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PROJECT REPORT

FOR

U.S. Geological Survey

Texas Counties Lidar ARRA, Calhoun Co.

May 6, 2011

(revised June 2, 2011)

AEROMETRIC PROJECT NO. 1-101205

Airborne GPS Survey Report

For

U.S. Geological Survey (Calhoun County, TX – LiDAR)

NGTOC III

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Prepared by

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AEROMETRIC Project No. 1101205

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USGS

Texas Counties Lidar ARRA, Calhoun Co.

Aerometric Project No. 1101205

1 INTRODUCTION

This report contains a summary of the LiDAR data acquisition and processing for the **USGS – FOUR COUNTIES TEXAS LiDAR TASK ORDER, CALHOUN COUNTY**.

1.1 Contact Info

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

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1.2 Purpose

AEROMETRIC, INC. acquired highly accurate Light Detection and Ranging (LiDAR) data for Calhoun County, Texas for the United State Geological Survey. Using AEROMETRIC's Optech 3100 AE LiDAR system, data was collected at 2500 meters to support the project area requirements.

1.3 Project Locations

This phase of the project covers Calhoun County, Texas as designed and supplied by USGS under Task Order No. G10PD02746, Contract No. G10PC00025 entered into on September 17, 2010 between the US Geological Survey – NGTOC III and AeroMetric, Inc.

1.4 Time Period

LiDAR data acquisition, control and QC surveys were completed between December 9th, 2010 and February12th, 2011. A total of 4 flight missions were required to cover Calhoun County. See Item 3.4 for a sketch of the acquisition missions and Section 7 of the report for each flight log. QC surveys were completed between December 9th, 2010 and May 21st, 2011.

1.5 Project Scope

AEROMETRIC, INC. acquired highly accurate Light Detection and Ranging (LiDAR) data for Calhoun County which encompass approximately 540 square miles in southern Texas. Using AEROMETRIC's Optech 3100 AE LiDAR system, data was collected at 2500 meters to support this phase of the project area's requirements.

As documented in our proposal dated September 9, 2010 we were to achieve a TIN accuracy of 24.5 cm for all areas. The accuracy as tested and published in this report in Section 8 has easily met the vertical accuracy requirements.

1.6 Conditions Affecting Progress

- None.

2 GEODETIC CONTROL

2.1 Network Scope

Base horizontal control for the check point surveys consisted of one NGS Order B station: **LAVAPORT**; and two NGS CORS stations: **TXPV** and **TXVA**.

Horizontal control is referenced to the Universal Transverse Mercator (UTM) Coordinate System – Zone 14, based on the North American Datum of 1983/2007 (NAD83/07). Final coordinates are published in meters.

Base vertical control for the check point surveys consisted of two NGS First Order, Class 1 stations: **A 1257** and **E 1258**; one NGS Third Order station: **B 595 RESET 1971**; one NGS Fourth Order station: **LAVAPORT**, and two NGS CORS stations: **TXPV** and **TXVA**. 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).

Base horizontal and vertical control for the Airborne GPS surveys consisted of four NGS CORS stations: **ARP 7**, **TXCC**, **TXPV**, and **TXVA**.

NGS recovery sheets are located in Section 2 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 **LAVAPORT** fixed, as shown below.

HORIZONTAL CLOSURES (in meters)

STATION	NORTHING	EASTING	LINEAR	DISTANCE	PROPORTION
TXPV	0.022	0.007	0.023	6388.0	1: 277000
TXVA	0.025	0.005	0.025	30064.9	1:1202000

VERTICAL CLOSURES (in meters)

STATION	ADJUSTED ELEVATION	PUBLISHED ELEVATION	DIFFERENCE	DISTANCE	ALLOWABLE 3rd ORDER CLOSURE
A 1257	16.964	16.961	0.003	19696.2	0.053
B 595 RESET	12.021	12.100	0.079	30544.1	0.066

E 1258	8.164	8.168	0.004	23722.5	0.058
TXPV	-15.180*	-15.191*	0.011	6388.0	0.030
TXVA	11.186*	11.151*	0.035	30064.9	0.066

* Ellipsoid elevation

All the published control values were held in the fully constrained scaled least squares base network adjustment that was used to derive the Ground Control Checkpoints.

3 LiDAR ACQUISITION & PROCEDURES

3.1 Acquisition Time Period

LiDAR data acquisition and Airborne GPS control surveys were completed between December 9th, 2010 and February 12th, 2011. A total of 4 flight missions were required to cover the area of Calhoun county.

3.2 LiDAR Planning

The LiDAR data for this project was collected with AeroMetric's Optech 3100 AE Airborne LiDAR system (Serial Number 03SSEN145). All flight planning and acquisition was completed using Optech's ALTM-Nav, version 2.1.25b (flight planning and LiDAR control software).

The following are the acquisition settings for Calhoun County.

- Flying Height (Above Ground): 2500 meters
- Laser Pulse Rate: 50 kHz
- Mirror Scan Frequency: 24.5 Hz
- Scan Angle (+/-): 17°
- Side Lap: 30 %
- Ground Speed: 160 kts
- Nominal Point Spacing: 1.5 meters

3.3 LiDAR Acquisition

A total of 4 flight missions were required to cover the project area. The missions were flown using the above planned values. See section 3.4 for a sketch of the acquisition missions and Section 6 of the report for each flight log.

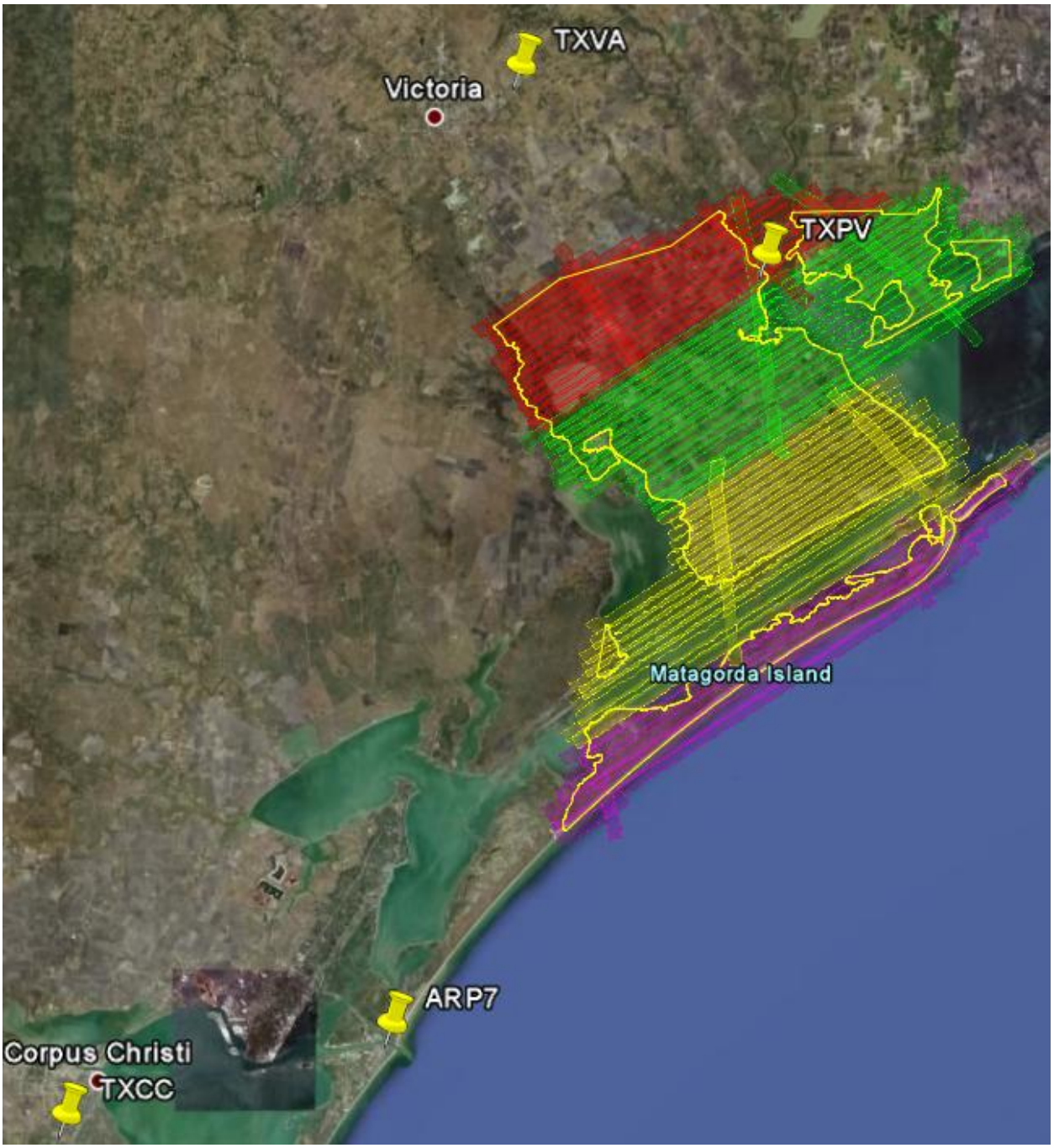
Airborne GPS and IMU trajectories for the LiDAR sensor were also acquired during the time of flight.

