	-0.001	-0.448
				0.007	0.003	0.15
GROUP: 0~RY-6SF.ASC,obs#: 180						
DXCT		7	1004	-8981.26550	-0.001	-0.121
				0.013	0.012	0.08
DYCT		7	1004	-7748.75360	0.009	0.747
				0.014	0.012	0.51
DZCT		7	1004	-12760.17950	0.005	0.444
				0.014	0.012	0.30
GROUP: 0~RY-6SF.ASC,obs#: 181						
DXCT		5	103	2327.49200	-0.009	-1.535
				0.008	0.006	0.89
DYCT		5	103	5514.46780	-0.002	-0.364
				0.008	0.006	0.21
DZCT		5	103	7646.90020	-0.008	-1.342
				0.008	0.006	0.79
GROUP: 0~RY-6SF.ASC,obs#: 182						
DXCT		7	103	1829.19050	0.005	1.532
				0.006	0.003	0.66
DYCT		7	103	-4686.81340	0.001	0.346
				0.006	0.003	0.15
DZCT		7	103	-5137.46430	0.004	1.330
				0.006	0.003	0.59
GROUP: 0~RY-6SF.ASC,obs#: 183						
DXCT		5	104	-13142.37540	0.005	0.588
				0.012	0.008	0.30
DYCT		5	104	6713.81180	0.005	0.610
				0.012	0.008	0.31
DZCT		5	104	3797.40880	0.001	0.075
				0.012	0.008	0.04
GROUP: 0~RY-6SF.ASC,obs#: 184						
DXCT		7	104	-13640.65340	-0.006	-0.587
				0.013	0.009	0.33
DYCT		7	104	-3487.45570	-0.006	-0.610
				0.013	0.009	0.34
DZCT		7	104	-8986.94250	-0.001	-0.076
				0.013	0.009	0.04
GROUP: 0~RY-6SF.ASC,obs#: 185						
DXCT		5	105	11741.39830	0.001	0.070
				0.011	0.008	0.04
DYCT		5	105	2844.70800	-0.009	-1.128

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.011	0.008	0.61
DZCT		5	105	7676.73950	0.001	0.086
				0.011	0.008	0.05
GROUP: 0~RY-6SF.ASC,obs#: 186						
DXCT		7	105	11243.11130	-0.001	-0.072
				0.011	0.008	0.04
DYCT		7	105	-7356.58750	0.009	1.128
				0.011	0.008	0.61
DZCT		7	105	-5107.61180	-0.001	-0.083
				0.011	0.008	0.04
GROUP: 0~RY-6SF.ASC,obs#: 187						
DXCT		5	203	-1234.76270	0.005	0.860
				0.008	0.006	0.52
DYCT		5	203	6563.10690	-0.003	-0.564
				0.008	0.006	0.34
DZCT		5	203	7677.91320	0.008	1.220
				0.008	0.006	0.74
GROUP: 0~RY-6SF.ASC,obs#: 188						
DXCT		7	203	-1733.04330	-0.002	-0.856
				0.005	0.003	0.33
DYCT		7	203	-3638.17610	0.001	0.571
				0.005	0.003	0.22
DZCT		7	203	-5106.42870	-0.003	-1.223
				0.005	0.003	0.48
GROUP: 0~RY-6SF.ASC,obs#: 189						
DXCT		5	204	-15758.30850	0.005	0.532
				0.014	0.010	0.28
DYCT		5	204	7688.48350	0.004	0.395
				0.014	0.010	0.21
DZCT		5	204	4176.73850	-0.003	-0.273
				0.014	0.010	0.15
GROUP: 0~RY-6SF.ASC,obs#: 190						
DXCT		7	204	-16256.58610	-0.005	-0.532
				0.014	0.010	0.29
DYCT		7	204	-2512.78670	-0.004	-0.395
				0.014	0.010	0.22
DZCT		7	204	-8607.61950	0.003	0.273
				0.014	0.010	0.15
GROUP: 0~RY-6SF.ASC,obs#: 191						
DXCT		5	205	11278.32380	0.000	0.031
				0.010	0.006	0.02
DYCT		5	205	1651.75100	-0.007	-1.068
				0.010	0.006	0.53
DZCT		5	205	6038.39250	0.004	0.687
				0.010	0.006	0.34
GROUP: 0~RY-6SF.ASC,obs#: 192						
DXCT		7	205	10780.03610	-0.000	-0.022
				0.012	0.009	0.01
DYCT		7	205	-8549.54360	0.010	1.073
				0.012	0.009	0.64
DZCT		7	205	-6745.94950	-0.006	-0.696
				0.012	0.009	0.41

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 0~RY-6SF.ASC,obs#: 193						
DXCT		5	303	10223.65920	-0.003	-0.862
				0.008	0.004	0.31
DYCT		5	303	-2406.17190	0.003	0.922
				0.008	0.004	0.33
DZCT		5	303	640.93170	0.001	0.138
				0.008	0.004	0.05
GROUP: 0~RY-6SF.ASC,obs#: 194						
DXCT		7	303	9725.35620	0.012	0.864
				0.016	0.014	0.58
DYCT		7	303	-12607.43390	-0.013	-0.924
				0.016	0.014	0.63
DZCT		7	303	-12143.41850	-0.002	-0.139
				0.016	0.014	0.09
GROUP: 0~RY-6SF.ASC,obs#: 195						
DXCT		5	403	3172.74870	-0.012	-1.229
				0.011	0.010	0.87
DYCT		5	403	7841.45270	-0.002	-0.257
				0.011	0.010	0.18
DZCT		5	403	10815.71230	-0.006	-0.608
				0.011	0.010	0.43
GROUP: 0~RY-6SF.ASC,obs#: 196						
DXCT		7	403	2674.44740	0.001	1.252
				0.003	0.001	0.30
DYCT		7	403	-2359.82820	0.000	0.309
				0.004	0.001	0.09
DZCT		7	403	-1968.64690	0.001	0.586
				0.004	0.001	0.17
GROUP: 0~RY-6SF.ASC,obs#: 197						
DXCT		5	404	3840.93060	-0.000	-0.153
				0.003	0.001	0.03
DYCT		5	404	-1014.20840	0.002	2.183
				0.003	0.001	0.43
DZCT		5	404	105.18670	-0.000	-0.189
				0.003	0.001	0.04
GROUP: 0~RY-6SF.ASC,obs#: 198						
DXCT		7	404	3342.64010	0.002	0.181
				0.013	0.013	0.13
DYCT		7	404	-11215.45540	-0.029	-2.190
				0.014	0.013	1.70
DZCT		7	404	-12679.16710	0.001	0.081
				0.014	0.013	0.06
GROUP: 0~RY-6SF.ASC,obs#: 199						
DXCT		5	502	-5890.02620	0.003	0.417
				0.010	0.008	0.26
DYCT		5	502	8180.28210	-0.026	-3.201
				0.010	0.008	2.04
DZCT		5	502	8085.28710	0.003	0.411
				0.010	0.008	0.26
GROUP: 0~RY-6SF.ASC,obs#: 200						
DXCT		7	502	-6388.30950	-0.001	-0.433
				0.006	0.003	0.17

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		7	502	-2021.03270	0.010	3.199
				0.006	0.003	1.27
DZCT		7	502	-4699.06090	-0.001	-0.382
				0.006	0.003	0.15
GROUP: 0~RY-6SF.ASC,obs#: 201						
DXCT		5	503	3757.32730	0.001	0.858
				0.003	0.001	0.14
DYCT		5	503	-1079.97890	0.000	0.374
				0.003	0.001	0.06
DZCT		5	503	-5.05830	-0.001	-1.193
				0.003	0.001	0.20
GROUP: 0~RY-6SF.ASC,obs#: 202						
DXCT		7	503	3259.05060	-0.011	-0.851
				0.013	0.013	0.62
DYCT		7	503	-11281.25210	-0.005	-0.358
				0.014	0.013	0.26
DZCT		7	503	-12789.42680	0.015	1.185
				0.013	0.013	0.87
GROUP: 0~RY-6SF.ASC,obs#: 203						
DXCT		5	7	498.27770	0.010	0.853
				0.013	0.012	0.64
DYCT		5	7	10201.26060	0.017	1.432
				0.013	0.012	1.07
DZCT		5	7	12784.36030	-0.008	-0.632
				0.013	0.012	0.47
GROUP: 0~TY-6SF.ASC,obs#: 204						
DXCT		1	1005	-7214.32370	0.004	0.211
				0.021	0.019	0.15
DYCT		1	1005	17320.18630	0.013	0.661
				0.021	0.019	0.47
DZCT		1	1005	19081.53710	-0.026	-1.364
				0.021	0.019	0.97
GROUP: 0~TY-6SF.ASC,obs#: 205						
DXCT		5	1005	-4310.69600	-0.000	-0.211
				0.007	0.002	0.05
DYCT		5	1005	-3884.92330	-0.001	-0.661
				0.007	0.002	0.15
DZCT		5	1005	-6355.40360	0.003	1.364
				0.007	0.002	0.31
GROUP: 0~TY-6SF.ASC,obs#: 206						
DXCT		1	1006	-5356.81340	0.001	0.115
				0.012	0.008	0.06
DYCT		1	1006	10203.31510	0.005	0.616
				0.012	0.008	0.30
DZCT		1	1006	10857.19850	-0.001	-0.071
				0.012	0.008	0.03
GROUP: 0~TY-6SF.ASC,obs#: 207						
DXCT		5	1006	-2453.18810	-0.001	-0.111
				0.014	0.010	0.06
DYCT		5	1006	-11001.79720	-0.006	-0.615
				0.014	0.010	0.35
DZCT		5	1006	-14579.71470	0.001	0.066

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.014	0.010	0.04
GROUP: 0~TY-6SF.ASC,obs#: 208						
DXCT		1	106	-9408.00460	0.004	0.468
				0.014	0.009	0.24
DYCT		1	106	11198.73360	0.001	0.149
				0.014	0.009	0.08
DZCT		1	106	10658.82430	-0.002	-0.165
				0.014	0.009	0.09
GROUP: 0~TY-6SF.ASC,obs#: 209						
DXCT		5	106	-6504.37220	-0.005	-0.468
				0.015	0.010	0.25
DYCT		5	106	-10006.38700	-0.002	-0.149
				0.015	0.010	0.08
DZCT		5	106	-14778.09090	0.002	0.165
				0.015	0.010	0.09
GROUP: 0~TY-6SF.ASC,obs#: 210						
DXCT		1	107	1367.57490	0.010	0.528
				0.020	0.019	0.38
DYCT		1	107	16307.63070	-0.014	-0.734
				0.021	0.019	0.53
DZCT		1	107	20872.64210	-0.007	-0.377
				0.021	0.019	0.27
GROUP: 0~TY-6SF.ASC,obs#: 211						
DXCT		5	107	4271.20910	-0.001	-0.528
				0.006	0.002	0.11
DYCT		5	107	-4897.50810	0.001	0.732
				0.006	0.002	0.16
DZCT		5	107	-4564.27770	0.001	0.375
				0.006	0.002	0.08
GROUP: 0~TY-6SF.ASC,obs#: 212						
DXCT		1	304	-12253.37900	0.005	0.253
				0.023	0.021	0.18
DYCT		1	304	18776.84910	0.022	1.086
				0.023	0.021	0.76
DZCT		1	304	19100.49100	-0.020	-0.956
				0.023	0.021	0.67
GROUP: 0~TY-6SF.ASC,obs#: 213						
DXCT		5	304	-9349.74970	-0.001	-0.254
				0.009	0.003	0.07
DYCT		5	304	-2428.24850	-0.003	-1.087
				0.009	0.003	0.30
DZCT		5	304	-6336.44380	0.003	0.957
				0.009	0.003	0.26
GROUP: 0~TY-6SF.ASC,obs#: 214						
DXCT		1	305	-15164.34040	0.007	0.366
				0.022	0.019	0.24
DYCT		1	305	17906.72790	-0.004	-0.184
				0.022	0.019	0.12
DZCT		1	305	16971.84430	0.010	0.519
				0.022	0.019	0.35
GROUP: 0~TY-6SF.ASC,obs#: 215						
DXCT		5	305	-12260.70810	-0.002	-0.365

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.012	0.005	0.13
DYCT		5	305	-3298.40020	0.001	0.185
				0.012	0.005	0.07
DZCT		5	305	-8465.05480	-0.003	-0.520
				0.012	0.005	0.18
GROUP: 0~TY-6SF.ASC,obs#: 216						
DXCT		1	405	-15062.98560	-0.023	-1.056
				0.024	0.022	0.74
DYCT		1	405	19839.01460	0.050	2.241
				0.025	0.022	1.59
DZCT		1	405	19420.71920	-0.047	-2.111
				0.025	0.022	1.48
GROUP: 0~TY-6SF.ASC,obs#: 217						
DXCT		5	405	-12159.39000	0.004	1.080
				0.011	0.004	0.32
DYCT		5	405	-1366.04970	-0.009	-2.213
				0.011	0.004	0.66
DZCT		5	405	-6016.24810	0.008	2.077
				0.011	0.004	0.62
GROUP: 0~TY-6SF.ASC,obs#: 218						
DXCT		1	406	-865.16690	-0.004	-0.772
				0.011	0.006	0.33
DYCT		1	406	8468.16710	-0.011	-1.892
				0.011	0.006	0.83
DZCT		1	406	10294.89020	0.014	2.396
				0.011	0.006	1.02
GROUP: 0~TY-6SF.ASC,obs#: 219						
DXCT		5	406	2038.44280	0.009	0.736
				0.016	0.012	0.46
DYCT		5	406	-12736.99230	0.025	1.907
				0.016	0.013	1.25
DZCT		5	406	-15141.97740	-0.031	-2.405
				0.016	0.013	1.55
GROUP: 0~TY-6SF.ASC,obs#: 220						
DXCT		1	5	-2903.63310	0.010	0.392
				0.026	0.025	0.30
DYCT		1	5	21205.11720	0.006	0.252
				0.026	0.025	0.19
DZCT		1	5	25436.91630	-0.004	-0.173
				0.026	0.025	0.13
GROUP: 0~TY-6SF.ASC,obs#: 221						
DXCT		1	504	-20649.26970	0.012	0.522
				0.027	0.024	0.35
DYCT		1	504	21397.45550	0.009	0.383
				0.027	0.024	0.26
DZCT		1	504	19357.31380	-0.012	-0.485
				0.027	0.024	0.33
GROUP: 0~TY-6SF.ASC,obs#: 222						
DXCT		5	504	-17745.63050	-0.003	-0.523
				0.014	0.007	0.19
DYCT		5	504	192.34370	-0.003	-0.385
				0.015	0.007	0.14

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		5	504	-6079.61300	0.003	0.486
				0.015	0.007	0.17
GROUP: 0~TY-6SF.ASC,obs#: 223						
DXCT		1	505	-6444.71420	0.003	0.383
				0.013	0.008	0.19
DYCT		1	505	10431.93090	-0.006	-0.705
				0.013	0.008	0.35
DZCT		1	505	10752.51830	-0.000	-0.061
				0.013	0.008	0.03
GROUP: 0~TY-6SF.ASC,obs#: 224						
DXCT		5	505	-3541.08390	-0.004	-0.384
				0.014	0.010	0.21
DYCT		5	505	-10773.20570	0.007	0.706
				0.014	0.010	0.40
DZCT		5	505	-14684.39480	0.001	0.062
				0.014	0.010	0.03
GROUP: 0~WY-6SF.ASC,obs#: 225						
DXCT		6	1	-11072.26180	-0.009	-0.558
				0.016	0.015	0.41
DYCT		6	1	-9010.85460	-0.008	-0.545
				0.016	0.015	0.40
DZCT		6	1	-15229.82730	0.016	1.050
				0.016	0.015	0.78
GROUP: 0~WY-6SF.ASC,obs#: 226						
DXCT		1	1007	16953.96400	0.001	0.145
				0.013	0.009	0.07
DYCT		1	1007	-2811.95570	0.001	0.076
				0.014	0.009	0.04
DZCT		1	1007	2521.33400	-0.004	-0.481
				0.013	0.009	0.25
GROUP: 0~WY-6SF.ASC,obs#: 227						
DXCT		6	1007	5881.69630	-0.001	-0.145
				0.014	0.010	0.08
DYCT		6	1007	-11822.81730	-0.001	-0.075
				0.014	0.010	0.04
DZCT		6	1007	-12708.48620	0.005	0.481
				0.014	0.010	0.26
GROUP: 0~WY-6SF.ASC,obs#: 228						
DXCT		506	1008	6929.26350	0.000	0.161
				0.006	0.002	0.04
DYCT		506	1008	1158.93320	-0.001	-0.635
				0.006	0.002	0.18
DZCT		506	1008	3911.77410	-0.003	-1.106
				0.006	0.002	0.31
GROUP: 0~WY-6SF.ASC,obs#: 229						
DXCT		6	1008	13208.09190	-0.002	-0.161
				0.016	0.014	0.11
DYCT		6	1008	-11815.85910	0.010	0.661
				0.016	0.014	0.47
DZCT		6	1008	-10102.51790	0.016	1.120
				0.016	0.014	0.78
GROUP: 0~WY-6SF.ASC,obs#: 230						

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		1	108	14907.32380	-0.004	-0.501
				0.012	0.009	0.27
DYCT		1	108	-360.98390	-0.015	-1.691
				0.012	0.009	0.93
DZCT		1	108	4868.59550	0.024	2.767
				0.012	0.009	1.52
GROUP: 0~WY-6SF.ASC,obs#: 231						
DXCT		6	108	3835.04540	0.004	0.498
				0.011	0.007	0.25
DYCT		6	108	-9371.87400	0.012	1.684
				0.011	0.007	0.86
DZCT		6	108	-10361.17140	-0.020	-2.763
				0.011	0.007	1.40
GROUP: 0~WY-6SF.ASC,obs#: 232						
DXCT		1	206	10838.99370	0.013	0.874
				0.016	0.015	0.65
DYCT		1	206	8583.08940	0.021	1.384
				0.016	0.015	1.03
DZCT		1	206	14612.40820	-0.008	-0.507
				0.016	0.015	0.38
GROUP: 0~WY-6SF.ASC,obs#: 233						
DXCT		6	206	-233.26370	-0.000	0.000*
				0.001	0.000	0.04
DYCT		6	206	-427.75290	-0.000	0.000*
				0.001	0.000	0.08
DZCT		6	206	-617.41040	0.000	0.000*
				0.001	0.000	0.03
GROUP: 0~WY-6SF.ASC,obs#: 234						
DXCT		506	207	1487.82090	-0.000	-0.180
				0.001	0.000	0.01
DYCT		506	207	-900.18990	0.000	0.245
				0.002	0.000	0.02
DZCT		506	207	-602.54240	-0.000	-0.005
				0.001	0.000	0.00
GROUP: 0~WY-6SF.ASC,obs#: 235						
DXCT		6	207	7766.64370	0.003	0.183
				0.017	0.016	0.14
DYCT		6	207	-13874.96720	-0.004	-0.248
				0.017	0.016	0.19
DZCT		6	207	-14616.81580	-0.000	-0.006
				0.017	0.016	0.00
GROUP: 0~WY-6SF.ASC,obs#: 236						
DXCT		1	306	13068.98910	0.004	0.363
				0.013	0.012	0.25
DYCT		1	306	4297.49190	-0.003	-0.297
				0.013	0.012	0.20
DZCT		1	306	10049.69250	-0.008	-0.670
				0.013	0.012	0.45
GROUP: 0~WY-6SF.ASC,obs#: 237						
DXCT		6	306	1996.72360	-0.001	-0.363
				0.006	0.002	0.11
DYCT		6	306	-4713.37520	0.001	0.296

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.006	0.002	0.09
DZCT		6	306	-5180.12770	0.001	0.669
				0.006	0.002	0.19
GROUP: 0~WY-6SF.ASC,obs#: 238						
DXCT		506	307	5233.06840	0.000	0.174
				0.005	0.001	0.03
DYCT		506	307	-2463.16690	0.003	2.774
				0.005	0.001	0.50
DZCT		506	307	-1235.55930	-0.001	-1.280
				0.005	0.001	0.23
GROUP: 0~WY-6SF.ASC,obs#: 239						
DXCT		6	307	11511.89720	-0.003	-0.159
				0.019	0.018	0.12
DYCT		6	307	-15437.89530	-0.050	-2.767
				0.019	0.018	2.03
DZCT		6	307	-15249.85690	0.023	1.265
				0.019	0.018	0.93
GROUP: 0~WY-6SF.ASC,obs#: 240						
DXCT		506	308	3876.17730	-0.000	-0.149
				0.005	0.002	0.04
DYCT		506	308	2271.60940	-0.000	-0.071
				0.005	0.002	0.02
DZCT		506	308	4226.44110	0.000	0.066
				0.005	0.002	0.02
GROUP: 0~WY-6SF.ASC,obs#: 241						
DXCT		6	308	10155.00100	0.002	0.148
				0.014	0.012	0.10
DYCT		6	308	-10703.17290	0.001	0.069
				0.014	0.012	0.05
DZCT		6	308	-9787.83150	-0.001	-0.064
				0.014	0.012	0.04
GROUP: 0~WY-6SF.ASC,obs#: 242						
DXCT		1	407	12648.83500	0.003	0.337
				0.012	0.010	0.21
DYCT		1	407	2834.22690	-0.017	-1.660
				0.013	0.010	1.11
DZCT		1	407	8069.20990	0.019	1.825
				0.013	0.010	1.23
GROUP: 0~WY-6SF.ASC,obs#: 243						
DXCT		6	407	1576.56900	-0.001	-0.328
				0.007	0.004	0.13
DYCT		6	407	-6176.65880	0.006	1.540
				0.008	0.004	0.60
DZCT		6	407	-7160.57590	-0.006	-1.719
				0.008	0.004	0.67
GROUP: 0~WY-6SF.ASC,obs#: 244						
DXCT		1	408	15959.33390	0.012	1.443
				0.013	0.008	0.75
DYCT		1	408	-2189.21980	-0.002	-0.208
				0.013	0.009	0.11
DZCT		1	408	2950.44350	-0.003	-0.303
				0.013	0.009	0.16

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 0~WY-6SF.ASC,obs#: 245						
DXCT		6	408	4887.08940	-0.014	-1.443
				0.013	0.009	0.79
DYCT		6	408	-11200.08660	0.002	0.196
				0.014	0.010	0.11
DZCT		6	408	-12279.37310	0.003	0.313
				0.014	0.010	0.17
GROUP: 0~WY-6SF.ASC,obs#: 246						
DXCT		1	506	17351.07080	0.025	1.890
				0.014	0.013	1.42
DYCT		1	506	-3963.90700	-0.011	-0.835
				0.014	0.014	0.63
DZCT		1	506	1215.53710	0.000	0.032
				0.014	0.013	0.02
GROUP: 0~WY-6SF.ASC,obs#: 247						
DXCT		6	506	6278.81200	0.014	0.924
				0.016	0.015	0.68
DYCT		6	506	-12974.77710	-0.004	-0.283
				0.016	0.015	0.21
DZCT		6	506	-14014.28650	0.013	0.873
				0.016	0.015	0.65
GROUP: 0~WY-6SF.ASC,obs#: 248						
DXCT		6	506	6278.82670	-0.001	-0.064
				0.016	0.015	0.05
DYCT		6	506	-12974.76350	-0.018	-1.198
				0.016	0.015	0.89
DZCT		6	506	-14014.28460	0.011	0.746
				0.016	0.015	0.55
GROUP: 0~WY-6SF.ASC,obs#: 249						
DXCT		506	507	1710.22860	-0.014	-1.055
				0.015	0.014	0.73
DYCT		506	507	12023.92020	-0.030	-2.178
				0.016	0.014	1.52
DZCT		506	507	15656.37530	0.032	2.321
				0.015	0.014	1.61
GROUP: 0~WY-6SF.ASC,obs#: 250						
DXCT		6	507	7989.03750	0.002	1.048
				0.006	0.002	0.30
DYCT		6	507	-950.89630	0.005	2.165
				0.006	0.002	0.62
DZCT		6	507	1642.13920	-0.005	-2.310
				0.006	0.002	0.66
GROUP: 0~YY-6SF.ASC,obs#: 251						
DXCT		506	1009	20261.74700	-0.006	-0.397
				0.016	0.015	0.29
DYCT		506	1009	-2545.80960	-0.007	-0.467
				0.016	0.015	0.34
DZCT		506	1009	4003.89760	0.006	0.411
				0.016	0.015	0.30
GROUP: 0~YY-6SF.ASC,obs#: 252						
DXCT		3	1009	-2214.65040	0.000	0.406
				0.002	0.000	0.03

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		3	1009	616.13010	0.000	0.490
				0.002	0.000	0.04
DZCT		3	1009	-26.72690	-0.000	-0.435
				0.002	0.000	0.04
GROUP: 0~YY-6SF.ASC,obs#: 253						
DXCT		506	1010	25951.89360	-0.011	-0.531
				0.023	0.021	0.38
DYCT		506	1010	2820.90470	0.073	3.501
				0.023	0.021	2.49
DZCT		506	1010	13025.38420	-0.017	-0.847
				0.023	0.021	0.60
GROUP: 0~YY-6SF.ASC,obs#: 254						
DXCT		3	1010	3475.48970	0.002	0.530
				0.009	0.003	0.15
DYCT		3	1010	5982.93520	-0.011	-3.501
				0.009	0.003	0.97
DZCT		3	1010	8994.73320	0.003	0.849
				0.009	0.003	0.23
GROUP: 0~YY-6SF.ASC,obs#: 255						
DXCT		506	109	15121.55830	-0.008	-0.782
				0.012	0.010	0.51
DYCT		506	109	-1097.40560	-0.004	-0.366
				0.012	0.010	0.24
DZCT		506	109	3979.99070	-0.002	-0.239
				0.012	0.010	0.16
GROUP: 0~YY-6SF.ASC,obs#: 256						
DXCT		3	109	-7354.84280	0.002	0.781
				0.006	0.002	0.25
DYCT		3	109	2064.53670	0.001	0.364
				0.006	0.002	0.12
DZCT		3	109	-50.64320	0.001	0.240
				0.006	0.002	0.08
GROUP: 0~YY-6SF.ASC,obs#: 257						
DXCT		506	110	35395.54800	-0.001	-0.027
				0.034	0.029	0.02
DYCT		506	110	9925.23290	-0.005	-0.189
				0.034	0.029	0.12
DZCT		506	110	25234.07270	0.003	0.113
				0.034	0.029	0.07
GROUP: 0~YY-6SF.ASC,obs#: 258						
DXCT		3	110	12919.15560	0.000	0.027
				0.022	0.011	0.01
DYCT		3	110	13087.17220	0.002	0.189
				0.022	0.012	0.08
DZCT		3	110	21203.44640	-0.001	-0.114
				0.022	0.011	0.05
GROUP: 0~YY-6SF.ASC,obs#: 259						
DXCT		506	208	17434.21110	0.001	0.044
				0.014	0.012	0.03
DYCT		506	208	-1817.52130	0.000	0.032
				0.014	0.013	0.02
DZCT		506	208	3905.73520	0.005	0.378

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
				0.014	0.013	0.27
GROUP: 0~YY-6SF.ASC,obs#: 260						
DXCT		3	208	-5042.17960	-0.000	-0.044
				0.004	0.001	0.01
DYCT		3	208	1344.42610	-0.000	-0.031
				0.004	0.001	0.01
DZCT		3	208	-124.89050	-0.000	-0.378
				0.004	0.001	0.08
GROUP: 0~YY-6SF.ASC,obs#: 261						
DXCT		506	209	18681.58750	0.006	0.384
				0.020	0.017	0.24
DYCT		506	209	8139.91240	0.004	0.222
				0.020	0.017	0.14
DZCT		506	209	16788.15860	0.003	0.178
				0.020	0.017	0.11
GROUP: 0~YY-6SF.ASC,obs#: 262						
DXCT		3	209	-3794.79460	-0.003	-0.384
				0.013	0.007	0.16
DYCT		3	209	11301.86470	-0.002	-0.222
				0.014	0.007	0.09
DZCT		3	209	12757.53200	-0.001	-0.178
				0.014	0.007	0.07
GROUP: 0~YY-6SF.ASC,obs#: 263						
DXCT		506	210	22486.06020	-0.011	-0.649
				0.018	0.017	0.48
DYCT		506	210	-3161.52130	0.000	0.008
				0.018	0.017	0.01
DZCT		506	210	4034.67470	-0.003	-0.164
				0.018	0.017	0.12
GROUP: 0~YY-6SF.ASC,obs#: 264						
DXCT		3	210	9.65780	0.000	0.000*
				0.000	0.000	0.28
DYCT		3	210	0.42580	0.000	0.000*
				0.001	0.000	0.25
DZCT		3	210	4.04100	-0.000	0.000*
				0.000	0.000	0.09
GROUP: 0~YY-6SF.ASC,obs#: 265						
DXCT		506	3	22476.39090	0.000	0.023
				0.018	0.017	0.02
DYCT		506	3	-3161.95160	0.005	0.271
				0.018	0.017	0.20
DZCT		506	3	4030.63040	0.000	0.028
				0.018	0.017	0.02
GROUP: 0~YY-6SF.ASC,obs#: 266						
DXCT		506	309	25120.01160	0.010	0.482
				0.024	0.021	0.32
DYCT		506	309	6224.33980	-0.008	-0.402
				0.024	0.021	0.27
DZCT		506	309	16718.95410	0.018	0.844
				0.024	0.021	0.57
GROUP: 0~YY-6SF.ASC,obs#: 267						
DXCT		3	309	2643.63300	-0.003	-0.480

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.012	0.006	0.17
DYCT		3	309	9386.27610	0.002	0.406
				0.012	0.006	0.14
DZCT		3	309	12688.34550	-0.005	-0.845
				0.012	0.006	0.30
GROUP: 0~YY-6SF.ASC,obs#: 268						
DXCT		506	508	33964.43870	0.002	0.072
				0.032	0.029	0.05
DYCT		506	508	8574.89060	-0.004	-0.120
				0.032	0.030	0.08
DZCT		506	508	22955.39580	-0.010	-0.341
				0.032	0.029	0.24
GROUP: 0~YY-6SF.ASC,obs#: 269						
DXCT		3	508	11488.04210	0.007	0.506
				0.019	0.015	0.30
DYCT		3	508	11736.84230	-0.008	-0.563
				0.019	0.015	0.33
DZCT		3	508	18924.75230	0.003	0.174
				0.019	0.015	0.10
GROUP: 083111.ASC ,obs#: 270						
DXCT		J65	1	-34460.93540	-0.019	-0.499
				0.039	0.039	0.38
DYCT		J65	1	28948.97780	0.026	0.673
				0.039	0.039	0.51
DZCT		J65	1	24187.79010	0.016	0.412
				0.039	0.039	0.31
GROUP: 083111.ASC ,obs#: 271						
DXCT		ANTONITO	1	3804.80420	0.012	0.376
				0.034	0.033	0.29
DYCT		ANTONITO	1	26353.86170	0.053	1.582
				0.034	0.033	1.21
DZCT		ANTONITO	1	34525.91840	-0.009	-0.257
				0.034	0.033	0.20
GROUP: 083111.ASC ,obs#: 272						
DXCT		J65	2	-27364.59530	0.015	0.642
				0.023	0.023	0.48
DYCT		J65	2	12039.92090	0.023	1.022
				0.024	0.023	0.77
DZCT		J65	2	5450.76840	-0.027	-1.174
				0.024	0.023	0.88
GROUP: 083111.ASC ,obs#: 273						
DXCT		ANTONITO	2	10901.17740	0.013	0.838
				0.017	0.016	0.62
DYCT		ANTONITO	2	9444.82360	0.031	1.925
				0.017	0.016	1.45
DZCT		ANTONITO	2	15788.89140	-0.046	-2.871
				0.017	0.016	2.15
GROUP: 083111.ASC ,obs#: 274						
DXCT		J65	ANTONITO	-38265.75290	-0.019	-0.621
				0.031	0.030	0.47
DYCT		J65	ANTONITO	2595.10760	-0.018	-0.602
				0.031	0.030	0.45

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		J65	ANTONITO	-10338.12750	0.024	0.794
				0.031	0.030	0.60
GROUP: 090111.ASC ,obs#: 275						
DXCT		3	1	-39827.48150	-0.006	-0.193
				0.031	0.031	0.15
DYCT		3	1	7125.87680	-0.012	-0.372
				0.031	0.031	0.28
DZCT		3	1	-5246.19300	0.025	0.791
				0.031	0.031	0.60
GROUP: 090111.ASC ,obs#: 276						
DXCT		1	4	25779.74530	0.001	0.055
				0.026	0.025	0.04
DYCT		1	4	-17347.34880	-0.011	-0.425
				0.026	0.025	0.31
DZCT		1	4	-12646.56620	-0.013	-0.546
				0.026	0.025	0.40
GROUP: 090111.ASC ,obs#: 277						
DXCT		3	4	-14047.74650	0.006	0.332
				0.019	0.017	0.23
DYCT		3	4	-10221.48820	-0.006	-0.339
				0.019	0.017	0.24
DZCT		3	4	-17892.75030	0.002	0.130
				0.019	0.017	0.09
GROUP: 090111.ASC ,obs#: 278						
DXCT		3	5	-42731.12130	0.011	0.250
				0.043	0.042	0.19
DYCT		3	5	28331.00090	-0.012	-0.288
				0.043	0.042	0.22
DZCT		3	5	20190.73260	0.011	0.260
				0.043	0.042	0.20
GROUP: 090111.ASC ,obs#: 279						
DXCT		5	6	13975.91050	-0.017	-1.116
				0.016	0.015	0.79
DYCT		5	6	-12194.27120	0.011	0.709
				0.016	0.015	0.51
DZCT		5	6	-10207.09500	-0.006	-0.394
				0.016	0.015	0.28
GROUP: 090111.ASC ,obs#: 280						
DXCT		3	6	-28755.21070	-0.006	-0.246
				0.027	0.026	0.18
DYCT		3	6	16136.73750	-0.009	-0.355
				0.027	0.026	0.27
DZCT		3	6	9983.62680	0.016	0.610
				0.027	0.026	0.46
GROUP: 090111.ASC ,obs#: 281						
DXCT		1	K75	51602.19210	0.021	0.496
				0.042	0.042	0.38
DYCT		1	K75	-16835.60530	0.020	0.483
				0.042	0.042	0.37
DZCT		1	K75	-2720.18050	-0.036	-0.860
				0.042	0.042	0.66
GROUP: 090111.ASC ,obs#: 282						

Residuals (critical value = 4.160):

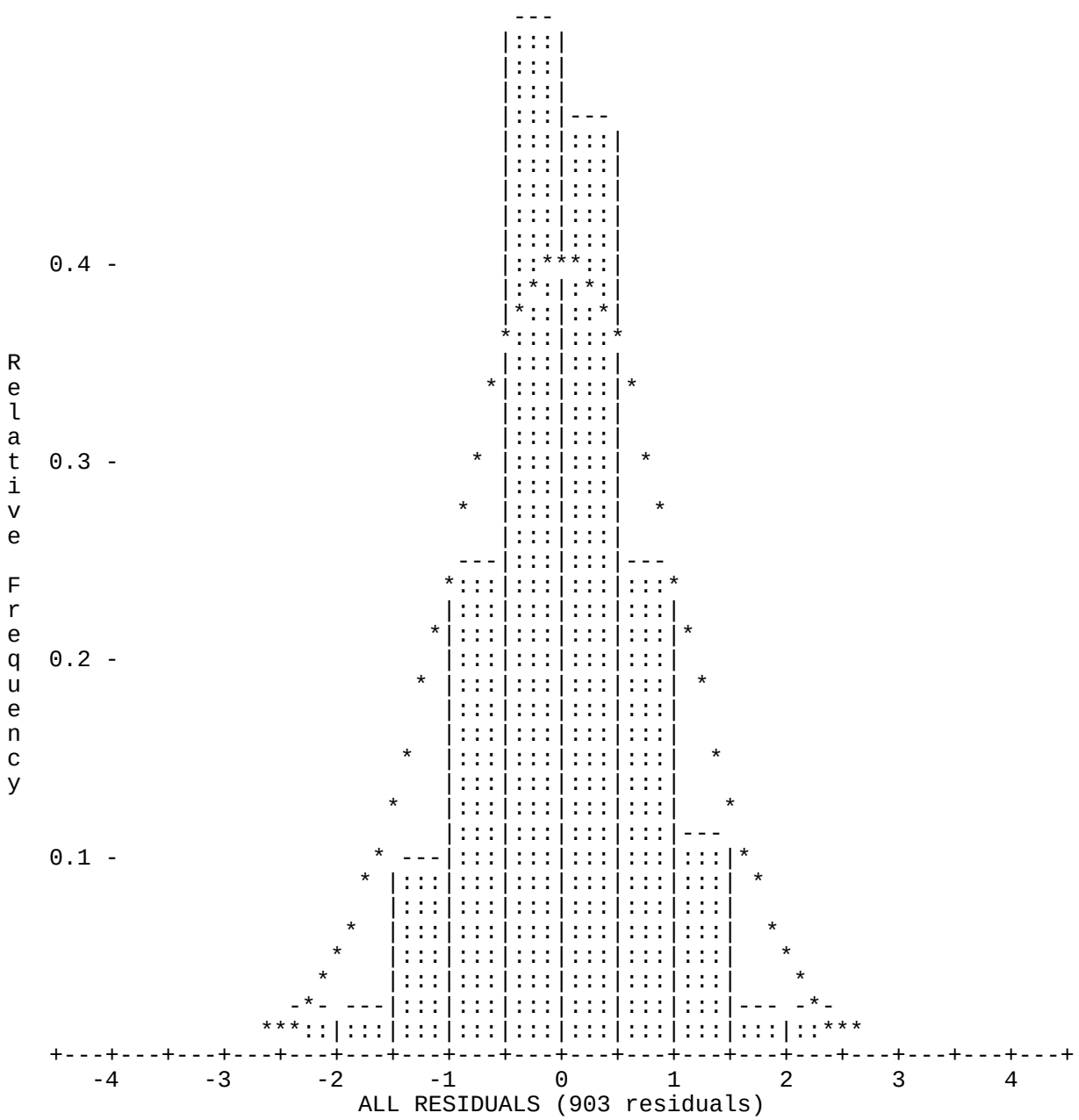
TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		3	K75	11774.71760	0.008	0.588
				0.013	0.013	0.44
DYCT		3	K75	-9709.71540	-0.005	-0.348
				0.013	0.013	0.26
DZCT		3	K75	-7966.38080	-0.004	-0.301
				0.013	0.013	0.23
GROUP: 090111.ASC ,obs#: 283						
DXCT		5	R33	23245.87460	0.011	0.618
				0.019	0.018	0.45
DYCT		5	R33	-7552.92560	-0.004	-0.200
				0.019	0.018	0.15
DZCT		5	R33	-1148.47060	0.002	0.102
				0.019	0.018	0.08
GROUP: 090111.ASC ,obs#: 284						
DXCT		3	R33	-19485.25040	0.025	0.965
				0.026	0.026	0.74
DYCT		3	R33	20778.07060	-0.011	-0.420
				0.026	0.026	0.32
DZCT		3	R33	19042.27600	-0.001	-0.046
				0.026	0.026	0.04
GROUP: 090211.ASC ,obs#: 285						
DXCT		R33	5	-23245.87340	-0.012	-0.685
				0.019	0.018	0.50
DYCT		R33	5	7552.94070	-0.011	-0.637
				0.019	0.018	0.47
DZCT		R33	5	1148.45610	0.013	0.703
				0.019	0.018	0.52
GROUP: 090211.ASC ,obs#: 286						
DXCT		R33	7	-22747.58800	-0.010	-0.403
				0.025	0.024	0.30
DYCT		R33	7	17754.22960	-0.022	-0.934
				0.025	0.024	0.70
DZCT		R33	7	13932.79280	0.029	1.196
				0.025	0.024	0.89
GROUP: 090211.ASC ,obs#: 287						
DXCT		5	7	498.28870	-0.001	-0.050
				0.013	0.012	0.04
DYCT		5	7	10201.25650	0.022	1.750
				0.013	0.012	1.32
DZCT		5	7	12784.34470	0.008	0.646
				0.013	0.012	0.48
GROUP: 090211.ASC ,obs#: 288						
DXCT		R33	8	-7636.11410	0.004	0.129
				0.033	0.033	0.10
DYCT		R33	8	28143.89750	0.030	0.887
				0.034	0.033	0.68
DZCT		R33	8	32113.35870	-0.010	-0.299
				0.034	0.033	0.23
GROUP: 090211.ASC ,obs#: 289						
DXCT		5	8	15609.78620	-0.010	-0.338
				0.031	0.030	0.26
DYCT		5	8	20591.01710	-0.019	-0.630

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.031	0.031	0.48
DZCT		5	8	30964.87810	0.002	0.062
				0.031	0.030	0.05
GROUP: 090211.ASC ,obs#: 290						
DXCT		R33	9	2149.80810	-0.015	-0.846
				0.020	0.018	0.61
DYCT		R33	9	15537.79280	-0.021	-1.165
				0.020	0.018	0.85
DZCT		R33	9	19986.30930	0.014	0.770
				0.020	0.018	0.56
GROUP: 090211.ASC ,obs#: 291						
DXCT		5	9	25395.67300	0.005	0.225
				0.025	0.024	0.16
DYCT		5	9	7984.83910	0.003	0.127
				0.025	0.024	0.09
DZCT		5	9	18837.86730	-0.013	-0.534
				0.025	0.024	0.39
GROUP: 090211.ASC ,obs#: 292						
DXCT		R33	MIRAGE	3415.49670	0.003	0.108
				0.031	0.031	0.08
DYCT		R33	MIRAGE	24915.50250	0.002	0.053
				0.031	0.031	0.04
DZCT		R33	MIRAGE	31999.11090	0.034	1.087
				0.031	0.031	0.84
GROUP: 090211.ASC ,obs#: 293						
DXCT		5	MIRAGE	26661.38040	0.005	0.160
				0.034	0.034	0.12
DYCT		5	MIRAGE	17362.59530	-0.020	-0.603
				0.034	0.034	0.46
DZCT		5	MIRAGE	30850.63150	0.045	1.328
				0.034	0.034	1.01
GROUP: 090211.ASC ,obs#: 294						
DXCT		R33	T163	-43140.11430	-0.003	-0.086
				0.034	0.034	0.07
DYCT		R33	T163	8396.98020	-0.036	-1.042
				0.034	0.034	0.80
DZCT		R33	T163	-4893.69640	0.040	1.181
				0.034	0.034	0.91
GROUP: 090211.ASC ,obs#: 295						
DXCT		5	T163	-19894.24330	0.012	0.785
				0.016	0.015	0.56
DYCT		5	T163	844.02080	-0.005	-0.357
				0.016	0.015	0.26
DZCT		5	T163	-6042.12800	0.003	0.211
				0.016	0.015	0.15
GROUP: 090211.ASC ,obs#: 296						
DXCT		R33	Z269	-21243.40720	0.004	0.131
				0.040	0.031	0.08
DYCT		R33	Z269	33161.36910	0.041	1.130
				0.040	0.036	0.79
DZCT		R33	Z269	33532.65540	-0.022	-0.644
				0.040	0.035	0.43

Residuals (critical value = 4.160):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 090211.ASC ,obs#: 297						
DXCT		5	Z269	2002.46590	0.017	0.815
				0.032	0.021	0.40
DYCT		5	Z269	25608.44070	0.040	1.487
				0.032	0.027	0.97
DZCT		5	Z269	32384.20440	-0.040	-1.610
				0.032	0.025	0.97
GROUP: 092411.ASC ,obs#: 298						
DXCT		ALS B	5	-18890.15250	-0.006	-0.190
				0.033	0.032	0.14
DYCT		ALS B	5	27041.77530	0.016	0.497
				0.033	0.032	0.38
DZCT		ALS B	5	27061.08210	-0.007	-0.206
				0.033	0.032	0.16
GROUP: 092411.ASC ,obs#: 299						
DXCT		ALS B	8	-3280.37720	-0.006	-0.096
				0.058	0.058	0.07
DYCT		ALS B	8	47632.78410	0.005	0.090
				0.058	0.058	0.07
DZCT		ALS B	8	58025.96810	-0.013	-0.219
				0.058	0.058	0.17
GROUP: 092711.ASC ,obs#: 300						
DXCT		3	508	11488.05770	-0.008	-0.558
				0.019	0.015	0.33
DYCT		3	508	11736.82450	0.010	0.650
				0.019	0.015	0.38
DZCT		3	508	18924.75380	0.001	0.072
				0.019	0.015	0.04
GROUP: 092711.ASC ,obs#: 301						
DXCT		5	8	15609.79140	-0.015	-0.509
				0.031	0.030	0.38
DYCT		5	8	20591.02040	-0.023	-0.739
				0.031	0.030	0.56
DZCT		5	8	30964.86950	0.010	0.344
				0.031	0.030	0.26


Relative Frequency
0.4
0.3
0.2
0.1
-4
-3
-2
-1
0
1
2
3
4
ALL RESIDUALS (903 residuals)

S T A T I S T I C S S U M M A R Y

Residual Critical Value Type	Tau Max
Residual Critical Value	4.1603
Number of Flagged Residuals	8
Convergence Criterion	0.0010
Final Iteration Counter Value	2
Confidence Level Used	95.0000
Estimated Variance Factor	1.0000
Number of Degrees of Freedom	485

Chi-Square Test on the Variance Factor:

8.8519e-01 < 1.0000 < 1.1389e+00 ?

THE TEST PASSES

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

Variance factor used = 1.0000
3-D expansion factor = 2.7955

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.

3D Station Confidence Regions (95.000 percent):

STATION	MAJ-SEMI	(AZ,VANG)	MED-SEMI	(AZ,VANG)	MIN-SEMI	(AZ,VANG)
1	0.016	(0, 0)	0.016	(90, 0)	0.012	(0, 90)
10	0.040	(0, 90)	0.040	(0, 0)	0.039	(90, 0)
100	0.040	(0, 90)	0.040	(0, 0)	0.039	(90, 0)
1000	0.025	(0, 90)	0.025	(0, 0)	0.025	(90, 0)
1001	0.019	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
1002	0.013	(0, 90)	0.013	(0, 0)	0.013	(90, 0)
1003	0.019	(0, 0)	0.019	(90, 0)	0.018	(0, 90)
1004	0.024	(0, 0)	0.024	(90, 0)	0.023	(0, 90)
1005	0.024	(0, 0)	0.024	(90, 0)	0.023	(0, 90)
1006	0.030	(90, 0)	0.030	(0, 0)	0.029	(0, 90)
1007	0.032	(0, 0)	0.032	(90, 0)	0.030	(0, 90)
1008	0.022	(90, 0)	0.022	(0, 0)	0.021	(0, 90)
1009	0.010	(0, 0)	0.010	(90, 0)	0.010	(0, 90)
101	0.020	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
1010	0.024	(0, 90)	0.024	(90, 0)	0.024	(0, 0)
1011	0.018	(0, 90)	0.018	(0, 0)	0.018	(90, 0)
1012	0.029	(0, 0)	0.029	(90, 0)	0.025	(0, 90)
1013	0.029	(0, 0)	0.029	(90, 0)	0.024	(0, 90)
1014	0.031	(90, 0)	0.031	(0, 0)	0.027	(0, 90)
1015	0.025	(0, 0)	0.025	(90, 0)	0.023	(0, 90)
1016	0.016	(0, 0)	0.016	(90, 0)	0.013	(0, 90)
1017	0.023	(0, 0)	0.023	(90, 0)	0.021	(0, 90)
1018	0.031	(0, 0)	0.031	(90, 0)	0.027	(0, 90)
1019	0.026	(90, 0)	0.026	(0, 0)	0.021	(0, 90)
102	0.015	(0, 90)	0.014	(0, 0)	0.014	(90, 0)
1020	0.024	(0, 0)	0.024	(90, 0)	0.006	(0, 90)
103	0.021	(0, 0)	0.021	(90, 0)	0.021	(0, 90)
104	0.030	(0, 0)	0.030	(90, 0)	0.029	(0, 90)
105	0.028	(0, 0)	0.028	(90, 0)	0.027	(0, 90)
106	0.032	(0, 0)	0.032	(90, 0)	0.031	(0, 90)
107	0.023	(0, 0)	0.023	(90, 0)	0.022	(0, 90)
108	0.028	(0, 0)	0.028	(90, 0)	0.027	(0, 90)
109	0.017	(0, 0)	0.017	(90, 0)	0.017	(0, 90)
110	0.052	(0, 90)	0.052	(0, 0)	0.052	(90, 0)
111	0.014	(0, 90)	0.014	(0, 0)	0.014	(90, 0)
112	0.017	(0, 90)	0.017	(90, 0)	0.017	(0, 0)
113	0.030	(0, 0)	0.030	(90, 0)	0.025	(0, 90)
114	0.024	(0, 0)	0.024	(90, 0)	0.019	(0, 90)
115	0.032	(0, 0)	0.032	(90, 0)	0.027	(0, 90)
116	0.021	(0, 0)	0.021	(90, 0)	0.018	(0, 90)
117	0.022	(0, 0)	0.022	(90, 0)	0.020	(0, 90)
118	0.027	(0, 0)	0.027	(90, 0)	0.023	(0, 90)
119	0.028	(0, 0)	0.028	(90, 0)	0.024	(0, 90)
120	0.026	(0, 0)	0.026	(90, 0)	0.012	(0, 90)
121	0.020	(0, 90)	0.020	(0, 0)	0.020	(90, 0)
2	0.020	(0, 0)	0.020	(90, 0)	0.011	(0, 90)
200	0.020	(0, 90)	0.020	(0, 0)	0.020	(90, 0)
201	0.020	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
202	0.013	(0, 90)	0.013	(0, 0)	0.013	(90, 0)
203	0.021	(0, 0)	0.021	(90, 0)	0.020	(0, 90)
204	0.033	(0, 0)	0.033	(90, 0)	0.032	(0, 90)
205	0.027	(90, 0)	0.027	(0, 0)	0.027	(0, 90)
206	0.019	(0, 0)	0.019	(90, 0)	0.016	(0, 90)

3D Station Confidence Regions (95.000 percent):

STATION	MAJ-SEMI	(AZ,VANG)	MED-SEMI	(AZ,VANG)	MIN-SEMI	(AZ,VANG)
207	0.016	(0, 0)	0.016	(90, 0)	0.014	(0, 90)
208	0.014	(0, 0)	0.014	(90, 0)	0.014	(0, 90)
209	0.033	(0, 0)	0.033	(90, 0)	0.033	(0, 90)
210	0.009	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
211	0.006	(0, 90)	0.006	(0, 0)	0.006	(90, 0)
212	0.014	(0, 90)	0.014	(0, 0)	0.014	(90, 0)
213	0.028	(0, 0)	0.028	(90, 0)	0.024	(0, 90)
214	0.027	(0, 0)	0.027	(90, 0)	0.021	(0, 90)
215	0.019	(0, 0)	0.019	(90, 0)	0.016	(0, 90)
216	0.022	(90, 0)	0.022	(0, 0)	0.020	(0, 90)
217	0.022	(0, 0)	0.022	(90, 0)	0.021	(0, 90)
218	0.027	(0, 0)	0.027	(90, 0)	0.023	(0, 90)
219	0.026	(0, 0)	0.026	(90, 0)	0.012	(0, 90)
220	0.027	(0, 0)	0.027	(90, 0)	0.018	(0, 90)
3	0.009	(0, 0)	0.009	(90, 0)	0.009	(0, 90)
300	0.027	(0, 90)	0.027	(0, 0)	0.027	(90, 0)
301	0.019	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
302	0.015	(147, 66)	0.009	(266, 12)	0.009	(0, 20)
303	0.026	(90, 0)	0.026	(0, 0)	0.026	(0, 90)
304	0.028	(0, 0)	0.028	(90, 0)	0.027	(0, 90)
305	0.033	(0, 0)	0.033	(90, 0)	0.032	(0, 90)
306	0.023	(0, 0)	0.023	(90, 0)	0.021	(0, 90)
307	0.020	(0, 0)	0.020	(90, 0)	0.018	(0, 90)
308	0.020	(0, 0)	0.020	(90, 0)	0.018	(0, 90)
309	0.032	(0, 0)	0.032	(0, 90)	0.032	(90, 0)
310	0.001	(0, 90)	0.001	(0, 0)	0.001	(90, 0)
311	0.016	(0, 90)	0.016	(0, 0)	0.016	(90, 0)
312	0.016	(0, 90)	0.015	(0, 0)	0.015	(90, 0)
313	0.028	(0, 0)	0.028	(90, 0)	0.024	(0, 90)
314	0.033	(0, 0)	0.033	(90, 0)	0.029	(0, 90)
315	0.031	(0, 0)	0.031	(90, 0)	0.027	(0, 90)
316	0.019	(0, 0)	0.019	(90, 0)	0.016	(0, 90)
317	0.027	(0, 0)	0.027	(90, 0)	0.024	(0, 90)
318	0.026	(0, 0)	0.026	(90, 0)	0.021	(0, 90)
319	0.027	(0, 0)	0.027	(90, 0)	0.021	(0, 90)
320	0.028	(0, 0)	0.028	(90, 0)	0.020	(0, 90)
4	0.026	(0, 0)	0.026	(90, 0)	0.022	(0, 90)
400	0.032	(76, 64)	0.019	(177, 5)	0.018	(270, 26)
401	0.013	(0, 90)	0.013	(0, 0)	0.013	(90, 0)
402	0.013	(0, 90)	0.013	(0, 0)	0.012	(90, 0)
403	0.021	(0, 0)	0.020	(90, 0)	0.020	(0, 90)
404	0.019	(0, 0)	0.019	(90, 0)	0.018	(0, 90)
405	0.031	(0, 0)	0.031	(90, 0)	0.031	(0, 90)
406	0.029	(270, 55)	0.028	(0, 0)	0.028	(90, 35)
407	0.025	(0, 0)	0.025	(90, 0)	0.023	(0, 90)
408	0.031	(87, 11)	0.031	(180, 14)	0.030	(319, 72)
409	0.008	(0, 90)	0.006	(90, 0)	0.006	(0, 0)
410	0.013	(180, 68)	0.012	(0, 22)	0.012	(90, 0)
411	0.025	(0, 0)	0.025	(90, 0)	0.020	(0, 90)
412	0.021	(0, 0)	0.021	(90, 0)	0.014	(0, 90)
413	0.024	(0, 0)	0.024	(90, 0)	0.018	(0, 90)
414	0.017	(0, 0)	0.017	(90, 0)	0.014	(0, 90)
415	0.020	(0, 0)	0.020	(90, 0)	0.018	(0, 90)

3D Station Confidence Regions (95.000 percent):

STATION	MAJ-SEMI	(AZ,VANG)	MED-SEMI	(AZ,VANG)	MIN-SEMI	(AZ,VANG)
416	0.022	(0, 0)	0.021	(90, 0)	0.019	(0, 90)
417	0.020	(0, 0)	0.020	(90, 0)	0.011	(0, 90)
418	0.033	(0, 0)	0.033	(90, 0)	0.030	(0, 90)
419	0.029	(237, 34)	0.027	(146, 1)	0.026	(55, 56)
420	0.024	(0, 0)	0.024	(90, 0)	0.004	(0, 90)
421	0.027	(0, 0)	0.027	(90, 0)	0.017	(0, 90)
5	0.017	(0, 0)	0.016	(90, 0)	0.015	(0, 90)
500	0.021	(0, 90)	0.021	(0, 0)	0.021	(90, 0)
501	0.019	(0, 90)	0.018	(0, 0)	0.018	(90, 0)
502	0.023	(0, 0)	0.023	(90, 0)	0.022	(0, 90)
503	0.018	(0, 0)	0.018	(90, 0)	0.017	(0, 90)
504	0.039	(0, 0)	0.039	(90, 0)	0.038	(0, 90)
505	0.030	(0, 0)	0.030	(90, 0)	0.029	(0, 90)
506	0.016	(0, 0)	0.015	(90, 0)	0.013	(0, 90)
507	0.024	(0, 0)	0.024	(90, 0)	0.023	(0, 90)
508	0.036	(0, 0)	0.036	(90, 0)	0.036	(0, 90)
509	0.003	(0, 90)	0.002	(0, 0)	0.002	(90, 0)
510	0.013	(0, 90)	0.012	(0, 0)	0.012	(90, 0)
511	0.043	(0, 0)	0.043	(90, 0)	0.041	(0, 90)
512	0.026	(0, 0)	0.026	(90, 0)	0.021	(0, 90)
513	0.021	(0, 0)	0.020	(90, 0)	0.012	(0, 90)
514	0.026	(0, 0)	0.026	(90, 0)	0.020	(0, 90)
515	0.019	(0, 0)	0.019	(90, 0)	0.017	(0, 90)
516	0.022	(0, 0)	0.022	(90, 0)	0.014	(0, 90)
517	0.033	(0, 0)	0.033	(90, 0)	0.030	(0, 90)
518	0.029	(0, 0)	0.028	(90, 0)	0.017	(0, 90)
519	0.024	(0, 0)	0.024	(90, 0)	0.002	(0, 90)
6	0.019	(0, 0)	0.019	(90, 0)	0.016	(0, 90)
7	0.019	(0, 0)	0.019	(90, 0)	0.018	(0, 90)
8	0.009	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
9	0.020	(0, 90)	0.020	(0, 0)	0.020	(90, 0)
ANTONITO	0.024	(0, 0)	0.023	(90, 0)	0.000	(0, 90)
J65	0.024	(0, 0)	0.024	(90, 0)	0.019	(0, 90)
Z269	0.070	(0, 0)	0.070	(90, 0)	0.000	(0, 90)

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
1	1005	0.022 (0, 0)	0.022 (90, 0)	0.022 (0, 90)	26760.788	0.83
1	1006	0.027 (0, 90)	0.027 (90, 0)	0.027 (0, 0)	15832.938	1.71
1	1007	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	17369.546	1.62
1	1015	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	9810.567	2.04
1	1016	0.004 (0, 90)	0.004 (0, 0)	0.004 (90, 0)	1681.402	2.38
1	1017	0.018 (0, 90)	0.018 (90, 0)	0.018 (0, 0)	11788.418	1.56
1	1018	0.026 (0, 0)	0.026 (90, 0)	0.026 (0, 90)	19622.136	1.34
1	1019	0.021 (90, 0)	0.021 (0, 0)	0.021 (0, 90)	17294.470	1.20
1	106	0.029 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	18097.863	1.62
1	107	0.021 (0, 0)	0.021 (90, 0)	0.021 (0, 90)	26523.113	0.81
1	108	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	15686.362	1.54
1	116	0.014 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	6508.201	2.08
1	117	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	11655.002	1.45
1	118	0.022 (0, 0)	0.022 (90, 0)	0.021 (0, 90)	15073.714	1.43
1	119	0.023 (0, 0)	0.023 (90, 0)	0.023 (0, 90)	21656.891	1.08
1	2	0.013 (0, 0)	0.013 (90, 0)	0.011 (0, 90)	26217.407	0.48
1	206	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	20116.563	0.63
1	215	0.011 (0, 90)	0.011 (0, 0)	0.010 (90, 0)	4967.259	2.13
1	216	0.016 (0, 90)	0.016 (90, 0)	0.016 (0, 0)	8411.680	1.92
1	217	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	16721.531	1.07
1	218	0.022 (0, 0)	0.022 (90, 0)	0.022 (0, 90)	19522.635	1.15
1	3	0.015 (0, 0)	0.015 (90, 0)	0.013 (0, 90)	40798.640	0.37
1	304	0.027 (0, 0)	0.027 (90, 0)	0.026 (0, 90)	29454.101	0.90
1	305	0.031 (0, 90)	0.031 (0, 0)	0.031 (90, 0)	28959.482	1.09
1	306	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	17037.111	1.06
1	316	0.010 (0, 90)	0.010 (0, 0)	0.010 (90, 0)	4889.212	2.14

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
1	317	0.022 (0, 0)	0.022 (90, 0)	0.022 (0, 90)	14693.648	1.52
1	318	0.020 (0, 0)	0.020 (90, 0)	0.020 (0, 90)	17033.283	1.19
1	319	0.022 (0, 0)	0.022 (90, 0)	0.021 (0, 90)	25752.766	0.84
1	4	0.023 (0, 0)	0.023 (90, 0)	0.022 (0, 90)	33547.909	0.67
1	405	0.030 (0, 90)	0.030 (0, 0)	0.030 (90, 0)	31585.523	0.95
1	406	0.027 (251, 77)	0.025 (90, 12)	0.025 (359, 4)	13358.265	2.00
1	407	0.021 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	15268.867	1.36
1	408	0.028 (136, 73)	0.026 (267, 11)	0.026 (0, 12)	16376.768	1.68
1	414	0.006 (0, 90)	0.006 (0, 0)	0.005 (90, 0)	2306.219	2.72
1	415	0.014 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	11311.079	1.26
1	416	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	7776.850	1.95
1	417	0.013 (0, 0)	0.013 (90, 0)	0.011 (0, 90)	26895.534	0.47
1	418	0.029 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	20088.281	1.45
1	419	0.027 (233, 70)	0.023 (357, 11)	0.023 (90, 16)	18323.780	1.45
1	5	0.015 (0, 0)	0.015 (90, 0)	0.014 (0, 90)	33243.417	0.45
1	504	0.038 (0, 0)	0.038 (0, 90)	0.038 (90, 0)	35481.664	1.06
1	505	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	16308.771	1.68
1	506	0.009 (0, 0)	0.009 (90, 0)	0.009 (0, 90)	17839.583	0.48
1	515	0.014 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	12372.831	1.11
1	516	0.015 (0, 0)	0.015 (90, 0)	0.014 (0, 90)	21995.053	0.69
1	517	0.029 (0, 0)	0.029 (0, 90)	0.029 (90, 0)	20014.806	1.43
1	6	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	20874.338	0.60
1	ANTONITO	0.018 (0, 0)	0.018 (90, 0)	0.012 (0, 90)	43600.962	0.41
1	J65	0.019 (0, 0)	0.019 (90, 0)	0.019 (0, 90)	51094.542	0.37
1	K75	0.016 (0, 0)	0.016 (90, 0)	0.012 (0, 90)	54347.262	0.30
10	9	0.037 (0, 90)	0.037 (0, 0)	0.037 (90, 0)	20394.712	1.84

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
10	R33	0.040 (0, 90)	0.040 (0, 0)	0.039 (90, 0)	31390.501	1.26
100	9	0.038 (0, 90)	0.037 (0, 0)	0.037 (90, 0)	20393.022	1.84
100	R33	0.040 (0, 90)	0.040 (0, 0)	0.039 (90, 0)	31387.634	1.26
1000	9	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	7885.433	2.11
1000	R33	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	32020.042	0.78
1001	8	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	8895.759	2.02
1001	MIRAGE	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	19593.964	0.99
1002	8	0.011 (0, 90)	0.011 (0, 0)	0.011 (90, 0)	5266.333	2.05
1002	MIRAGE	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	12174.551	1.09
1003	5	0.010 (0, 90)	0.010 (0, 0)	0.010 (90, 0)	16222.564	0.61
1003	7	0.003 (0, 90)	0.003 (0, 0)	0.003 (90, 0)	1332.183	2.51
1004	5	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	8830.427	1.97
1004	7	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	17422.062	1.08
1005	5	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	8606.153	2.06
1006	5	0.028 (0, 90)	0.027 (90, 0)	0.027 (0, 0)	18428.941	1.50
1007	6	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	18326.998	1.54
1008	506	0.017 (0, 90)	0.016 (90, 0)	0.016 (0, 0)	8041.130	2.13
1008	6	0.020 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	20399.227	0.99
1009	3	0.005 (0, 90)	0.005 (0, 0)	0.005 (90, 0)	2298.914	2.28
1009	506	0.015 (0, 0)	0.015 (90, 0)	0.014 (0, 90)	20809.867	0.71
101	8	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	8895.853	2.03
101	MIRAGE	0.020 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	19593.645	1.00
1010	3	0.023 (0, 90)	0.023 (90, 0)	0.023 (0, 0)	11348.114	2.04
1010	506	0.026 (90, 0)	0.026 (0, 0)	0.026 (0, 90)	29173.932	0.89
1011	3	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	15705.553	1.21
1011	K75	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	9647.621	1.88

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
1012	4	0.022 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	25415.889	0.85
1012	J65	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	8044.347	2.08
1013	4	0.021 (0, 90)	0.021 (90, 0)	0.021 (0, 0)	22597.072	0.93
1013	J65	0.016 (0, 90)	0.016 (90, 0)	0.016 (0, 0)	7755.913	2.09
1014	2	0.025 (0, 90)	0.025 (90, 0)	0.025 (0, 0)	18903.097	1.34
1014	J65	0.023 (0, 90)	0.023 (90, 0)	0.023 (0, 0)	12573.931	1.86
1015	506	0.021 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	26421.023	0.81
1016	506	0.009 (0, 0)	0.009 (0, 90)	0.009 (90, 0)	16168.836	0.58
1017	506	0.018 (0, 90)	0.018 (90, 0)	0.018 (0, 0)	11352.448	1.62
1018	2	0.026 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	14409.472	1.78
1019	2	0.019 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	9792.828	1.94
102	8	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	5768.308	2.09
102	MIRAGE	0.015 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	15459.785	0.94
1020	2	0.014 (0, 0)	0.013 (90, 0)	0.012 (0, 90)	19380.830	0.70
1020	ANTONITO	0.006 (0, 90)	0.005 (0, 0)	0.005 (90, 0)	2301.972	2.48
103	5	0.014 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	9710.895	1.46
103	7	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	7190.665	1.86
104	5	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	15238.686	1.64
104	7	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	16703.147	1.50
105	5	0.023 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	14313.808	1.59
105	7	0.023 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	14374.091	1.58
106	5	0.029 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	18995.438	1.55
107	5	0.017 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	7941.122	2.09
108	6	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	14487.708	1.65
109	3	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	7639.278	1.98
109	506	0.019 (0, 0)	0.019 (90, 0)	0.018 (0, 90)	15675.009	1.20

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
110	3	0.052 (0, 90)	0.051 (0, 0)	0.051 (90, 0)	28067.148	1.84
110	506	0.052 (0, 0)	0.052 (90, 0)	0.052 (0, 90)	44588.266	1.17
111	3	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	12070.233	1.24
111	K75	0.014 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	7151.583	1.92
112	3	0.016 (0, 90)	0.016 (90, 0)	0.016 (0, 0)	8939.830	1.82
112	K75	0.017 (0, 90)	0.017 (90, 0)	0.017 (0, 0)	11910.857	1.42
113	4	0.022 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	26702.940	0.83
113	J65	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	8492.361	2.08
114	4	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	18535.721	0.82
114	J65	0.002 (0, 90)	0.001 (0, 0)	0.001 (90, 0)	13.978	121.64
115	2	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	15278.924	1.67
115	J65	0.026 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	16179.805	1.59
116	506	0.016 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	20422.724	0.76
117	506	0.016 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	9650.935	1.71
118	2	0.021 (0, 0)	0.021 (0, 90)	0.021 (90, 0)	11865.196	1.75
119	2	0.022 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	11028.647	1.96
120	2	0.017 (0, 0)	0.017 (90, 0)	0.016 (0, 90)	24465.732	0.69
120	ANTONITO	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	5592.746	2.13
121	9	0.004 (0, 90)	0.004 (90, 0)	0.004 (0, 0)	1640.347	2.36
121	R33	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	23859.817	0.85
2	214	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	8901.983	2.06
2	218	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	10646.824	1.92
2	219	0.017 (0, 0)	0.017 (90, 0)	0.016 (0, 90)	24406.789	0.69
2	220	0.018 (0, 0)	0.018 (90, 0)	0.017 (0, 90)	10731.501	1.65
2	314	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	16549.946	1.62
2	315	0.025 (0, 90)	0.025 (90, 0)	0.025 (0, 0)	18868.299	1.34

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
2	317	0.022 (0, 0)	0.022 (90, 0)	0.022 (0, 90)	13179.407	1.66
2	318	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	9349.467	1.95
2	319	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	9109.020	2.06
2	320	0.020 (0, 0)	0.020 (90, 0)	0.020 (0, 90)	12761.391	1.57
2	412	0.008 (0, 90)	0.007 (0, 0)	0.007 (90, 0)	3268.833	2.58
2	413	0.015 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	6377.991	2.29
2	417	0.003 (0, 90)	0.002 (0, 0)	0.002 (90, 0)	819.646	3.52
2	418	0.029 (0, 90)	0.029 (0, 0)	0.028 (90, 0)	16866.442	1.71
2	419	0.026 (233, 71)	0.021 (357, 11)	0.021 (90, 15)	11121.158	2.32
2	420	0.013 (0, 0)	0.013 (90, 0)	0.011 (0, 90)	20341.411	0.65
2	421	0.018 (0, 0)	0.018 (90, 0)	0.018 (0, 90)	11919.401	1.50
2	513	0.006 (0, 90)	0.005 (0, 0)	0.005 (90, 0)	2124.981	2.92
2	514	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	8219.630	2.10
2	516	0.010 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	4386.877	2.19
2	517	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	16578.545	1.70
2	518	0.021 (0, 0)	0.021 (90, 0)	0.020 (0, 90)	25848.505	0.79
2	519	0.013 (0, 0)	0.013 (90, 0)	0.011 (0, 90)	21605.329	0.59
2	ANTONITO	0.013 (0, 0)	0.013 (90, 0)	0.011 (0, 90)	21385.249	0.59
2	J65	0.016 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	30388.997	0.53
200	9	0.003 (0, 90)	0.003 (0, 0)	0.003 (90, 0)	1409.883	2.44
200	R33	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	25330.365	0.80
201	8	0.018 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	8878.593	2.04
201	MIRAGE	0.020 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	19582.671	1.00
202	8	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	6088.567	1.94
202	MIRAGE	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	9978.617	1.34
203	5	0.014 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	10175.924	1.35

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
203	7	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	6505.029	1.90
204	5	0.029 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	18024.486	1.59
204	7	0.029 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	18565.612	1.54
205	5	0.022 (0, 90)	0.022 (90, 0)	0.022 (0, 0)	12899.267	1.74
205	7	0.023 (0, 90)	0.022 (90, 0)	0.022 (0, 0)	15323.564	1.48
206	6	0.002 (0, 90)	0.002 (0, 0)	0.002 (90, 0)	786.499	2.92
207	506	0.004 (0, 90)	0.004 (0, 0)	0.004 (90, 0)	1840.383	2.34
207	6	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	21598.309	0.61
208	3	0.011 (0, 90)	0.011 (0, 0)	0.011 (90, 0)	5219.833	2.11
208	506	0.017 (0, 0)	0.017 (90, 0)	0.016 (0, 90)	17958.561	0.94
209	3	0.032 (0, 90)	0.032 (0, 0)	0.032 (90, 0)	17461.019	1.83
209	506	0.033 (0, 0)	0.033 (90, 0)	0.033 (0, 90)	26402.700	1.25
210	3	0.002 (0, 90)	0.001 (0, 0)	0.001 (90, 0)	10.478	202.40
210	506	0.014 (0, 0)	0.014 (90, 0)	0.013 (0, 90)	23062.875	0.61
211	3	0.011 (0, 90)	0.011 (0, 0)	0.011 (90, 0)	20032.370	0.53
211	K75	0.006 (0, 90)	0.006 (0, 0)	0.006 (90, 0)	2841.605	2.28
212	3	0.013 (0, 90)	0.012 (90, 0)	0.012 (0, 0)	6434.914	1.95
212	K75	0.014 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	11833.354	1.19
213	4	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	23658.765	0.86
213	J65	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	7135.223	2.10
214	J65	0.023 (0, 90)	0.023 (0, 0)	0.023 (90, 0)	25399.705	0.91
215	506	0.013 (0, 0)	0.013 (0, 90)	0.013 (90, 0)	22671.591	0.59
216	506	0.017 (0, 90)	0.017 (90, 0)	0.017 (0, 0)	14832.021	1.16
217	506	0.017 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	8395.169	1.98
219	ANTONITO	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	5514.857	2.15
220	ANTONITO	0.018 (0, 0)	0.018 (90, 0)	0.018 (0, 90)	10965.354	1.62

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
3	309	0.031	0.031	0.031	16002.656	1.94
		(0, 90)	(0, 0)	(90, 0)		
3	310	0.009	0.009	0.009	17139.448	0.52
		(0, 0)	(90, 0)	(0, 90)		
3	311	0.017	0.017	0.017	13892.008	1.24
		(0, 90)	(0, 0)	(90, 0)		
3	312	0.015	0.014	0.014	7053.382	2.09
		(0, 90)	(0, 0)	(90, 0)		
3	4	0.026	0.026	0.023	24939.294	1.03
		(0, 0)	(90, 0)	(0, 90)		
3	409	0.011	0.011	0.011	19697.544	0.58
		(0, 90)	(0, 0)	(90, 0)		
3	410	0.014	0.014	0.014	12275.475	1.16
		(0, 90)	(0, 0)	(90, 0)		
3	5	0.017	0.017	0.016	55102.258	0.30
		(0, 0)	(90, 0)	(0, 90)		
3	506	0.014	0.014	0.013	23052.810	0.61
		(0, 0)	(90, 0)	(0, 90)		
3	508	0.035	0.035	0.035	25057.432	1.41
		(0, 90)	(0, 0)	(90, 0)		
3	509	0.009	0.009	0.009	18010.030	0.51
		(0, 90)	(0, 0)	(90, 0)		
3	510	0.014	0.014	0.014	11979.564	1.18
		(0, 90)	(0, 0)	(90, 0)		
3	6	0.018	0.018	0.016	34451.845	0.51
		(0, 0)	(90, 0)	(0, 90)		
3	K75	0.009	0.009	0.009	17215.868	0.51
		(0, 0)	(90, 0)	(0, 90)		
3	R33	0.009	0.009	0.009	34263.829	0.26
		(0, 0)	(90, 0)	(0, 90)		
300	9	0.020	0.020	0.020	9764.042	2.08
		(0, 90)	(0, 0)	(90, 0)		
300	R33	0.027	0.027	0.027	31500.983	0.86
		(0, 90)	(0, 0)	(90, 0)		
301	8	0.018	0.018	0.018	8883.520	1.99
		(0, 90)	(0, 0)	(90, 0)		
301	MIRAGE	0.019	0.019	0.019	19585.702	0.98
		(0, 90)	(0, 0)	(90, 0)		
302	8	0.014	0.002	0.001	10.821	1296.53
		(147, 66)	(265, 12)	(0, 21)		
302	MIRAGE	0.015	0.009	0.009	11516.735	1.33
		(147, 66)	(266, 12)	(0, 20)		
303	5	0.021	0.020	0.020	10522.527	1.96
		(0, 90)	(90, 0)	(0, 0)		
303	7	0.022	0.021	0.021	20024.813	1.09
		(0, 90)	(90, 0)	(0, 0)		
304	5	0.023	0.023	0.023	11552.693	2.02
		(0, 90)	(0, 0)	(90, 0)		
305	5	0.030	0.029	0.029	15259.805	1.94
		(0, 90)	(0, 0)	(90, 0)		
306	6	0.015	0.015	0.015	7282.617	2.02
		(0, 90)	(0, 0)	(90, 0)		

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
307	506	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	5914.287	2.14
307	6	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	24564.432	0.71
308	506	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	6168.287	2.12
308	6	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	17705.469	0.97
309	506	0.033 (0, 0)	0.033 (90, 0)	0.032 (0, 90)	30810.417	1.06
310	K75	0.001 (0, 90)	0.001 (0, 0)	0.001 (90, 0)	78.066	17.25
311	K75	0.016 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	8698.737	1.87
312	K75	0.016 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	13283.383	1.21
313	4	0.021 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	25825.677	0.81
313	J65	0.016 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	7357.386	2.14
314	J65	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	16793.477	1.60
315	J65	0.023 (0, 90)	0.023 (90, 0)	0.023 (0, 0)	12172.707	1.89
316	506	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	22632.469	0.59
320	ANTONITO	0.020 (0, 0)	0.020 (90, 0)	0.020 (0, 90)	11896.648	1.66
4	411	0.017 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	20836.640	0.80
4	511	0.038 (0, 90)	0.038 (0, 0)	0.038 (90, 0)	34862.463	1.10
4	512	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	18250.695	0.94
4	J65	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	18524.617	0.81
400	8	0.031 (76, 64)	0.017 (177, 5)	0.017 (270, 26)	8269.709	3.79
400	MIRAGE	0.032 (76, 64)	0.019 (177, 5)	0.018 (270, 26)	19691.012	1.62
401	8	0.011 (0, 90)	0.011 (0, 0)	0.011 (90, 0)	5267.090	2.10
401	MIRAGE	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	12168.475	1.10
402	8	0.015 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	12876.353	1.16
402	MIRAGE	0.013 (0, 90)	0.013 (0, 0)	0.012 (90, 0)	6238.949	2.10
403	5	0.013 (0, 90)	0.013 (0, 0)	0.012 (90, 0)	13730.772	0.97
403	7	0.010 (0, 90)	0.010 (0, 0)	0.009 (90, 0)	4073.945	2.56

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
404	5	0.010 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	3973.969	2.44
404	7	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	17254.611	0.76
405	5	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	13634.952	2.01
406	5	0.028 (270, 78)	0.026 (90, 12)	0.026 (0, 0)	19891.356	1.41
407	6	0.019 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	9586.999	1.96
408	6	0.028 (139, 74)	0.027 (268, 11)	0.027 (0, 13)	17323.635	1.60
409	K75	0.008 (0, 90)	0.006 (90, 0)	0.006 (0, 0)	2741.656	2.81
410	K75	0.013 (180, 68)	0.012 (0, 22)	0.012 (90, 0)	5931.647	2.16
411	J65	0.008 (0, 90)	0.008 (0, 0)	0.007 (90, 0)	3416.039	2.32
412	J65	0.018 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	27449.580	0.65
413	J65	0.021 (0, 90)	0.021 (0, 0)	0.020 (90, 0)	29669.874	0.71
414	506	0.010 (0, 90)	0.010 (0, 0)	0.010 (90, 0)	19413.425	0.54
415	506	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	6569.388	1.98
416	506	0.016 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	13376.072	1.22
420	ANTONITO	0.004 (0, 90)	0.004 (0, 0)	0.003 (90, 0)	1065.765	3.61
421	ANTONITO	0.017 (0, 0)	0.017 (90, 0)	0.017 (0, 90)	9652.729	1.76
5	502	0.017 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	12922.108	1.28
5	503	0.009 (0, 90)	0.008 (0, 0)	0.008 (90, 0)	3909.462	2.18
5	504	0.036 (0, 90)	0.036 (0, 0)	0.036 (90, 0)	18759.162	1.92
5	505	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	18553.505	1.51
5	6	0.018 (0, 0)	0.018 (90, 0)	0.018 (0, 90)	21170.983	0.85
5	7	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	16363.192	0.58
5	8	0.019 (0, 0)	0.019 (90, 0)	0.018 (0, 90)	40329.618	0.46
5	9	0.025 (0, 0)	0.025 (90, 0)	0.024 (0, 90)	32612.313	0.77
5	ALS B	0.017 (0, 0)	0.016 (90, 0)	0.015 (0, 90)	42666.127	0.39
5	MIRAGE	0.017 (0, 0)	0.016 (90, 0)	0.015 (0, 90)	44317.635	0.37

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
5	R33	0.017 (0, 0)	0.016 (90, 0)	0.015 (0, 90)	24469.101	0.67
5	T163	0.017 (0, 0)	0.016 (90, 0)	0.015 (0, 90)	20808.654	0.79
5	Z269	0.070 (0, 0)	0.070 (90, 0)	0.015 (0, 90)	41334.469	1.69
500	9	0.009 (0, 90)	0.008 (0, 0)	0.008 (90, 0)	3891.162	2.22
500	R33	0.021 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	29293.152	0.73
501	8	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	8332.363	2.09
501	MIRAGE	0.019 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	19760.778	0.96
502	7	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	8183.901	1.88
503	7	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	17362.521	0.71
506	507	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	19814.688	1.00
506	508	0.037 (0, 0)	0.037 (90, 0)	0.037 (0, 90)	41881.519	0.89
506	515	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	6040.212	2.00
506	6	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	20103.942	0.63
507	6	0.017 (0, 90)	0.017 (0, 0)	0.016 (90, 0)	8211.307	2.04
509	K75	0.003 (0, 90)	0.002 (0, 0)	0.002 (90, 0)	976.910	3.30
510	K75	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	6329.930	1.98
511	J65	0.037 (0, 90)	0.036 (0, 0)	0.036 (90, 0)	19118.703	1.92
512	J65	0.010 (0, 90)	0.009 (90, 0)	0.009 (0, 0)	4261.157	2.28
513	J65	0.017 (0, 90)	0.017 (0, 0)	0.016 (90, 0)	28925.378	0.59
514	J65	0.023 (0, 90)	0.023 (0, 0)	0.023 (90, 0)	31027.154	0.74
518	ANTONITO	0.017 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	8256.435	2.07
519	ANTONITO	0.002 (0, 90)	0.001 (0, 0)	0.001 (90, 0)	281.647	7.38
7	R33	0.019 (0, 0)	0.019 (90, 0)	0.018 (0, 90)	32043.542	0.58
8	ALS B	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	75144.228	0.13
8	MIRAGE	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	11514.071	0.82
8	R33	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	43378.082	0.22

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
9	R33	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	25406.634	0.79
ANTONITO	J65	0.020 (0, 0)	0.020 (90, 0)	0.019 (0, 90)	39722.539	0.50
R33	Z269	0.070 (0, 0)	0.070 (90, 0)	0.000 (0, 90)	51724.257	1.36

09:57:51, Tue Jan 03, 2012

1110814 USGS-SAN LUIS VALLEY *** GROUND SURVEY FILE ***
HORIZONTAL - NAD 83/07 UTM ZONE 13
VERTICAL - NAVD88 METER

STATION	EASTING	NORTHING	ELEVATION
1	406477.085	4146316.945	2320.206
2	417701.622	4122643.172	2318.847
3	446766.706	4152559.798	2332.129
4	435850.117	4130156.606	2289.591
5	398188.779	4178488.421	2339.240
6	414835.072	4165429.898	2312.268
7	396030.729	4194698.220	2328.925
8	407932.295	4217596.395	2349.298
9	420639.447	4202113.159	2302.627
10	441018.696	4202176.638	2486.461
100	441017.012	4202174.319	2486.658
101	400356.849	4212943.908	2344.615
102	404654.084	4212854.807	2330.241
103	399009.106	4188158.387	2327.548
104	383765.820	4183375.774	2474.193
105	408787.769	4188094.705	2310.904
106	394497.921	4159867.270	2351.357
107	403579.060	4172663.887	2329.877
108	420961.305	4152312.009	2302.867
109	439133.016	4152574.810	2297.968
110	455853.573	4179092.079	2552.502
111	453499.653	4142552.626	2355.613
112	448833.984	4143868.992	2339.610
113	450006.554	4107537.770	2349.827
114	447244.442	4115553.591	2330.196
115	431065.609	4115259.326	2381.931
116	405383.412	4139905.625	2333.104
117	417000.503	4141325.317	2303.241
118	410020.007	4131675.723	2326.921
119	422981.622	4132317.188	2303.000
120	404056.104	4102356.507	2451.246
121	420231.046	4200525.620	2301.074
200	422048.349	4202105.771	2302.547
201	400362.699	4212967.373	2343.994
202	410858.371	4212261.739	2317.087
203	395298.816	4188238.623	2334.562
204	380989.388	4183837.270	2548.868
205	408649.337	4186021.810	2312.868
206	414720.528	4164652.318	2311.846
207	425921.312	4146911.059	2296.894
208	441551.717	4152456.920	2307.012
209	440180.293	4168717.323	2301.359
210	446775.919	4152564.772	2332.203
211	463148.161	4141056.767	2484.125
212	449683.180	4146829.051	2348.520
213	454359.866	4115449.311	2387.456
214	421861.139	4114779.638	2335.204
215	401600.051	4147242.260	2326.995
216	411729.704	4139753.936	2312.797
217	421803.894	4139659.255	2299.614
218	407933.938	4126861.619	2340.407
219	404132.500	4102376.181	2451.383
220	415401.456	4112168.599	2356.029
300	428647.332	4207687.983	2317.377
301	400361.192	4212960.402	2344.036
302	407929.410	4217585.991	2348.683

303	408680.929	4179191.797	2318.304
304	389790.748	4170565.725	2371.819
305	387205.491	4167908.416	2377.747
306	417981.757	4158867.627	2307.424
307	429940.923	4146080.496	2295.376
308	427406.450	4152979.331	2298.065
309	446890.932	4168550.287	2344.876
310	460591.685	4142450.948	2409.508
311	452334.192	4139843.373	2353.256
312	447759.326	4145581.811	2335.833
313	450857.411	4109161.833	2355.556
314	430736.962	4112464.899	2376.088
315	435069.694	4115303.549	2278.090
316	401644.146	4147035.317	2328.575
317	408168.458	4131730.696	2335.329
318	415017.463	4131592.464	2312.356
319	424842.469	4128288.431	2302.902
320	419147.264	4109972.728	2350.141
400	399793.846	4216159.495	2348.704
401	408350.180	4212349.471	2322.030
402	419053.954	4211124.483	2313.429
403	399223.086	4192171.398	2321.467
404	402159.129	4178580.379	2330.059
405	386803.518	4171001.528	2383.305
406	403451.389	4159319.104	2325.786
407	417954.652	4156371.482	2306.932
408	422449.744	4149882.603	2301.615
409	463348.234	4141954.953	2413.533
410	454782.873	4143275.099	2364.940
411	450643.876	4115504.732	2367.518
412	420907.487	4123270.204	2315.771
413	417590.553	4116270.508	2336.564
414	404853.684	4147952.880	2320.889
415	417687.816	4147762.620	2304.121
416	412470.506	4141369.369	2311.917
417	417569.189	4121834.862	2320.978
418	401392.019	4126896.591	2384.944
419	408002.321	4128068.850	2340.002
420	410211.144	4103746.121	2404.752
421	411926.725	4112225.487	2369.330
500	420139.010	4205969.331	2305.930
501	399720.726	4216215.086	2348.730
502	390386.851	4188779.111	2384.831
503	402095.444	4178441.157	2330.877
504	381007.186	4170987.744	2402.843
505	397556.957	4159957.486	2337.920
506	424252.255	4147683.456	2298.588
507	422793.146	4167430.706	2303.978
508	454821.048	4176267.216	2489.140
509	461620.013	4142398.549	2418.792
510	454388.541	4143329.106	2362.581
511	466160.878	4112986.565	2490.843
512	450066.749	4118733.354	2356.842
513	419512.188	4123752.796	2318.833
514	416241.668	4114559.949	2344.775
515	418457.771	4149374.136	2303.964
516	414898.264	4126013.618	2317.816
517	401689.552	4126896.722	2382.295
518	401374.907	4102626.570	2469.052
519	409376.037	4102722.448	2411.215

1000	424951.534	4208708.657	2311.407
1001	400356.258	4212945.050	2344.688
1002	408343.419	4212349.696	2322.038
1003	397361.930	4194679.580	2323.247
1004	389364.805	4178613.633	2363.700
1005	395032.271	4170487.908	2353.349
1006	398666.358	4160077.418	2335.938
1007	423570.941	4149333.078	2299.910
1008	430641.417	4152556.735	2296.156
1009	444469.514	4152551.969	2318.139
1010	448575.439	4163752.908	2507.784
1011	452157.017	4137820.517	2357.378
1012	447365.852	4107519.805	2343.655
1013	454680.420	4117694.661	2374.594
1014	434716.126	4114437.112	2277.893
1015	398998.523	4139977.396	2379.491
1016	408156.602	4146265.732	2316.105
1017	416210.881	4139681.008	2305.349
1018	403937.044	4126872.911	2366.190
1019	416694.238	4132377.383	2308.638
1020	409394.364	4105147.741	2409.138
ALS B	423419.394	4144116.803	2297.665
ANTONITO	409622.340	4102858.648	2409.621
J65	447230.941	4115557.135	2330.711
K75	460643.904	4142392.998	2409.347
MIRAGE	419435.919	4217347.454	2326.427
R33	422583.218	4176798.396	2304.929
T163	378764.208	4171062.218	2409.876
Z269	393498.560	4219529.448	2407.696

1110814 USGS-SAN LUIS VALLEY(DUNES)
NAD83/07, UTM13
NAVD88

STATION	EASTING(m)	NORTHING(m)	ELEV(m)
508	454821.048	4176267.216	2489.141
DUNE1	453052.625	4178127.187	2644.931
DUNE2	453358.127	4178029.533	2573.531
DUNE3	453474.881	4177931.171	2546.455
DUNE4	453719.992	4177629.575	2475.342
DUNE1-2	453058.206	4178114.617	2643.960
DUNE1-3	453076.990	4178101.048	2641.447
DUNE1-4	453115.389	4178079.069	2634.950
DUNE1-5	453146.865	4178070.730	2631.902
DUNE1-6	453174.533	4178069.331	2630.321
DUNE1-7	453199.476	4178074.843	2627.281
DUNE1-8	453224.130	4178076.519	2623.768
DUNE1-9	453237.648	4178087.706	2619.389
DUNE1-10	453252.075	4178104.848	2615.135
DUNE1-11	453257.440	4178111.350	2613.088

Aerometric Inc L091811

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L091811A DATE: 9-18-11 SUN

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								13:56	14:18	GMT	134	FERRY: ALS → SITE .4
SAN LUIS	TEST				12	50	1450	14:18	14:19			
VALLEY	TEST				↓	↓	↓	14:19	14:19			
AREAS 1+2	/ 1	332			↓	↓	↓					AREA 1 STILL CLOUDY
	TEST							14:28	14:29			
	210	180	160	42.3	15	70	1500	14:37	14:47			
	209	360	↓	↓	↓	↓	↓	14:52	15:03			CUE ON BOTH SIDES OF US
	188	180	↓	↓	↓	↓	↓	15:10	15:23			
	187	360	↓	↓	↓	↓	↓	15:28	15:41			
	190	180	↓	↓	↓	↓	↓	15:45	15:59			
	189	360	↓	↓	↓	↓	↓	16:03	16:17			
	192	180	↓	↓	↓	↓	↓	16:21	16:35			
	191	360	↓	↓	↓	↓	↓	16:39	16:53			
	186	180	↓	↓	↓	↓	↓	16:56	17:10			
	185	360	↓	↓	↓	↓	↓	17:13	17:27			
P	184	180	↓	↓	↓	↓	↓	17:31	17:37			CUE 16 MILES FROM N. END (NEED S. END TO 19.3 MILES)
	CROSS	E	/	/	/	/	/	17:42	17:45			
									18:11			FERRY: SITE → ALS .4
												LOST GPS ON LANDING (18:03)
												REGAINED GPS 18:06

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	10	254	3.5	.8	4.3	13:56	18:11	AMETIJ7
○ AREAS 1+2						WX			
○					4.3				

AERO-METRIC, INC. N 8216 Resource Drive Sheboygan Falls, WI. 53085 PHONE: 920-467-2655 FAX: 920-457-1451 E-Mail: amephoto@aerometric.com

Aerometric Inc L091911A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L091911A DATE: 9-19-11 MON.