Each mission was typically four to five hours long. Before take-off, the LiDAR system and the Airborne GPS and IMU systems were initiated 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: ARP7, TXCC, TXPV, and TXVA.


TXVA
Victoria
TXPV
Matagorda Island
ARP7
Corpus Christi
TXCC

4 QC SURVEYS

The check point survey was performed between December 9th, 2010 and May 21st, 2011 using Rapid Static GPS techniques. A total of 126 check points were surveyed across the project area. These points were collected in hard surface, short grass, and tall grass ground classification categories. Hard surface points were used to assess Fundamental Vertical Accuracy. Twenty hard surface points were not used in the assessment and were delivered to the client along with the short grass and tall grass points.

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 as well as MMS version 5.2 were 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 day 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.

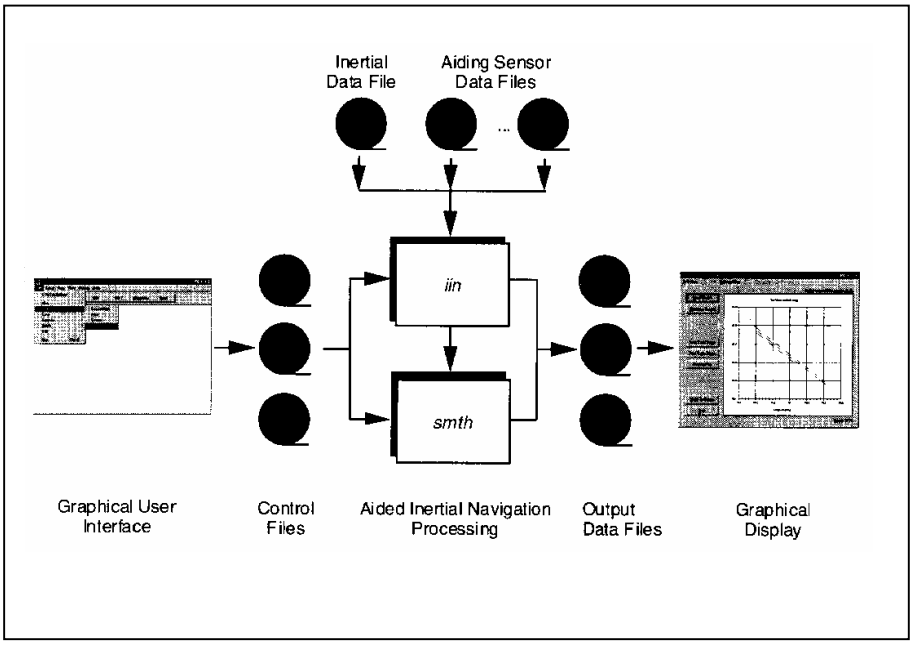
   Please see Section 7 of the control report for the final accepted trajectory plots.

4. When the processed trajectory data is 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 POSProc.

   POSProc comprises a set of individual processing interface tools that execute and provide the following functions:

   This diagram 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

AEROMETRIC routinely performs two types of calibrations on its Optech 3100 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 mission's 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 the 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

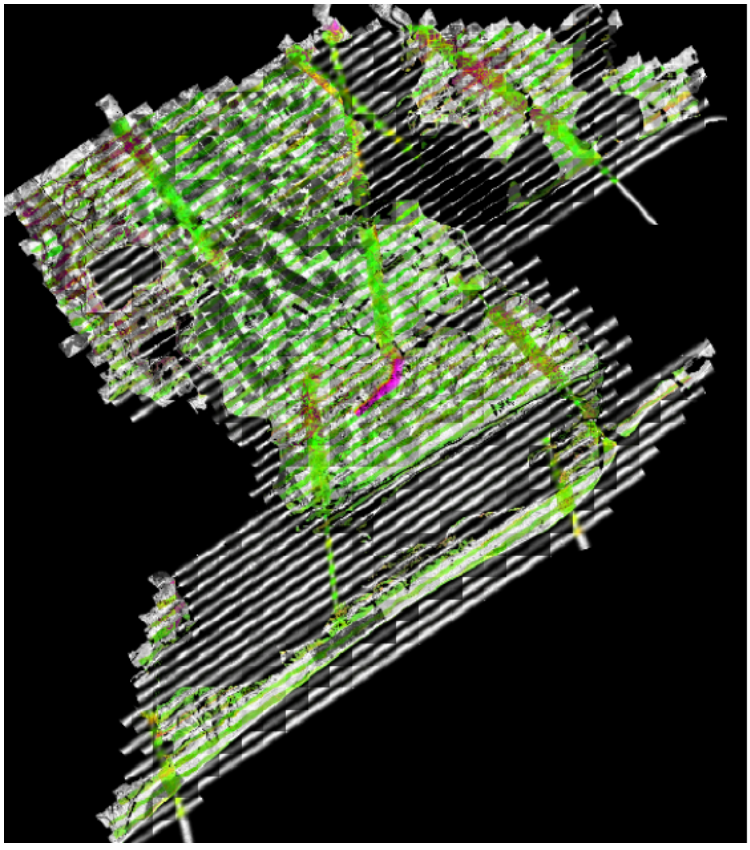
The in-situ calibration is performed as needed using the mission's data. This calibration is performed to refine the system parameters that are affected by the on-site conditions.