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								13:37	13:58	GMT	006	FERRY: ALS → SITE .4
SAN LUIS	TEST				12	50	1450	13:58	13:59			
VALLEY	TEST							14:01	14:01			
	64	332	160	40.9				14:03	14:04			A LITTLE HIGH
	64	152	165	41.5				14:09	14:11			GOOD
	63	332	160	40.9				14:15	14:16			
	62	152						14:21	14:23			
	61	332						14:27	14:28			
	60	152						14:33	14:34			
	59	332						14:38	14:40			
	58	152						14:44	14:47			
	57	332						14:51	14:54			
	56	152						14:58	15:02			
	55	332						15:05	15:09			
	54	152						15:13	15:17			
	53	332						15:21	15:25			
	52	152						15:29	15:33			
	51	332						15:37	15:42			
	50	152						15:45	15:50			
	49	332						15:54	15:59			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	204	10/51	223	4.2	.8	5.0	13:37	18:34	SOME SNOW ON MOUNTAIN TOPS
○		(41)				WX SKC			MIGHT NOT BE THIS CLEAR AGAIN
○									

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Aerometric Inc L091911A

LIDAR FLIGHT LOG

ALTM

JS2

MISSION: L091911A DATE: 9-19-11 MON

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814	48	152	160	40.9	12	50	1450	16:02	16:07	GMT	008	
SAN LUIS	47	332						16:11	16:15			
VALLEY	46	152						16:19	16:24			
	45	332						16:27	16:32			
	44	152						16:36	16:41			
	43	332						16:44	16:49			
	42	152						16:53	16:58			
	41	332						17:01	17:06			
	40	152						17:10	17:14			
	39	332						17:18	17:22			
	38	152						17:26	17:30			
	37	332						17:34	17:39			
	36	152						17:43	17:47			
	35	332						17:51	17:55			
	34	152						17:59	18:04			
	CROSS	NE	✓	✓	✓	✓	✓	18:10	18:11			
									18:34			FERRY: SITE → ALS .4

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L091911B

LIDAR FLIGHT LOG

MISSION: L091911B DATE: 9-19-11 MON

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

ALTM

J53

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								19:42	19:56	GMT	008	FERRY: ALS → SITE .2
SAN LUIS	TEST							19:56	19:57			
VALLEY	TEST							19:58	19:59			CUE OVER MOUNTAINS
	184	360	160	42.3	15	70	1500	20:15	20:29			~~S ING TO~~
	194	180	↓	↓	↓	↓	↓	20:33	20:47			
	193	360						20:50	21:04			
	196	180						21:08	21:21			
	195	360						21:25	21:39			
	198	180						21:43	21:56			
	197	360						21:59	22:12			
	200	180						22:17	22:29			
	199	360						22:32	22:45			
	202	180						22:49	23:02			
	201	360						23:05	23:17			
	204	180						23:21	23:33			
	203	360						23:36	23:48			
	CROSS	W	↓	↓	↓	↓	↓	23:53	23:55			
									00:16			FERRY: SITE → ALS .4

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	41/13	210	~~4.0~~ 4.0	.6	4.6	19:42	00:16	MILD TURBULANCE
○		54				WX SCT 13K			
○									

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Aerometric Inc L092011A

LIDAR FLIGHT LOG

MISSION: L092011A DATE: 9-20-11 TUE JS1

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								13:28	13:48	GMT	0134	FERRY: ALS → SITE .7
SAN LUIS	TEST				12	50	1450	13:48	13:49			
VALLEY	TEST							13:51	13:51			
	33	332	160	40.9				13:53	13:58			
	32	152	↓	↓				14:01	14:06			
	31	332	165	41.5				14:09	14:14			
	30	152						14:18	14:18			EYE SAFE SHUT OFF
	30	152						14:22	14:27			
	29	332						14:31	14:36			ESSO ON EDGE OF PROJECT AREA
	29	152						14:39	14:40			NORTH 2 MILES
	28	~~332~~	↓	↓				14:45	14:50			
	27	332	160	40.9				14:53	14:58			
	26	152						15:02	15:07			
	25	332						15:11	15:24			
	24	152						15:28	15:40			
	23	332						15:44	15:57			
	22	152						16:02	16:14			
	21	332						16:18	16:31			
	20	152						16:35	16:48			
15	19	332	↓	↓	↓	↓	↓	16:52	17:05			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:
✓ 1110814	264	54/20	190	4.9	.6	5.5	13:28	18:58
		74						

NOTES: SLIGHT TURBULANCE

WX SKC/CVR FORMG 16:00 @ 14K

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Aerometric Inc L092011A

LIDAR FLIGHT LOG

ALTM

JS2

MISSION: L092011A DATE: 9-20-11 TUE

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814	18	152	160	40.9	12	50	1450	17:08	17:21	GMT	0134	
SAN LUIS	17	332						17:25	17:37			
VALLEY	16	152						17:41	17:54			ESSO SOUTH END (TERRAIN CHANGE)
	16	332						17:57	17:59			SOUTHERN 2 MILES
	15	332						18:03	18:16			
	14	152						18:20	18:33			
	CROSS	SW						18:38	18:40			
									18:58			FERRY: SITE → ALS .3

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L092011B

LIDAR FLIGHT LOG

ALTM

JS3

MISSION: L092011B DATE: 9-20-11 TUE

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								19:47	20:10	GAT	0134	FERRY: ALS → SITE .4
SAN LUIS	TEST				~~12~~	~~50~~	~~1450~~	20:10	20:11			
VALLEY	TEST				15	70	1500	20:11	20:11			
	241	360	160	42.3	↓	↓	↓	20:15	20:22			
	242	180	↓	↓	↓	↓	↓	20:29	20:36			
	239	360	↓	↓	↓	↓	↓	20:41	20:48			
	240	180	↓	↓	↓	↓	↓	20:53	21:00			
	237	360	↓	↓	↓	↓	↓	21:05	21:12			
	238	180	↓	↓	↓	↓	↓	21:17	21:25			
	235	360	↓	↓	↓	↓	↓	21:29	21:36			
	236	180	↓	↓	↓	↓	↓	21:41	21:49			
	233	360	↓	↓	↓	↓	↓	21:52	22:00			
	234	180	↓	↓	↓	↓	↓	22:05	22:12			
	231	360	↓	↓	↓	↓	↓	22:17	22:24			
	232	180	↓	↓	↓	↓	↓	22:28	22:36			
P /	229	360	↓	↓	↓	↓	↓	22:40	22:46			RAIN (NEED NORTHERN 3 MILES)
	CROSS	E	↓	↓	↓	↓	↓	22:49	22:51			
									23:11			FERRY: SITE → ALS .4

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	74/12	178	2.6	.8	3.4	19:47	23:11	TURBOCAPT
○		86				WX SCT 14K			
○									

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Aerometric Inc L092111A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L092111A DATE: 9-21-11 WED

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO.	& Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
110814								13:32	13:49	GMT	081	FERRY: ALS → SITE .3
SAN LUIS	TEST							13:49	13:49			
VALLEY	TEST							13:49	13:50			
	13	332	160	40.9	12	50	1450	13:51	14:04			
	12	152						14:08	14:21			
	11	332						14:25	14:38			
	10	152						14:41	14:54			
	9	332						14:58	15:11			
	8	152						15:15	15:23			
	7	332						15:28	15:36			
	6	152						15:40	15:49			
	5	332						15:53	16:01			
	4	152						16:06	16:13			
	3	332						16:17	16:24			
	2	152						16:28	16:34			
	1	332						16:38	16:44			
	CROSS	W						16:50	16:51			
	230	180		42.3	15	70	1500	16:58	17:06			
	229	360						17:09	17:17			
	228	180						17:21	17:29			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 110814	264	86/18	160	4.2	.6	4.8	13:32	18:15	
○		104				WX FEW 10K			
○									

Aerometric Inc L9 L092111A

LIDAR FLIGHT LOG

MISSION: L092111A DATE: 9-21-11 WED

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

ALTM

JSB

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814	227 360	160	42.3	15	70	1500	17:33	17:41	GMT	081	
SAN LUIS	286 180	↓	↓	↓	↓	↓	17:45	17:54			
VALLEY	CROSS E	↓	↓	↓	↓	↓	17:57	17:58			
								18:15			FERRY: SITE → ALS .3

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L1 L092111B

LIDAR FLIGHT LOG

MISSION: L092111B DATE: 9-21-11 WED JS3

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814							19:24	19:40	GMT	081	FERRY: ALS → SITE .3
SAN LUIS	TEST						19:40	19:40			
VALLEY	TEST						19:42	19:42			
	225 360	160	42.3	15	70	1500	19:43	19:52			
	224 180						19:57	20:06			
	223 360						20:09	20:19			3 GAP AREAS
	222 180						20:23	20:32			
	221 360						20:36	20:45			
	220 180						20:50	20:59			
	219 360						21:04	21:14			
	218 180						21:18	21:28			
	217 360						21:31	21:41			GAP AT 37°39'43
	216 180						21:46	21:56			
	215 360						22:00	22:11			
	214 180						22:15	22:25			
	217 360						22:30	22:31			N 37°38:19 → 37°40:45 TO FILL GAP
	223.5 360						22:36	22:43			[redacted] NORTHERN 17 MILES TO COVER GAPS
	CROSS E						22:47	22:48			
								23:07			FERRY: SITE → ALS .3

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	104/12 116	148	3.1	.6	3.7	19:24	23:07	[redacted] CHOPPY
○						WX HI SCT CIRRUS			
○									

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Aerometric Inc L092211A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L092211A DATE: 9-23-11 THUR

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								14:11	14:28	GMT	008	FERRY: ALS → SITE .3
SAN LUIS	TEST							14:28	14:28			
VALLEY	TEST							14:29	14:29			
	65	360	160	42.3	15	70	1500	14:37	14:39			
	66	180	↓	↓	↓	↓	↓	14:43	14:46			
	67	360						14:50	14:54			
	68	180						14:57	15:02			
	69	360						15:06	15:10			
	70	180						15:14	15:19			
	71	360						15:22	15:28			
	72	180						15:31	15:36			
	~~73~~	~~360~~									*	NAV DATA LOST 15:38 (LOST SWATH DATA)
	73	360						15:45	15:52			
	74	180						15:55	16:01			
	75	360						16:05	16:12			
	76	180						16:15	16:22			
	77	360						16:26	16:34			
	78	180						16:37	16:45			
	79	360						16:49	~~16:58~~			
16	80	180	↓	↓	↓	↓	↓	17:01	17:10			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES: * HAD TO RECYCLE ALTM/NAV
⊘ 1110814	264	116/22	126	4.3	.5	4.8	14:11	19:03	PROGRAM – POS DATA UNINTERRUPTED
○		138				WX SKC			
○									

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Aerometric Inc L092211A

LIDAR FLIGHT LOG

ALTM J52

MISSION: L092211A DATE: 9-22-11 THUR

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814	81	360	160	42.3	15	70	1500	17:13	17:23	GMT	008	
SAN LUIS	82	180						17:26	17:36			
VALLEY	83	360						17:39	17:50			
	84	180						17:54	18:04			
	85	360						18:08	18:20			
22	86	180						18:23	18:34			
	CROSS	E						18:45	18:47			
									19:03			FERRY: SITE → ASL .2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L092311A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L092311A DATE: 9-23-11 FRI

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814							18:06	18:22	GMT	081	FERRY: ALS → SITE .3
SAN LUIS	TEST						18:22	18:22			
VALLEY	TEST						18:22	18:23			
	87 360	160	42.3	15	70	1500	18:28	18:42			
	88 180	↓	↓	↓	↓	↓	18:45	19:00			
	89 360						19:04	19:20			
	90 180						19:24	19:40			
	91 360						19:45	19:59			
	92 180						20:03	20:16			
	93 360						20:19	20:33			
	94 180						20:37	20:51			
	95 360						20:54	21:08			
	96 180						21:11	21:25			
	CROSS E	↓	↓	↓	↓	↓	21:28	21:30			
								21:45			FERRY: SITE → ALS .3

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES: TURBULENT
⊘ 1110814	264	138/10	116	3.1	.6	3.7	18:06	21:45	
○		148				WX			
○									

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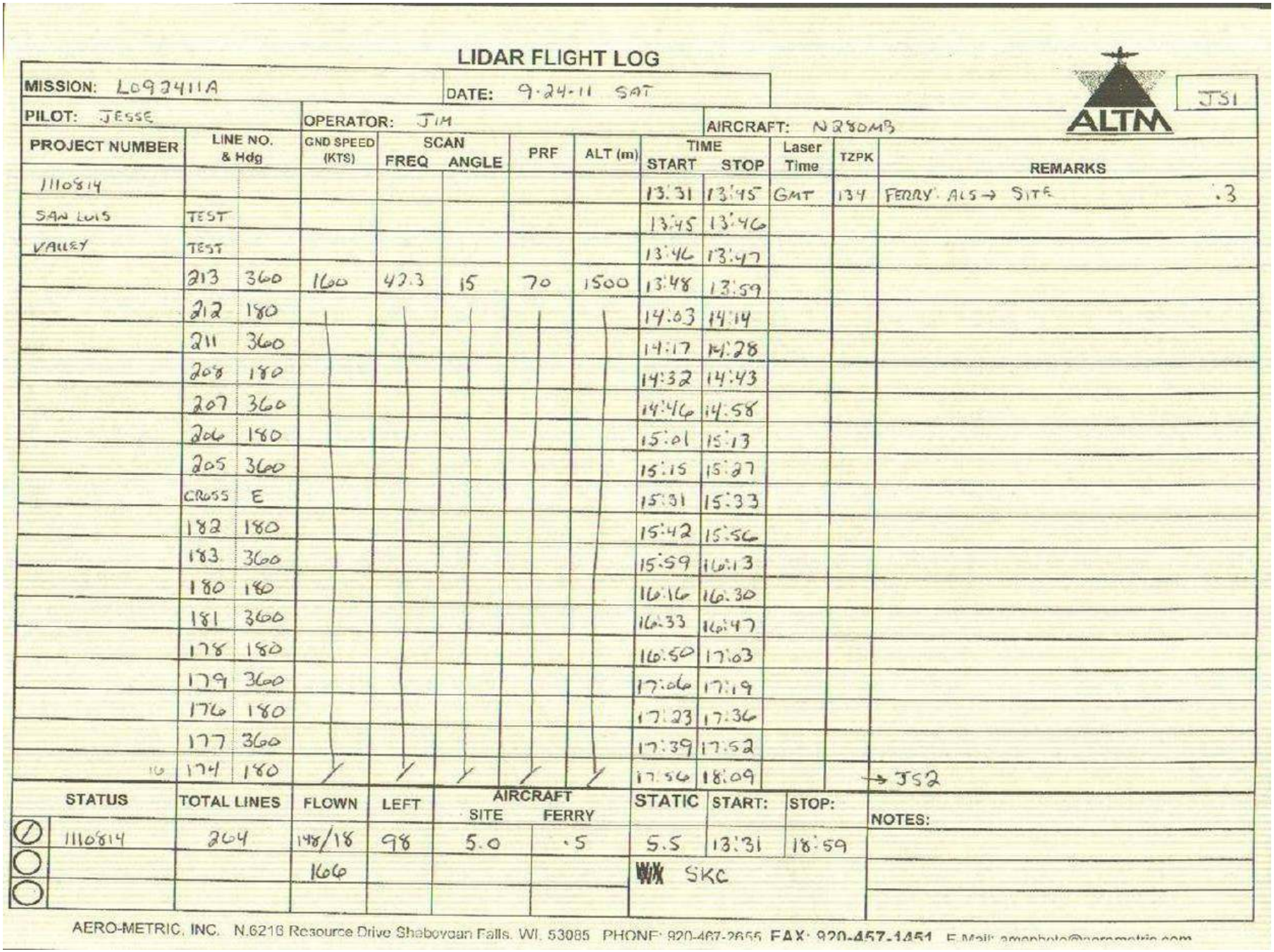
Aerometric Inc L092411A



LIDAR FLIGHT LOG

MISSION: L092411A DATE: 9-24-11 SAT

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

ALTM

JS1

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								13:31	13:45	GMT	134	FERRY: ALS → SITE .3
SAN LUIS	TEST							13:45	13:46			
VALLEY	TEST							13:46	13:47			
	213	360	160	42.3	15	70	1500	13:48	13:59			
	212	180						14:03	14:14			
	211	360						14:17	14:28			
	208	180						14:32	14:43			
	207	360						14:46	14:58			
	206	180						15:01	15:13			
	205	360						15:15	15:27			
	CROSS	E						15:31	15:33			
	182	180						15:42	15:56			
	183	360						15:59	16:13			
	180	180						16:16	16:30			
	181	360						16:33	16:47			
	178	180						16:50	17:03			
	179	360						17:06	17:19			
	176	180						17:23	17:36			
	177	360						17:39	17:52			
16	174	180	↓	↓	↓	↓	↓	17:56	18:09			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	148/18	98	5.0	.5	5.5	13:31	18:59	
○		166				WX SKC			
○									

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Aerometric Inc L092411A

LIDAR FLIGHT LOG

ALTM

JS2

MISSION: L092411A DATE: 9-24-11 SAT

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814	175	360	160	42.3	15	70	1500	18:11	18:25	GMT	134	
SAN LUIS	172		↓	↓	↓	↓	↓	18:28	18:41			
VALLEY	CROSS	E	↓	↓	↓	↓	↓	18:44	18:46			
									18:59			FERRY: SITE → ALS .2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L092411B

LIDAR FLIGHT LOG

ALTM

J53

MISSION: L092411B DATE: 9-24-11 SAT

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								20:22	20:35	GMT	008	FERRY: ALS → SITE .2
SAN LUIS	TEST							20:35	20:36			
VALLEY	TEST							20:38	20:39			
	97	360	160	42.3	15	70	1500	20:42	20:56			
	98	180						20:59	21:12			
	99	360						21:15	21:29			
	100	180						21:32	21:45			
	101	360						21:48	22:02			
	102	180						22:05	22:18			
	103	360						22:21	22:35			
	104	180						22:38	22:51			
	105	360						22:54	23:08			
10	106	180						23:10	23:24			
/	107	360						23:27	23:29			PDOP OVER 4
	107	360						23:36	23:50			
	108	180						00:04	00:18			
	109	360						00:20	00:34			
	110	180						00:36	00:50			
15	111	360						00:52	01:06			
	112	180	/	/	/	/	/	01:08	01:21			→J54

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	166/16	82	4.9	.4	5.3	20:22		
○		182				WX			
○									

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Aerometric Inc L092411B

LIDAR FLIGHT LOG

ALTM

JSH

MISSION: L092411B DATE: 9-24-11 SAT-SUN

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser TIme	YZPK	REMARKS
1110814	CROSS	E	160	42.3	15	70	1500	01:20	01:28	GMT	008	
SAN LUIS									01:44			FERRY: SITE→ALS .2
VALLEY												

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L092511A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L092511A DATE: 9-25-11 PACKER SUNDAY

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								14:01	14:22	GMT	081	FERRY: ALS → SITE .4
SAN LUIS	TEST							14:22	14:23			
VALLEY	TEST							14:23	14:23			
	113	360	160	42.3	15	70	1500	14:27	14:40			
	114	180						14:43	14:57			
	115	360						14:59	15:13			
	116	180						15:15	15:29			
5	117	360						15:31	15:45			
	118	180						15:47	16:00			
	119	360						16:03	16:16			
	120	180						16:19	16:32			
	121	360						16:35	16:49			
10	122	180						16:52	17:05			
	123	360						17:08	17:21			
	124	180						17:25	17:38			
	125	360						17:41	17:54			
	126	180						17:58	18:11			
15	127	360						18:14	18:28			
16	128	180						18:31	18:44			
	CROSS	W						18:48	18:50			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	182 [redacted] /16	66	4.4	.7	5.1	14:01	19:08	
○		198				WX SKC			
○									

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Aerometric Inc L092511A

LIDAR FLIGHT LOG

ALTM

JS2

MISSION: L092511A DATE: 9-25-11 SUN Go Pack Go!!

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								19:08	GAT	081	FERRY, SITE → ALS .3
SAN LUIS											
VALLEY											

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L L092611A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L092611A DATE: 9-26-11 MON

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								15:47	16:01	GMT	008	FERRY: ALS → SITE .2
SAN LUIS	TEST							16:01	16:01			
VALLEY	TEST							16:02	16:02			
	129	360	160	42.3	15	70	1500	16:05	16:18			
	130	180						16:21	16:35			
	131	360						16:38	16:51			
	132	180						16:54	17:08			
	133	360						17:11	17:25			
	134	180						17:28	17:41			
	135	360						17:44	17:58			
	136	180						18:01	19:15			
	137	360						18:18	18:32			
10	138	180						18:35	18:48			
	139	360						18:51	19:05			
	140	180						19:08	19:21			
	141	360						19:24	19:37			
	142	180						19:41	19:54			
15	143	360						19:57	20:11			
	144	180						20:14	20:27			
	CROSS	W						20:30	20:32			→ JS2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
∅ 1110814	264	198/160	50	4.5	.5	5.0	15:47	20:48	TURBULENT AROUND NOON (19:20)
○		214				WX SKC			
○									

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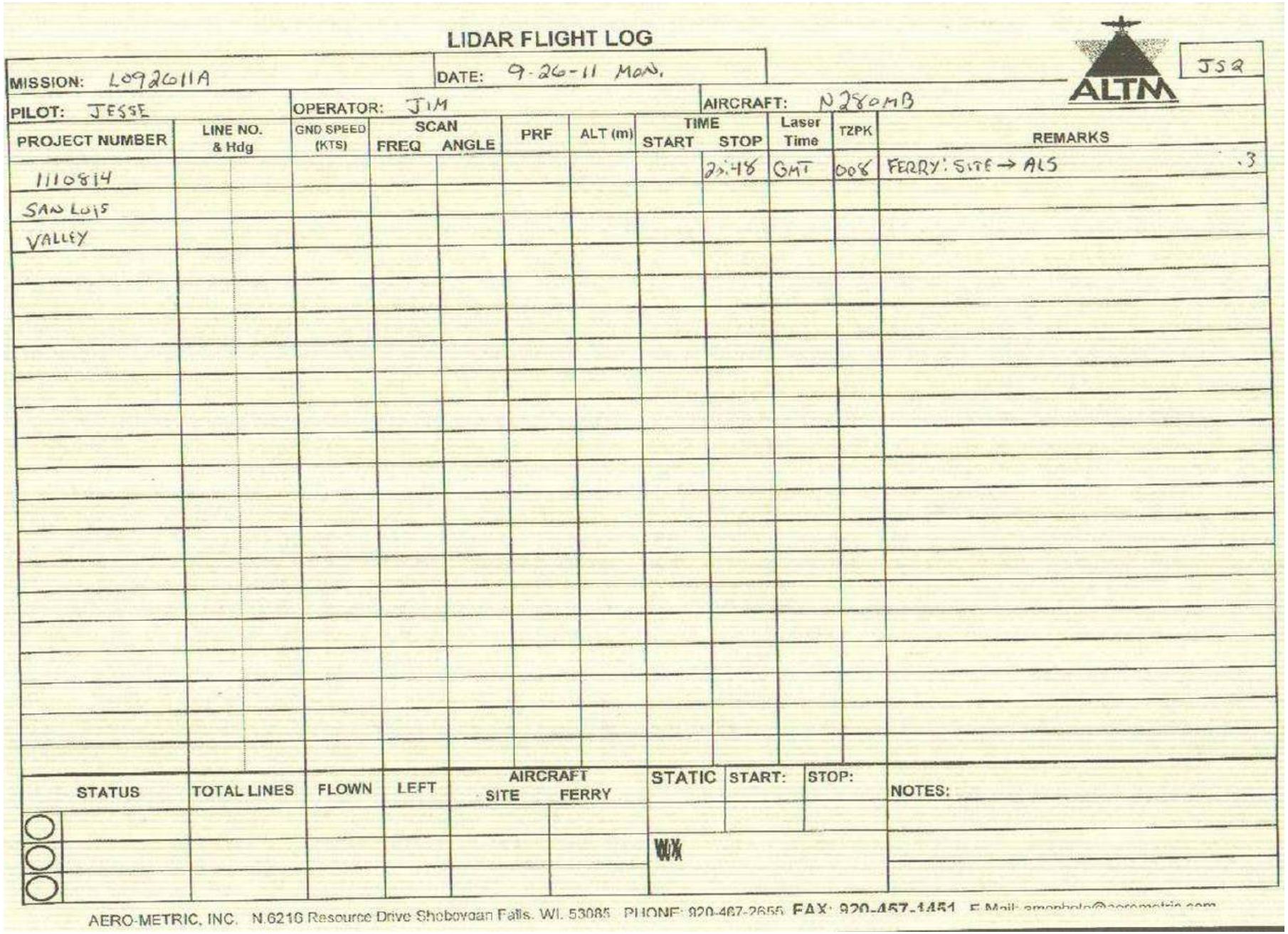
Aerometric Inc L092611A



LIDAR FLIGHT LOG

ALTM

JSR

MISSION: L092611A DATE: 9-26-11 MON.

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								23:48	GMT	008	FERRY: SITE → ALS .3
SAN LUIS											
VALLEY											

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L092611B

LIDAR FLIGHT LOG

ALTM

J53

MISSION: L092611B DATE: 9-26-11 MON.

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								21:22	21:38	GMT	008	FERRY. ALS → SITE .2
SAN LUIS	TEST							21:38	21:38			
VALLEY	TEST							21:39	21:39			
	145	360	160	42.3	15	70	1500	21:42	21:56			
	129	180						21:58	21:59			NORTH 2 MILES TO CLOSE GAP FROM JS1
	146	180						22:04	22:18			
	147	360						22:21	22:34			
	148	180						22:37	22:51			
	149	360						22:54	23:08			
	150	180						23:11	23:22			POOP OVER 4 8 MILES FROM S. END
	150	180						23:28	23:32			SOUTH 10 MILES
	151	360						23:35	23:49			
	152	180						23:52	00:06			
	153	360						00:08	00:22			
10	154	180						00:25	00:38			
	155	360						00:41	00:54			
	156	180						00:57	01:11			
	157	360						01:14	01:27			
	158	180						01:31	01:45			
	CROSS	W						01:48	01:50			→ JS4

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	214/14	36	4.2	.5	4.7	21:22	02:04	TURBOLANT
○		228				WX SCT 14K			
○									

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Aerometric Inc L092611B

LIDAR FLIGHT LOG

ALTM

JS4

MISSION: L092611B DATE: 9-26-11 MON.

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								02:04	GMT	008	FERRY: SITE → ALS .3
SAN LUIS											
VALLEY											

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Aerometric Inc L092711A

LIDAR FLIGHT LOG

ALTM

JS1

MISSION: L092711A DATE: 9-27-11 TUE

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								13:40	13:56	GMT	134	FERRY: ALS → SITE .2
SAN LUIS	TEST							13:56	13:56			
VALLEY	TEST							13:56	13:57			
	159	360	160	42.3	15	70	1500	14:00	14:13			
	160	180	↓	↓	↓	↓	↓	14:16	14:30			
	161	360						14:33	14:46			
	162	180						14:49	15:02			
	163	360						15:05	15:19			
	164	180						15:21	15:35			
	165	360						15:38	15:51			
	166	180						15:54	16:07			
	167	360						16:11	16:24			
	168	180						16:27	16:41			
	169	360						16:44	16:57			
	170	180						17:00	17:13			
	171	360						17:16	17:29			
14	173	180						17:32	17:45			
	CROSS	W	↓	↓	↓	↓	↓	17:48	17:50			
									18:03			FERRY: SITE → ALS .2

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
⊘ 1110814	264	228/14	22	3.9	.4	4.3	13:40	18:03	
○		242				WX			
○									

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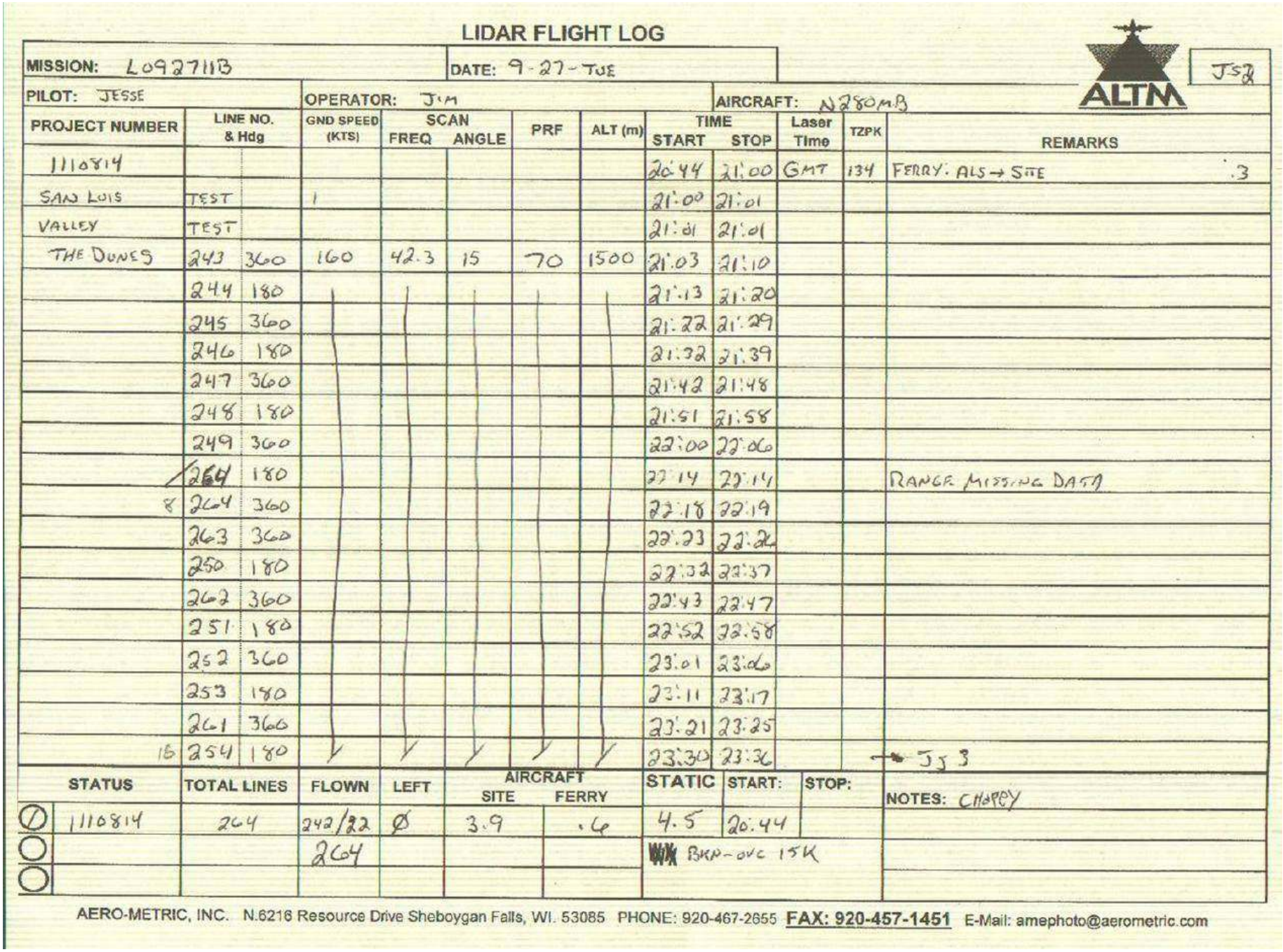
Aerometric Inc L092711B



LIDAR FLIGHT LOG

ALTM

JSZ

MISSION: L092711B DATE: 9-27-TUE

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1110814								20:44	21:00	GMT	134	FERRY: ALS → SITE .3
SAN LUIS	TEST		1					21:00	21:01			
VALLEY	TEST							21:01	21:01			
THE DUNES	243	360	160	42.3	15	70	1500	21:03	21:10			
	244	180						21:13	21:20			
	245	360						21:22	21:29			
	246	180						21:32	21:39			
	247	360						21:42	21:48			
	248	180						21:51	21:58			
	249	360						22:00	22:06			
	264	180						22:14	22:14			RANGE MISSING DATA
8	264	360						22:18	22:19			
	263	360						22:23	22:24			
	250	180						22:32	22:37			
	262	360						22:43	22:47			
	251	180						22:52	22:58			
	252	360						23:01	23:06			
	253	180						23:11	23:17			
	261	360						23:21	23:25			
16	254	180	↓	↓	↓	↓	↓	23:30	23:36			→ JJ 3

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:
⊘ 1110814	264	242/22	Ø	3.9	.6	4.5	20:44	
○		264				WX BKN-OVC 15K		
○								

NOTES: CHOPPY

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Aerometric Inc L092711B

LIDAR FLIGHT LOG

ALTM

JSJ

MISSION: L092711B DATE: 9-27-11 TUE

PILOT: JESSE OPERATOR: JIM AIRCRAFT: N280MB

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser TIme	TZPK	REMARKS
1110814	255	360	160	42.3	15	70	1500	23:40	23:45	GMT	134	
SAN LUIS	256	180						23:50	23:52			~~NORTH~~
VALLEY	257	360						00:01	00:02			SOUTH 5 MILES
TIE DUNES X	257	360						00:03	00:07			NO GOOD
	257	180						00:10	00:14			NORTH 9 MILES
	258	360						00:20	00:24			
	259	180						00:30	00:33			
	260	360						00:38	00:41			
X	CROSS	W	↓	↓	↓	↓	↓	00:48	00:48			ESSO NO GOOD
	CROSS	E						00:51	00:53			
									01:13			FERRY: SITE → ALS .3

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○									
○						WX			
○									

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Merrick and Company 110918A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN Luis	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110918A	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:		POS CARD # (Phase1):		Base Station ID:	180911Base	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	180911AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	06	Hobbs start time:	4277.1	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.40	Hobbs stop time:	4282.5	Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	-2	Total run time:	5.4	Difference:	0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
1	152033	N	15500	140					
2	153802	S	15500	140					
3	155556	N	15500	140					
4	161425	S	15500	140					
5	163635	N	15500	140					CLOUD (PATCH NEEDED)
6	165638	S	15500	140					
7	171657	N	15500	140					
8	173710	S	15500	140					
13	175440	N	15500	140					
14	181453	S	15500	140					
15	183402	N	15500	140					
16	185425	S	15500	140					

Merrick and Company 110919A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110919A	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110919BASE	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	110919AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	3	Hobbs start time:	4282.5	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.42	Hobbs stop time:	4286.0	Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	-3	Total run time:	3.5	Difference:	0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
9	140030	N	15500	140					
10	141932	S	15500	140					
11	143814	N	15500	140					
12	145839	S	15500	140					
17	151717	N	15500	140					
18	153739	S	15500	140					
19	155717	N	15500	140					
20	161629	S	15500	140					LINE ABORTED (DATA LOGGER)

Merrick and Company 110919B

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110919B	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110919BASE	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	110919AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	22	Hobbs start time:	4286.0	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.29	Hobbs stop time:	4289.8	Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	0	Total run time:	3.8	Difference:	0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
30	184339	N	15500	140					
31	190306	S	15500	140					
32	192200	N	15500	140					
33	194201	S	15500	140					
34	200114	N	15500	140					
35	202026	S	15500	140					
36	203947	N	15500	140					ABORT (CLOUD COVER)

Merrick and Company 110921A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		**Operator Preflight Checklist:**
Mission:	110921A	Pilot:	J. MacDuffee	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110921BASE	X	Lenses clean (under plane)
Operator:	Z.Ostmeyer	LiDAR/ IPAS HD SN:		Aux Station ID:	110921AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	3	Hobbs start time:	4291.9	GPS Altitude:	17500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.29	Hobbs stop time:	4295.7	Aircraft Altitude:	17100	X	LiDAR and Camera drives storage space verified
Altitude Temp:	-9	Total run time:	3.8	Difference:	400	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
79	135455	S	17500	140					
90	141338	NW	17500	140					
87	142134	S	17525	140					
85	143109	N	17500	140					
83	144116	S	17500	145					
82	145139	N	17500	135					
81	151050	S	17500	145					
80	152933	N	17500	135					
84	154951	S	17500	140					
91	160012	SE	17500	140					
89	160912	NW	17500	140					
92	162641	S	17500	140					

Merrick and Company 110921B

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		**Operator Preflight Checklist:**
Mission:	110921B	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110921BASE	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	110921AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	19	Hobbs start time:	4295.7	GPS Altitude:	15100		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.25	Hobbs stop time:	4300.5	Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	-3	Total run time:	4.8	Difference:	400	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
20	184448	N	15500	140					
21	190428	S	15500	140					
22	192417	N	15500	140					
23	194344	S	15500	140					
24	200301	N	15500	140					
25	202150	S	15500	140					
26	204057	N	15500	140					
27	205950	S	15500	140					
28	211922	N	15500	140					
29	213825	S	15500	140					
36	215644	N	15500	140					
41	221514	S	15500	140					ABORT (THUNDERSTORM)

Merrick and Company 110922A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110922A	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110922BASE	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	110922AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	04	Hobbs start time:	4300.5	GPS Altitude:	17500 15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.40	Hobbs stop time:	4305.6	Aircraft Altitude:	17500 15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	-8	Total run time:	5.1	Difference:	0 0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL		NOTES
86	143132	N	17500	140						
88	143737	S	17500	140						
93	145618	N	17500	140						
94	150237	S	17500	140						
37	151407	S	15500	140						
38	153337	N	15000	140						
39	155259	S	15500	140						
40	161456	N	15500	140						
41	163342	S	15500	140						
42	165406	N	15500	140						
43	171450	S	15500	140						
44	173434	N	15500	140						
45	175408	S	15500	140						ABORT Š LATE START
45	175941	S	15500	140						
46	181836	N	15500	140						

Merrick and Company 110922B

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110922B	Pilot:	J. MacDuffee	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110922BASE	X	Lenses clean (under plane)
Operator:	Z.Ostmeyer	LiDAR/ IPAS HD SN:		Aux Station ID:	110922AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	20	Hobbs start time:	4305.6	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.36	Hobbs stop time:	4309.7	Aircraft Altitude:	15100	X	LiDAR and Camera drives storage space verified
Altitude Temp:	0	Total run time:	4.1	Difference:	400	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
47	203929	S	15500	140					
48	210155	N	15500	140					
49	212355	S	15500	140					
50	214528	N	15500	140					
51	220648	S	15500	140					
52	222904	N	15500	140					
53	225105	S	15500	140					
54	231252	N	15500	140					

Merrick and Company 110922C

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110922C	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110922BASE	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	110922AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	19	Hobbs start time:	4309.7	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.33	Hobbs stop time:	4313.7	Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	0	Total run time:		Difference:	0 0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
55	011031	N	15500	140					
56	013040	S	15500	140					
57	014950	N	15500	140					
58	020932	S	15500	140					
59	022835	N	15500	140					
60	024919	S	15500	140					
61	030851	N	15500	140					
62	032819	S	15500	140					
63	034739	N	15500	140					

Merrick and Company 110923A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110923A	Pilot:	J. MacDuffee	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110923BASE	X	Lenses clean (under plane)
Operator:	Z.Ostmeyer	LiDAR/ IPAS HD SN:		Aux Station ID:	110923AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	7	Hobbs start time:	4313.7	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.49	Hobbs stop time:	4317.7	Aircraft Altitude:	15100	X	LiDAR and Camera drives storage space verified
Altitude Temp:	0	Total run time:	4.0	Difference:	400	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
64	151224	S	15500	140					
65	153446	N	15500	140					
66	155632	S	15500	140					
67	161909	N	15500	140					
68	164101	S	15500	140					
69	170259	N	15500	140					
70	172440	S	15500	140					
71	174559	N	15500	140					

Merrick and Company 110923B

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN LUIS VALLEY	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53ŠALS50 (phase 2)		Operator Preflight Checklist:
Mission:	110923B	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:	65217108	POS CARD # (Phase1):		Base Station ID:	110923BASE	X	Lenses clean (under plane)
Operator:	A. Siler	LiDAR/ IPAS HD SN:		Aux Station ID:	110923AUX	X	Flt plan printed and loaded in TrackAir
Ground Temp:	22	Hobbs start time:	4317.7	GPS Altitude:	15500		Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.41	Hobbs stop time:	4320.6	Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	0	Total run time:	2.9	Difference:	0 0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
72	195446	N	15500	140					
73	201259	S	15500	140					
74	203210	N	15500	140					
75	205112	S	15500	140					
76	210916	N	15500	140					
77	212351	S	15500	140					
78	213701	W	15500	140					

Merrick and Company 120329A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	SAN Luis	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	Orion C200		
Mission:	120329A	Pilot:		Camera SN:			
Job Number:		POS CARD # (Phase1):		Base Station ID:	180911Base		
Operator:		LiDAR/ IPAS HD SN:		Aux Station ID:	180911AUX		
Ground Temp:	06	Hobbs start time:	0.0	GPS Altitude:	1000		
Ground Pressure:	30.40	Hobbs stop time:	0.0	Aircraft Altitude:	1000		
Altitude Temp:	-2	Total run time:	0.5	Difference:	0		

Operator Preflight Checklist:	
X	GPS bases up and running
X	Lenses clean (under plane)
X	Flt plan printed and loaded in TrackAir
	Sun Angle and PDOP (*w/ GPS selected only*)
X	LiDAR and Camera drives storage space verified
X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
36	120329	S	1000	65kts					

Merrick and Company 111116_A

Merrick & Company LIDAR OBSERVATION FORM

Job Name:	AeroMetric_SanLuis_Patch	Aircraft:	N4661N-402C (C2)	LIDAR Sensor:	SN53–ALS50 (phase 2)		Operator Preflight Checklist:
Mission:	111116A	Pilot:	D. Althculer	Camera SN:		X	GPS bases up and running
Job Number:		POS CARD # (Phase1):		Base Station ID:	ALSBbase111116	X	Lenses clean (under plane)
Operator:	Peter Stangel	LiDAR/ IPAS HD SN:		Aux Station ID:		X	Flt plan printed and loaded in TrackAir
Ground Temp:	2c	Hobbs start time:		GPS Altitude:	15500	X	Sun Angle and PDOP (*w/ GPS selected only*)
Ground Pressure:	30.18	Hobbs stop time:		Aircraft Altitude:	15500	X	LiDAR and Camera drives storage space verified
Altitude Temp:	-16c	Total run time:	0.0	Difference:	0	X	LiDAR, DACS, TrackAir systems up and running

FLIGHT LINE Number	MISSION ID	FLIGHT DIR	GPS ALTITUDE	GROUND SPEED	END EVENT Number	END IMAGE Number	IMAGERY PLANNED	IMAGERY ACTUAL	NOTES
95	193859	S	15500	160					
96	194056	S	15500	160					
96	194708	N	15500	130					
95	194935	N	15500	130					

The Atlantic Group 9_22_20011

```
1
2            Flight Log
3 ------------------------------
4 Project Number: 1110814
5 S/N           : USGS - San Luis Valley
6 Operator      : SSPRATT
7 Pilot(s)      : SHEAD
8 Aircraft      : N1872H
9 Airport       : KALS
10 Mission       : San_luis_TAG.pln
11 Wheels Up     :
12 Flight Length :
13 HOBBS Start   :
14 HOBBS End     :
15
16            Weather
17 ------------------------------
18 Date          : September 22, 2011
19 Julian Day    : 265
20 Temperature   : 06C
21 Visibility    : 10
22 Clouds        : SKC
23 Precipitation : NA
24 Wind Dir      : CALM
25 Wind Speed    : 0
26 Pressure      : 30.40
27            Statistics
28 ------------------------------
29 Laser Time    : 01:49:55
30
31
32
```

START	STOP	LINE#	ALT	PRF	FREQ	ANGLE	MP	DIV	RC	HDG	Plan File
14:49:52.762	14:50:05.762	1	4535	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
14:58:48.657	14:59:00.957	1	4353	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
15:01:29.856	15:07:11.453	1	4399	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
15:11:02.151	15:18:21.948	2	4265	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
15:23:30.345	15:33:09.54	3	4441	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
15:37:24.838	15:48:14.033	4	4137	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
15:52:04.431	16:02:54.925	5	4644	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
16:07:20.723	16:17:53.617	6	4206	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
16:21:16.815	16:32:02.81	7	4774	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
16:35:35.808	16:46:41.902	8	4035	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
16:49:53.2	17:00:48.194	9	4747	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
17:04:12.891	17:15:08.484	10	4141	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
17:18:03.282	17:28:49.274	11	4947	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
17:32:36.072	17:33:32.271	6	4801	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356

The Atlantic Group 9_22_20011

```
                Flight Log
------------------------------
Project Number: 1110814
S/N           : USGS - San Luis Valley
Operator      : SSPRATT
Pilot(s)      : SHEAD
Aircraft      : N1872H
Airport       : KALS
Mission       : San_luis_TAG.pln
Wheels Up     :
Flight Length :
HOBBS Start   :
HOBBS End     :

                Weather
------------------------------
Date          : September 22, 2011
Julian Day    : 265
Temperature   : 20C
Visibility    : 10
Clouds        : SKC
Precipitation : NA
Wind Dir      : 360
Wind Speed    : 7
Pressure      : 30.37
               Statistics
------------------------------
Laser Time    : 01:15:33
```

START	STOP	LINE#	ALT	PRF	FREQ	ANGLE	MP	DIV	RC	HDG	Plan File
20:29:57.72	20:40:56.317	12	4579	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
20:44:40.816	20:55:37.813	13	4083	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
20:59:33.711	21:10:48.807	14	4658	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
21:14:33.605	21:25:21	15	4051	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
21:29:14.798	21:40:16.592	16	4614	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
21:43:54.79	21:54:36.584	17	4209	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	356
21:58:33.881	22:08:47.675	18	4086	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
21:58:33.881	22:08:47.675	18	4089	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176
21:58:33.881	22:08:47.675	18	4098	50	42.00	12.00	UNKNOWN	NAR	OFF	0.00	176

The Atlantic Group 9_22_20011

```
 1
 2            Flight Log
 3 -------------------------------
 4 Project Number: 1110814
 5 S/N           : USGS - San Luis Valley
 6 Operator      : SSPRATT
 7 Pilot(s)      : SHEAD
 8 Aircraft      : N1872H
 9 Airport       : KALS
10 Mission       : San_luis_TAG.pln
11 Wheels Up     :
12 Flight Length :
13 HOBBS Start   :
14 HOBBS End     :
15
16            Weather
17 -------------------------------
18 Date          : September 22, 2011
19 Julian Day    : 265
20 Temperature   : 20C
21 Visibility    : 10
22 Clouds        : SKC
23 Precipitation : NA
24 Wind Dir      : 360
25 Wind Speed    : 7
26 Pressure      : 30.37
27            Statistics
28 -------------------------------
29 Laser Time    : 06:29:13
30
31
32
33         START          STOP LINE#    ALT  PRF     FREQ   ANGLE   MP  DIV    RC        HDG    Plan File
34 ========================================
35  16:14:06.011  22:10:51.674     0   4191   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
36  22:13:27.072  22:24:21.465    18   4265   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
37  22:27:57.863  22:38:51.556    19   4594   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
38  22:42:39.853  22:53:32.646    20   4219   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
```

The Atlantic Group 9_23_20011

```
1
2            Flight Log
3 ------------------------------
4 Project Number: 1110814
5 S/N           : 0
6 Operator      : SSPRATT
7 Pilot(s)      : SHEAD
8 Aircraft      : N1872H
9 Airport       : KKALS
10 Mission       : San_Luis_Tag.pln
11 Wheels Up     : ???
12 Flight Length :
13 HOBBS Start   :
14 HOBBS End     :
15
16            Weather
17 ------------------------------
18 Date          : September 23, 2011
19 Julian Day    : 266
20 Temperature   : 6C
21 Visibility    : 10
22 Clouds        : SKC
23 Precipitation : NA
24 Wind Dir      : 160
25 Wind Speed    : 5
26 Pressure      : 30.49
27            Statistics
28 ------------------------------
29 Laser Time    : 02:10:22
30
31
32
33         START          STOP LINE#    ALT  PRF     FREQ   ANGLE   MP  DIV    RC        HDG    Plan File
34 ======================================
35  14:51:10.699  14:51:23.099    21   4292   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
36  14:51:53.999  15:02:32.593    21   4520   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
37  15:06:55.691  15:18:00.183    22   4206   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
38   15:22:03.08  15:32:34.573    23   4755   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
39  15:36:40.471  15:47:23.464    24   4283   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
40  15:50:27.862  16:00:59.755    25   4483   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
41  16:04:15.253  16:15:20.447    26   4450   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
42  16:18:19.446   16:28:51.04    27   4624   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
43  16:32:13.838  16:43:27.433    28   4213   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
44  16:46:06.931  16:56:40.526    29   5026   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
45  17:00:05.925   17:10:38.92    30   4199   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
46  17:14:30.718  17:21:47.714    31   4816   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
47  17:24:34.713  17:31:34.309    32   4509   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
48  17:36:01.707  17:40:49.905    33   4782   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          176
49  17:44:31.003  17:49:01.101    34   4478   50    42.00   12.00 UNKNOWN  NAR   OFF       0.00          356
```

The Atlantic Group 9_24_20011

```
1
2            Flight Log
3 ------------------------------
4 Project Number: 1110814
5 S/N           : San_luis_TAG.pln
6 Operator      : SSPRATT
7 Pilot(s)      : SHEAD
8 Aircraft      : N1872H
9 Airport       : KALS
10 Mission       : JD267FO1
11 Wheels Up     : ???
12 Flight Length :
13 HOBBS Start   :
14 HOBBS End     :
15
16            Weather
17 ------------------------------
18 Date          : September 24, 2011
19 Julian Day    : 267
20 Temperature   : 13C
21 Visibility    : 10
22 Clouds        : CLEAR
23 Precipitation : NA
24 Wind Dir      : CALM
25 Wind Speed    : 0
26 Pressure      : 30.37
27            Statistics
28 ------------------------------
29 Laser Time    : 02:27:21
30
31
32
33         START          STOP LINE#    ALT  PRF     FREQ   ANGLE   MP  DIV    RC        HDG    Plan File
34 ======================================
35  16:03:29.626  16:03:41.526    35   4158   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
36  16:04:55.725  16:16:16.021    35   3908   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
37   16:18:55.52  16:30:12.716    36   4037   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
38  16:34:17.014   16:45:58.11    37   3950   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
39  16:49:08.209  17:00:36.005    38   4047   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
40  17:04:06.204  17:15:34.799    39   4044   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
41  17:18:27.698  17:30:21.894    40   4171   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
42  17:33:30.193  17:45:02.789    41   3841   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
43  17:48:37.887  17:59:42.783    42   4208   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
44  18:02:41.582  18:13:50.378    43   3998   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
45  18:16:25.677  18:27:45.173    44   4208   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
46  18:30:33.072  18:41:55.667    45   4005   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
47  18:45:04.866  18:56:14.362    46   4233   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
48  18:59:17.061  19:10:26.357    47   4075   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
```

The Atlantic Group 9_24_20011

```
Flight Log
-------------------------------
Project Number: 1110814
S/N           : 0
Operator      : SSPRATT
Pilot(s)      : SHEAD
Aircraft      : N1872H
Airport       : KALS
Mission       : San_luis_TAG.pln
Wheels Up     :
Flight Length :
HOBBS Start   :
HOBBS End     :

            Weather
-------------------------------
Date          : September 24, 2011
Julian Day    : 267
Temperature   : 26C
Visibility    : 10
Clouds        : SKC
Precipitation : NA
Wind Dir      : VAR
Wind Speed    : 03
Pressure      : 30.12
            Statistics
-------------------------------
Laser Time    : 01:45:24
```

START	STOP	LINE#	ALT	PRF	FREQ	ANGLE	MP	DIV	RC	HDG	Plan File
21:56:18.777	22:01:20.876	69	4050	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
22:04:40.376	22:09:43.475	70	4100	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
22:13:19.574	22:17:51.273	71	4092	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
22:20:59.073	22:25:59.872	72	4091	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
22:28:54.671	22:33:33.47	73	4115	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
22:37:05.369	22:42:06.167	74	4013	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
22:45:26.566	22:49:58.265	75	4106	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
22:54:01.464	22:58:58.462	76	4061	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
23:02:14.661	23:06:50.66	77	4184	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
23:10:20.759	23:14:58.057	78	4109	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
23:17:57.756	23:22:21.055	79	4218	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
23:26:05.653	23:30:47.952	80	4069	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
23:33:58.451	23:38:19.849	81	4260	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
23:41:50.748	23:46:15.446	82	4307	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
23:48:58.545	23:52:47.544	83	4278	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
23:55:38.943	23:59:27.841	84	4368	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
00:02:34.64	00:05:45.839	85	4399	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
00:09:22.537	00:12:41.836	86	4539	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
00:15:30.835	00:18:08.534	87	4475	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	102
00:21:40.632	00:22:31.532	88	4734	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	282
00:29:06.729	00:40:36.024	48	4360	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	177
00:43:50.422	00:55:32.717	49	3872	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	357

The Atlantic Group 9_25_20011

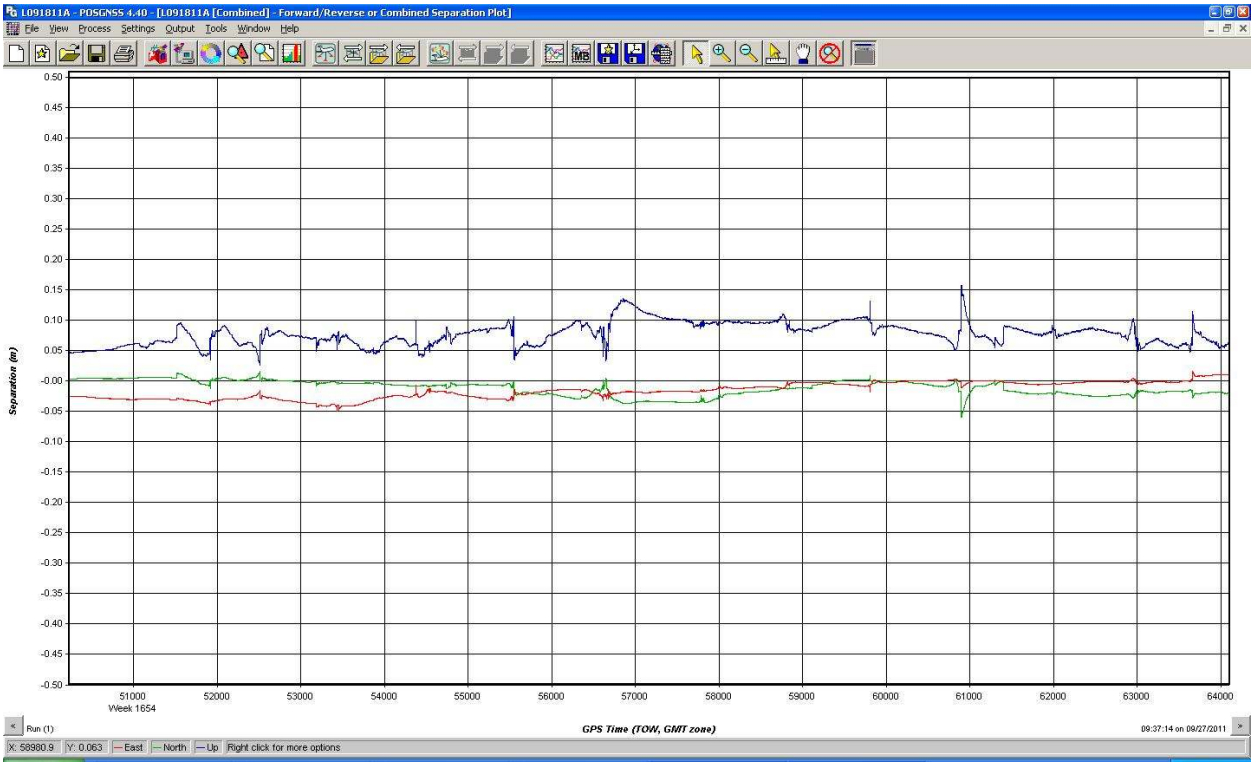
```
1
2            Flight Log
3 ------------------------------
4 Project Number: 1110814
5 S/N           : 0
6 Operator      : SSPRATT
7 Pilot(s)      : SHEAD
8 Aircraft      : N1872H
9 Airport       : KALS
10 Mission       : ???
11 Wheels Up     : ???
12 Flight Length :
13 HOBBS Start   :
14 HOBBS End     :
15
16            Weather
17 ------------------------------
18 Date          : September 25, 2011
19 Julian Day    : 268
20 Temperature   : 8C
21 Visibility    : 10
22 Clouds        : CLEAR
23 Precipitation : NA
24 Wind Dir      : CALM
25 Wind Speed    : NA
26 Pressure      : 30.23
27            Statistics
28 ------------------------------
29 Laser Time    : 02:14:25
30
31
32
33         START          STOP LINE#    ALT  PRF     FREQ   ANGLE   MP  DIV    RC        HDG    Plan File
34 ========================================
35  14:32:48.311  14:36:37.608    84   4227   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          102
36  14:44:34.603  14:55:38.096    50   4072   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
37  14:59:48.894  15:10:40.888    51   3937   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
38  15:14:23.687  15:25:19.382    52   4194   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
39   15:29:05.88  15:40:12.676    53   4005   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
40  15:43:42.574   15:54:27.77    54   4181   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
41  15:58:08.568  16:09:07.864    55   4055   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
42  16:13:34.163  16:23:43.459    56   4199   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
43  16:27:31.457  16:38:20.453    57   4050   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
44  16:41:53.652  16:52:42.948    58   4250   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
45  16:56:54.446  17:08:14.542    59   4148   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
46  17:11:39.141  17:22:36.237    60   4338   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
47  17:26:36.835  17:37:17.932    61   4022   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          357
48   17:40:04.43   17:41:06.33    56   4031   70    42.00   16.00 UNKNOWN  NAR   OFF       0.00          177
```

The Atlantic Group 9_25_20011

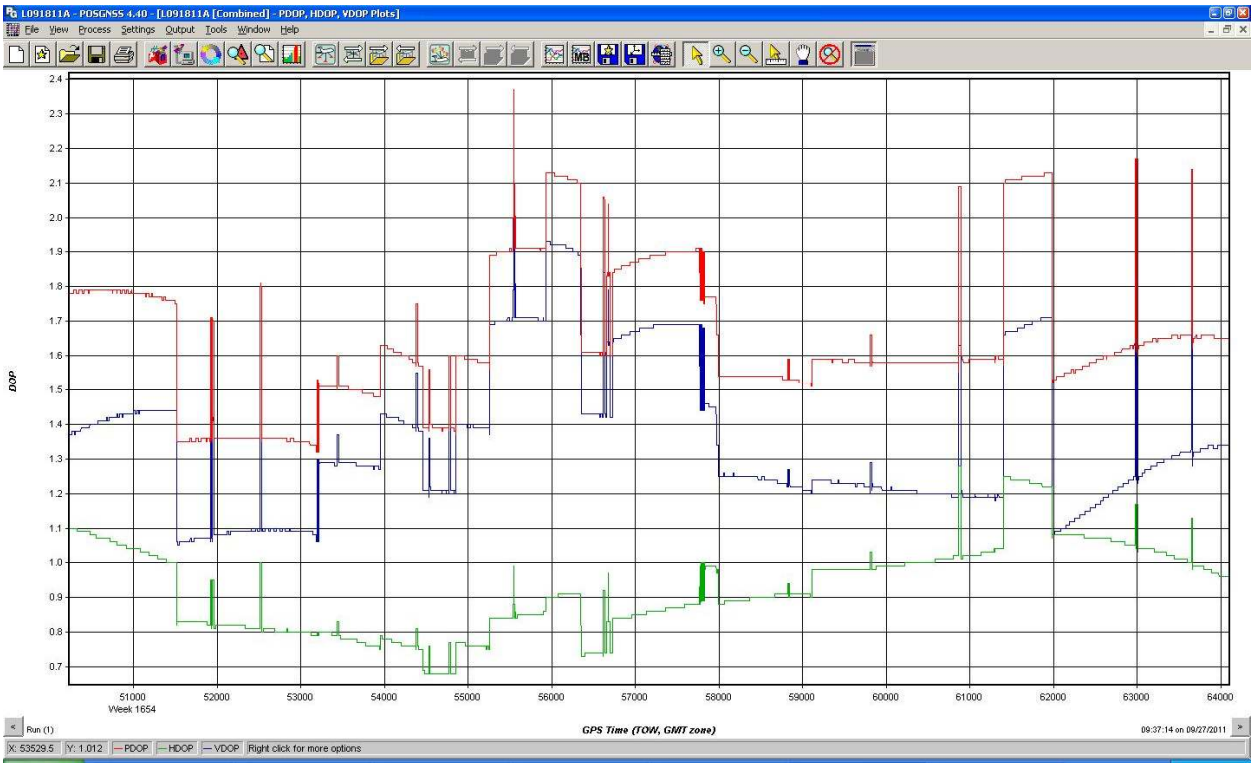
```
1
2            Flight Log
3 ------------------------------
4 Project Number: 1110814
5 S/N           : San_Luis_TAG.pln
6 Operator      : SSPRATT
7 Pilot(s)      : SHEAD
8 Aircraft      : N1872H
9 Airport       : KALS
10 Mission      : ???
11 Wheels Up    : ???
12 Flight Length :
13 HOBBS Start  :
14 HOBBS End    :
15
16            Weather
17 ------------------------------
18 Date          : September 25, 2011
19 Julian Day    : 268
20 Temperature   : 23
21 Visibility    : 10
22 Clouds        : CLEAR
23 Precipitation : NA
24 Wind Dir      : VAR
25 Wind Speed    : 03
26 Pressure      : 30.17
27            Statistics
28 ------------------------------
29 Laser Time    : 07:06:38
30
31
32
```

START	STOP	LINE#	ALT	PRF	FREQ	ANGLE	MP	DIV	RC	HDG	Plan File
13:55:46.841	19:46:30.325	0	4151	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	176
19:54:42.624	20:05:59.621	62	4324	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	177
20:09:15.32	20:20:07.517	63	4130	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	357
20:23:46.315	20:34:56.312	64	4340	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	177
20:38:03.711	20:48:46.207	65	4020	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	357
20:51:54.406	21:02:36.202	66	4366	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	177
21:05:54.701	21:16:15.898	67	4039	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	357
21:19:44.696	21:30:59.692	68	4337	70	42.00	16.00	UNKNOWN	NAR	OFF	0.00	177

Aerometric Inc Separation Plots L091811A



Aerometric Inc PDOP L091811A



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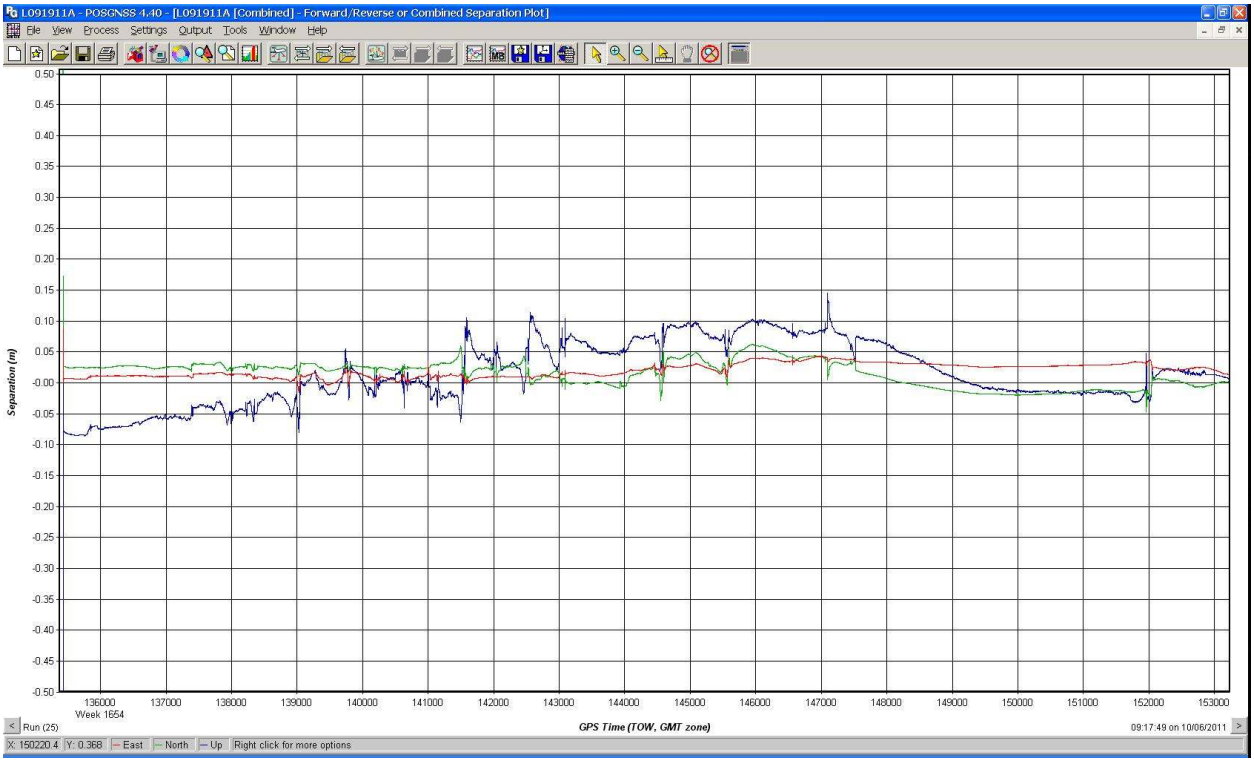

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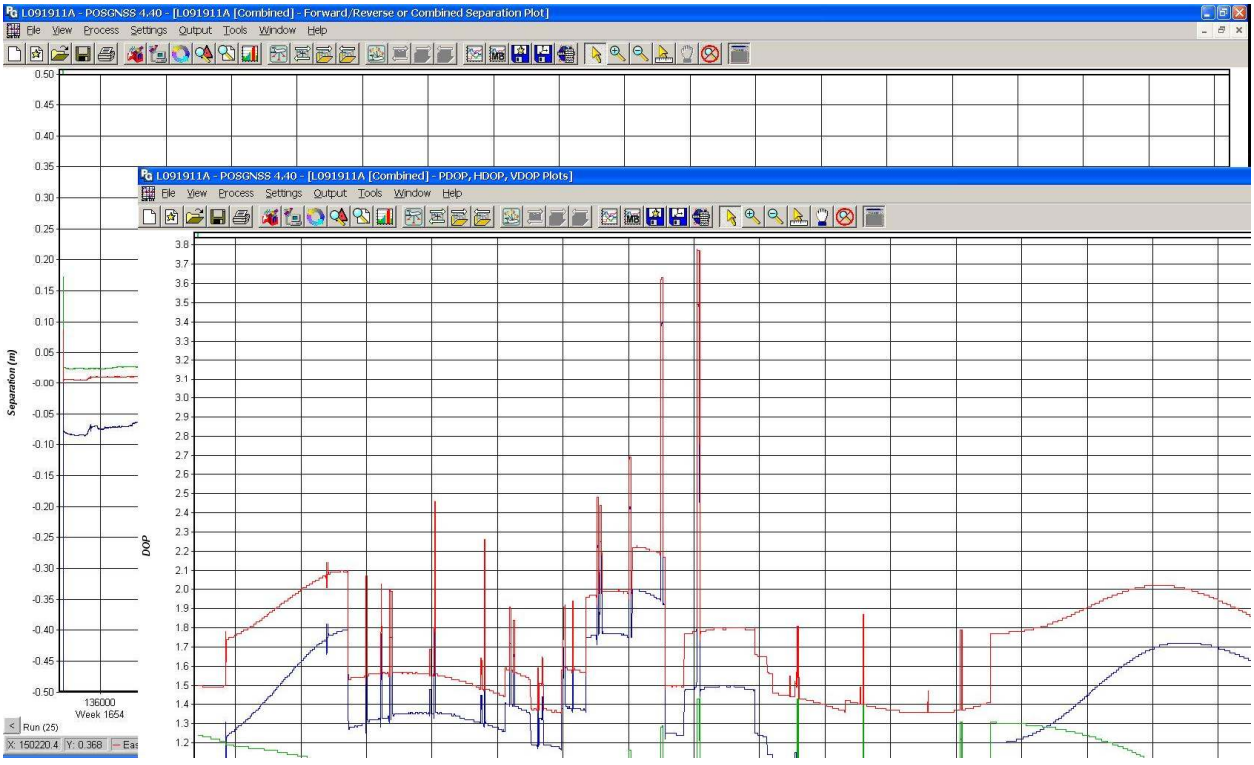

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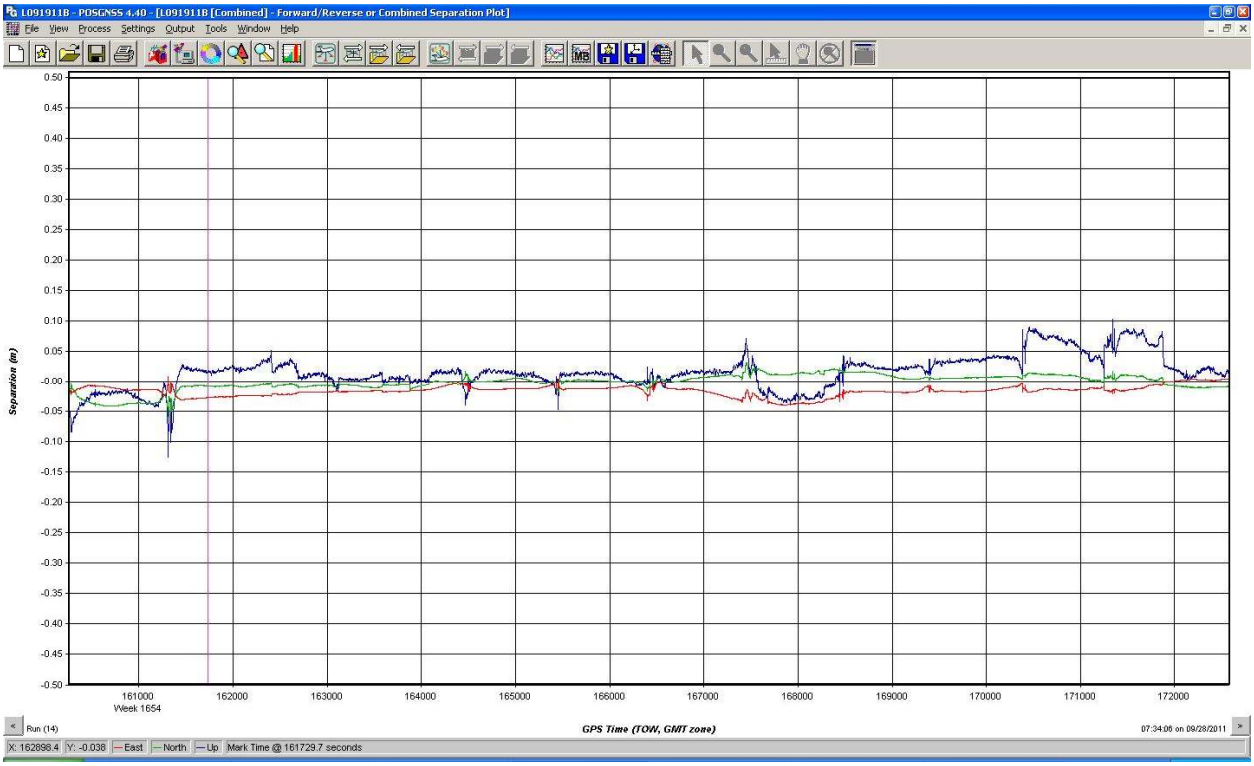

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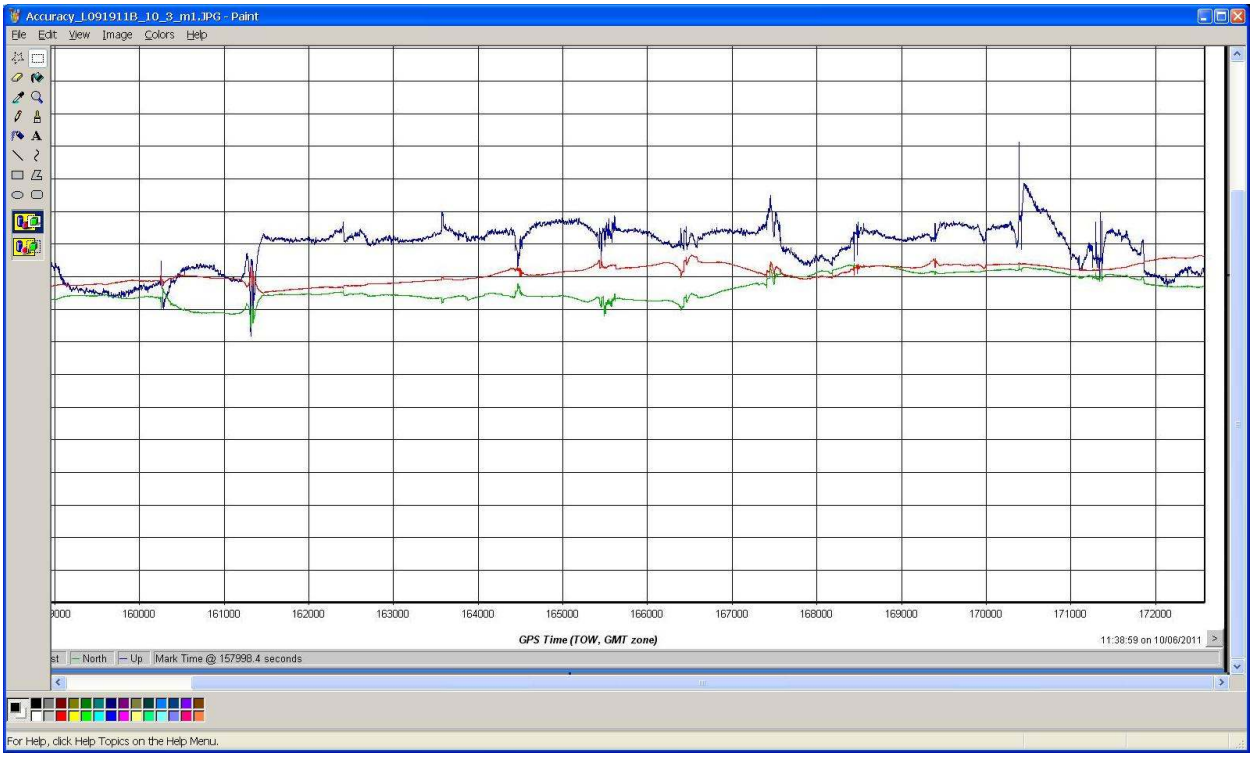

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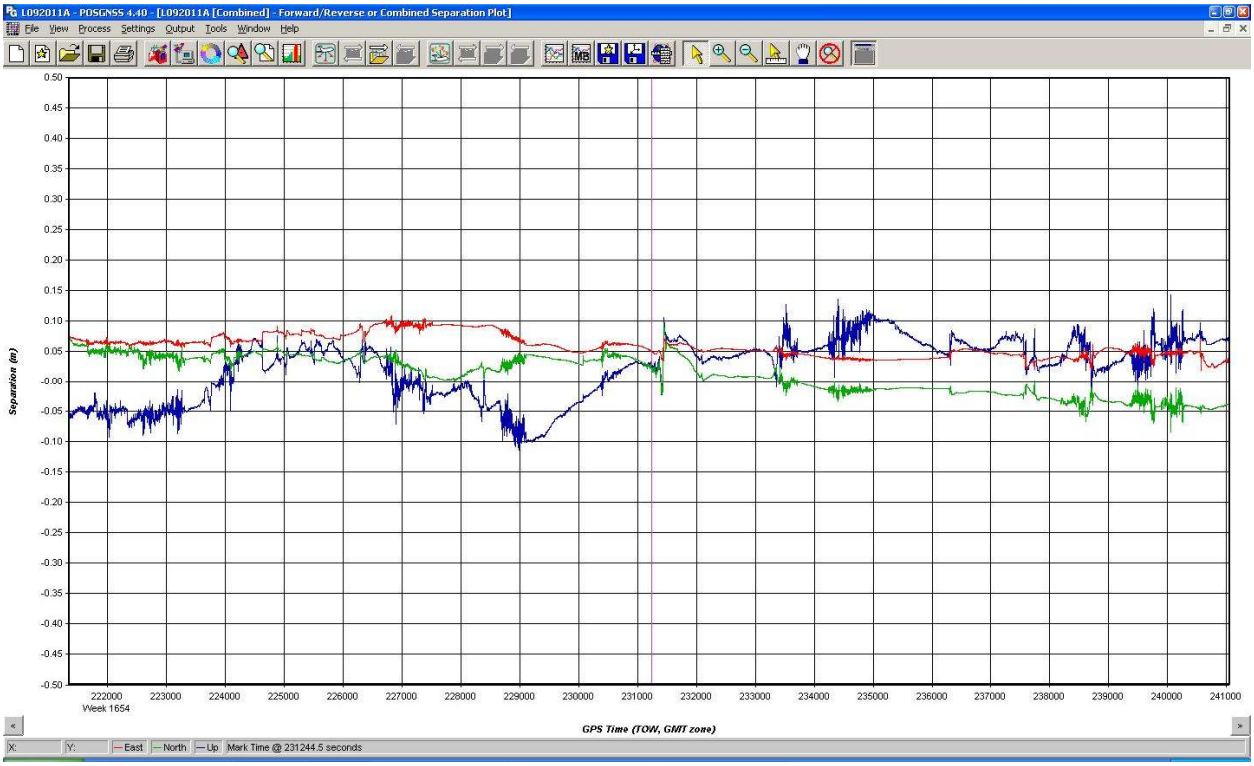

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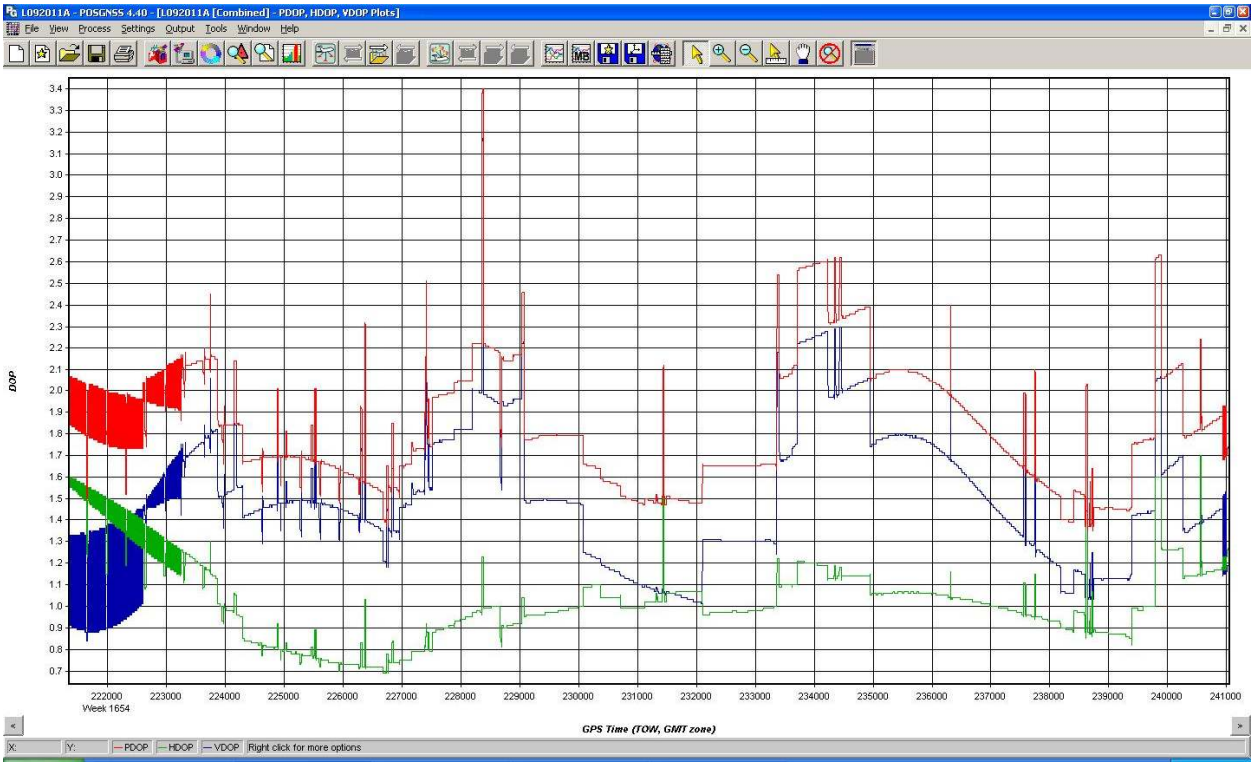

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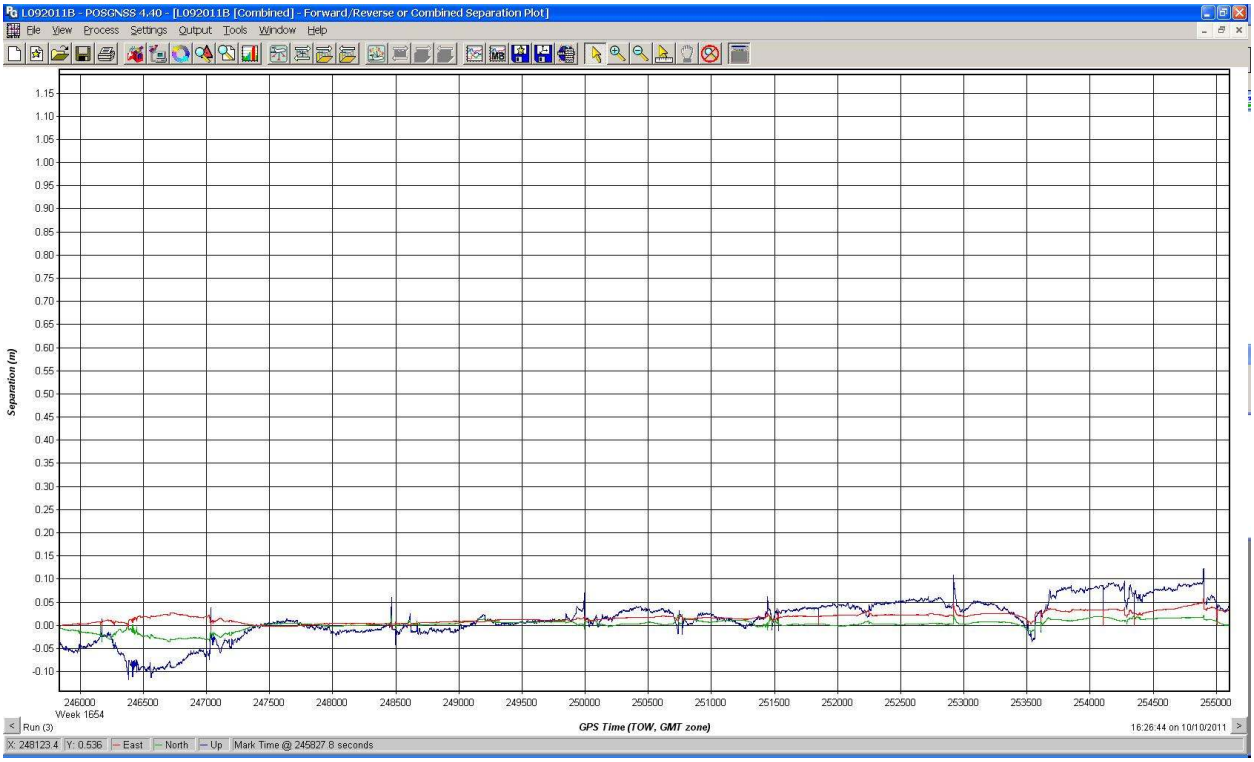

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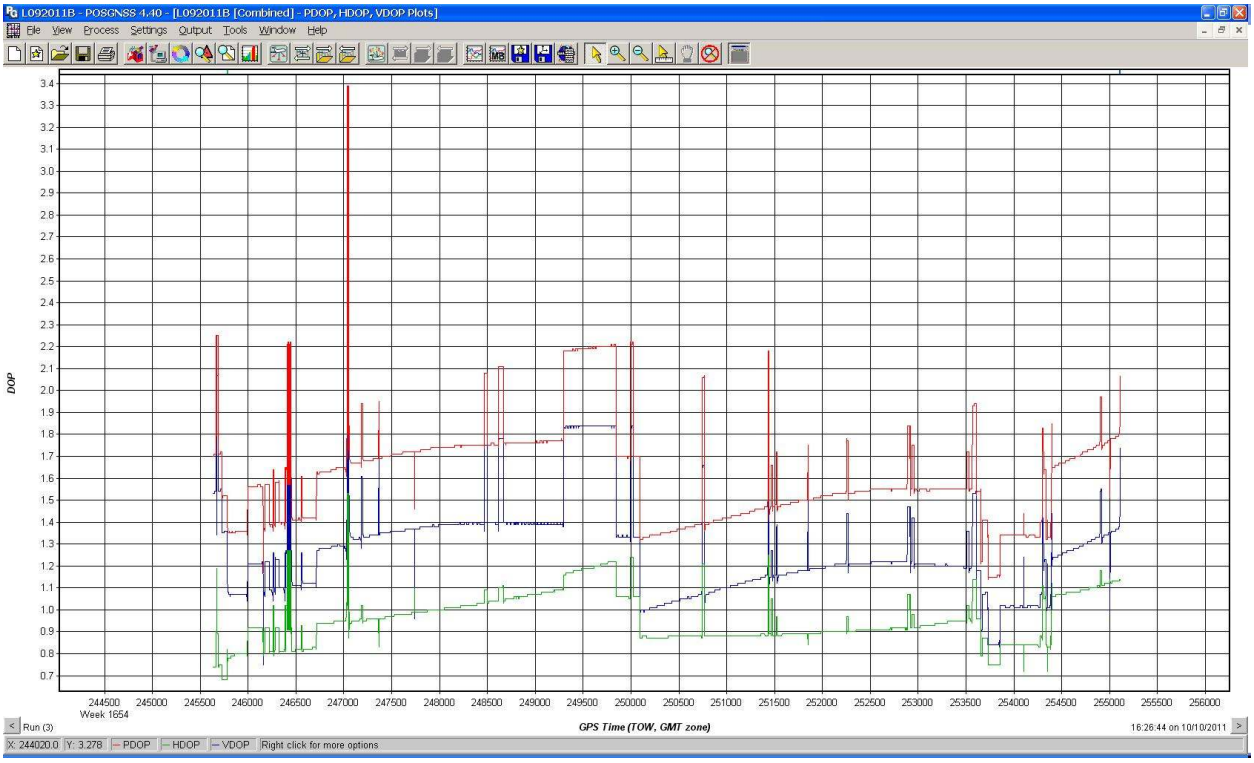

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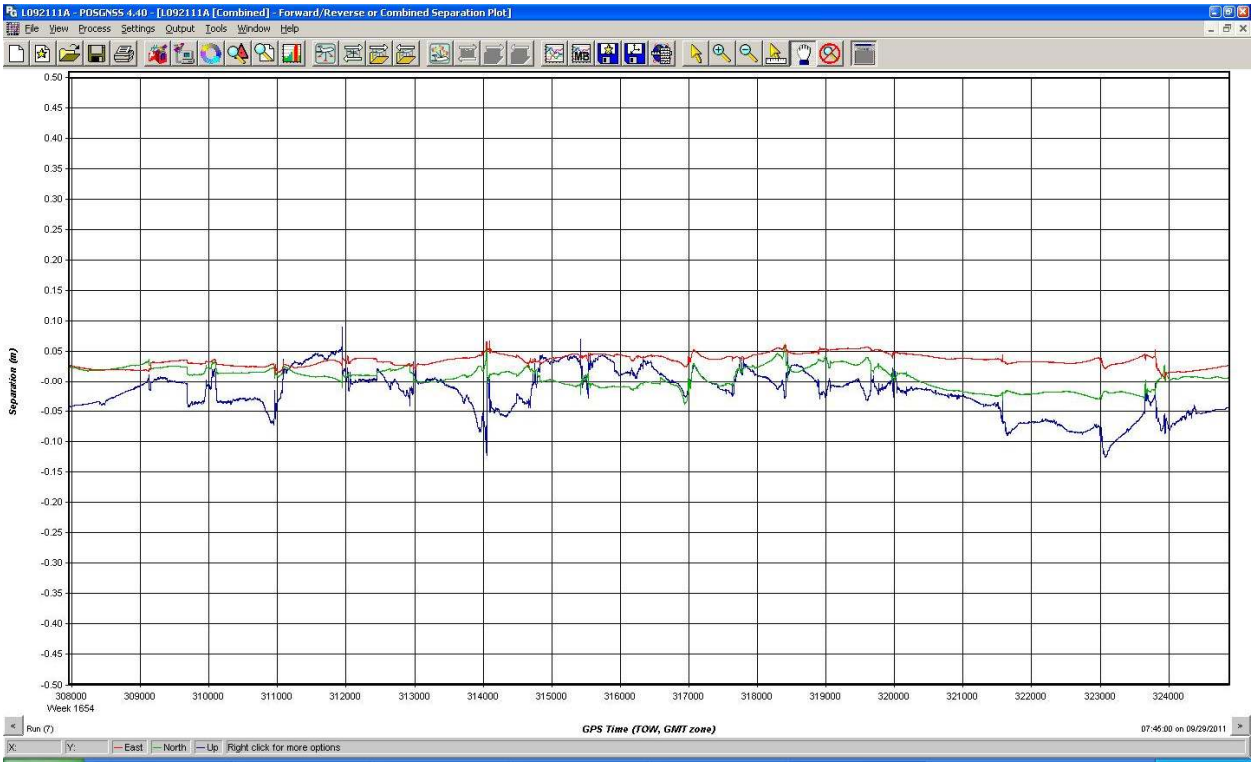