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

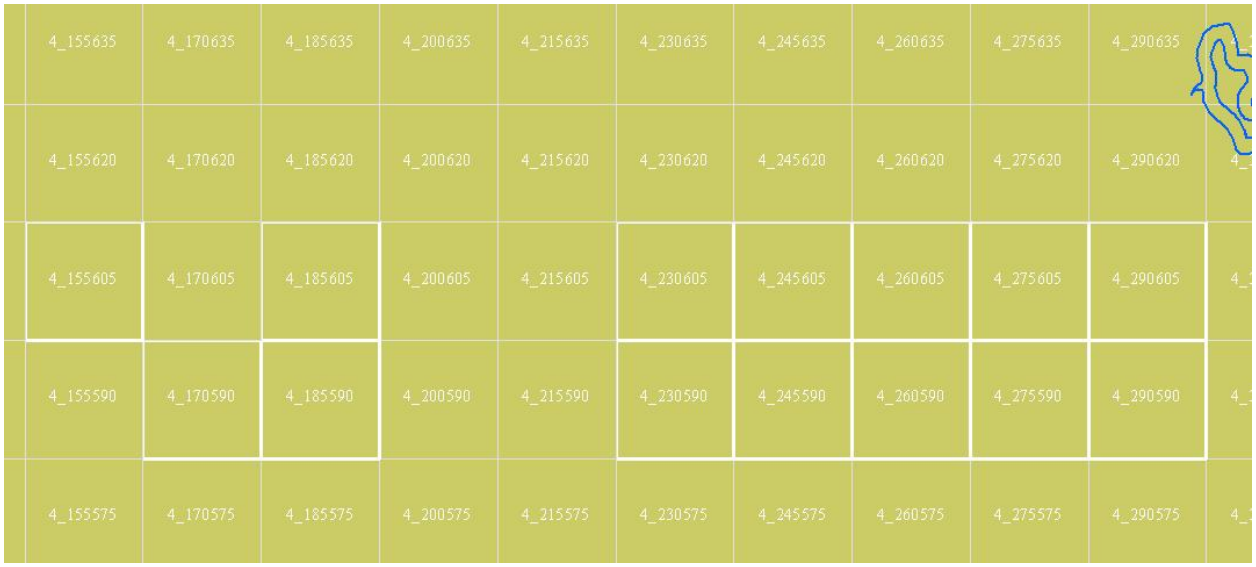
The LAS files were then imported, verified, and parsed into manageable, tiled grids using GeoCue version 7.0.34.5. GeoCue allows for ease of data management and process tracking.

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 to any further processing. To determine a proper accuracy assessment between flightlines, Aerometric uses GeoCue to create Orthos by elevation differences. The generated orthos have assigned elevation ranges that allow the technician to evaluate if the data passes the accuracy assessment and also determine if additional calibration efforts are needed based on the bias trends. Below is a screen capture of the elevation ortho where green indicates a flightline comparison of less than 0.05 meters; yellow is 0.050 – 0.100 meters; orange is 0.101 – 0.150 meters; red is 0.151 – 0.200 meters, and greater than 0.20 meters is magenta.



Calhoun County

In addition to the relative accuracy assessment, Aerometric also reviews some tiles to ensure that the required 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 of 1.5 meters. The results indicated that the density of the sampled tiles achieved only 76% 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.



Sampled tiles: Calhoun County (4_155605, 4_170590, 4_185590, 4_185605, 4_230590, 4_230605, 4_245590, 4_245605, 4_260590, 4_260605, 4_275590, 4_275605, 4_290590, and 4_290605). These tiles were selected for having minimal surface water visible.

Run 1 (Version 12 – 1.5m)
Total number of cells: 14,028,014
Total number of cells with one point: 7,125,000
Total number of cells with one or more points: 10,670,251
Percentage of tiles with 1 or more points: 76.1%

Run 2 (Version 13 – 3.0m)
Total number of cells: 3,514,014
Total number of cells with one point: 30,772
Total number of cells with one or more points: 3,494,529
Percentage of tiles with 1 or more points: 99.4%

Once both the accuracy between swaths and data density is accepted an automated classification algorithm is performed using TerraSolid's TerraScan, version 10.020. 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.

5.4 Check Point Validation

The data was then verified using the ground control data collected by Aerometric. TerraScan is used to compute the vertical differences between the surveyed elevation and the LiDAR derived elevation closest to the surveyed point.

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

5.5 LiDAR Data Delivery

Raw point cloud data supplied is in the following format:

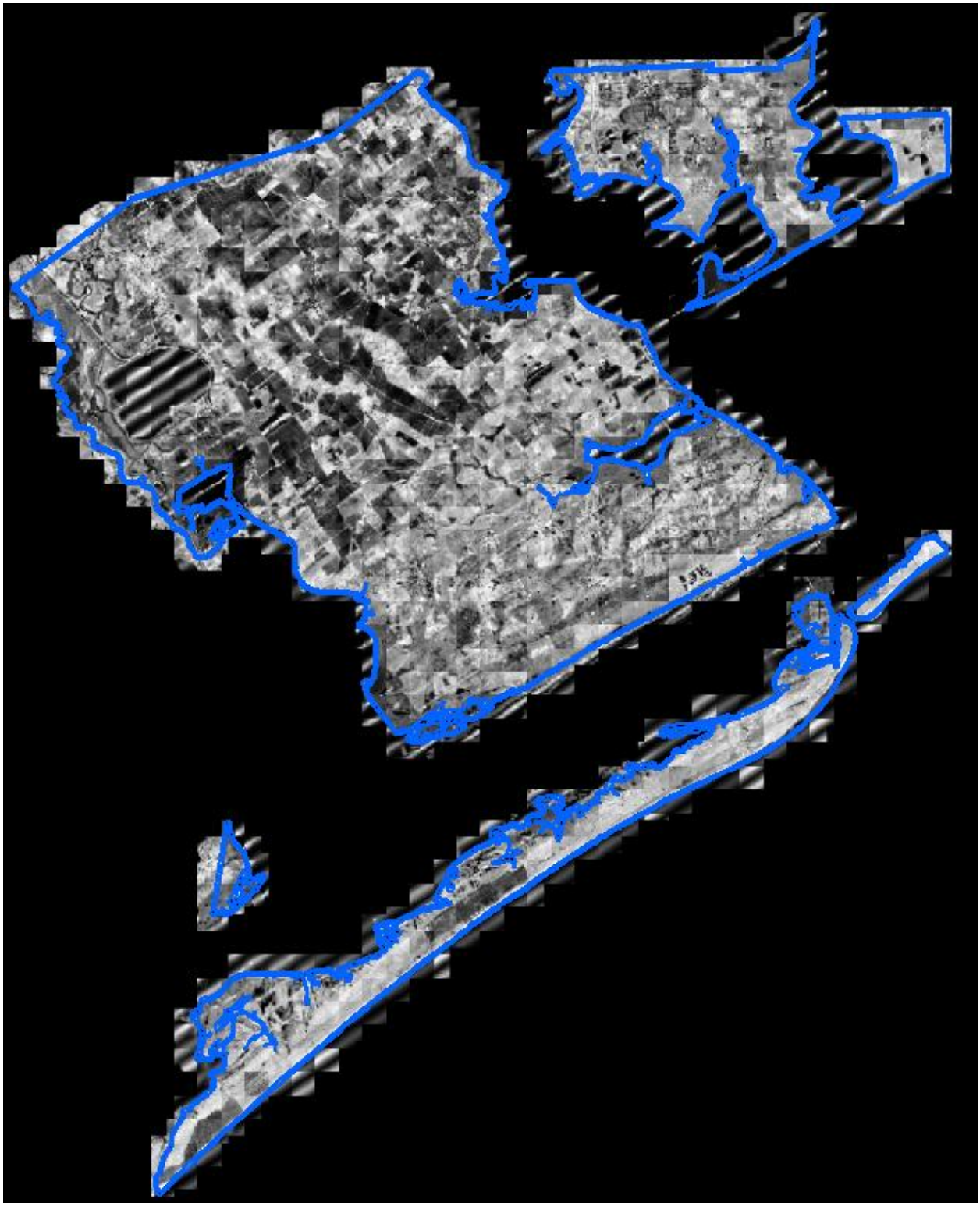
- LAS, version 1.2
- GPS times adjusted to GPS Absolute
- Full swaths and delivered as 1 file per swath which did not exceed 2gb.