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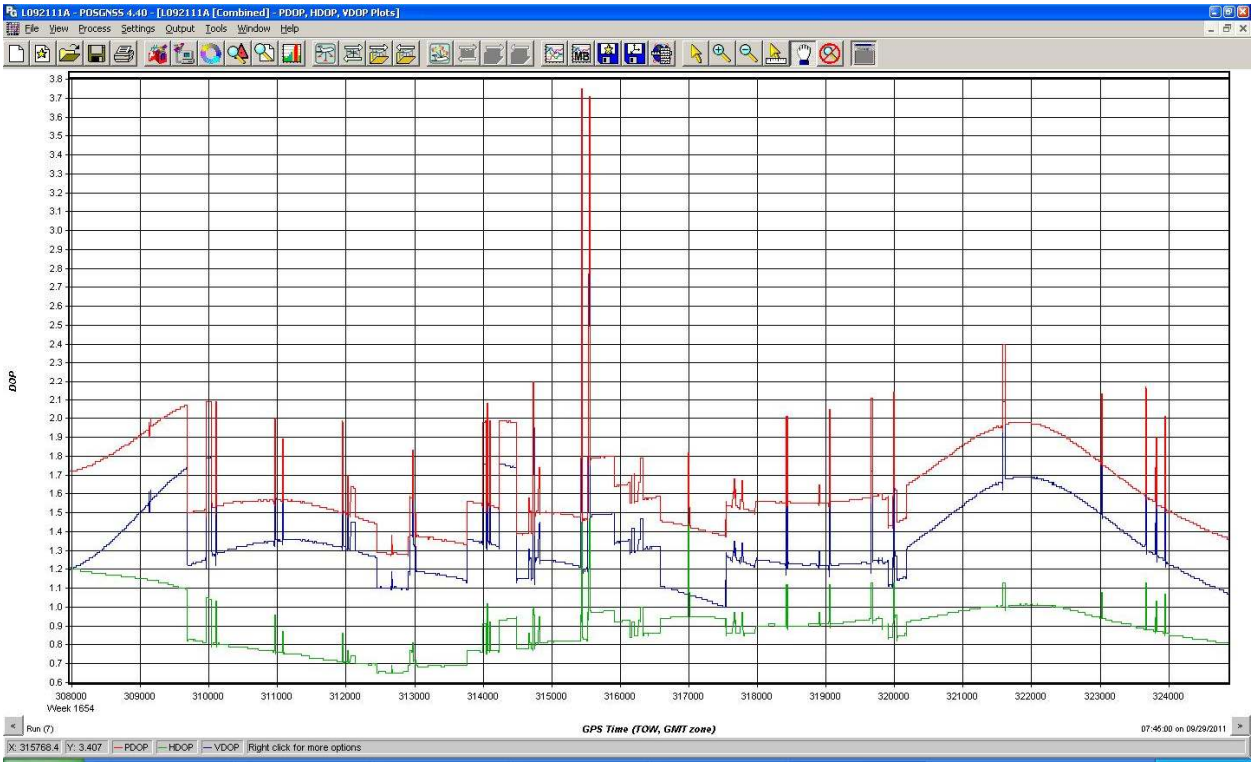

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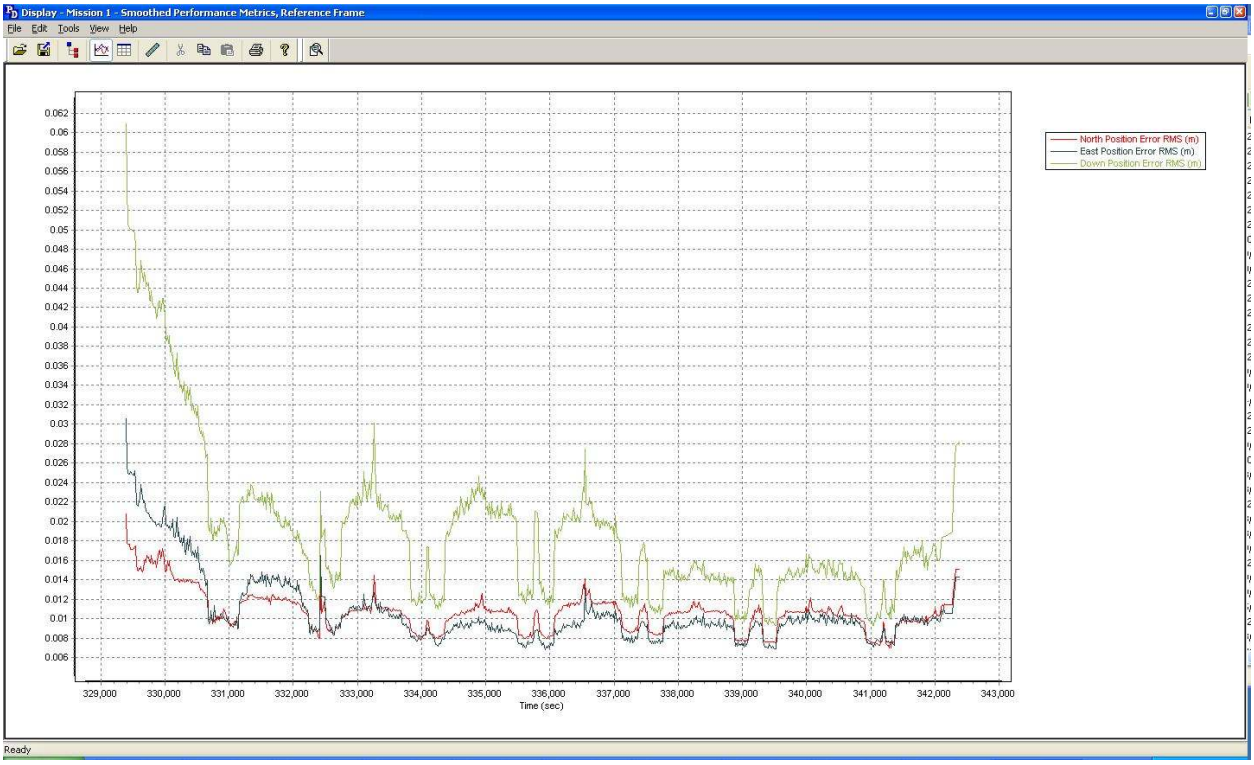

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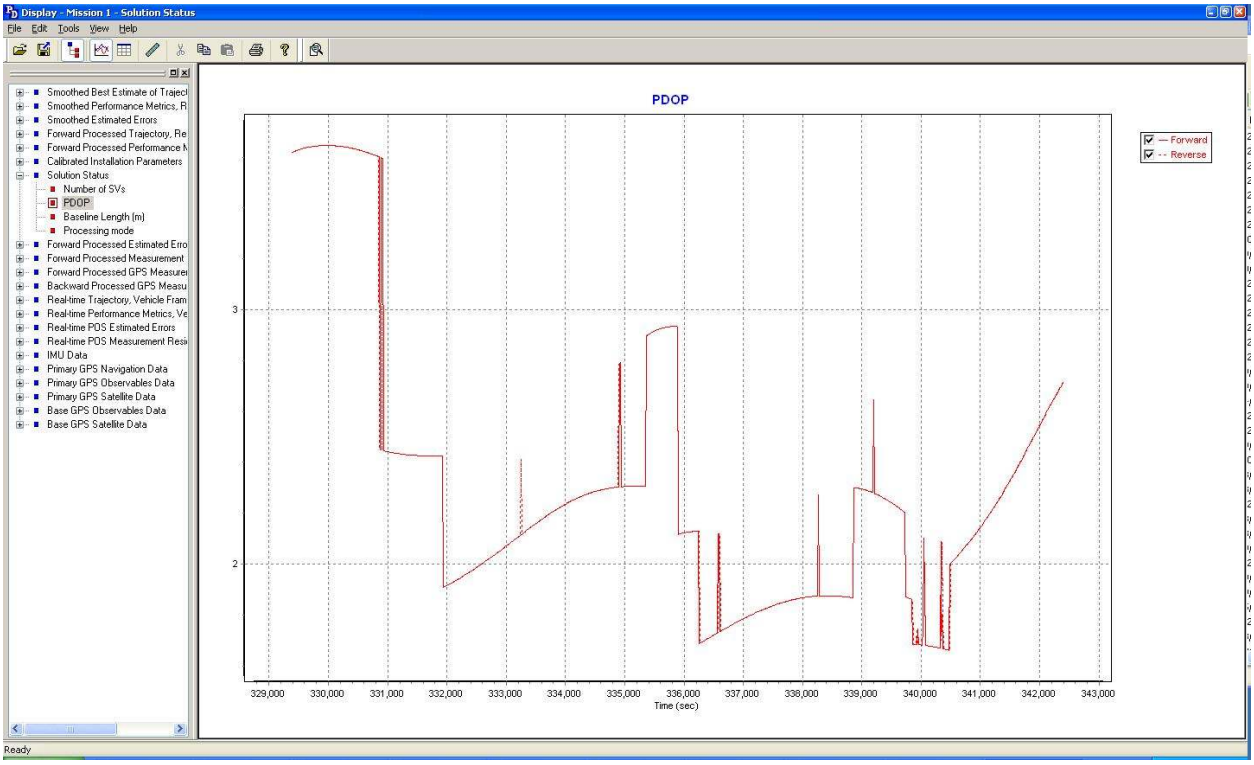

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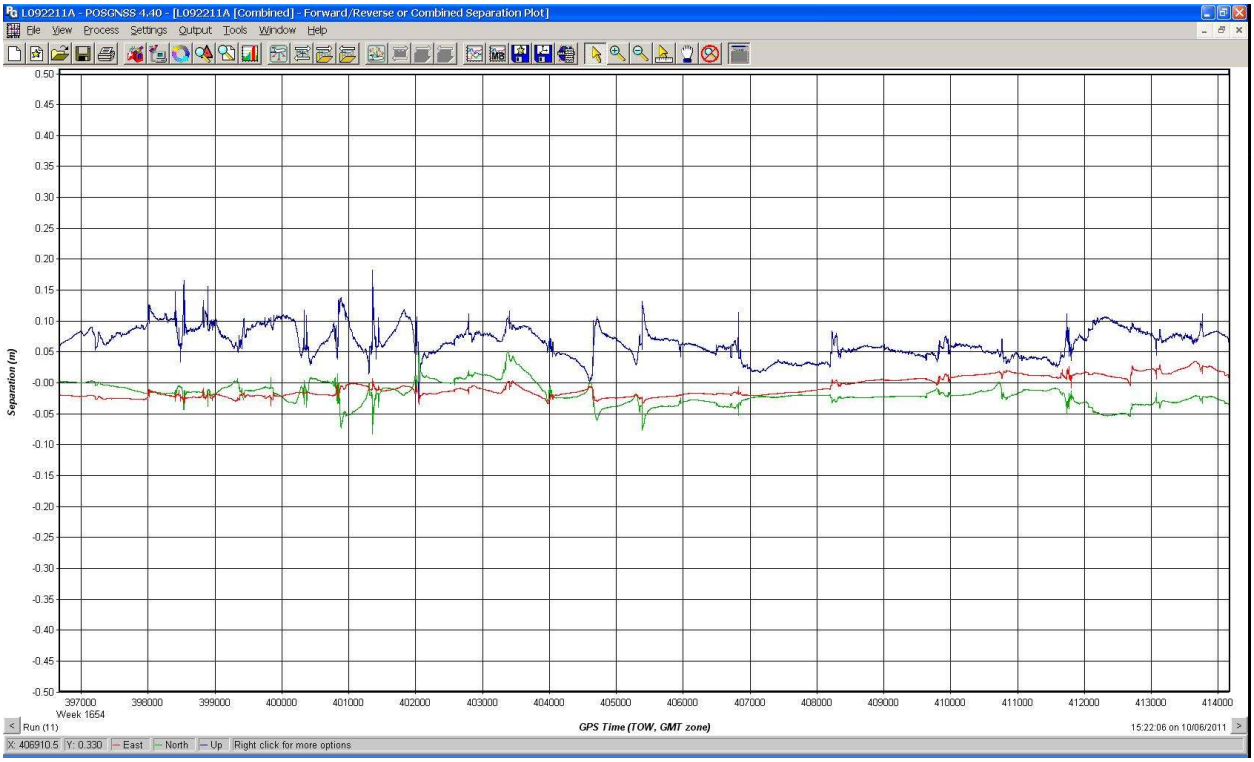

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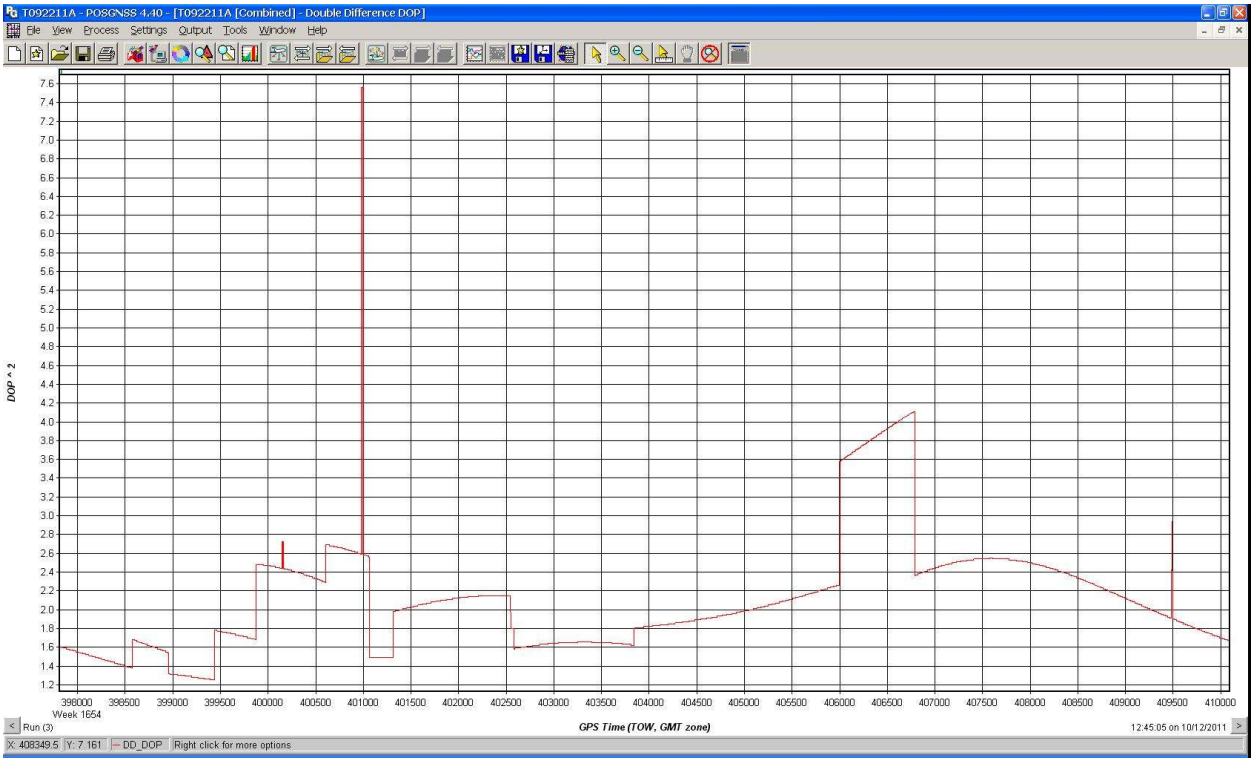

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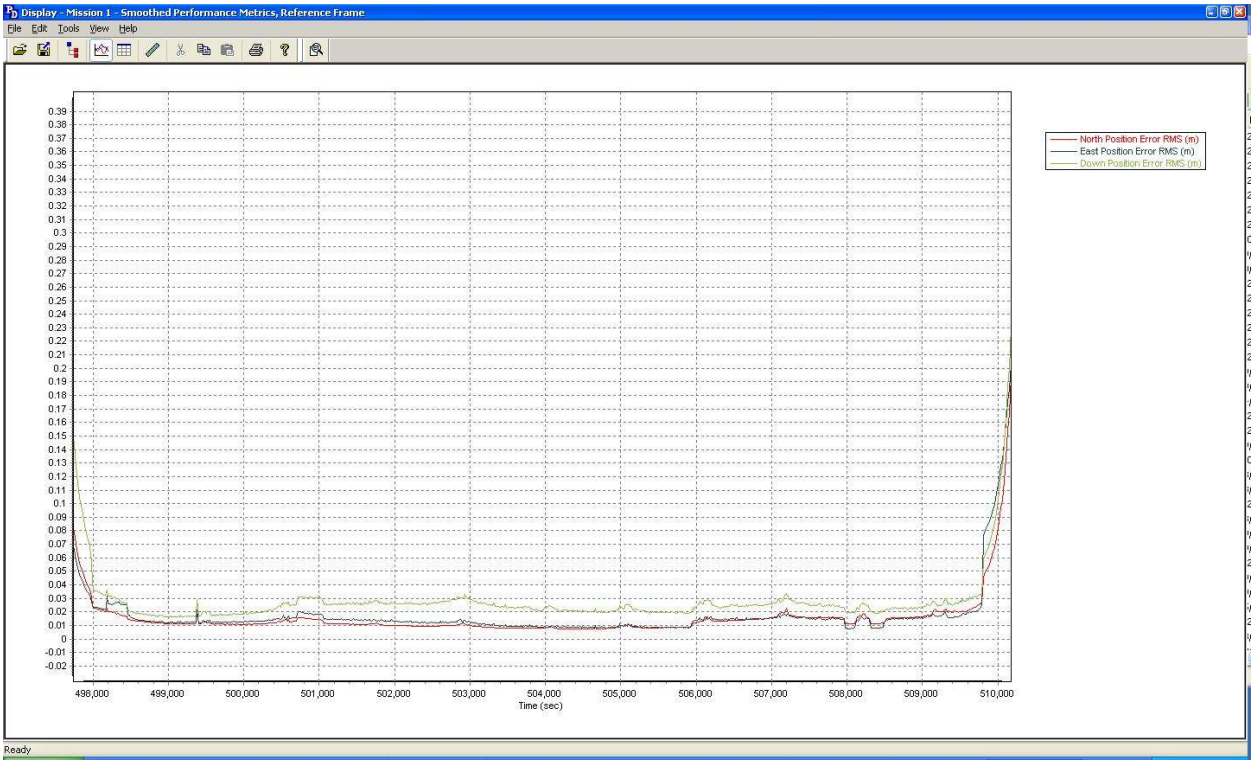

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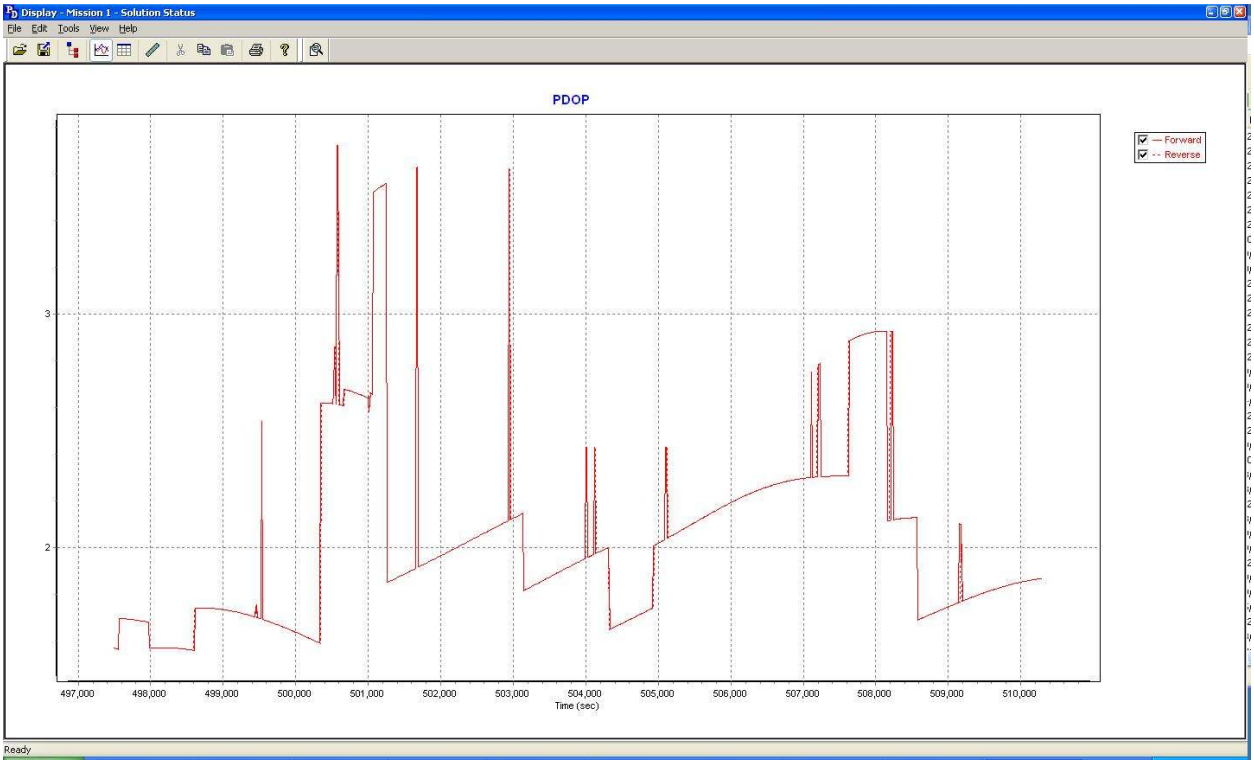

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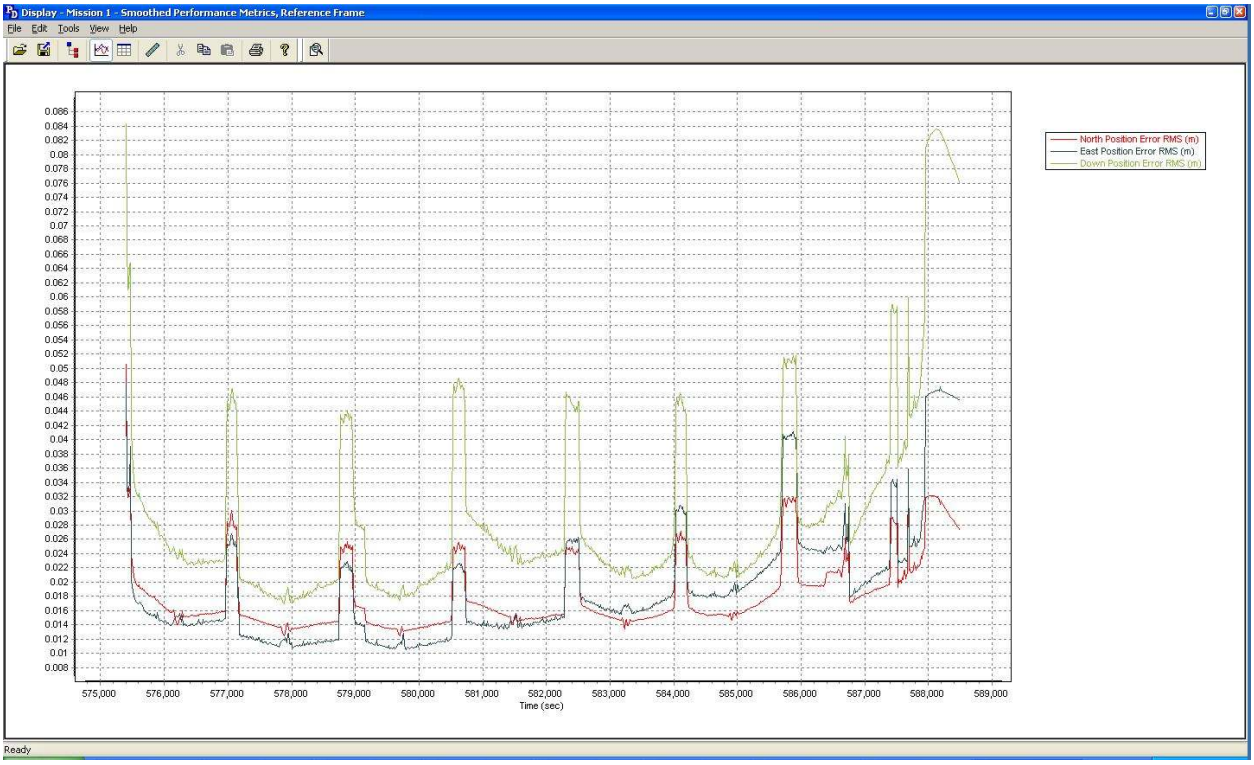

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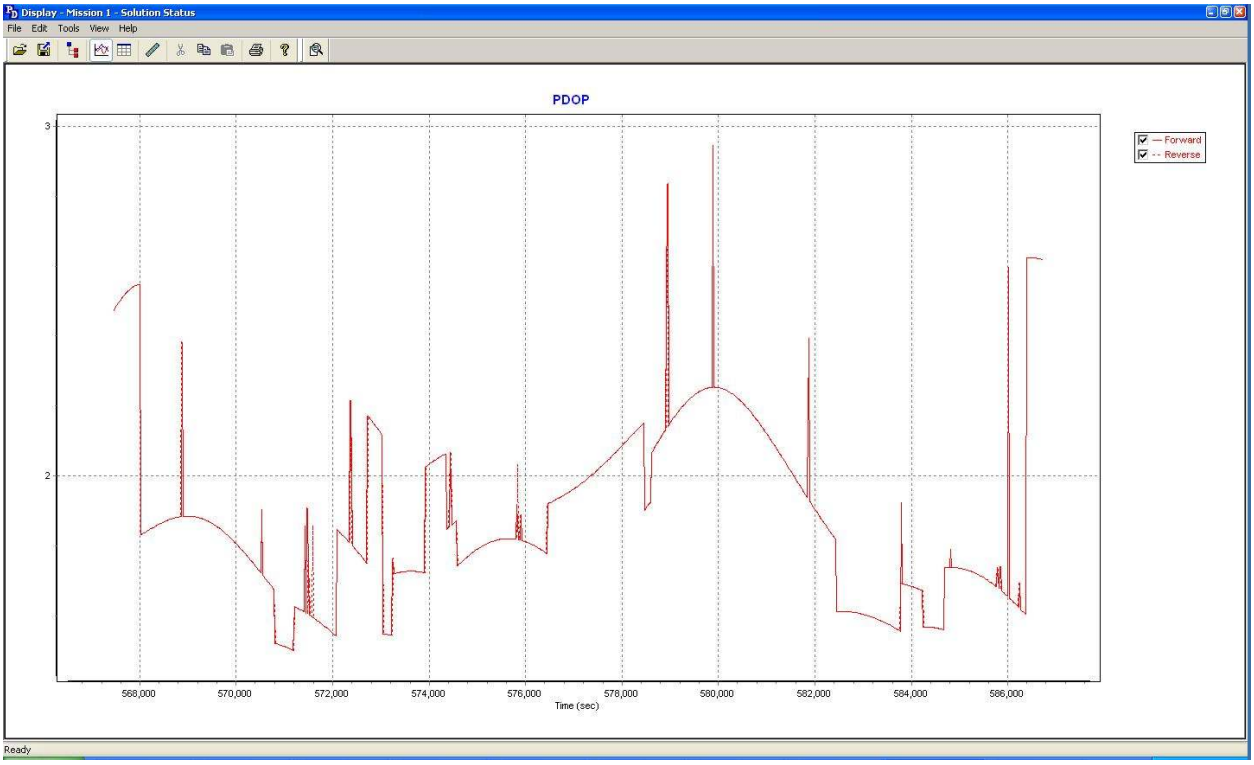

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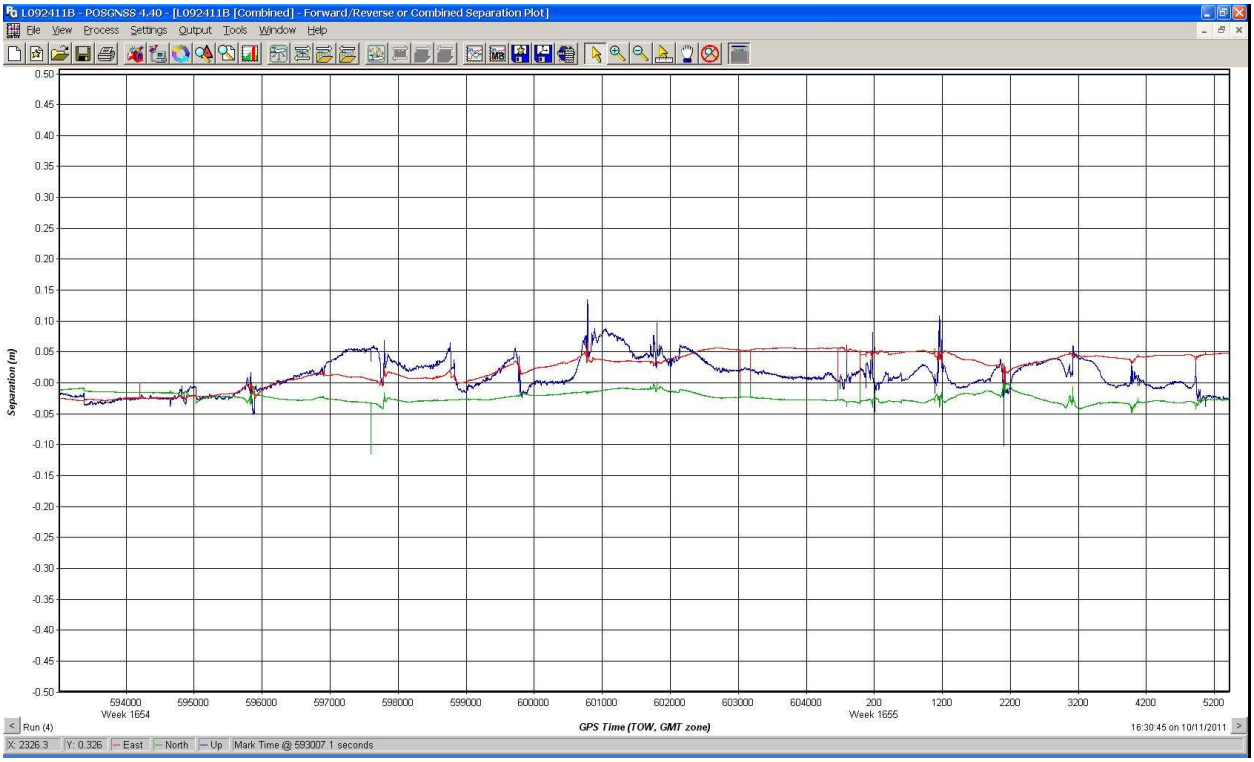

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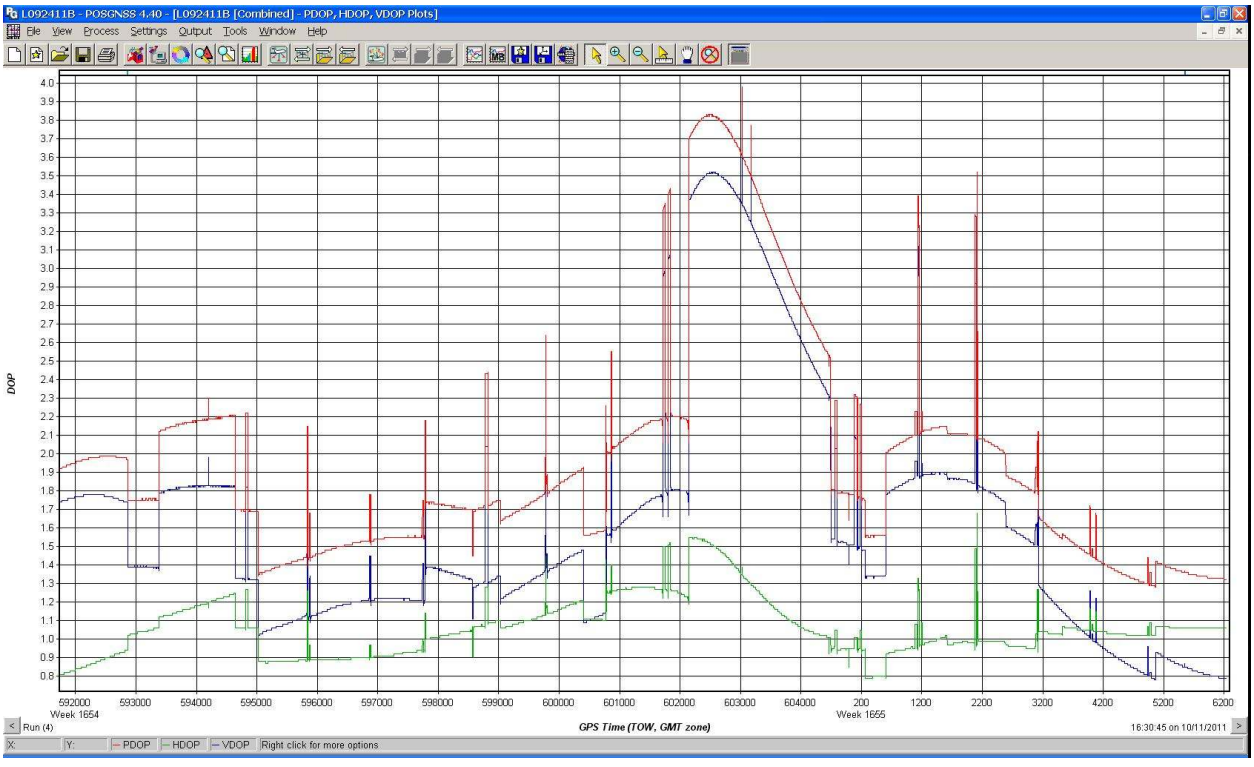

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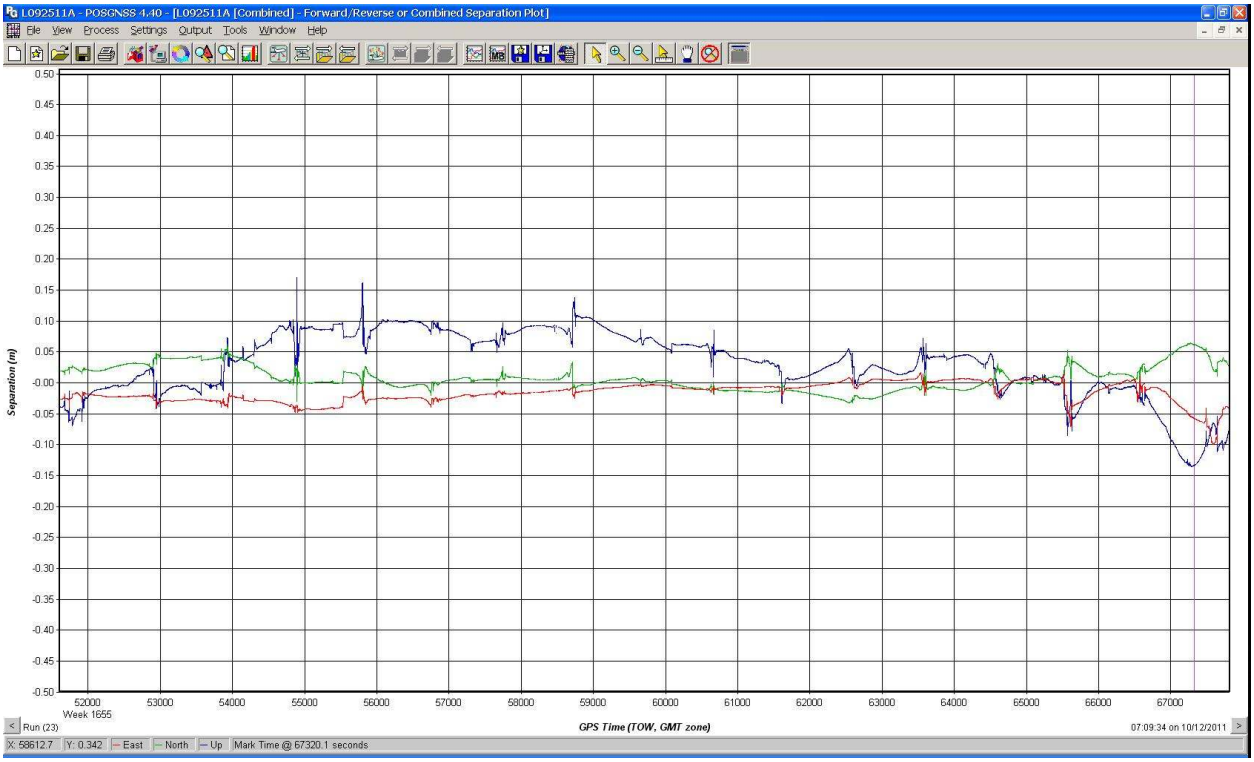

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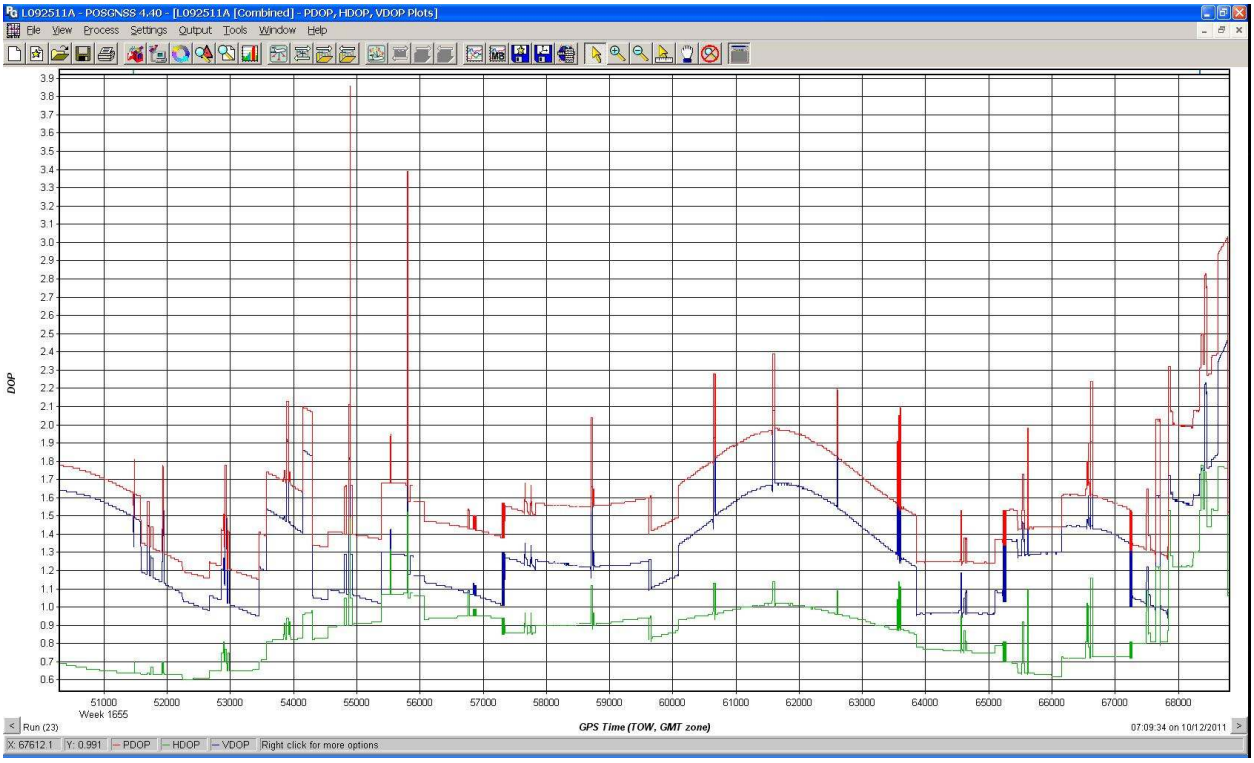

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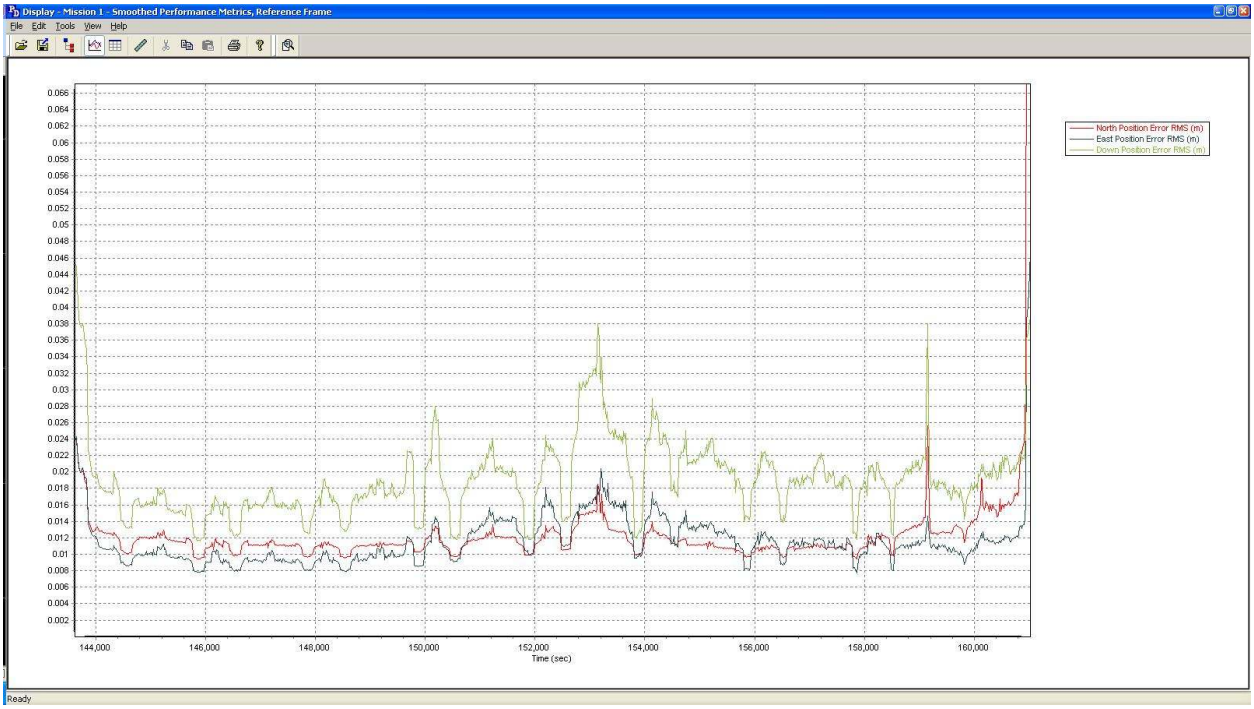

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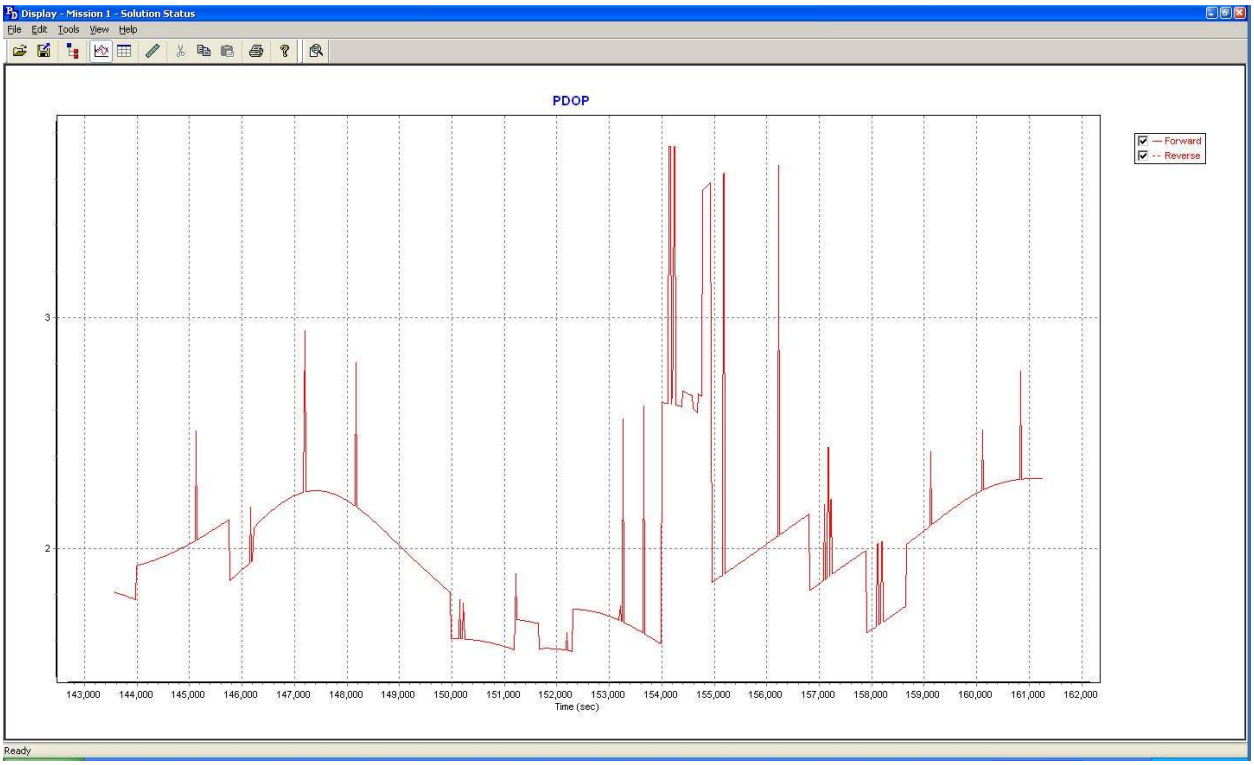

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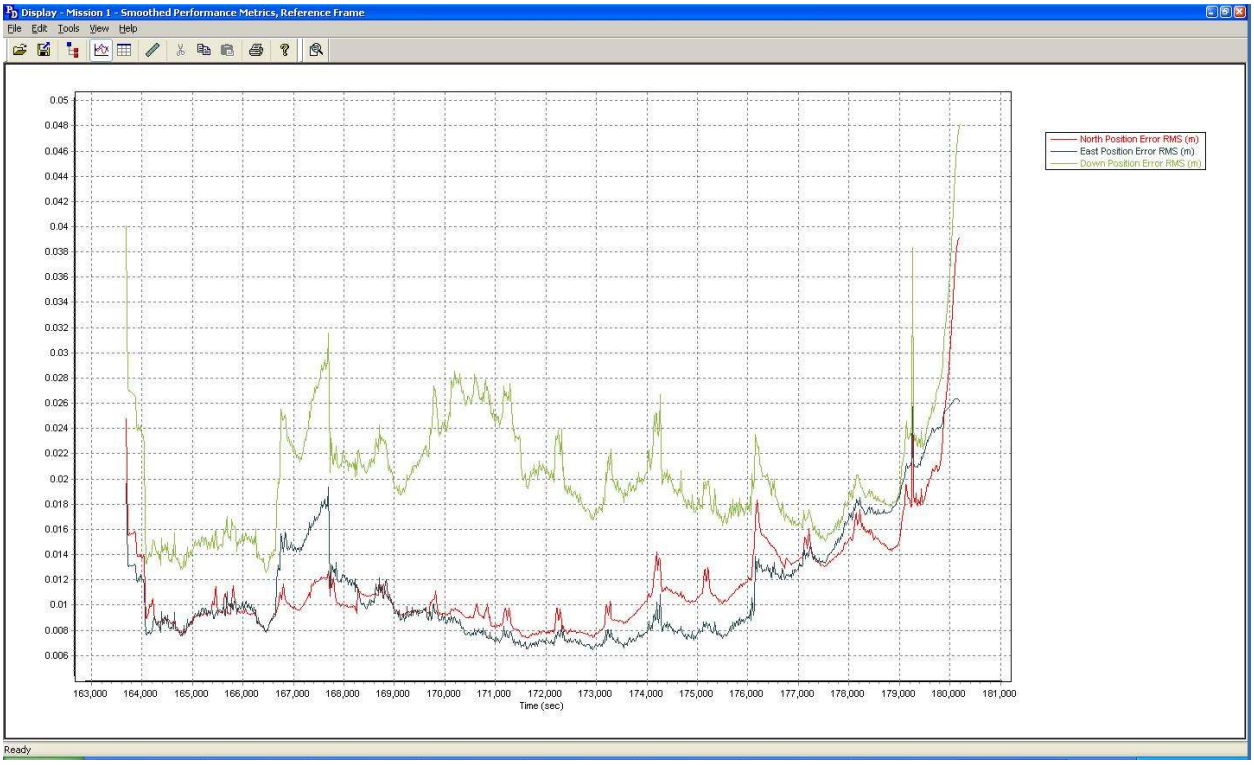

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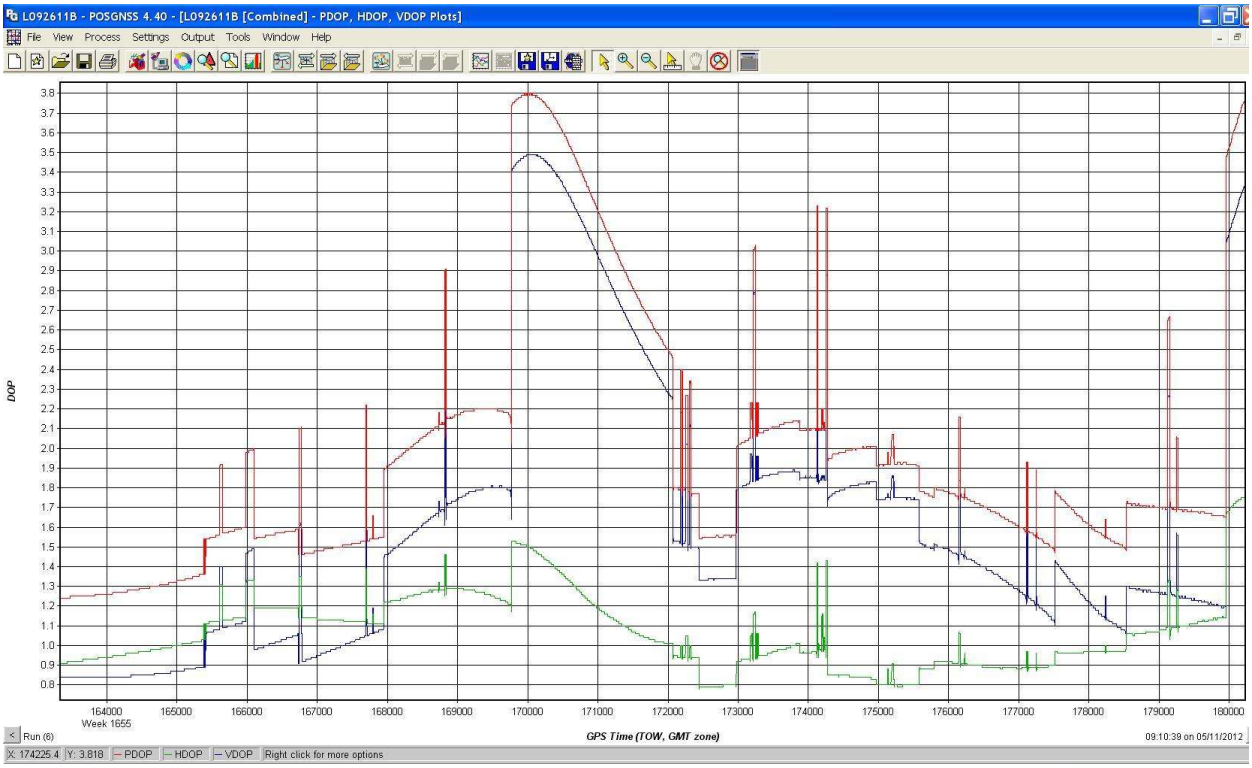

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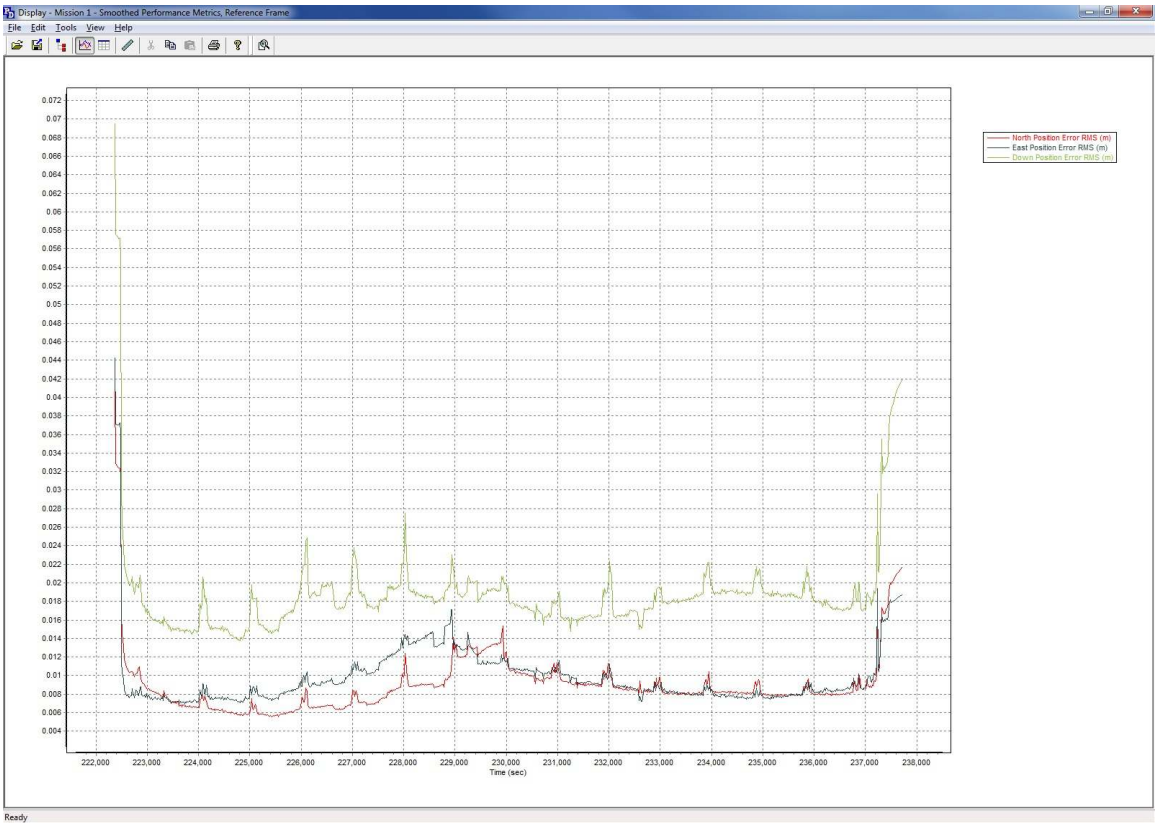

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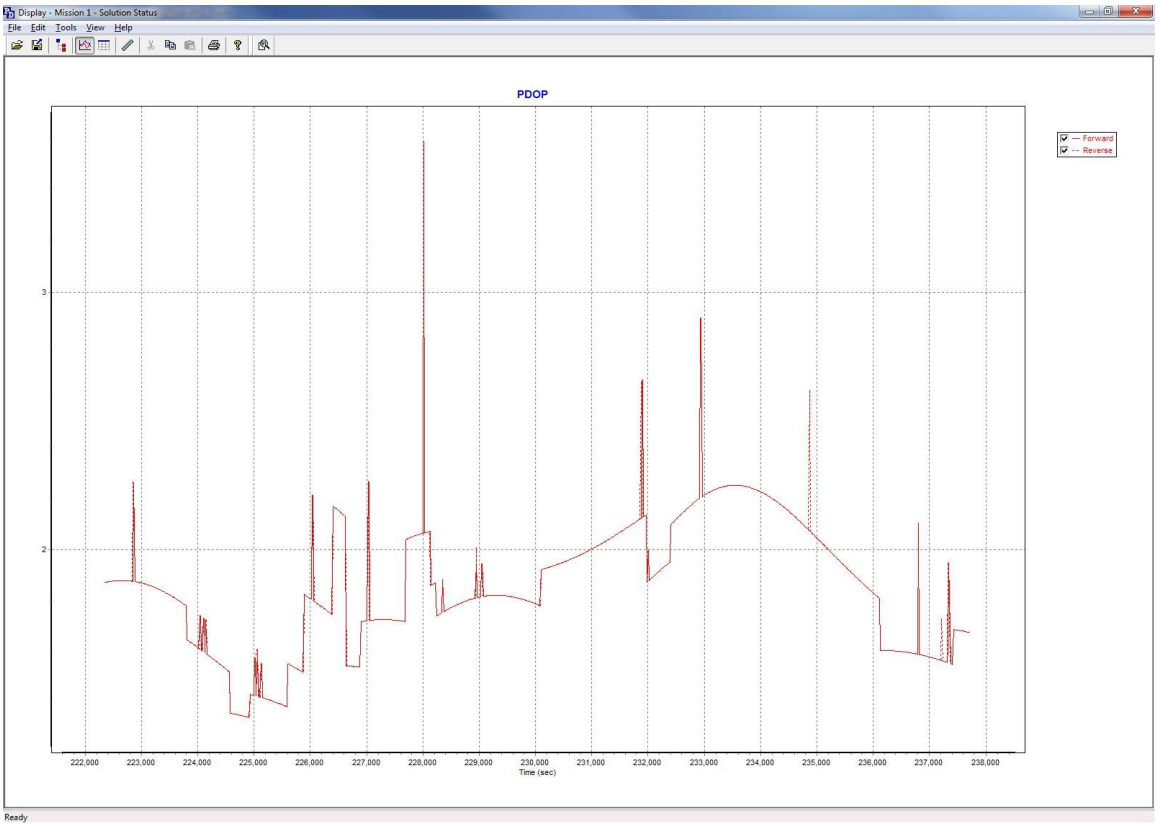

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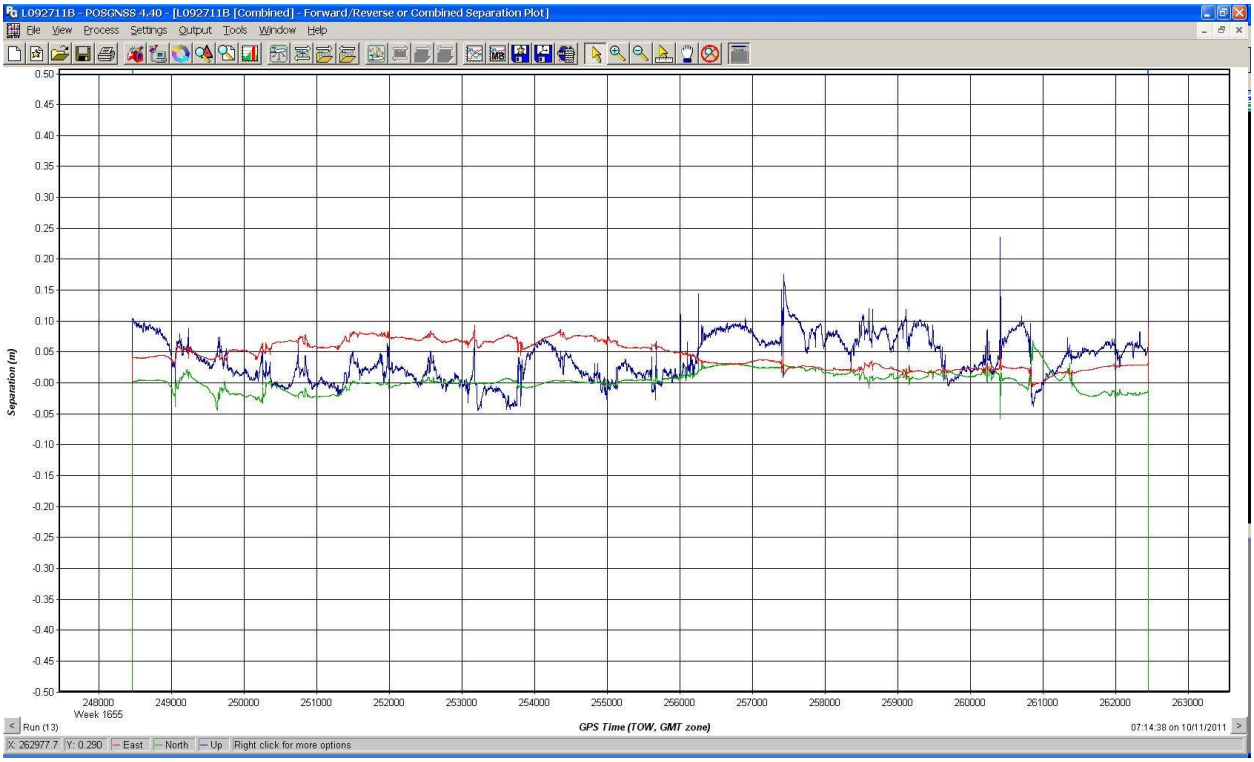

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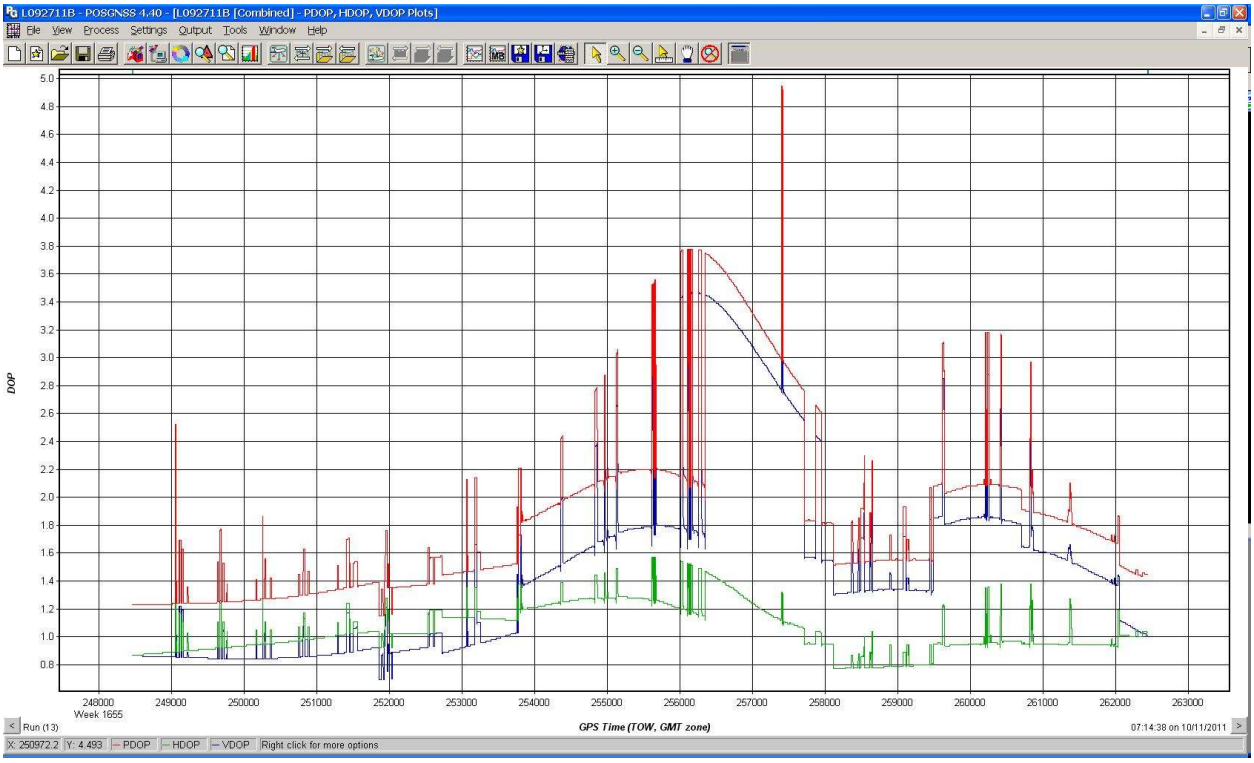
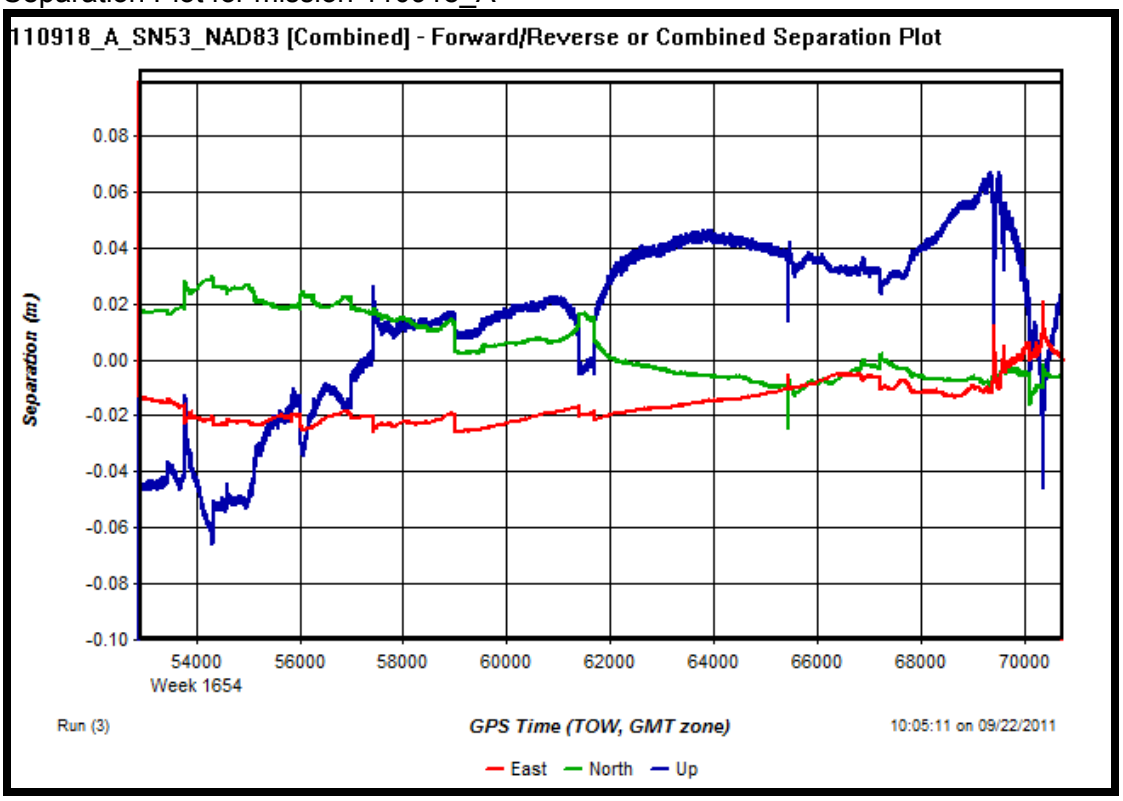
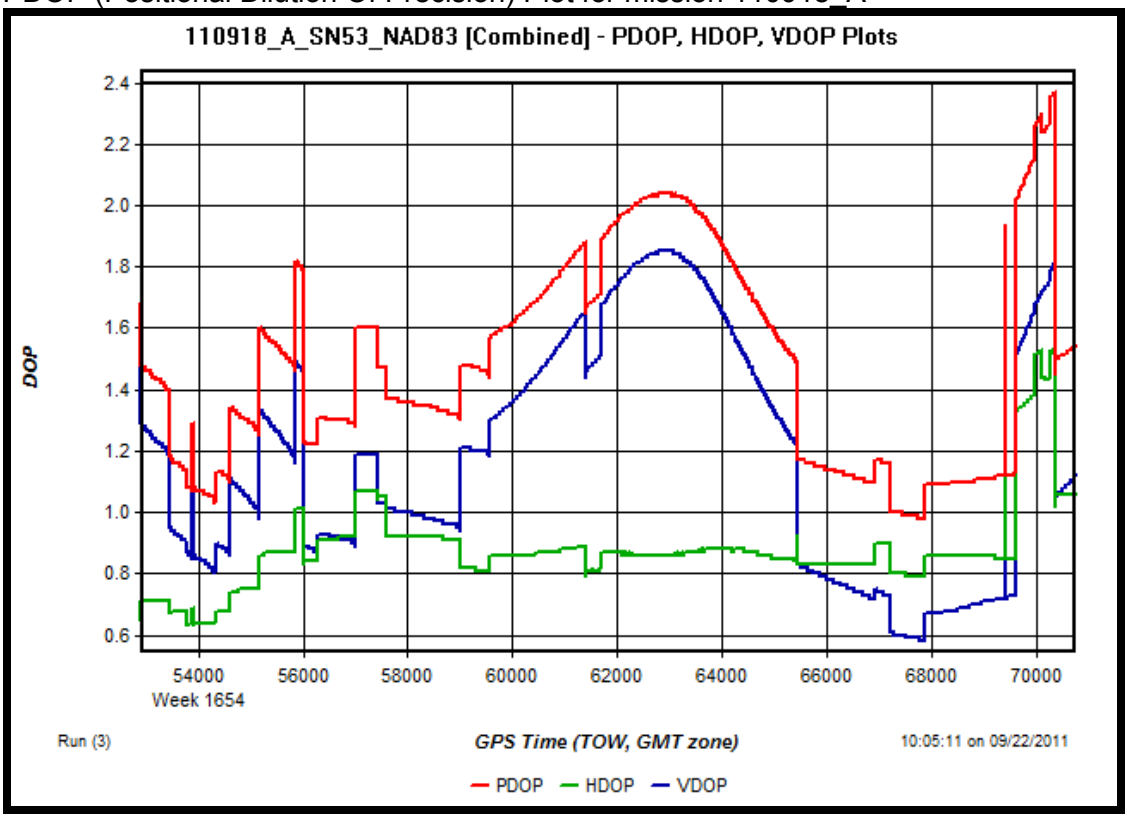


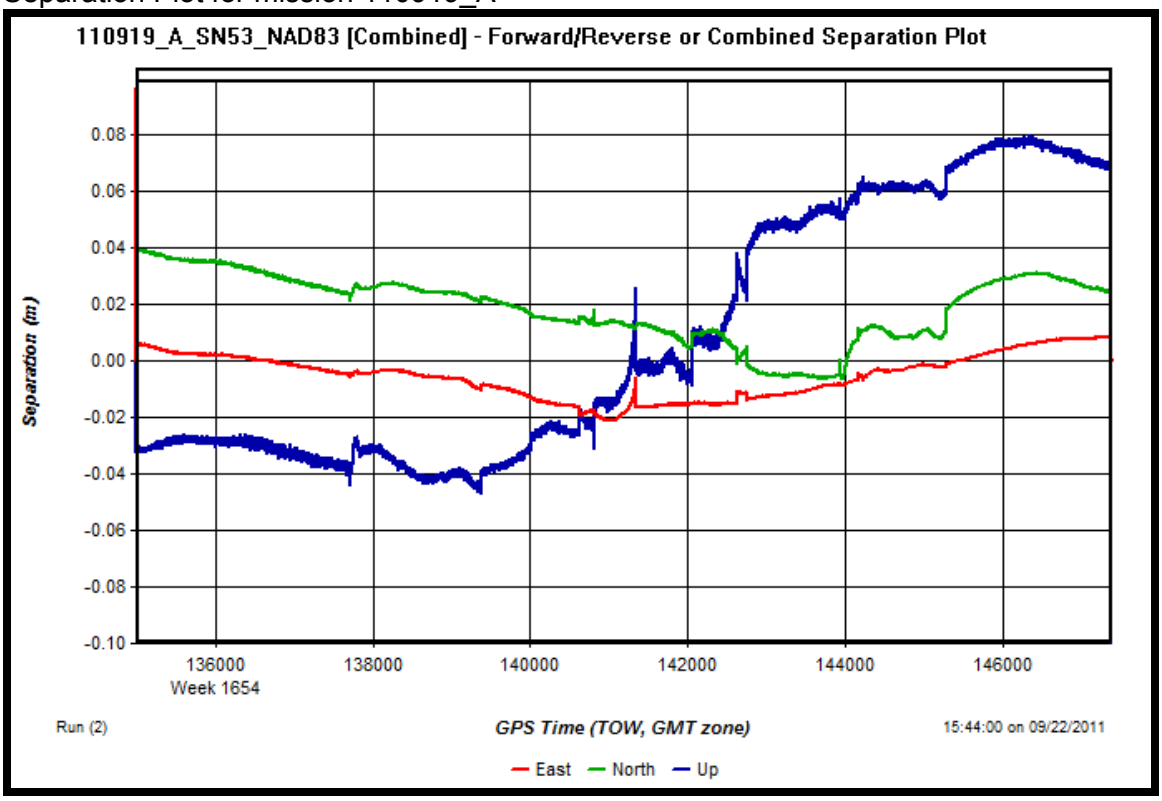
Separation Plot for mission 110918_A



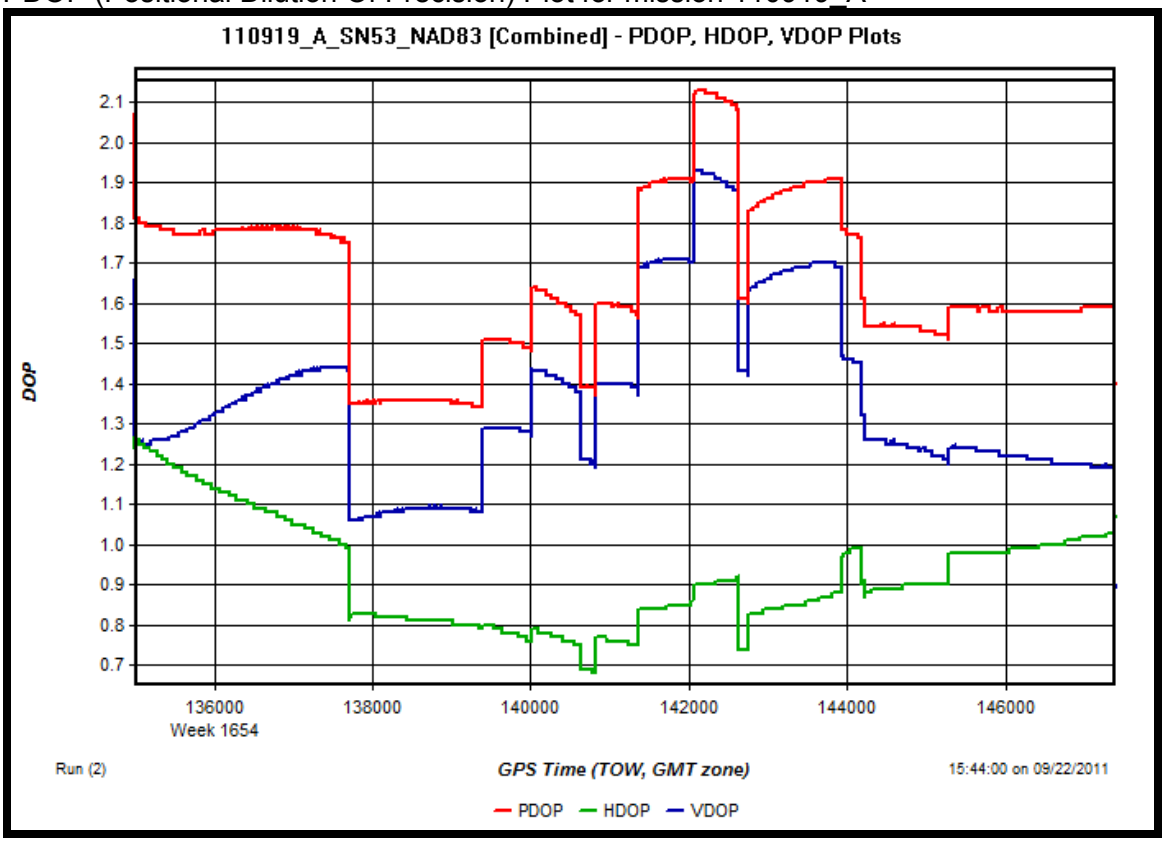
PDOP (Positional Dilution Of Precision) Plot for mission 110918_A



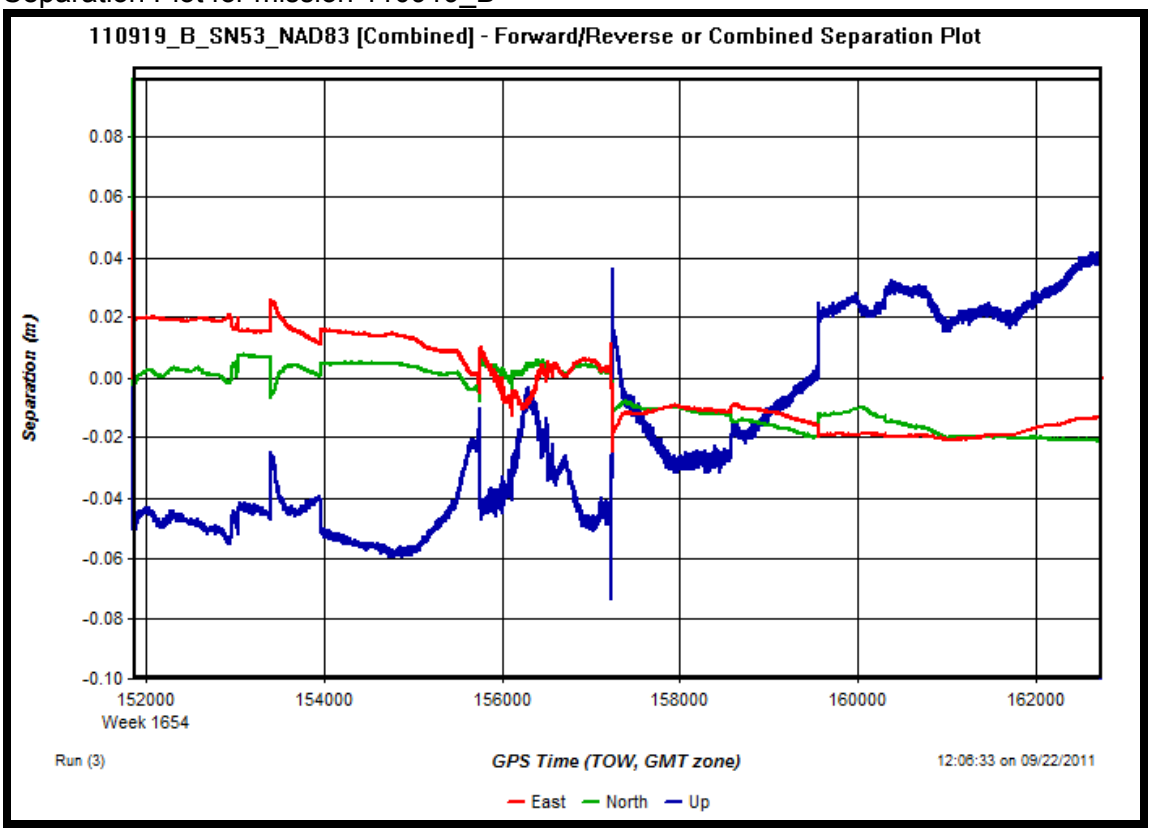
Separation Plot for mission 110919_A



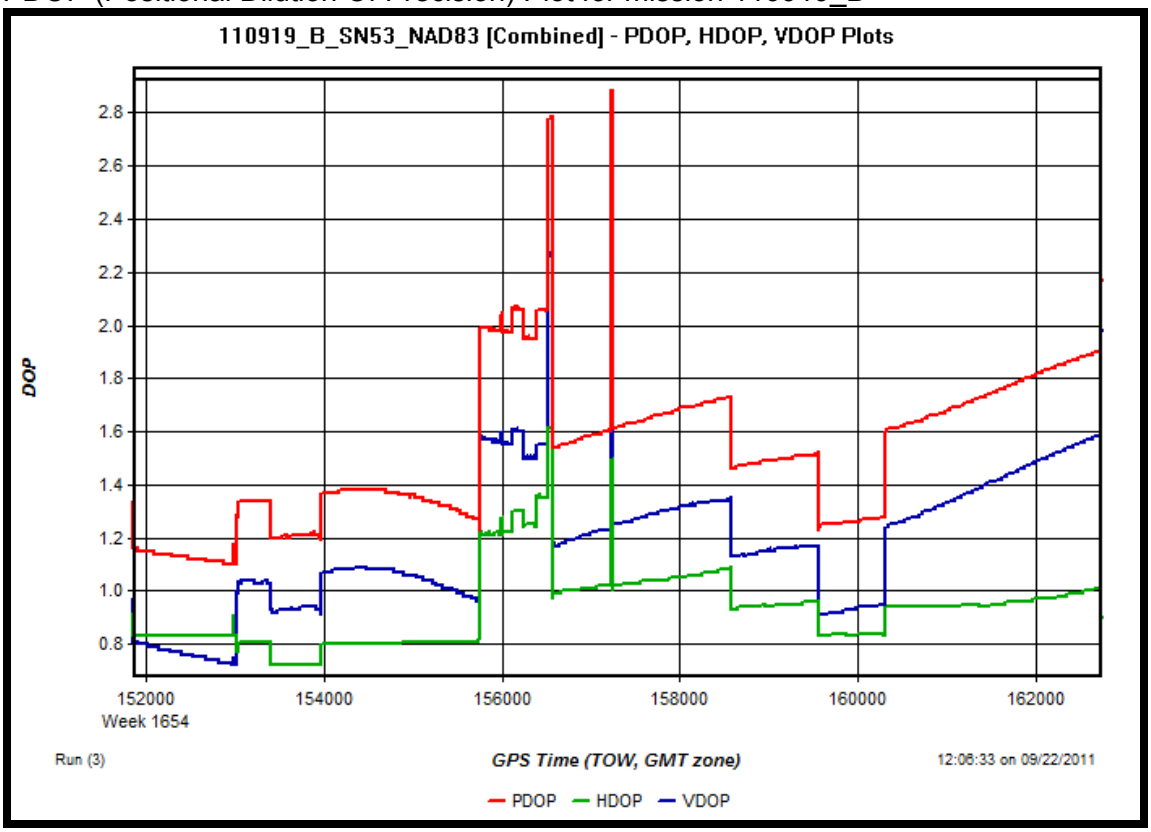
PDOP (Positional Dilution Of Precision) Plot for mission 110919_A



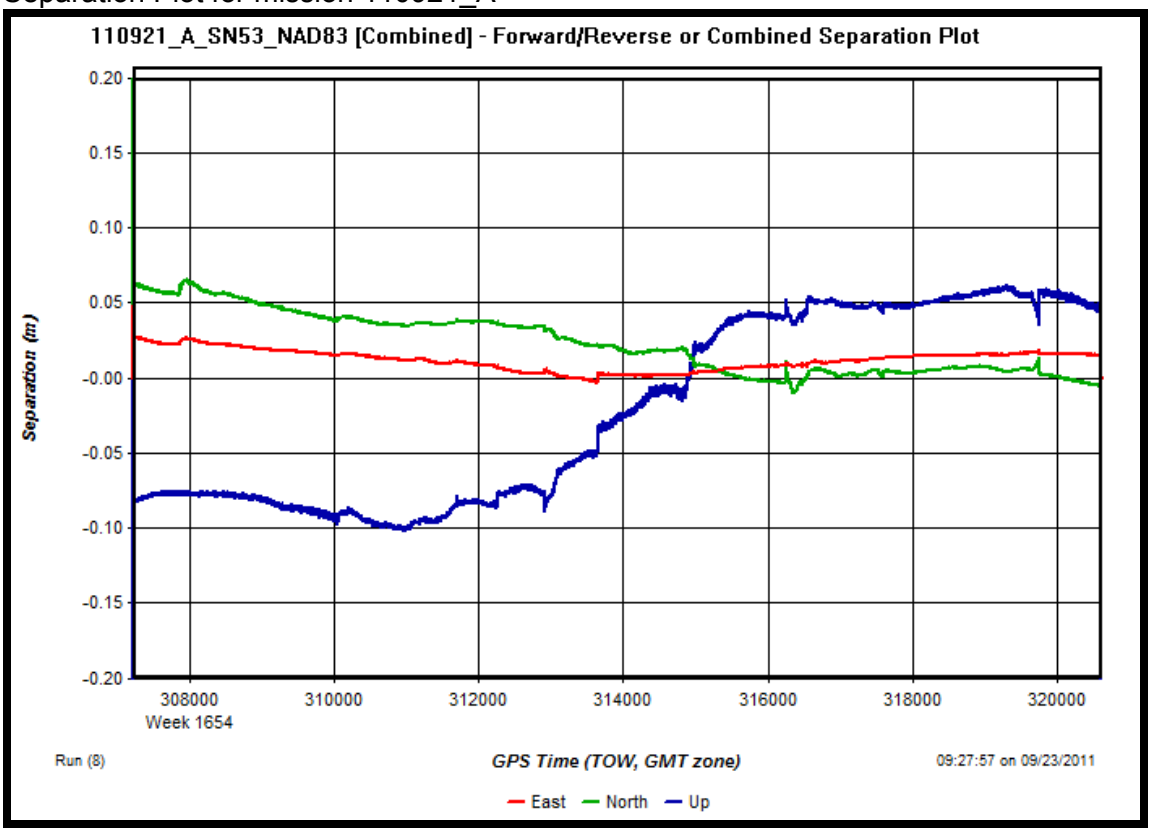
Separation Plot for mission 110919_B



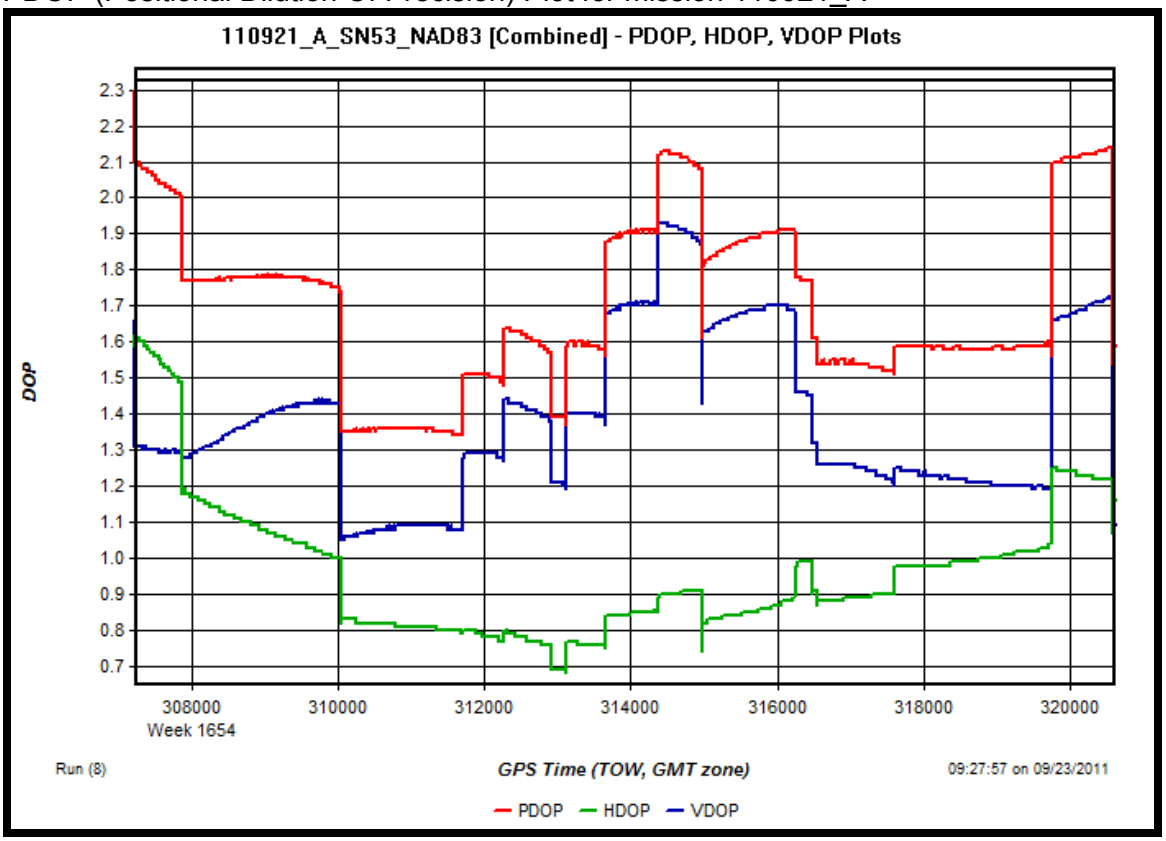
PDOP (Positional Dilution Of Precision) Plot for mission 110919_B



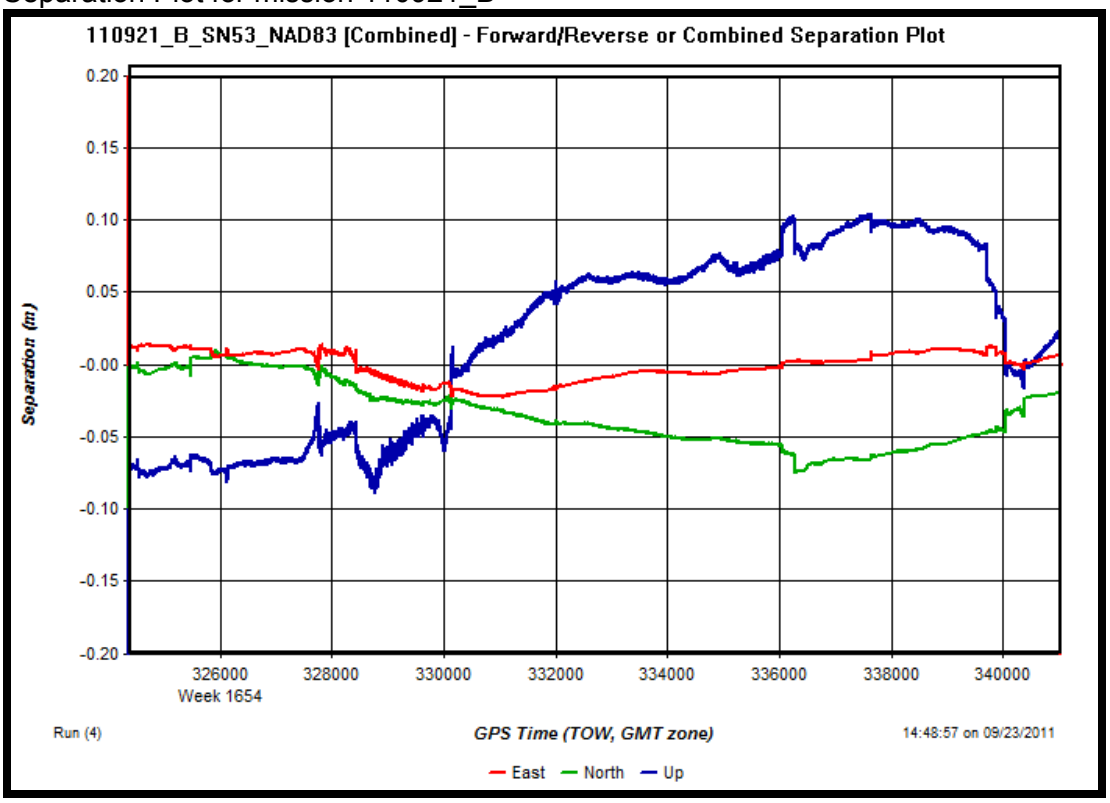
Separation Plot for mission 110921_A



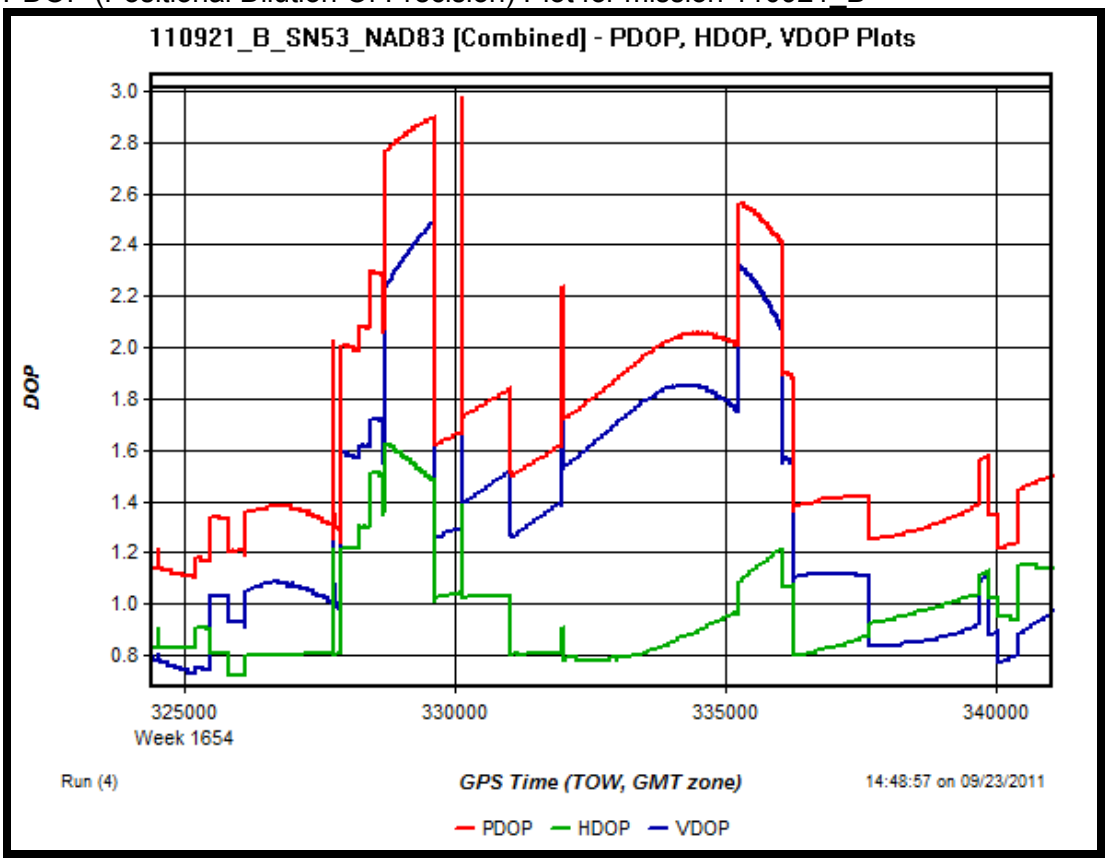
PDOP (Positional Dilution Of Precision) Plot for mission 110921_A