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 2 meter bare-earth DEMs were created in the following manner. First, ArcGrids in ASCII format were created using TerraModeler version 10.005 (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 2 meter intensity images were created using GeoCue. These images are in GeoTiff format.



Calhoun County Intensity Raster

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

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 Calhoun County Texas well into the future. Although this project challenged 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.

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DATABASE =  ,PROGRAM = datasheet, VERSION = 7.85
1        National Geodetic Survey,   Retrieval Date = FEBRUARY 14, 2011
 AN1818 ***********************************************************************
 AN1818  DESIGNATION -  A 1257
 AN1818  PID         -  AN1818
 AN1818  STATE/COUNTY-  TX/VICTORIA
 AN1818  USGS QUAD   -  BLOOMINGTON (1995)
 AN1818
 AN1818                        *CURRENT SURVEY CONTROL
 AN1818  ______________________________________________________________________
 AN1818* NAD 83(1986)-  28 39 13.     (N)    096 53 00.     (W)     SCALED
 AN1818* NAVD 88     -        16.961  (meters)      55.65   (feet)  ADJUSTED
 AN1818  ______________________________________________________________________
 AN1818  GEOID HEIGHT-         -27.41  (meters)                      GEOID09
 AN1818  DYNAMIC HT  -          16.936 (meters)      55.56  (feet)  COMP
 AN1818  MODELED GRAV-     979,188.1   (mgal)                        NAVD 88
 AN1818
 AN1818  VERT ORDER  -  FIRST     CLASS I
 AN1818
 AN1818.The horizontal coordinates were scaled from a topographic map and have
 AN1818.an estimated accuracy of +/- 6 seconds.
 AN1818
 AN1818.The orthometric height was determined by differential leveling and
 AN1818.adjusted in June 1991.
 AN1818
 AN1818.The geoid height was determined by GEOID09.
 AN1818
 AN1818.The dynamic height is computed by dividing the NAVD 88
 AN1818.geopotential number by the normal gravity value computed on the
 AN1818.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AN1818.degrees latitude (g = 980.6199 gals.).
 AN1818
 AN1818.The modeled gravity was interpolated from observed gravity values.
 AN1818
 AN1818;                    North         East     Units  Estimated Accuracy
 AN1818;SPC TXSC     - 4,092,780.      806,900.      MT  (+/- 180 meters Scaled)
 AN1818
 AN1818                         SUPERSEDED SURVEY CONTROL
 AN1818
 AN1818  NGVD 29 (??/??/92)   17.089  (m)           56.07   (f) ADJ UNCH    1 1
 AN1818
 AN1818.Superseded values are not recommended for survey control.
 AN1818.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AN1818.See file dsdata.txt to determine how the superseded data were derived.
 AN1818
 AN1818_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RQS068714(NAD 83)
 AN1818_MARKER: DB = BENCH MARK DISK
```

AN1818_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AN1818_SP_SET: STAINLESS STEEL ROD
AN1818_STAMPING: A 1257 1978
AN1818_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AN1818_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AN1818+SATELLITE: SATELLITE OBSERVATIONS - October 02, 2007
AN1818
AN1818 HISTORY - Date Condition Report By
AN1818 HISTORY - 1978 MONUMENTED NGS
AN1818 HISTORY - 20061101 GOOD INDIV
AN1818 HISTORY - 20071002 GOOD INDIV
AN1818
AN1818 STATION DESCRIPTION
AN1818
AN1818'DESCRIBED BY NATIONAL GEODETIC SURVEY 1978
AN1818'0.7 MI NE FROM BLOOMINGTON.
AN1818'0.7 MILE NORTHEAST ALONG THE MISSOURI PACIFIC RAILROAD FROM THE
AN1818'STATION AT BLOOMINGTON, AT A GRAVEL ROAD LEADING NORTHWEST AND TWO
AN1818'OIL STORAGE TANKS, 20 FT NORTHWEST OF THE CENTERLINE OF A PAVED
AN1818'ROAD, 53 FT SOUTH OF THE SOUTH CORNER OF A CATTLE GUARD, 1 FT NORTHEAS
AN1818'OF A FENCE LINE, 13 FT SOUTH OF A POWERLINE POLE, 90 FT NORTHWEST
AN1818'OF THE NORTHWEST RAIL, DRIVEN TO REFUSAL AT A DEPTH OF 28 FT.
AN1818
AN1818 STATION RECOVERY (2006)
AN1818
AN1818'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2006 (KLC)
AN1818'RECOVERED AS DESCRIBED.
AN1818
AN1818 STATION RECOVERY (2007)
AN1818
AN1818'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (DBP)
AN1818'RECOVERED AS DESCRIBED

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

The NGS Data Sheet

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

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DATABASE =  ,PROGRAM = datasheet, VERSION = 7.85
1        National Geodetic Survey,   Retrieval Date = FEBRUARY  9, 2011
 AN0455 ***********************************************************************
 AN0455  DESIGNATION -  B 595 RESET 1971
 AN0455  PID         -  AN0455
 AN0455  STATE/COUNTY-  TX/REFUGIO
 AN0455  USGS QUAD   -  TIVOLI (1973)
 AN0455
 AN0455                        *CURRENT SURVEY CONTROL
 AN0455  ______________________________________________________________________
 AN0455* NAD 83(1986)-  28 27 30.      (N)    096 54 09.      (W)      SCALED
 AN0455* NAVD 88     -         12.10   (+/-2cm)       39.7    (feet)   VERTCON
 AN0455  ______________________________________________________________________
 AN0455  GEOID HEIGHT-          -27.28  (meters)                        GEOID09
 AN0455  VERT ORDER  -  THIRD (See Below)
 AN0455
 AN0455.The horizontal coordinates were scaled from a topographic map and have
 AN0455.an estimated accuracy of +/- 6 seconds.
 AN0455
 AN0455.The NAVD 88 height was computed by applying the VERTCON shift value to
 AN0455.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
 AN0455.The vertical order pertains to the NGVD 29 superseded value.
 AN0455
 AN0455.The geoid height was determined by GEOID09.
 AN0455
 AN0455;                     North         East     Units  Estimated Accuracy
 AN0455;SPC TXSC     - 4,071,110.      805,420.       MT  (+/- 180 meters Scaled)
 AN0455
 AN0455                          SUPERSEDED SURVEY CONTROL
 AN0455
 AN0455  NGVD 29 (01/29/03)   12.23   (m)            40.1    (f) RESET       3
 AN0455
 AN0455.Superseded values are not recommended for survey control.
 AN0455.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AN0455.See file dsdata.txt to determine how the superseded data were derived.
 AN0455
 AN0455_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RQS053497(NAD 83)
 AN0455_MARKER: DD = SURVEY DISK
 AN0455_SETTING: 30 = SET IN A LIGHT STRUCTURE
 AN0455_SP_SET: CULVERT
 AN0455_STAMPING: B 595 RESET 1971
 AN0455_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
 AN0455_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AN0455+SATELLITE: SATELLITE OBSERVATIONS - April 28, 2005
 AN0455
 AN0455  HISTORY     - Date     Condition        Report By
 AN0455  HISTORY     - 1971     MONUMENTED       TXHD
```

```
  AN0455  HISTORY     - 1972     GOOD             TXHD
  AN0455  HISTORY     - 1988     GOOD             USPSQD
  AN0455  HISTORY     - 1990     GOOD             USPSQD
  AN0455  HISTORY     - 19920809 GOOD             USPSQD
  AN0455  HISTORY     - 19990726 GOOD             USPSQD
  AN0455  HISTORY     - 20050428 GOOD             USPSQD
  AN0455
  AN0455                          STATION DESCRIPTION
  AN0455
  AN0455'DESCRIBED BY TEXAS HIGHWAY DEPARTMENT 1972
  AN0455'1 MI W FROM TIVOLI.
  AN0455'1 MILE WEST ALONG STATE HIGHWAY 113 FROM THE INTERSECTION OF STATE
  AN0455'HIGHWAY 35 AT TIVOLI, SET IN THE TOP OF THE EAST END OF THE SOUTH
  AN0455'HEADWALL OF A LARGE CONCRETE CULVERT, 28 FEET SOUTH OF THE CENTER LINE
  AN0455'OF THE HIGHWAY AND ABOUT LEVEL WITH THE HIGHWAY.
  AN0455
  AN0455                          STATION RECOVERY (1988)
  AN0455
  AN0455'RECOVERY NOTE BY US POWER SQUADRON 1988 (GCM)
  AN0455'RECOVERED IN GOOD CONDITION.
  AN0455
  AN0455                          STATION RECOVERY (1990)
  AN0455
  AN0455'RECOVERY NOTE BY US POWER SQUADRON 1990 (LT)
  AN0455'RECOVERED IN GOOD CONDITION.
  AN0455
  AN0455                          STATION RECOVERY (1992)
  AN0455
  AN0455'RECOVERY NOTE BY US POWER SQUADRON 1992 (TWS)
  AN0455'RECOVERED IN GOOD CONDITION.
  AN0455
  AN0455                          STATION RECOVERY (1999)
  AN0455
  AN0455'RECOVERY NOTE BY US POWER SQUADRON 1999
  AN0455'RECOVERED IN GOOD CONDITION.
  AN0455
  AN0455                          STATION RECOVERY (2005)
  AN0455
  AN0455'RECOVERY NOTE BY US POWER SQUADRON 2005 (CHN)
  AN0455'RECOVERED IN GOOD CONDITION.

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

The NGS Data Sheet

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

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.85
1        National Geodetic Survey,   Retrieval Date = FEBRUARY 14, 2011
 AN1821 ***********************************************************************
 AN1821  DESIGNATION -  E 1258
 AN1821  PID         -  AN1821
 AN1821  STATE/COUNTY-  TX/VICTORIA
 AN1821  USGS QUAD   -  BLOOMINGTON (1995)
 AN1821
 AN1821                        *CURRENT SURVEY CONTROL
 AN1821  ______________________________________________________________________
 AN1821* NAD 83(1986)-  28 37 43.      (N)    096 55 22.      (W)      SCALED
 AN1821* NAVD 88     -         8.168   (meters)      26.80    (feet)   ADJUSTED
 AN1821  ______________________________________________________________________
 AN1821  GEOID HEIGHT-         -27.42  (meters)                        GEOID09
 AN1821  DYNAMIC HT  -           8.156 (meters)       26.76   (feet)   COMP
 AN1821  MODELED GRAV-     979,185.2   (mgal)                          NAVD 88
 AN1821
 AN1821  VERT ORDER  -  FIRST     CLASS I
 AN1821
 AN1821.The horizontal coordinates were scaled from a topographic map and have
 AN1821.an estimated accuracy of +/- 6 seconds.
 AN1821
 AN1821.The orthometric height was determined by differential leveling and
 AN1821.adjusted in June 1991.
 AN1821
 AN1821.The geoid height was determined by GEOID09.
 AN1821
 AN1821.The dynamic height is computed by dividing the NAVD 88
 AN1821.geopotential number by the normal gravity value computed on the
 AN1821.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AN1821.degrees latitude (g = 980.6199 gals.).
 AN1821
 AN1821.The modeled gravity was interpolated from observed gravity values.
 AN1821
 AN1821;                    North         East     Units  Estimated Accuracy
 AN1821;SPC TXSC     - 4,089,940.      803,100.      MT  (+/- 180 meters Scaled)
 AN1821
 AN1821                         SUPERSEDED SURVEY CONTROL
 AN1821
 AN1821  NGVD 29 (??/??/92)    8.296  (m)           27.22   (f) ADJ UNCH    1 1
 AN1821
 AN1821.Superseded values are not recommended for survey control.
 AN1821.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AN1821.See file dsdata.txt to determine how the superseded data were derived.
 AN1821
 AN1821_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RQS030686(NAD 83)
 AN1821_MARKER: DB = BENCH MARK DISK
```