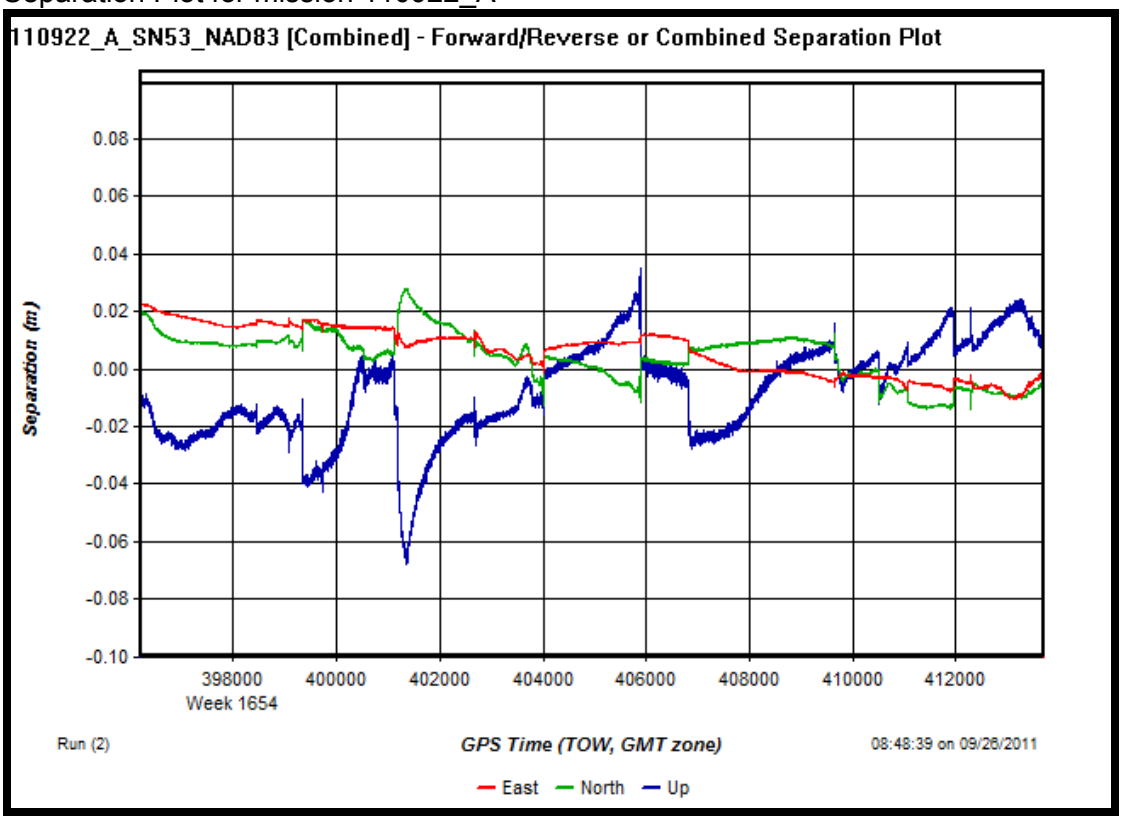
Separation Plot for mission 110921_B



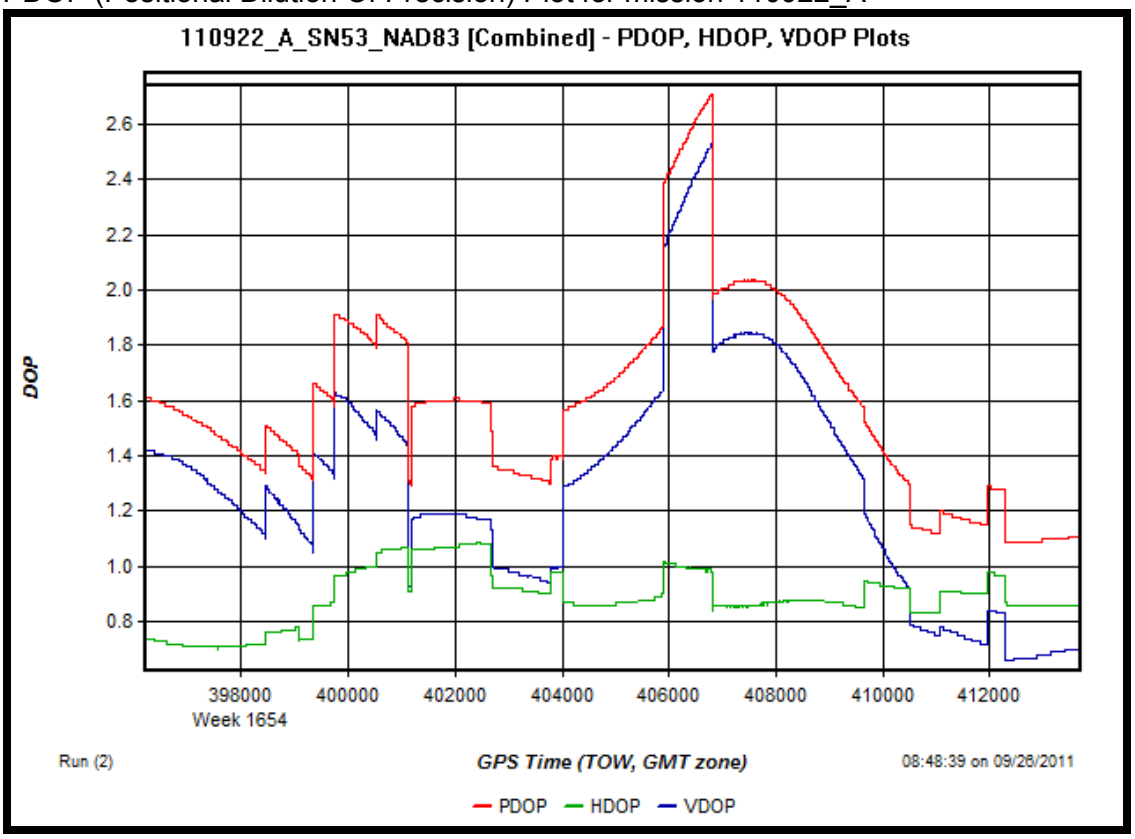
PDOP (Positional Dilution Of Precision) Plot for mission 110921_B



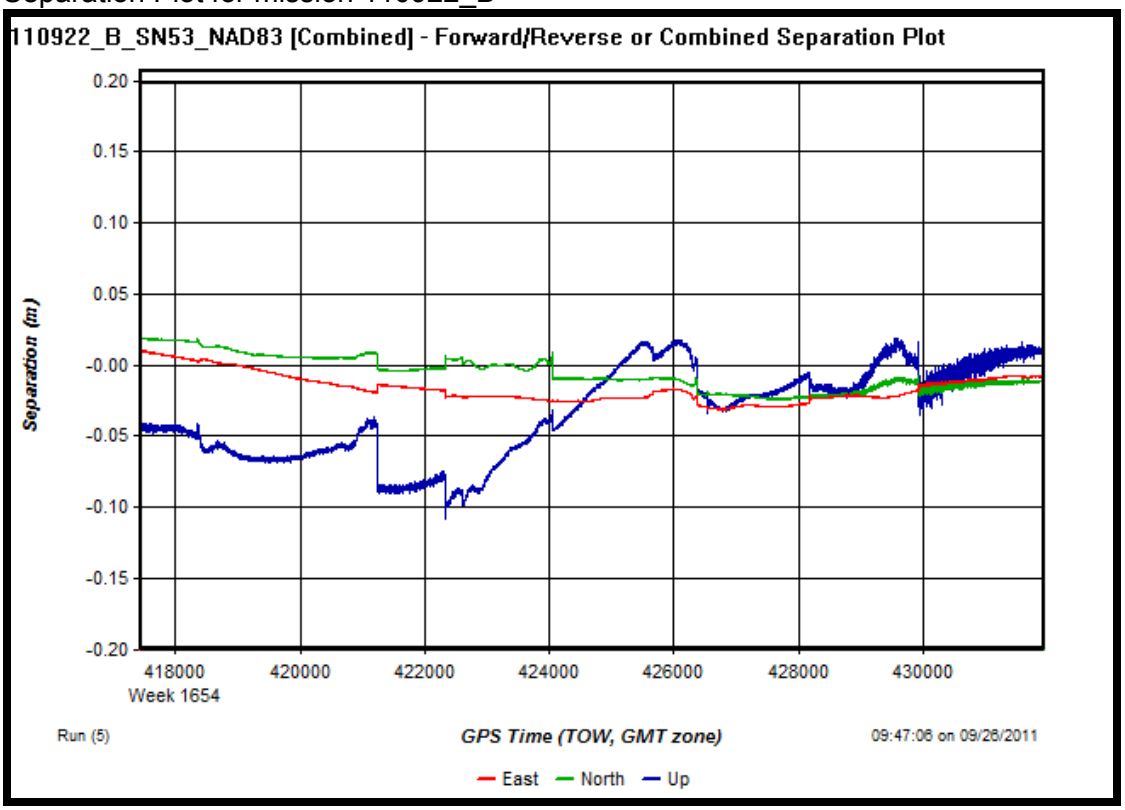
Separation Plot for mission 110922_A



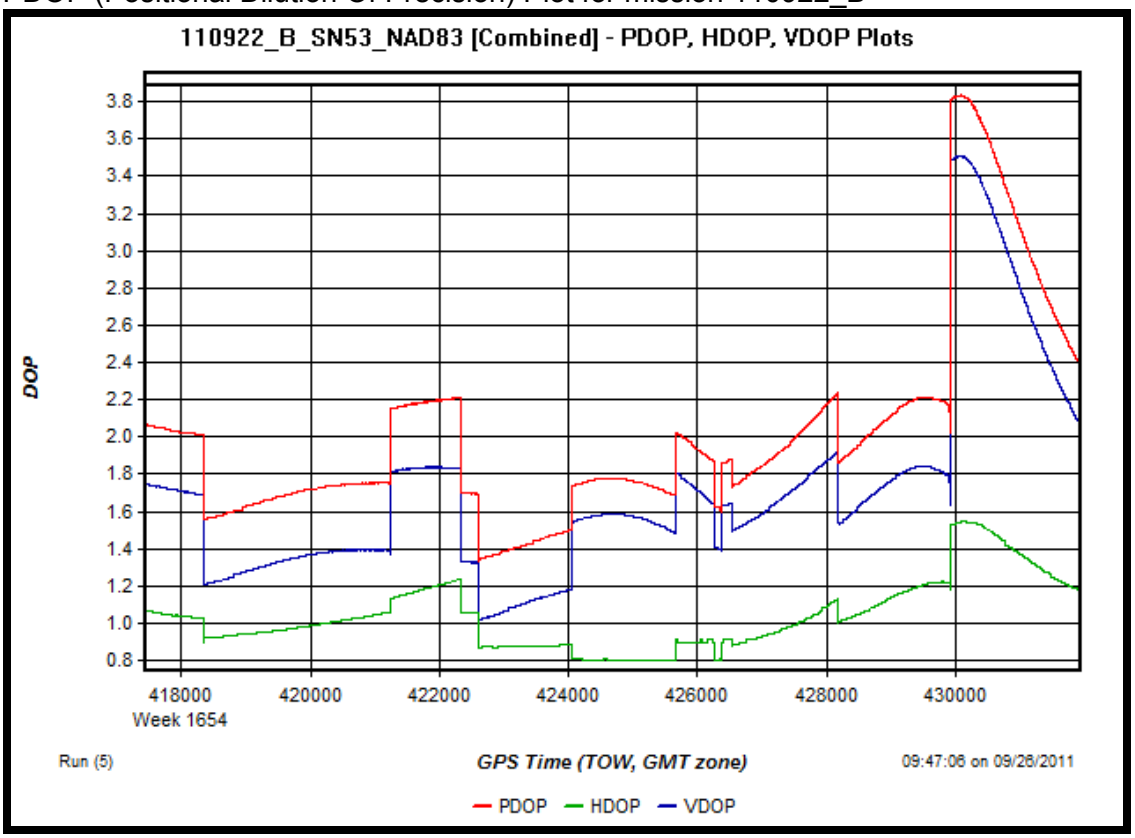
PDOP (Positional Dilution Of Precision) Plot for mission 110922_A



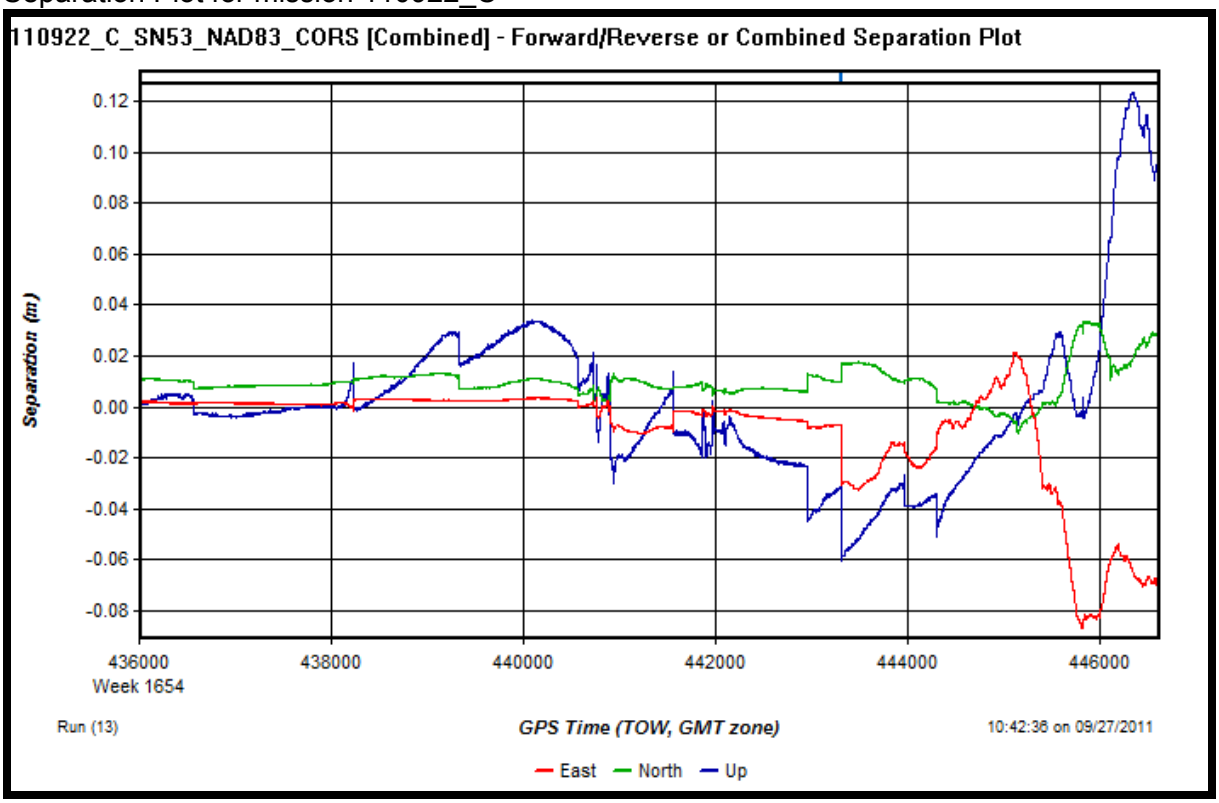
Separation Plot for mission 110922_B



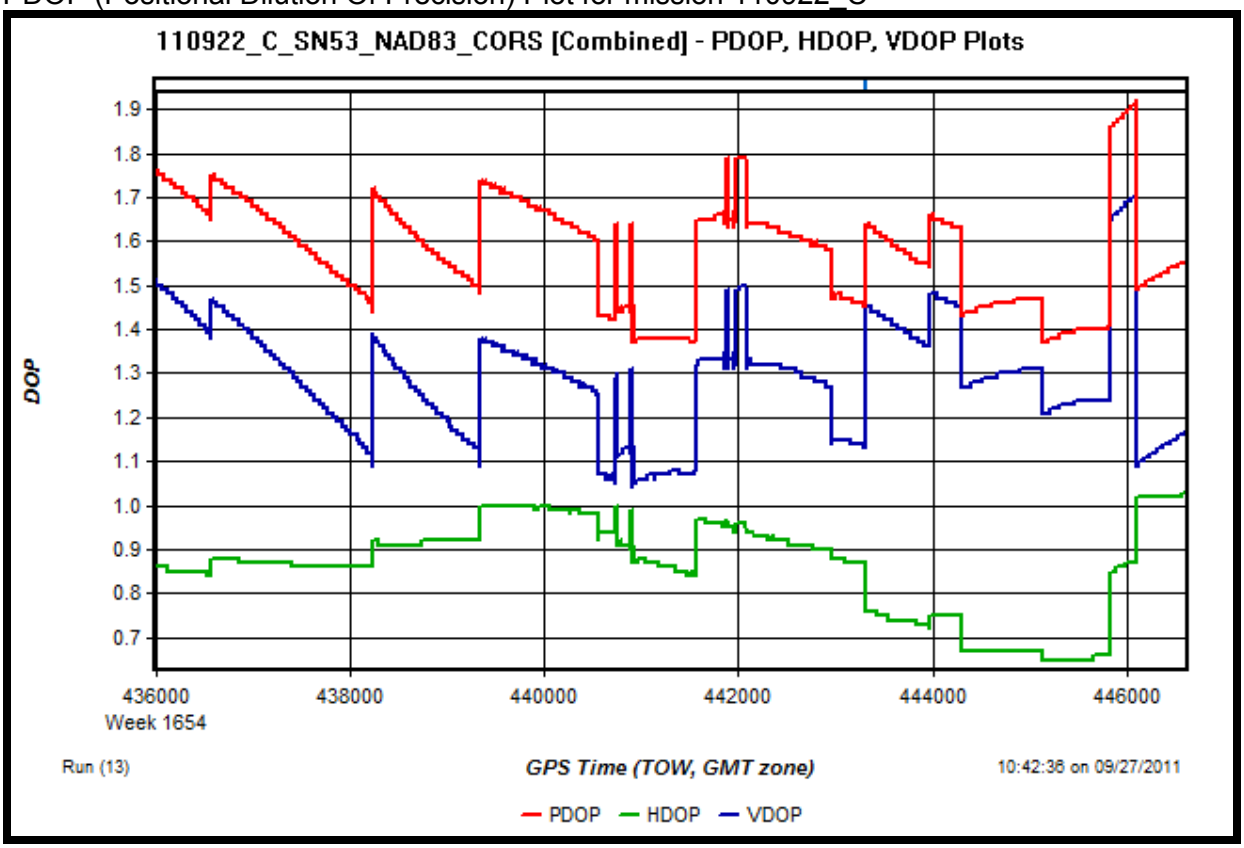
PDOP (Positional Dilution Of Precision) Plot for mission 110922_B



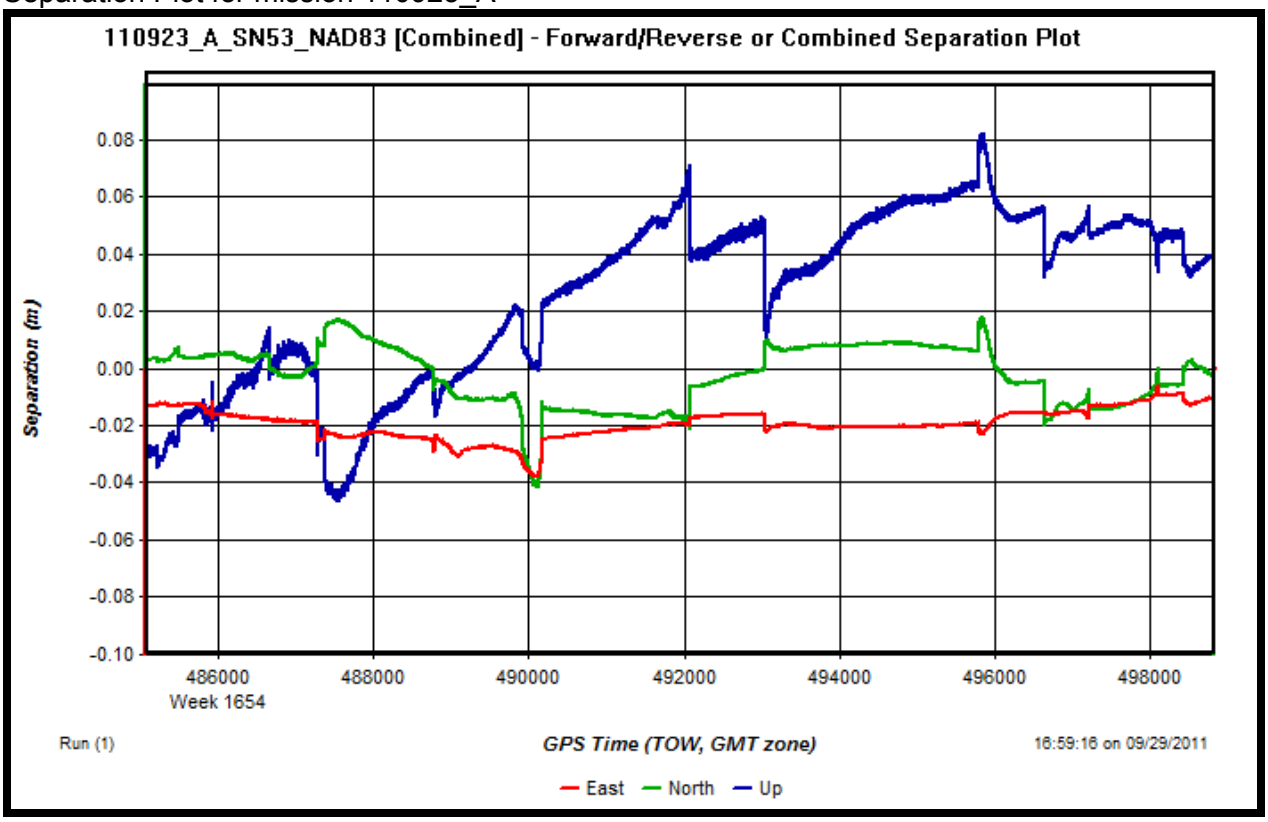
Separation Plot for mission 110922_C



PDOP (Positional Dilution Of Precision) Plot for mission 110922_C



Separation Plot for mission 110923_A



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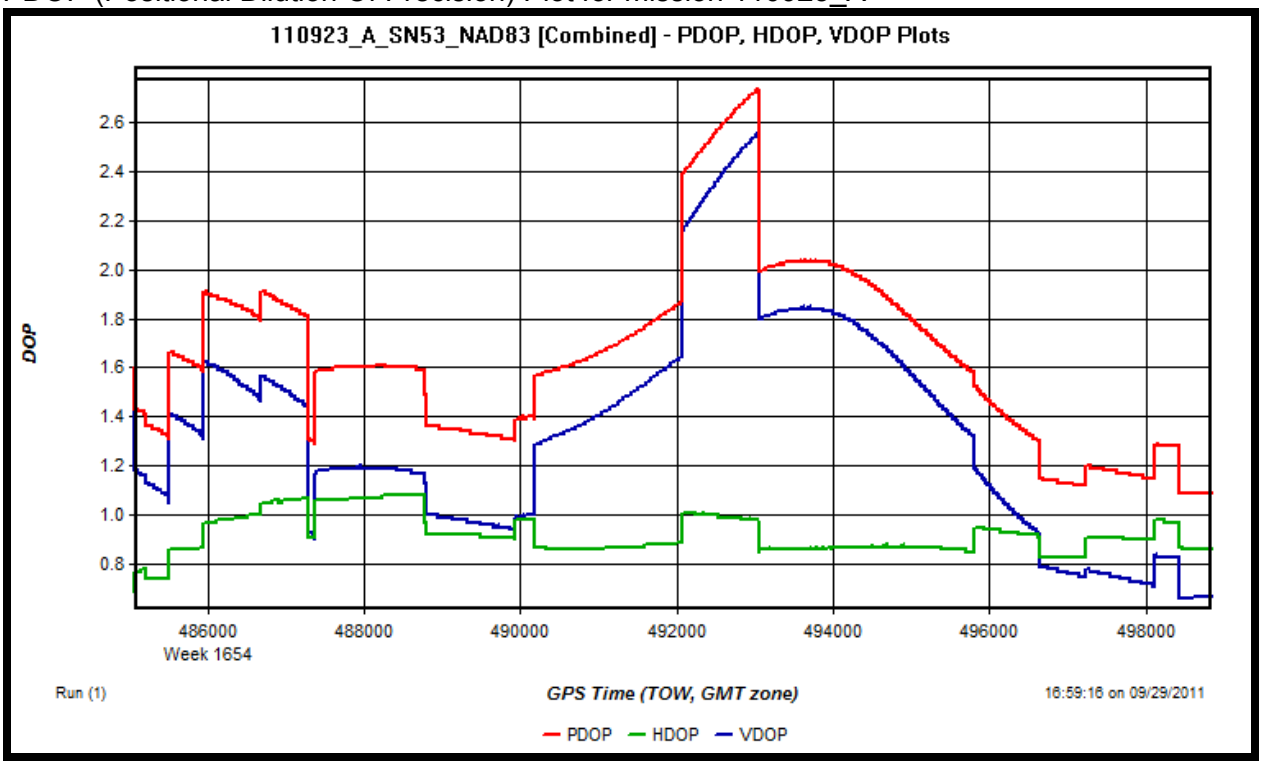
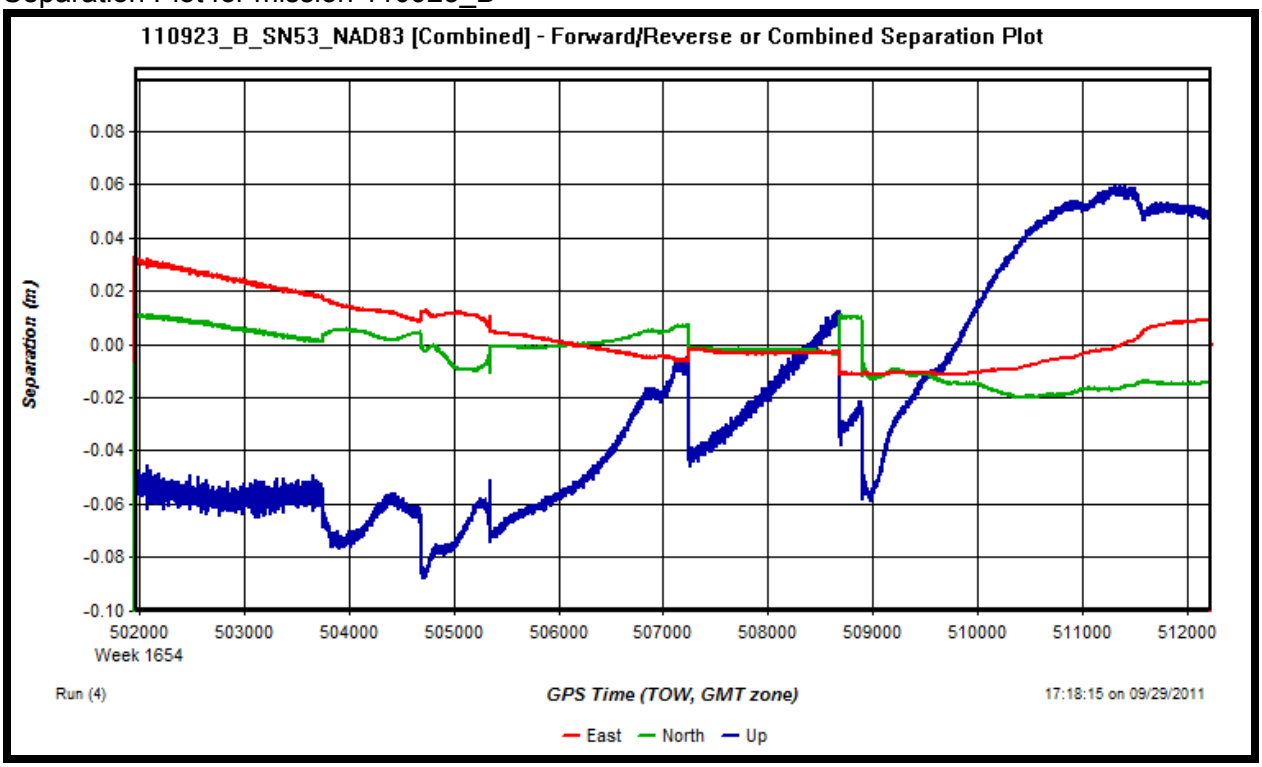
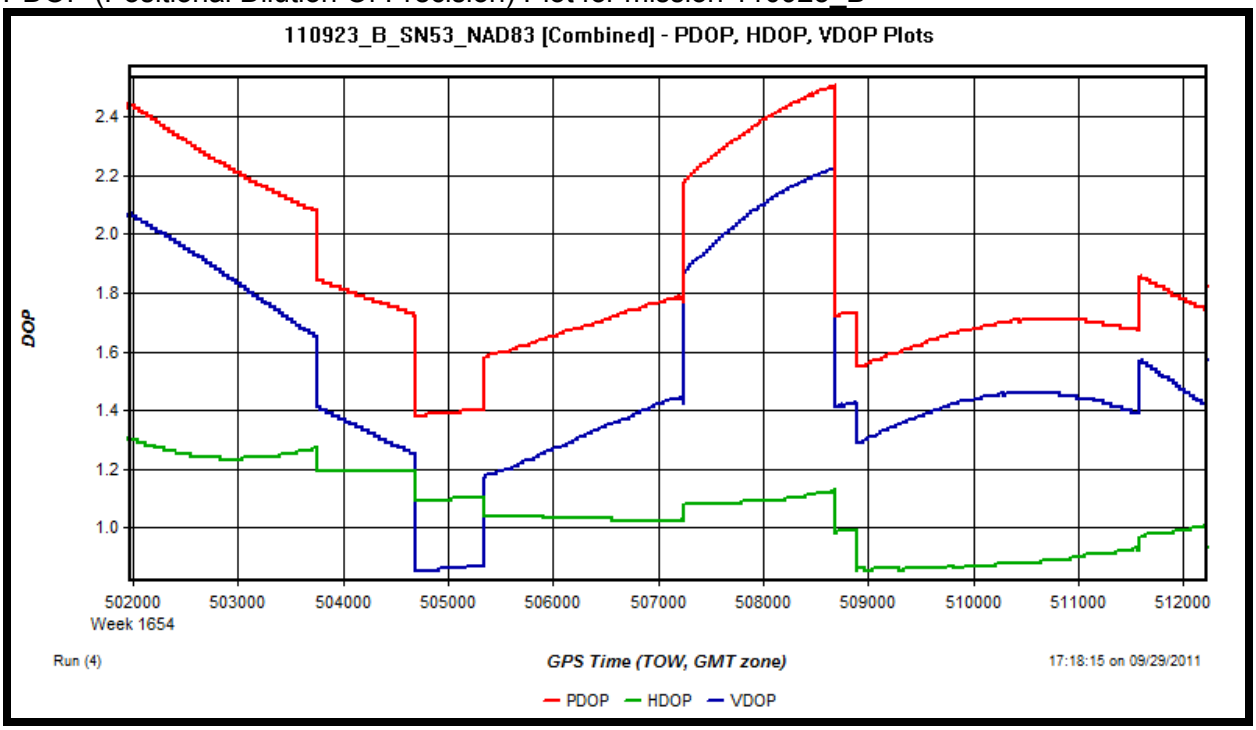


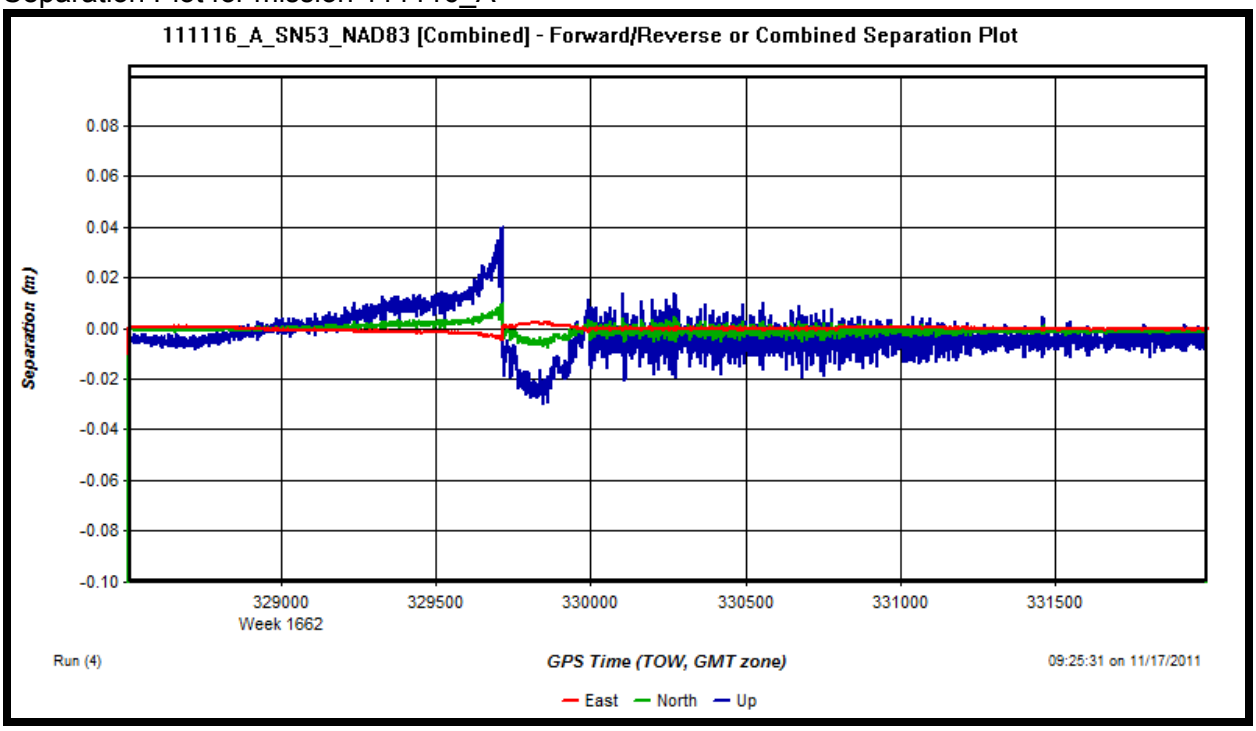
Separation Plot for mission 110923_B



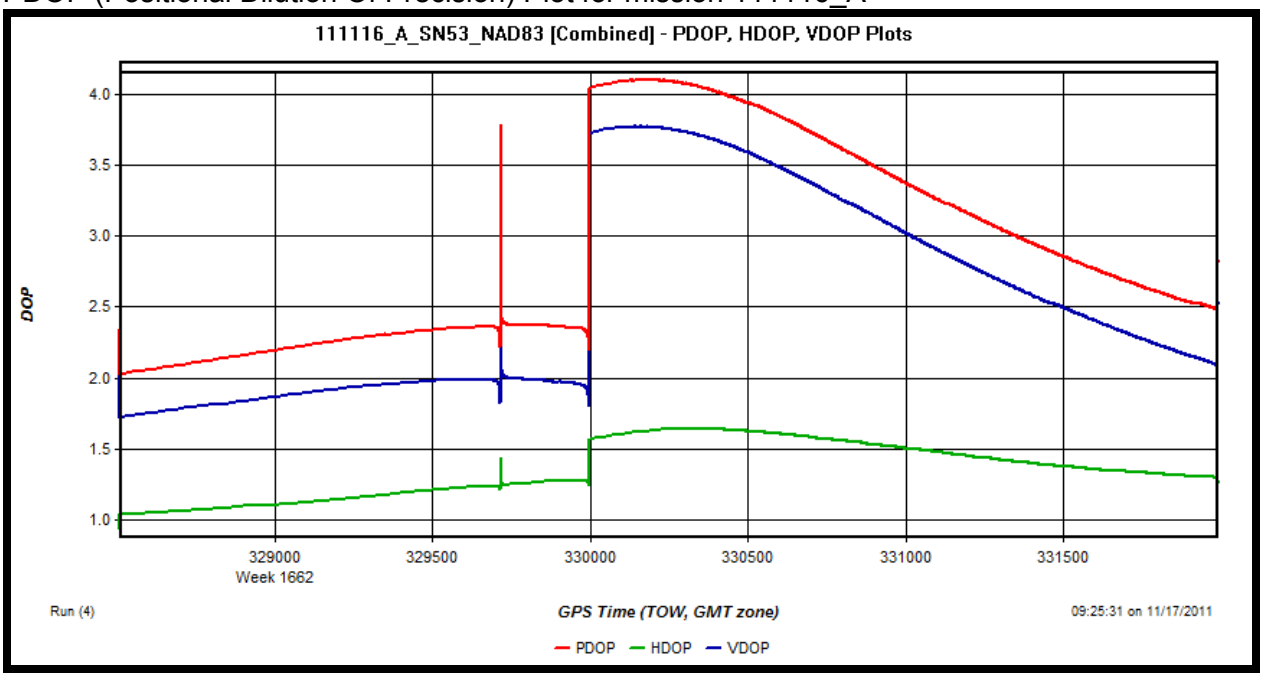
PDOP (Positional Dilution Of Precision) Plot for mission 110923_B



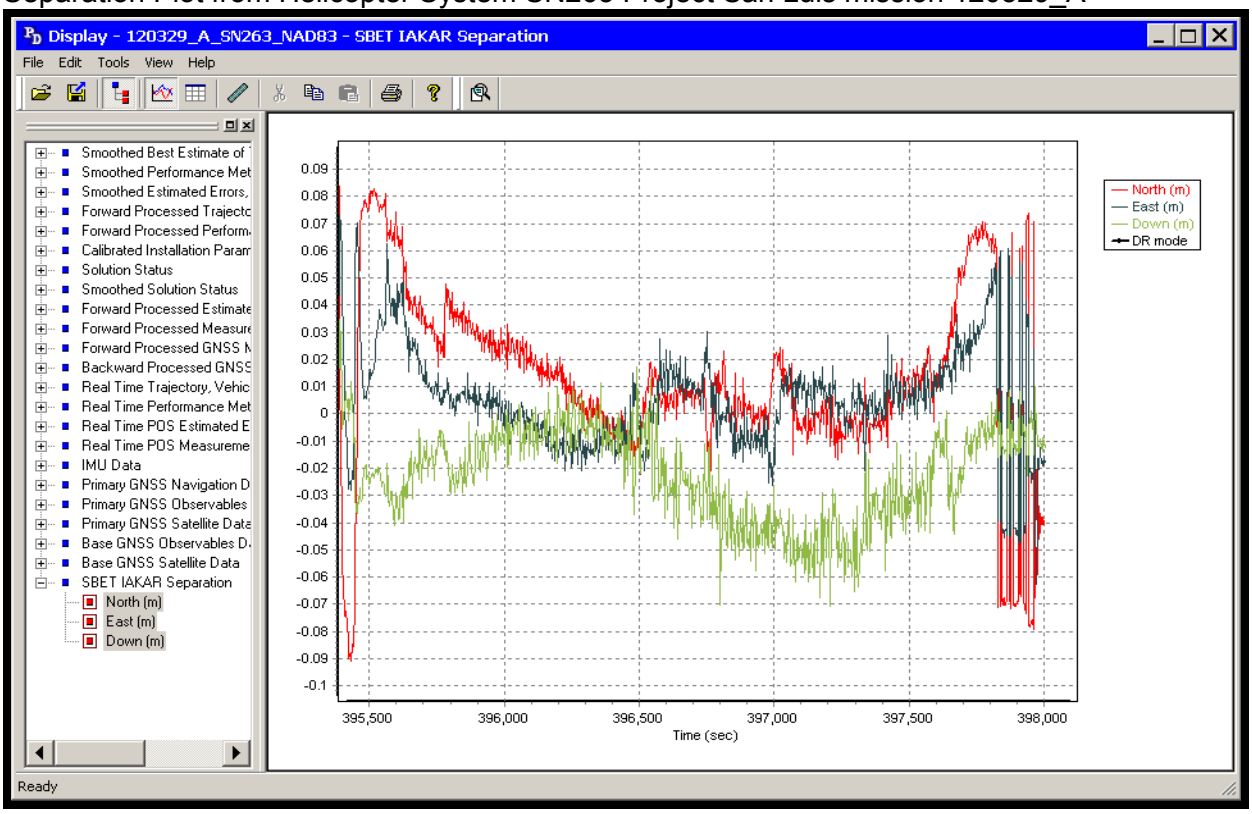
Separation Plot for mission 111116_A



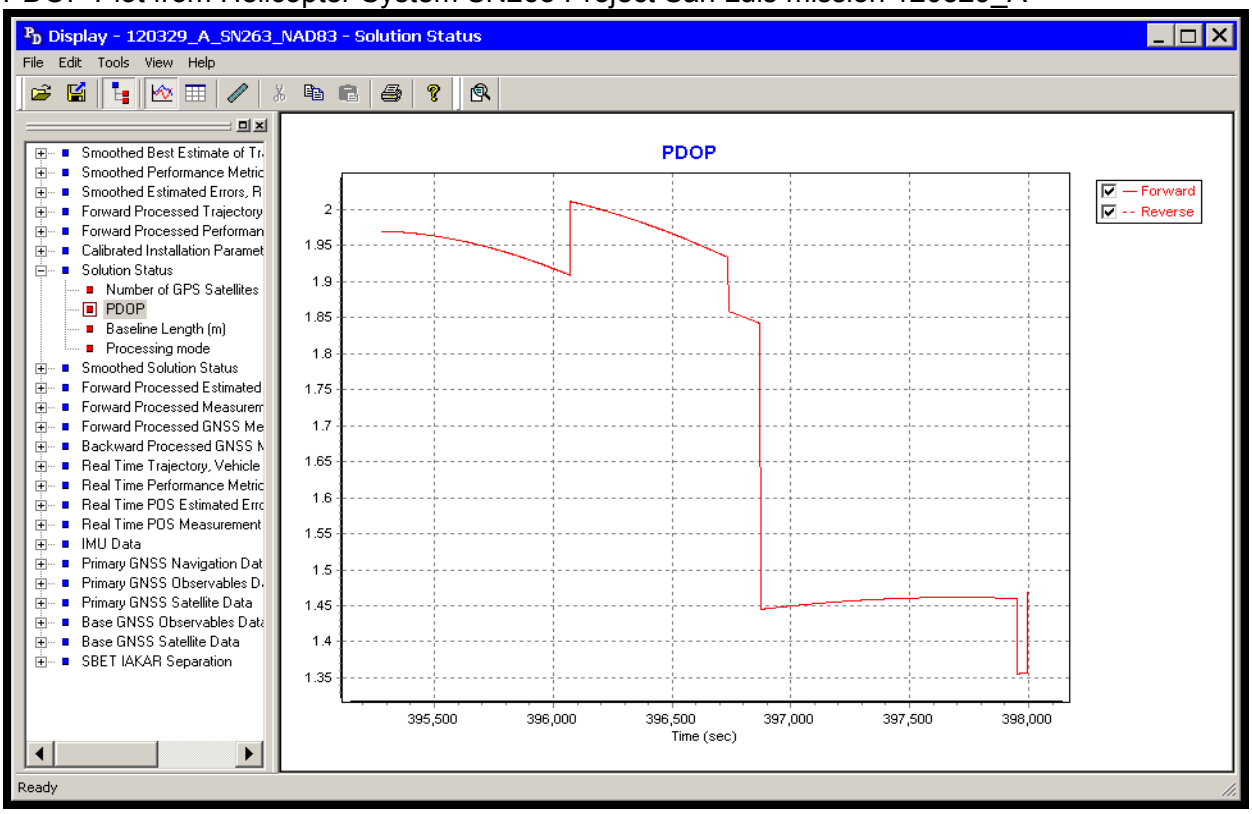
PDOP (Positional Dilution Of Precision) Plot for mission 111116_A



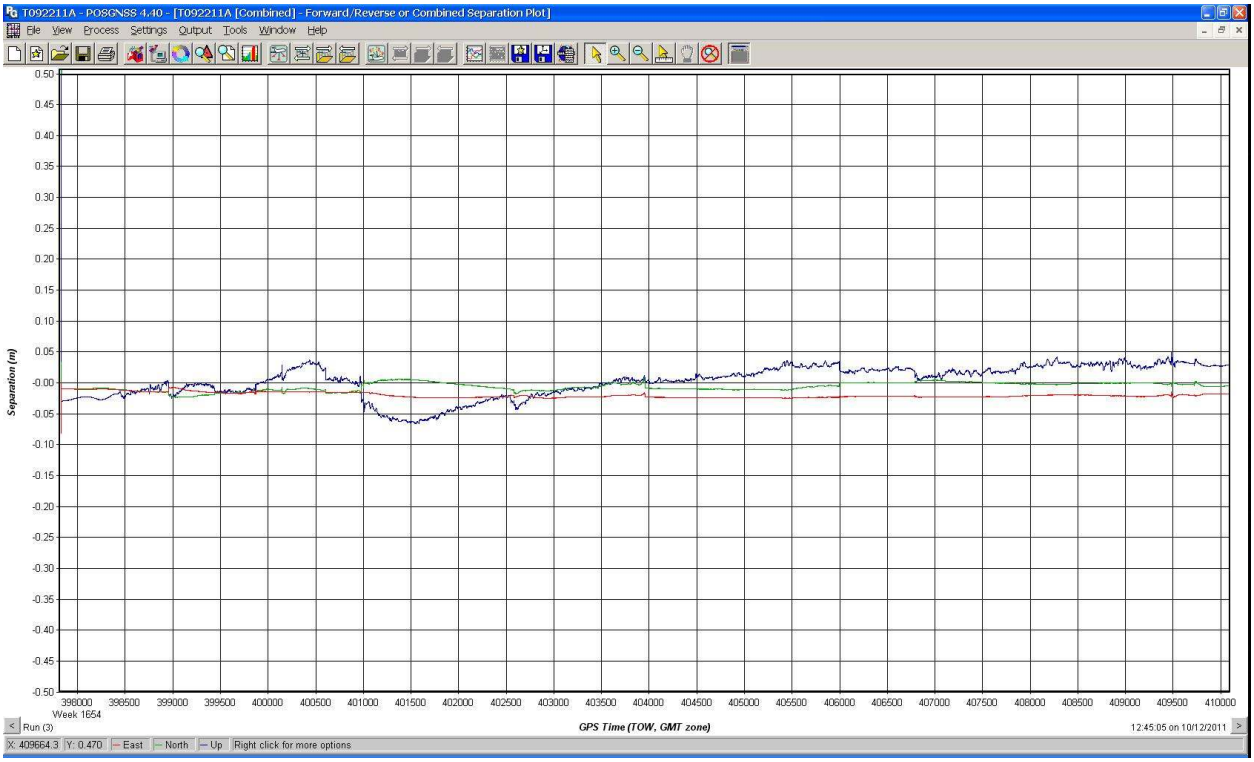
Separation Plot from Helicopter System SN263 Project San Luis mission 120329_A



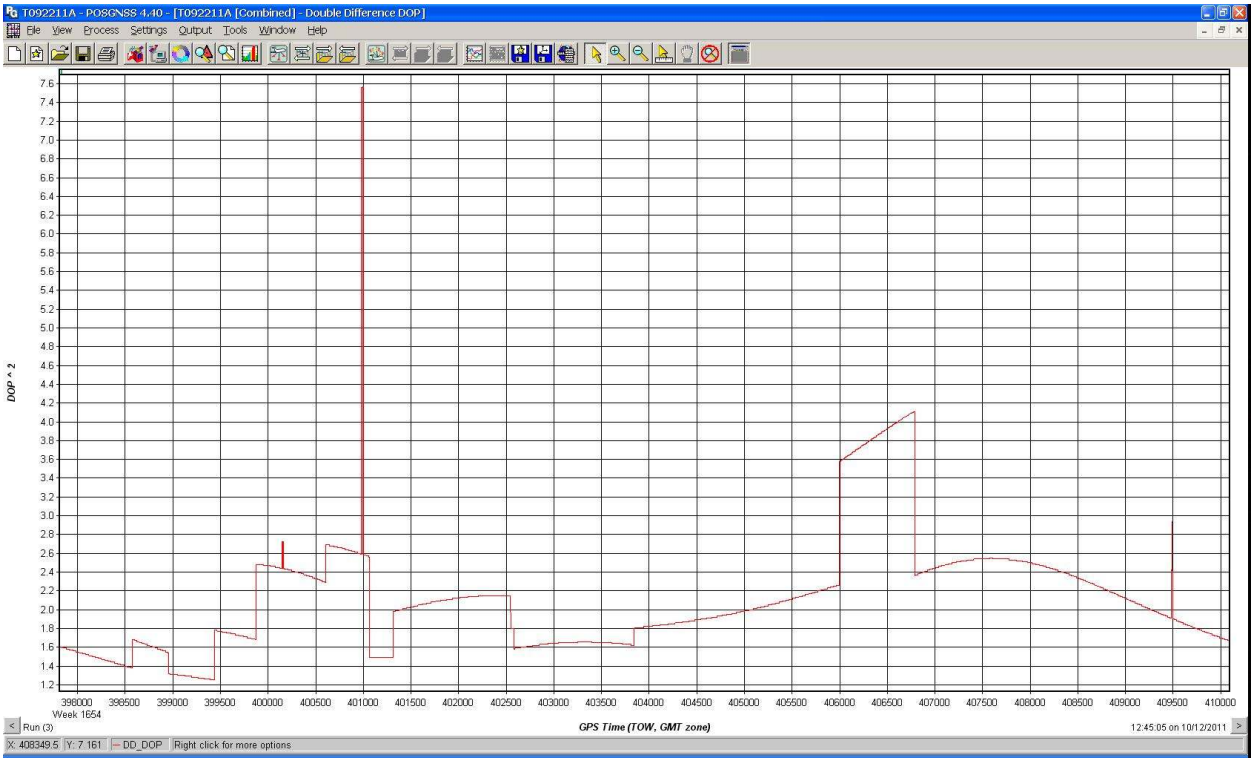
PDOP Plot from Helicopter System SN263 Project San Luis mission 120329_A



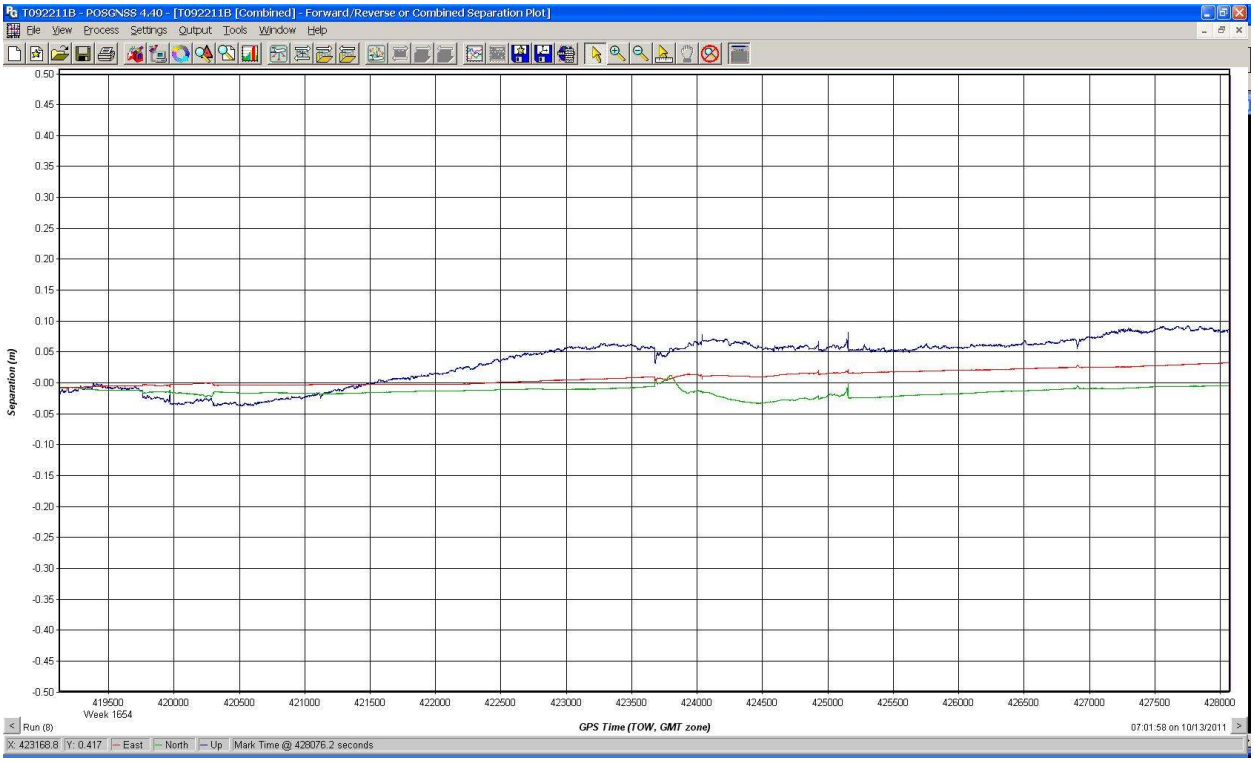
The Atlantic Group Separation Plot T092211A



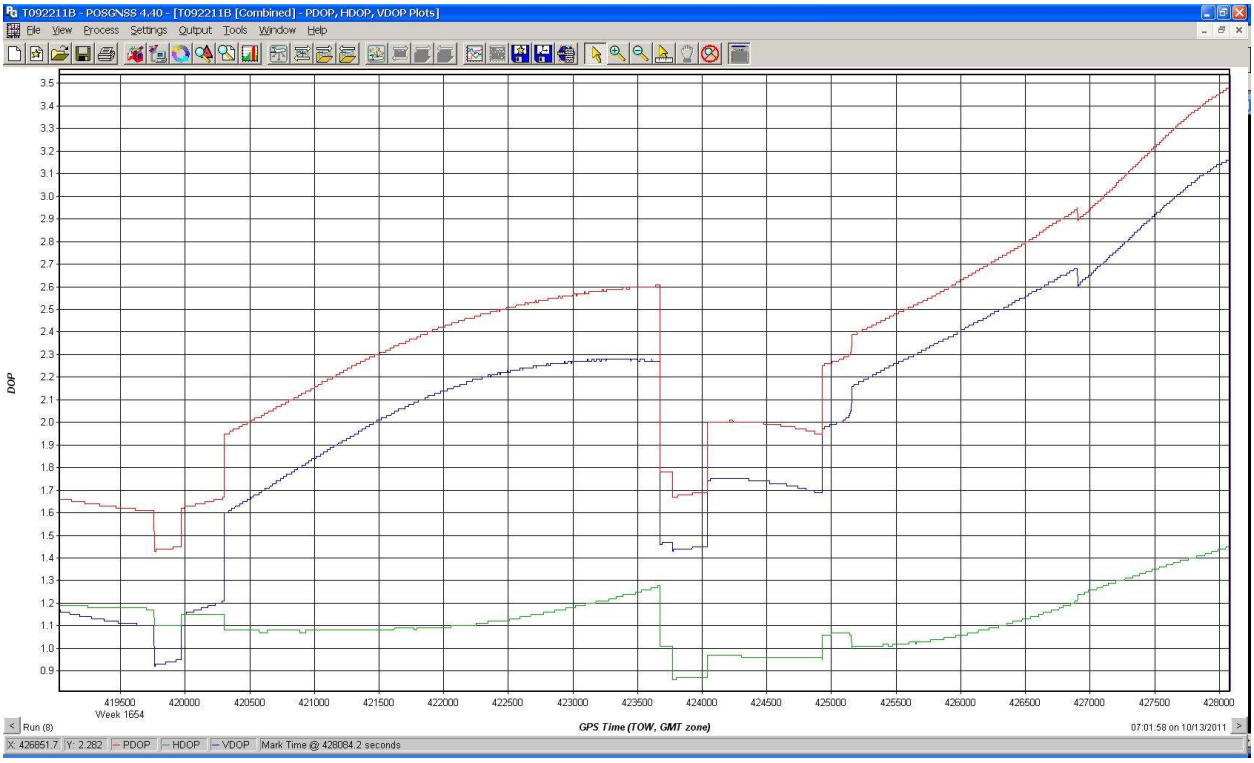
The Atlantic Group PDOP T092211A



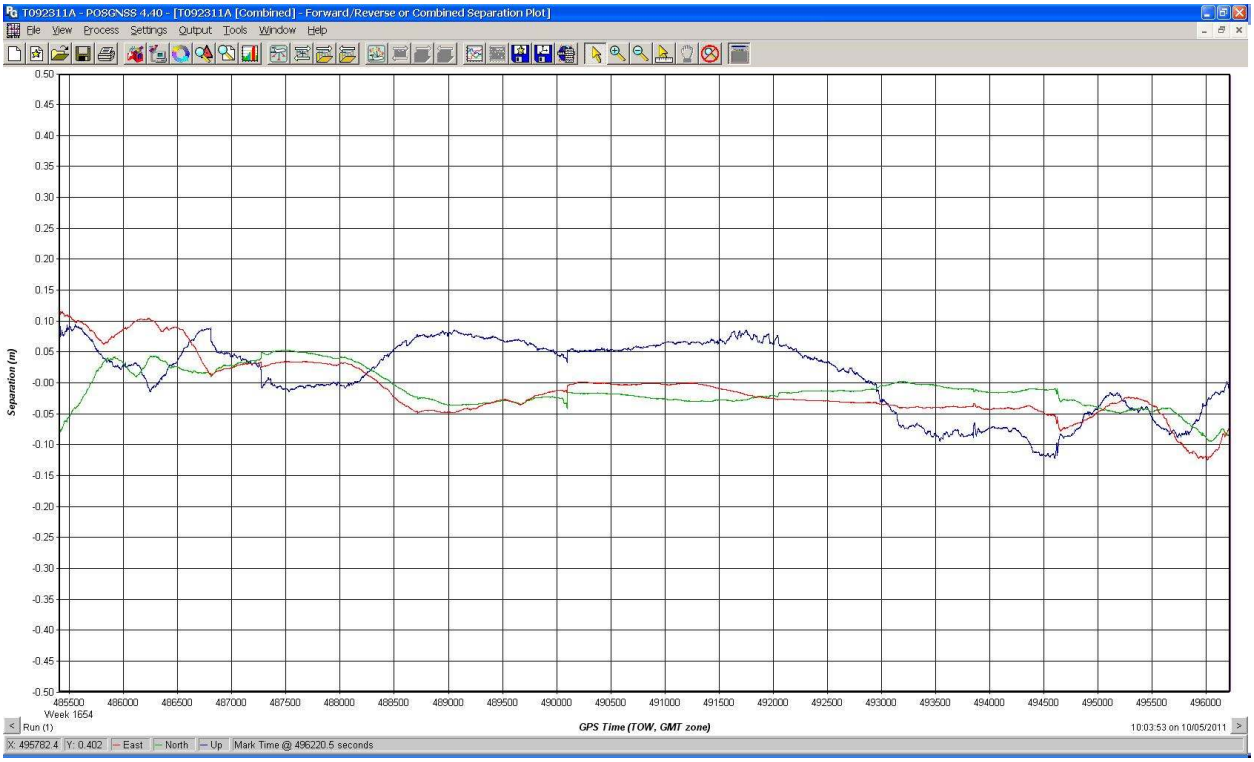
The Atlantic Group Separation Plot T092211B



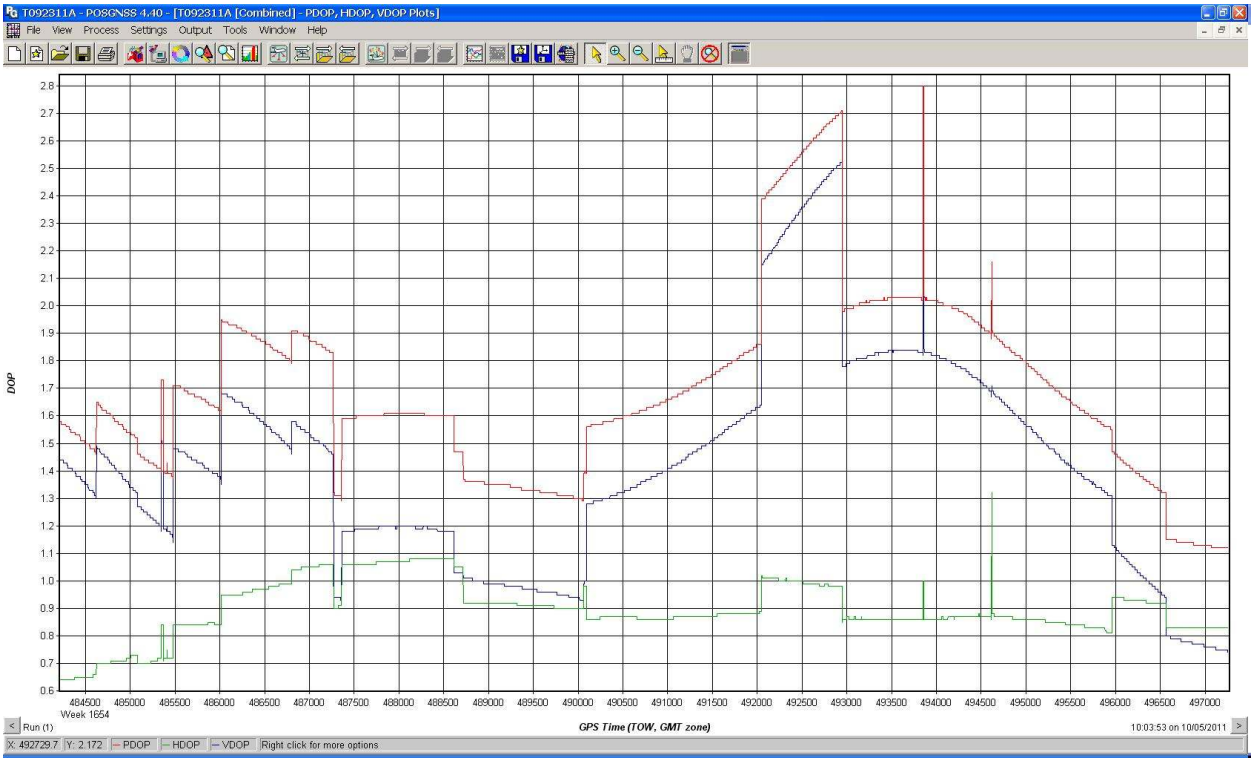
The Atlantic Group PDOP T092211B



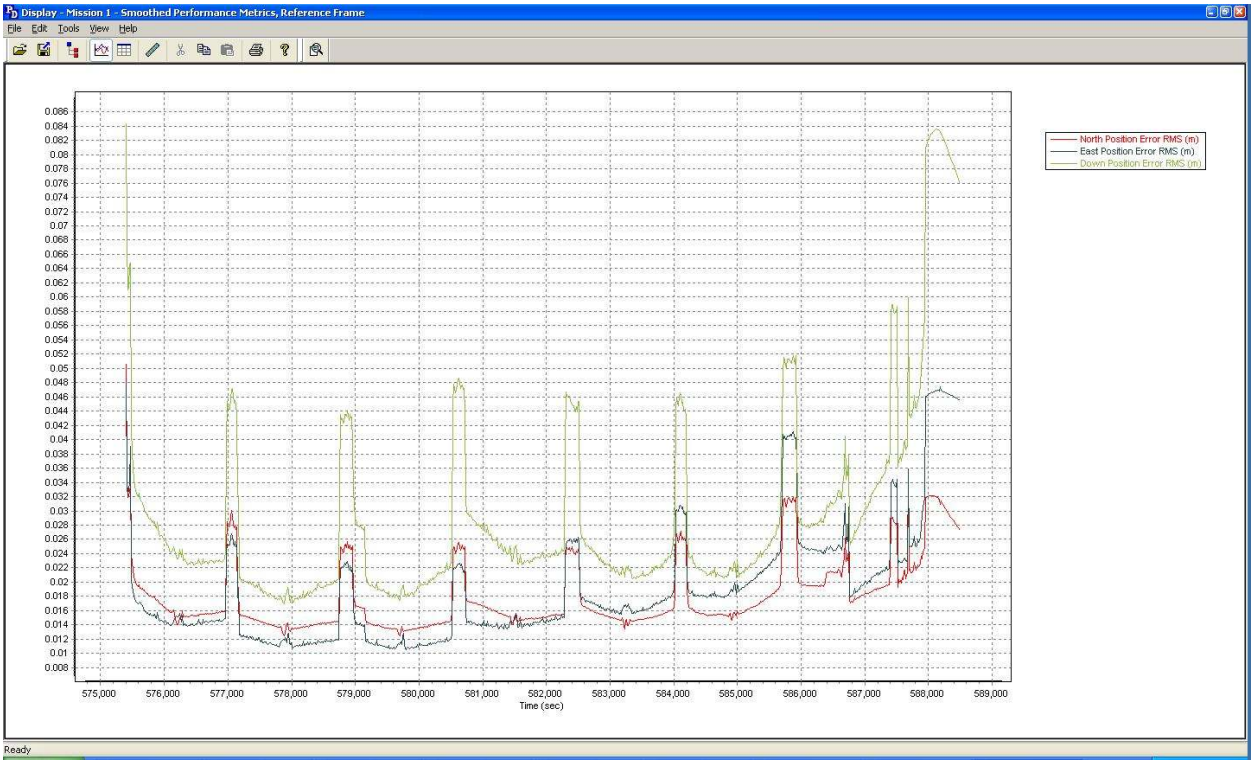
The Atlantic Group Separation Plot T092311A



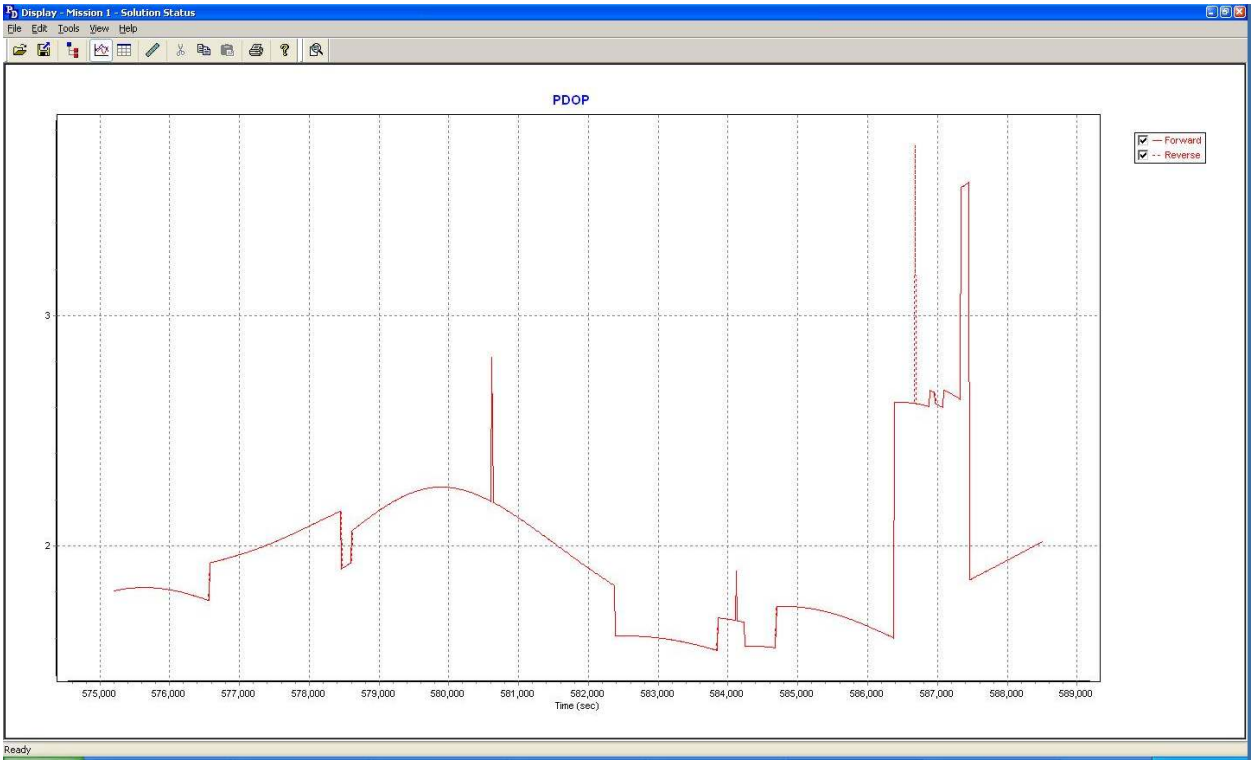
The Atlantic Group PDOP T092311A



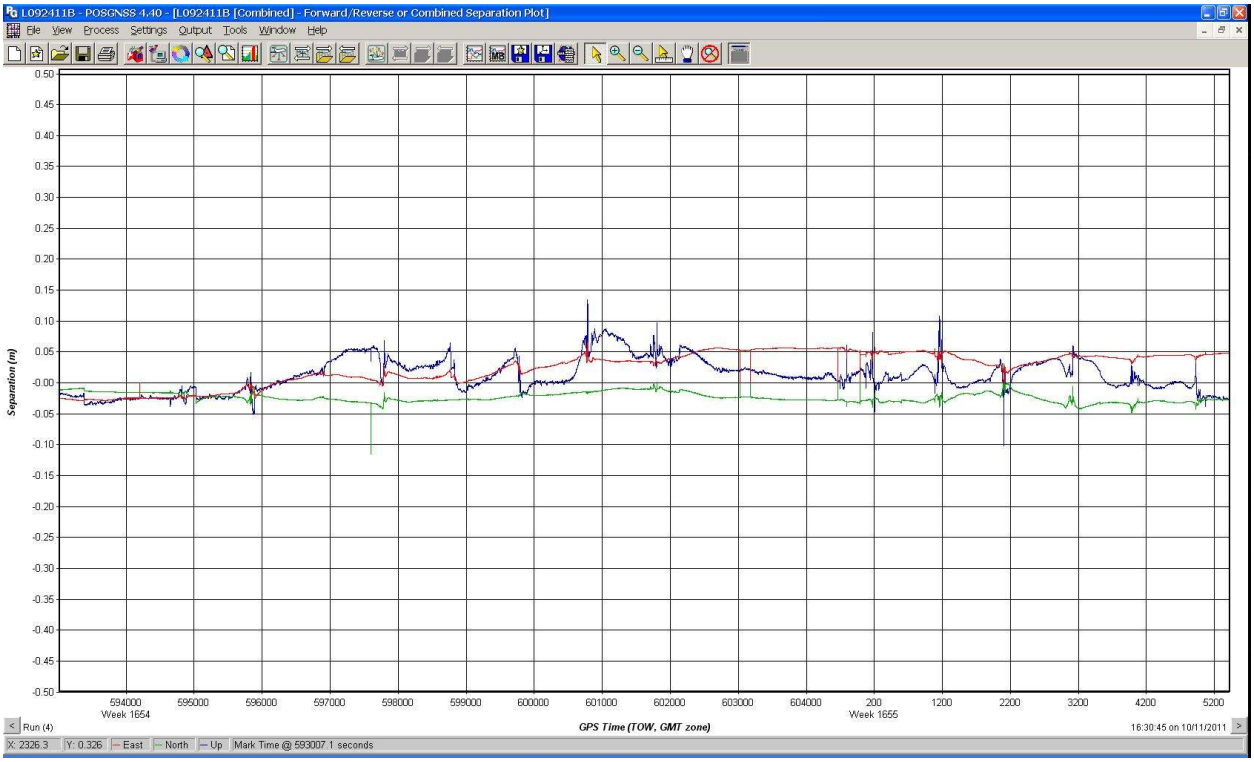
The Atlantic Group Separation Plot T092411A



The Atlantic Group PDOP T092411A



The Atlantic Group Separation Plot T092411B



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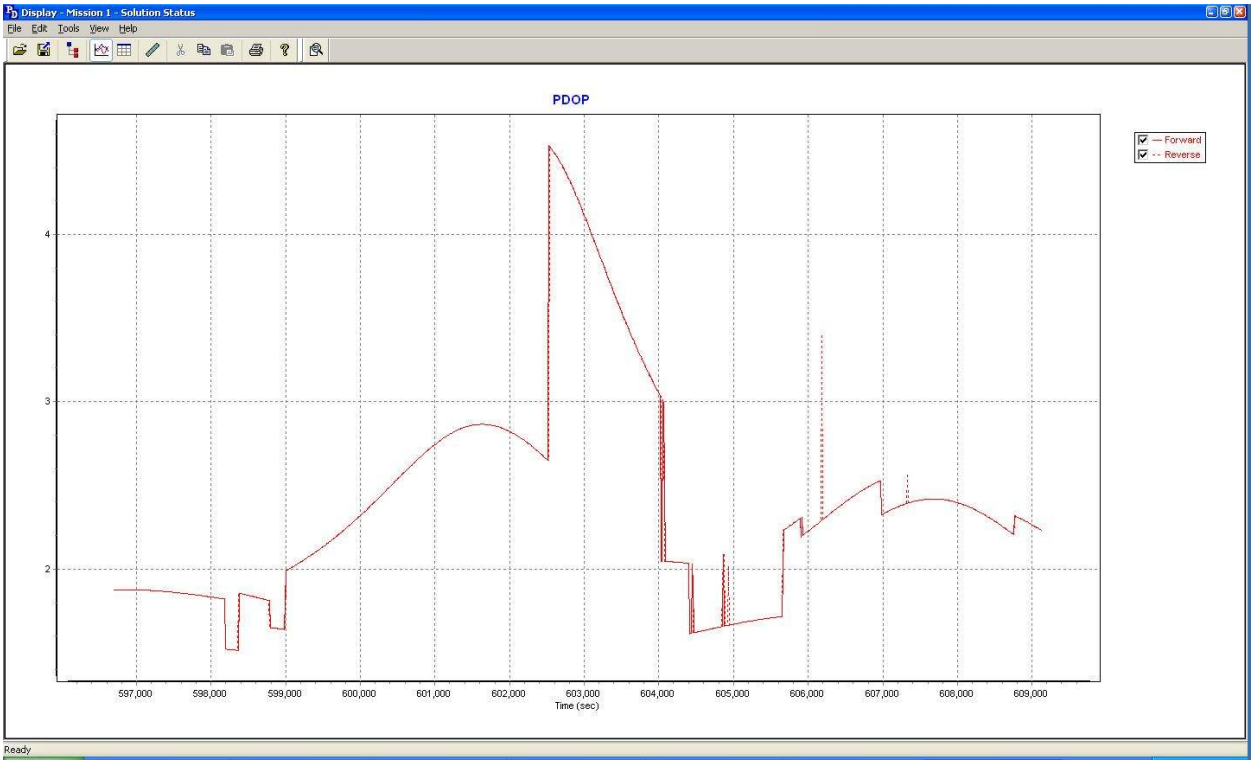
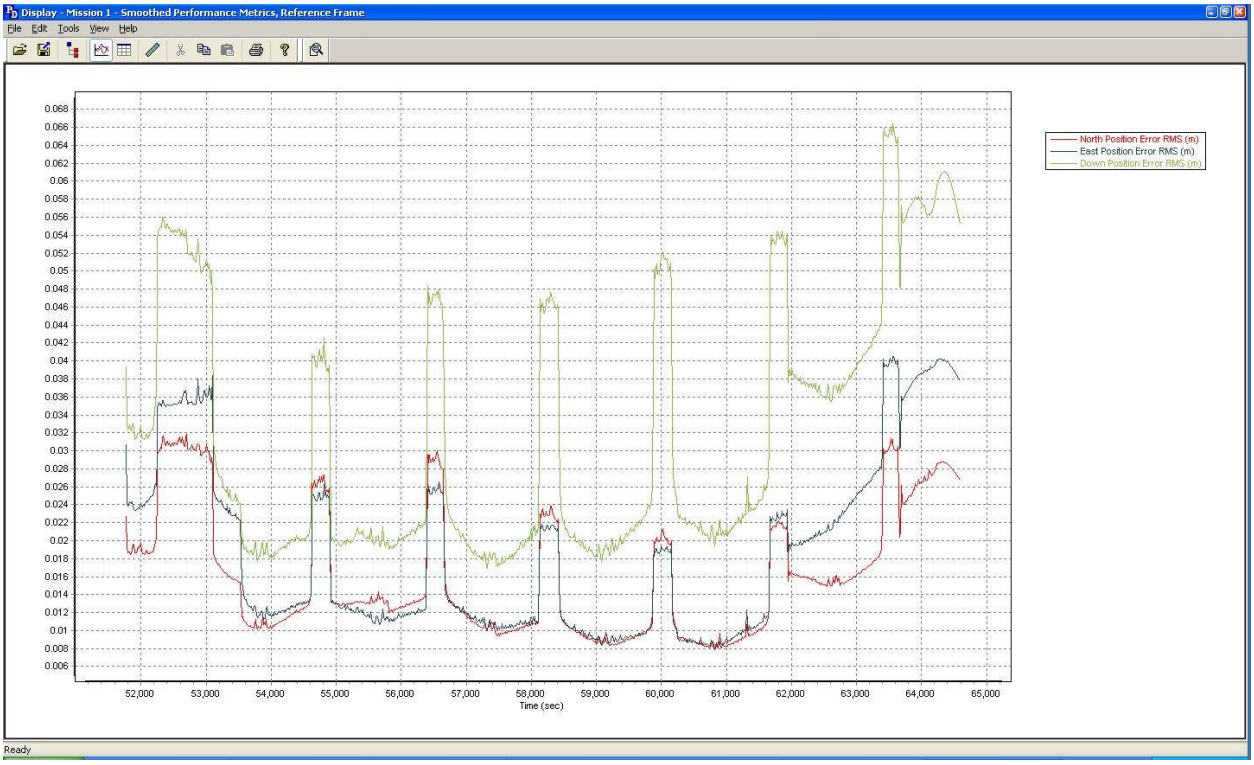


The Atlantic Group Separation Plot T092511A



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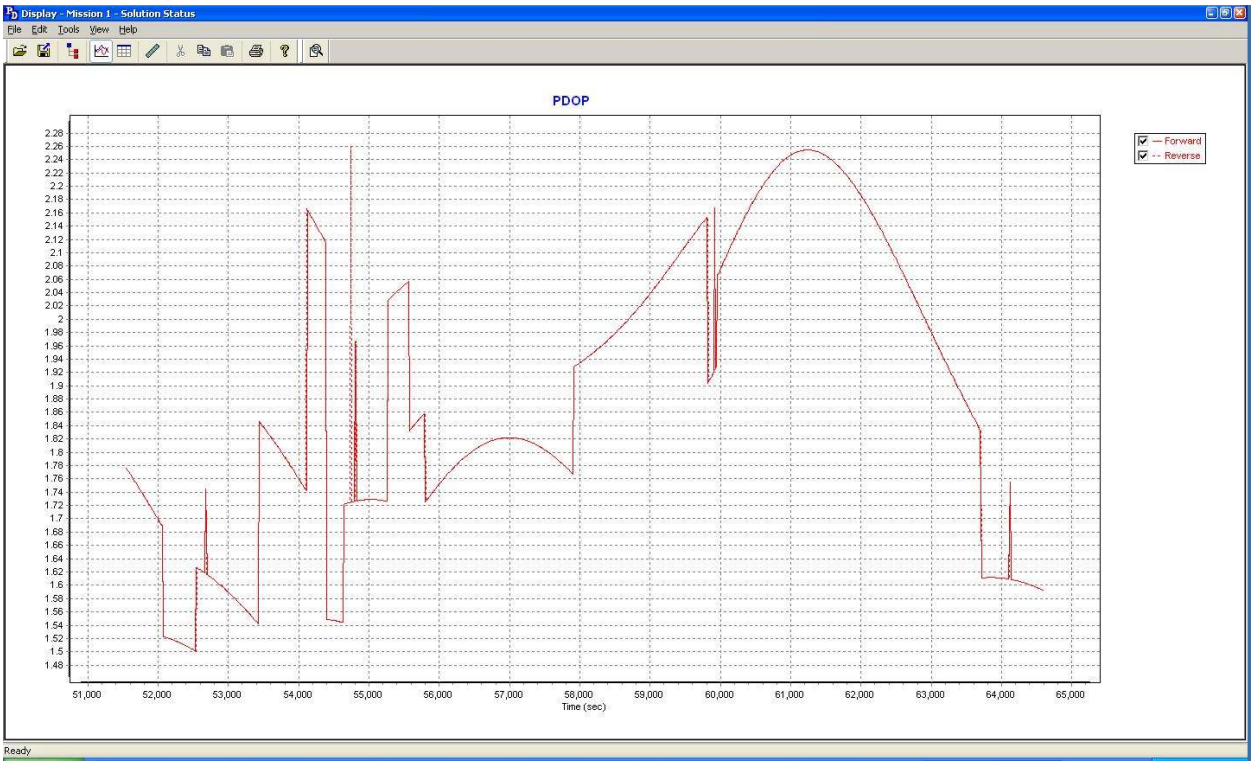

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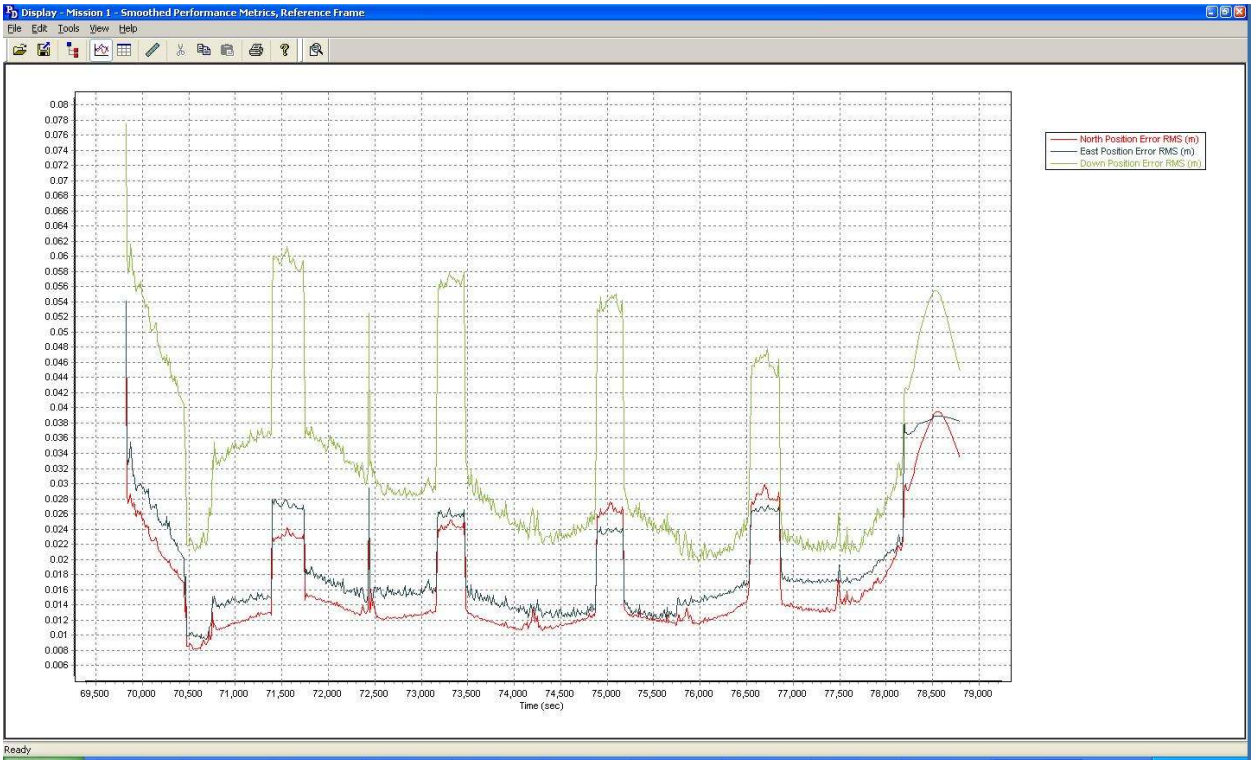

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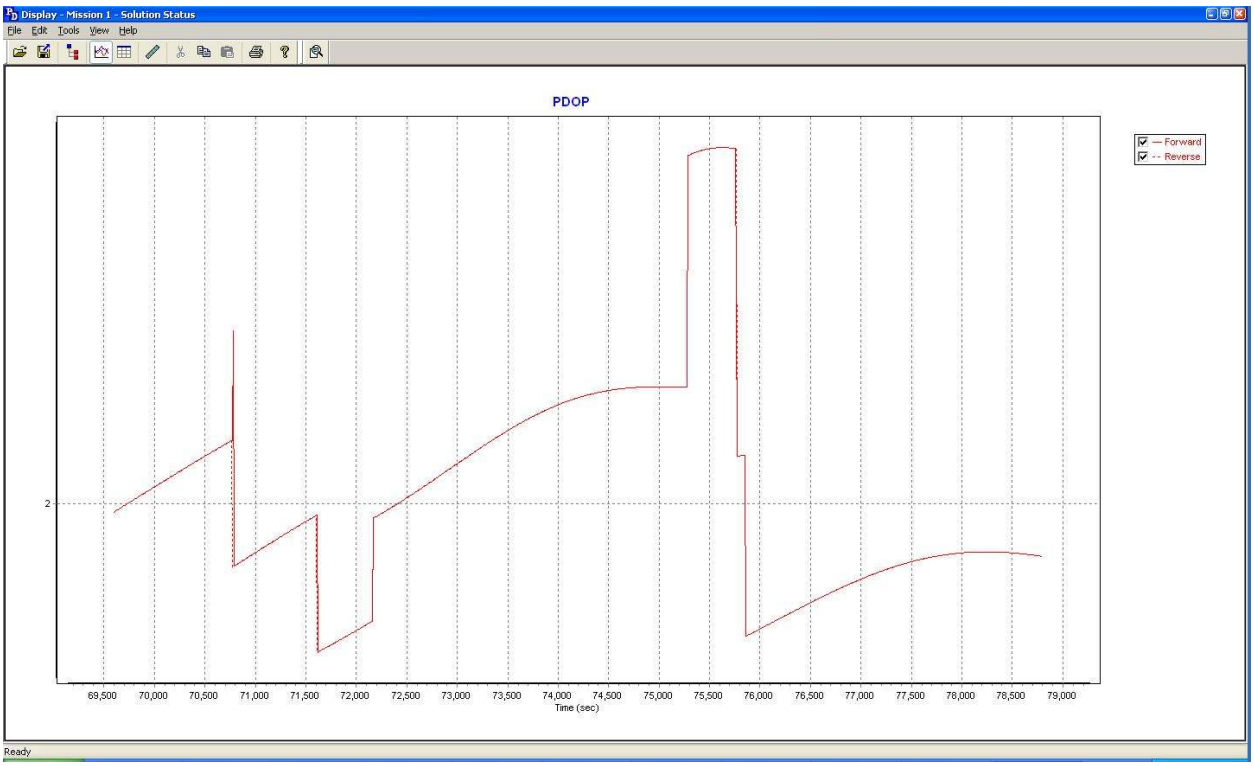

V:\1110814\Lidar\QAQC\1110814gnd_UTM13m_bare_earth_only_revised.txt

Number	Easting	Northing	Known Z	Laser Z	Dz
100	441017.012	4202174.319	2486.658	2486.670	+0.012
101	400356.849	4212943.908	2344.615	2344.500	-0.115
102	404654.084	4212854.807	2330.241	2330.210	-0.031
103	399009.106	4188158.387	2327.548	2327.400	-0.148
104	383765.820	4183375.774	2474.193	2473.970	-0.223
105	408787.769	4188094.705	2310.904	2310.920	+0.016
106	394497.921	4159867.270	2351.357	2351.330	-0.027
107	403579.060	4172663.887	2329.877	2329.920	+0.043
108	420961.305	4152312.009	2302.867	2302.830	-0.037
109	439133.016	4152574.810	2297.968	2297.970	+0.002
110	455853.573	4179092.079	2552.502	2552.440	-0.062
111	453499.653	4142552.626	2355.613	2355.690	+0.077
112	448833.984	4143868.992	2339.610	2339.630	+0.020
113	450006.554	4107537.770	2349.827	2349.840	+0.013
114	447244.442	4115553.591	2330.196	2330.280	+0.084
115	431065.609	4115259.326	2381.931	2381.930	-0.001
116	405383.412	4139905.625	2333.104	2333.040	-0.064
117	417000.503	4141325.317	2303.241	2303.210	-0.031
118	410020.007	4131675.723	2326.921	2326.920	-0.001
119	422981.622	4132317.188	2303.000	2302.960	-0.040
120	404056.104	4102356.507	2451.246	2451.260	+0.014
121	420231.046	4200525.620	2301.074	2301.030	-0.044

Average dz	-0.025
Minimum dz	-0.223
Maximum dz	+0.084
Average magnitude	0.050
Root mean square	0.073
Std deviation	0.070