AN1821_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AN1821_SP_SET: STAINLESS STEEL ROD
AN1821_STAMPING: E 1258 1978
AN1821_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AN1821_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AN1821+SATELLITE: SATELLITE OBSERVATIONS - October 02, 2007
AN1821
AN1821 HISTORY - Date Condition Report By
AN1821 HISTORY - 1978 MONUMENTED NGS
AN1821 HISTORY - 20061102 GOOD INDIV
AN1821 HISTORY - 20071002 GOOD INDIV
AN1821
AN1821 STATION DESCRIPTION
AN1821
AN1821'DESCRIBED BY NATIONAL GEODETIC SURVEY 1978
AN1821'2.1 MI SW FROM BLOOMINGTON.
AN1821'2.1 MILES SOUTHWEST ALONG THE MISSOURI PACIFIC RAILROAD FROM THE
AN1821'RAILROAD STATION IN BLOOMINGTON, 82 FEET SOUTHEAST OF THE SOUTHEAST
AN1821'RAIL,31 FEET NORTHEAST OF A CYCLONE FENCE CORNER, 19 FEET SOUTHEAST
AN1821'OF THE CENTER OF A GRAVEL ROAD AND 1 FOOT NORTHWEST OF A WIRE FENCE.
AN1821
AN1821 STATION RECOVERY (2006)
AN1821
AN1821'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2006 (KLC)
AN1821'RECOVERED AS DESCRIBED.
AN1821
AN1821 STATION RECOVERY (2007)
AN1821
AN1821'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (DBP)
AN1821'RECOVERED AS DESCRIBED

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

The NGS Data Sheet

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

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.85
1        National Geodetic Survey,   Retrieval Date = FEBRUARY  9, 2011
 AN2393 ***********************************************************************
 AN2393  PACS        -  This is a Primary Airport Control Station.
 AN2393  DESIGNATION -  LAVAPORT
 AN2393  PID         -  AN2393
 AN2393  STATE/COUNTY-  TX/CALHOUN
 AN2393  USGS QUAD   -  KAMEY (1995)
 AN2393
 AN2393                      *CURRENT SURVEY CONTROL
 AN2393  ______________________________________________________________________
 AN2393* NAD 83(2007)-  28 39 09.37709(N)    096 40 54.32098(W)     ADJUSTED
 AN2393* NAVD 88     -         8.25   (meters)      27.1    (feet)  GPS OBS
 AN2393  ______________________________________________________________________
 AN2393  EPOCH DATE  -        2002.00
 AN2393  X           -    -651,746.367 (meters)                     COMP
 AN2393  Y           -  -5,563,339.844 (meters)                     COMP
 AN2393  Z           -   3,040,160.375 (meters)                     COMP
 AN2393  LAPLACE CORR-           1.18  (seconds)                    DEFLEC09
 AN2393  ELLIP HEIGHT-         -19.006 (meters)          (02/10/07) ADJUSTED
 AN2393  GEOID HEIGHT-         -27.27  (meters)                     GEOID09
 AN2393
 AN2393  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AN2393  Type    PID    Designation                      North   East  Ellip
 AN2393  ----------------------------------------------------------------------
 AN2393  NETWORK AN2393 LAVAPORT                          1.88   1.63   5.94
 AN2393  ----------------------------------------------------------------------
 AN2393
 AN2393.This mark is at Calhoun Co (T97) Airport (T97)
 AN2393
 AN2393.The horizontal coordinates were established by GPS observations
 AN2393.and adjusted by the National Geodetic Survey in February 2007.
 AN2393
 AN2393.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AN2393.See National Readjustment for more information.
 AN2393.The horizontal coordinates are valid at the epoch date displayed above.
 AN2393.The epoch date for horizontal control is a decimal equivalence
 AN2393.of Year/Month/Day.
 AN2393
 AN2393.The orthometric height was determined by GPS observations and a
 AN2393.high-resolution geoid model.
 AN2393
 AN2393.GPS derived orthometric heights for airport stations designated as
 AN2393.PACS or SACS are published to 2 decimal places.  This maintains
 AN2393.centimeter relative accuracy between the PACS and SACS.  It does
 AN2393.not indicate centimeter accuracy relative to other marks which are
 AN2393.part of the NAVD 88 network.
```

AN2393
AN2393.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AN2393
AN2393.The Laplace correction was computed from DEFLEC09 derived deflections.
AN2393
AN2393.The ellipsoidal height was determined by GPS observations
AN2393.and is referenced to NAD 83.
AN2393
AN2393.The geoid height was determined by GEOID09.
AN2393

AN2393;		North	East	Units	Scale Factor	Converg.
AN2393;SPC TXSC	-	4,093,045.154	826,608.425	MT	0.99993361	+1 08 08.7
AN2393;SPC TXSC	-	13,428,598.98	2,711,964.47	sFT	0.99993361	+1 08 08.7
AN2393;UTM 14	-	3,171,696.909	726,581.293	MT	1.00023362	+1 06 43.4

AN2393

AN2393!		Elev Factor	x	Scale Factor	=	Combined Factor
AN2393!SPC TXSC	-	1.00000299	x	0.99993361	=	0.99993660
AN2393!UTM 14	-	1.00000299	x	1.00023362	=	1.00023661

AN2393

AN2393:		Primary Azimuth Mark	Grid Az
AN2393:SPC TXSC	-	LAVAPORT AZ MK	329 52 51.6
AN2393:UTM 14	-	LAVAPORT AZ MK	329 54 16.9

AN2393

AN2393	PID	Reference Object	Distance	Geod. Az dddmmss.s
AN2393	AN2394	LAVAPORT AZ MK	APPROX. 0.7 KM	3310100.3

AN2393
AN2393 SUPERSEDED SURVEY CONTROL
AN2393

AN2393						
AN2393	ELLIP H (10/24/00)	-19.019 (m)		GP( )	4	2
AN2393	NAD 83(1993)-	28 39 09.37724(N)	096 40 54.32032(W)	AD( )	B	
AN2393	ELLIP H (02/20/96)	-18.865 (m)		GP( )	3	2
AN2393	NAD 83(1993)-	28 39 09.37650(N)	096 40 54.32590(W)	AD( )	3	
AN2393	ELLIP H (02/16/96)	-18.829 (m)		GP( )	5	1
AN2393	NAD 83(1986)-	28 39 09.38942(N)	096 40 54.31150(W)	AD( )	3	
AN2393	NAD 27 -	28 39 08.45375(N)	096 40 53.40456(W)	AD( )	3	
AN2393	NGVD 29 (12/08/88)	8.4 (m)	28. (f)	GPS OBS		

AN2393
AN2393.Superseded values are not recommended for survey control.
AN2393.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AN2393.See file dsdata.txt to determine how the superseded data were derived.
AN2393
AN2393_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RQS2658171696(NAD 83)
AN2393_MARKER: I = METAL ROD
AN2393_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AN2393_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AN2393_STAMPING: LAVAPORT 1987
AN2393_MARK LOGO: NGS
AN2393_PROJECTION: FLUSH
AN2393_MAGNETIC: N = NO MAGNETIC MATERIAL
AN2393_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AN2393_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AN2393+SATELLITE: SATELLITE OBSERVATIONS - February 07, 2008
AN2393_ROD/PIPE-DEPTH: 9.0 meters
AN2393_SLEEVE-DEPTH : 0.91 meters

AN2393
AN2393 HISTORY - Date Condition Report By
AN2393 HISTORY - 1987 MONUMENTED NGS
AN2393 HISTORY - 19880525 GOOD
AN2393 HISTORY - 19950125 GOOD NGS
AN2393 HISTORY - 19980725 GOOD USPSQD
AN2393 HISTORY - 20070618 GOOD INDIV
AN2393 HISTORY - 20080207 GOOD GEOMET
AN2393
AN2393 STATION DESCRIPTION
AN2393
AN2393'DESCRIBED BY NATIONAL GEODETIC SURVEY 1987
AN2393'THE STATION IS LOCATED ABOUT 6 KM (3.75 MI) NORTHWEST OF PORT LAVACA
AN2393'AT THE PORT LAVACA-CALHOUN COUNTY AIRPORT. OWNERSHIP-- CALHOUN
AN2393'COUNTY C/O WALTER RAWLINGS, MANAGER, CALHOUN COUNTY COURTHOUSE,
AN2393'PORTLAVACA TX. TELEPHONE NUMBER IS 512-552-2933.
AN2393'TO REACH THE STATION FROM THE JUNCTION OF US HIGHWAY 35 AND FARM ROAD
AN2393'1090 AT PORT LAVACA. GO NORTH ON FARM ROAD 1090 FOR 4.3 KM (2.65 MI)
AN2393'TO FARM ROAD 3084. TURN LEFT ON FARM ROAD 3084 FOR 1.9 KM (1.20 MI)
AN2393'TO THE AIRPORT ENTRANCE ROAD ON THE RIGHT. TURN RIGHT, NORTHWEST ON
AN2393'THE ENTRANCE ROAD FOR 0.8 KM (0.50 MI) TO THE ADMINISTRATION
AN2393'BUILDING. GO NORTH, FROM THE ADMINISTRATION BUILDING ACROSS THE
AN2393'APRON, FOR ABOUT 90 M (295.3 FT) TO THE STATION ON THE RIGHT,
AN2393'BETWEEN THE APRON AND THE TAXIWAY.
AN2393'THE STATION IS SET 35.4 M (116.1 FT) SOUTHWEST OF THE TAXIWAY AND
AN2393'16.6M (54.5 FT) SOUTHEAST OF THE APRON - TAXIWAY CONNECTOR.
AN2393'ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
AN2393'DESCRIBED BY B.L.L.
AN2393
AN2393 STATION RECOVERY (1988)
AN2393
AN2393'RECOVERED 1988
AN2393'RECOVERED IN GOOD CONDITION.
AN2393
AN2393 STATION RECOVERY (1995)
AN2393
AN2393'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (JDR)
AN2393'THE STATION IS LOCATED ABOUT 6.0 KM (3.70 MI) NORTHWEST OF PORT LAVACA
AN2393'AT THE CALHOUN COUNTY AIRPORT. OWNERSHIP--CALHOUN COUNTY. FOR ACCESS
AN2393'CONTACT MR WALTER RAWLINGS, AIRPORT MANAGER, CALHOUN COUNTY AIRPORT,
AN2393'P.O. BOX 676, PORT LAVACA, TX 77979. OFFICE PHONE (512) 552-2933,
AN2393'HOME (512) 552-6207. TO REACH THE STATION FROM THE JUNCTION OF U.S.
AN2393'HIGHWAY 35 AND FARM ROAD 1090 AT PORT LAVACA. GO NORTHERLY ON FARM
AN2393'ROAD 1090 FOR 4.3 KM (2.65 MI) TO FARM ROAD 3084. TURN LEFT, WESTERLY
AN2393'ON FARM ROAD 3084 FOR 1.9 KM (1.20 MI) TO THE AIRPORT ENTRANCE ROAD ON
AN2393'THE RIGHT. TURN RIGHT, NORTHWESTERLY ON ENTRANCE ROAD FOR 0.8 KM
AN2393'(0.50 MI) TO THE AIRPORT ADMINISTRATION BUILDING ON THE RIGHT.
AN2393'PROCEED ACROSS THE APRON FOR ABOUT 90 M (295.3 FT) TO THE STATION ON
AN2393'THE RIGHT. THE STATION IS LOCATED 35.4 M (116.1 FT) SOUTHWEST OF THE
AN2393'PARALLEL TAXIWAY AND 16.6 M (54.5 FT) SOUTHEAST OF THE CENTERLINE OF
AN2393'THE CONNECTING TAXIWAY. THIS IS A PAC STATION.
AN2393
AN2393 STATION RECOVERY (1998)
AN2393
AN2393'RECOVERY NOTE BY US POWER SQUADRON 1998
AN2393'RECOVERED IN GOOD CONDITION.
AN2393

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AN2393                          STATION RECOVERY (2007)
AN2393
AN2393'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (JRA)
AN2393'RECOVERED IN GOOD CONDITION.
AN2393
AN2393                          STATION RECOVERY (2008)
AN2393
AN2393'RECOVERY NOTE BY GEOMETRICS GPS INCORPORATED 2008 (DG)
AN2393'RECOVERED IN GOOD CONDITION

*** retrieval complete.
Elapsed Time = 00:00:00
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The NGS Data Sheet

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

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.85
1        National Geodetic Survey,   Retrieval Date = FEBRUARY  9, 2011
 DL7624 ***********************************************************************
 DL7624  CORS         -  This is a GPS Continuously Operating Reference Station.
 DL7624  DESIGNATION -  PORT LAVACA CORS ARP
 DL7624  CORS_ID      -  TXPV
 DL7624  PID          -  DL7624
 DL7624  STATE/COUNTY-  TX/CALHOUN
 DL7624  USGS QUAD    -  POINT COMFORT (1995)
 DL7624
 DL7624                        *CURRENT SURVEY CONTROL
 DL7624  ______________________________________________________________________
 DL7624* NAD 83(CORS)-  28 38 17.42370(N)    096 37 06.66181(W)     ADJUSTED
 DL7624* NAVD 88      -              **(meters)            **(feet)
 DL7624  ______________________________________________________________________
 DL7624  EPOCH DATE   -        2002.00
 DL7624  X            -    -645,694.341 (meters)                    COMP
 DL7624  Y            -  -5,564,820.725 (meters)                    COMP
 DL7624  Z            -   3,038,758.508 (meters)                    COMP
 DL7624  ELLIP HEIGHT-         -15.241 (meters)          (05/??/10) ADJUSTED
 DL7624  GEOID HEIGHT-         -27.19  (meters)                    GEOID09
 DL7624  HORZ ORDER   -  SPECIAL (CORS)
 DL7624  ELLP ORDER   -  SPECIAL (CORS)
 DL7624
 DL7624.ITRF positions are available for this station.
 DL7624.The coordinates were established by GPS observations
 DL7624.and adjusted by the National Geodetic Survey in May 2010.
 DL7624.The coordinates are valid at the epoch date displayed above.
 DL7624.The epoch date for horizontal control is a decimal equivalence
 DL7624.of Year/Month/Day.
 DL7624
 DL7624
 DL7624.The PID for the CORS L1 Phase Center is DL7625.
 DL7624
 DL7624.The XYZ, and position/ellipsoidal ht. are equivalent.
 DL7624
 DL7624.The ellipsoidal height was determined by GPS observations
 DL7624.and is referenced to NAD 83.
 DL7624
 DL7624.The geoid height was determined by GEOID09.
 DL7624
 DL7624;                    North         East     Units Scale Factor Converg.
 DL7624;SPC TXSC     - 4,091,570.352   832,821.728   MT  0.99993661   +1 10 00.2
 DL7624;SPC TXSC     -13,423,760.40  2,732,349.29   sFT  0.99993661   +1 10 00.2
 DL7624
 DL7624!             -  Elev Factor  x  Scale Factor =   Combined Factor
 DL7624!SPC TXSC     -   1.00000239  x   0.99993661  =   0.99993900
```

```
DL7624
DL7624                          SUPERSEDED SURVEY CONTROL
DL7624
DL7624.No superseded survey control is available for this station.
DL7624
DL7624_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RQS3279570219(NAD 83)
DL7624_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DL7624
DL7624                          STATION DESCRIPTION
DL7624
DL7624'DESCRIBED BY NATIONAL GEODETIC SURVEY 2010
DL7624'STATION IS A GPS CORS.  LATEST INFORMATION INCLUDING POSITIONS AND
DL7624'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DL7624'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DL7624'   FTP CORS.NGS.NOAA.GOV: CORS/COORD  AND  CORS/STATION_LOG
DL7624'   HTTP://WWW.NGS.NOAA.GOV/CORS.

*** retrieval complete.
Elapsed Time = 00:00:00
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The NGS Data Sheet

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

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.85
1        National Geodetic Survey,   Retrieval Date = FEBRUARY  9, 2011
 DG9806 ***********************************************************************
 DG9806  CORS         -  This is a GPS Continuously Operating Reference Station.
 DG9806  DESIGNATION -  VICTORIA CORS ARP
 DG9806  CORS_ID      -  TXVA
 DG9806  PID          -  DG9806
 DG9806  STATE/COUNTY-  TX/VICTORIA
 DG9806  USGS QUAD    -  VICTORIA EAST (1995)
 DG9806
 DG9806                        *CURRENT SURVEY CONTROL
 DG9806  ______________________________________________________________________
 DG9806* NAD 83(CORS)-  28 50 05.73900(N)    096 54 34.52532(W)     ADJUSTED
 DG9806* NAVD 88      -              **(meters)            **(feet)
 DG9806  ______________________________________________________________________
 DG9806  EPOCH DATE   -        2002.00
 DG9806  X            -    -672,697.706 (meters)                    COMP
 DG9806  Y            -  -5,551,083.546 (meters)                    COMP
 DG9806  Z            -   3,057,892.009 (meters)                    COMP
 DG9806  ELLIP HEIGHT-          11.101 (meters)          (04/??/05) ADJUSTED
 DG9806  GEOID HEIGHT-         -27.48  (meters)                    GEOID09
 DG9806  HORZ ORDER   -  SPECIAL (CORS)
 DG9806  ELLP ORDER   -  SPECIAL (CORS)
 DG9806
 DG9806.ITRF positions are available for this station.
 DG9806.The coordinates were established by GPS observations
 DG9806.and adjusted by the National Geodetic Survey in April 2005.
 DG9806.The coordinates are valid at the epoch date displayed above.
 DG9806.The epoch date for horizontal control is a decimal equivalence
 DG9806.of Year/Month/Day.
 DG9806
 DG9806
 DG9806.The PID for the CORS L1 Phase Center is DG9807.
 DG9806
 DG9806.The XYZ, and position/ellipsoidal ht. are equivalent.
 DG9806
 DG9806.The ellipsoidal height was determined by GPS observations
 DG9806.and is referenced to NAD 83.
 DG9806
 DG9806.The geoid height was determined by GEOID09.
 DG9806
 DG9806;                    North         East     Units Scale Factor Converg.
 DG9806;SPC TXSC     - 4,112,827.582   803,978.957   MT  0.99990105   +1 01 26.8
 DG9806;SPC TXSC     -13,493,501.83  2,637,720.96   sFT  0.99990105   +1 01 26.8
 DG9806
 DG9806!             -  Elev Factor  x  Scale Factor =   Combined Factor
 DG9806!SPC TXSC     -   0.99999826  x   0.99990105  =   0.99989931
```

```
DG9806
DG9806                          SUPERSEDED SURVEY CONTROL
DG9806
DG9806.No superseded survey control is available for this station.
DG9806
DG9806_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RQS0395291492(NAD 83)
DG9806_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DG9806
DG9806                          STATION DESCRIPTION
DG9806
DG9806'DESCRIBED BY NATIONAL GEODETIC SURVEY 2005
DG9806'STATION IS A GPS CORS.  LATEST INFORMATION INCLUDING POSITIONS AND
DG9806'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG9806'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG9806'   FTP CORS.NGS.NOAA.GOV: CORS/COORD  AND  CORS/STATION_LOG
DG9806'   HTTP://WWW.NGS.NOAA.GOV/CORS.

*** retrieval complete.
Elapsed Time = 00:00:00
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AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 CONTROL

PROJECT 1-101205-Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:43 a.
STOP

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

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

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.364

STATION DESCRIPTIONS pin in handhole

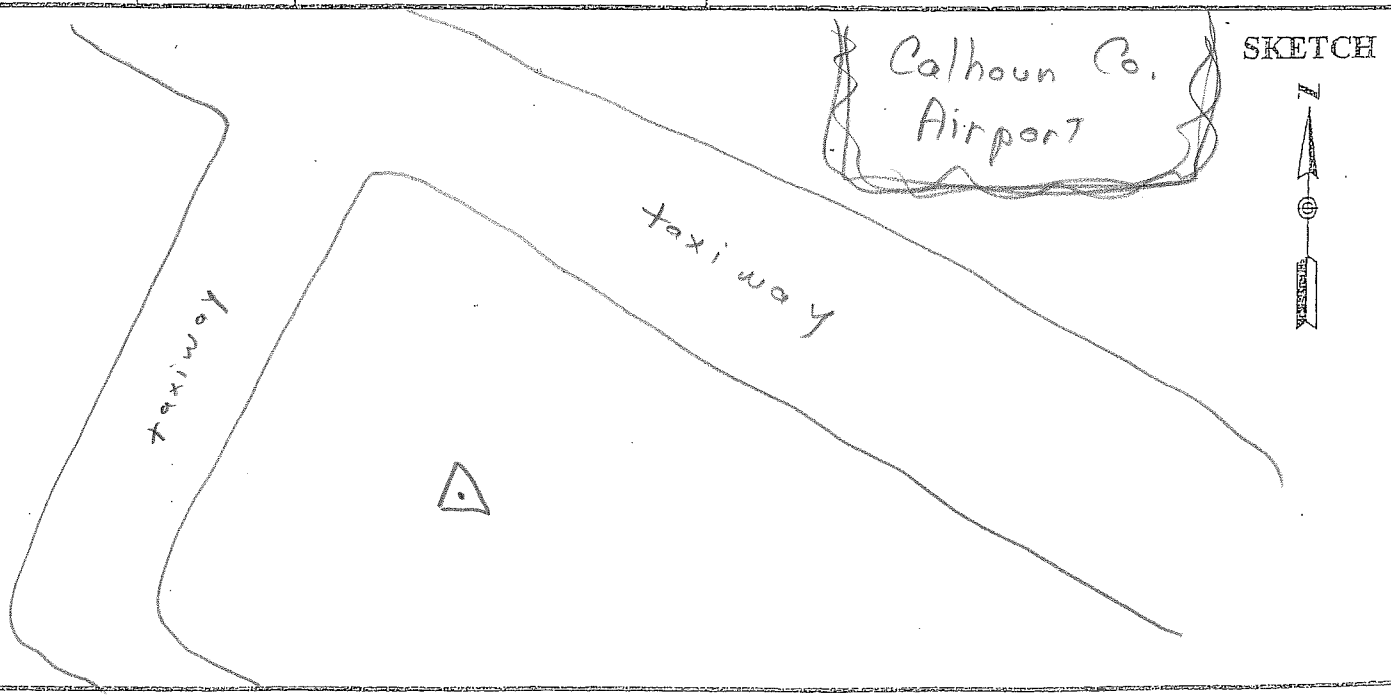
1724

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
943	1.7	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:59a
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
1.297

STATION DESCRIPTIONS set ~~PK~~ 6" nail on E. side yellow pipe fence ± 1' E. of fence; ± 22' S. of N. end fence; ± 10' W. of plow line; and ± 36' N. of S. end yellow fence

1657

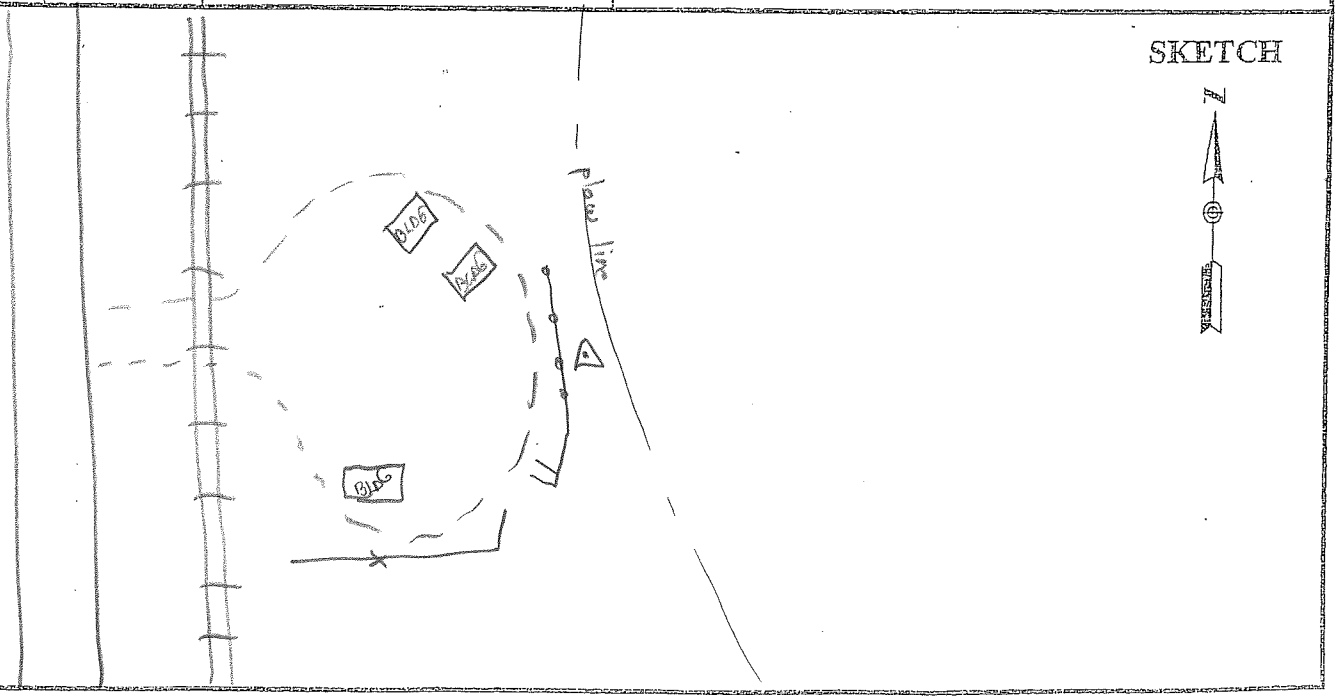
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1159	4.5	

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

28° 31' 03.5"
96° 47' 06.0

SKETCH



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

√PT

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 1
SITE NAME 1

TRACKING TIMES (LOCAL) MEASURE √
START 11:25 a.
STOP 11:59 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
1.354

1.714

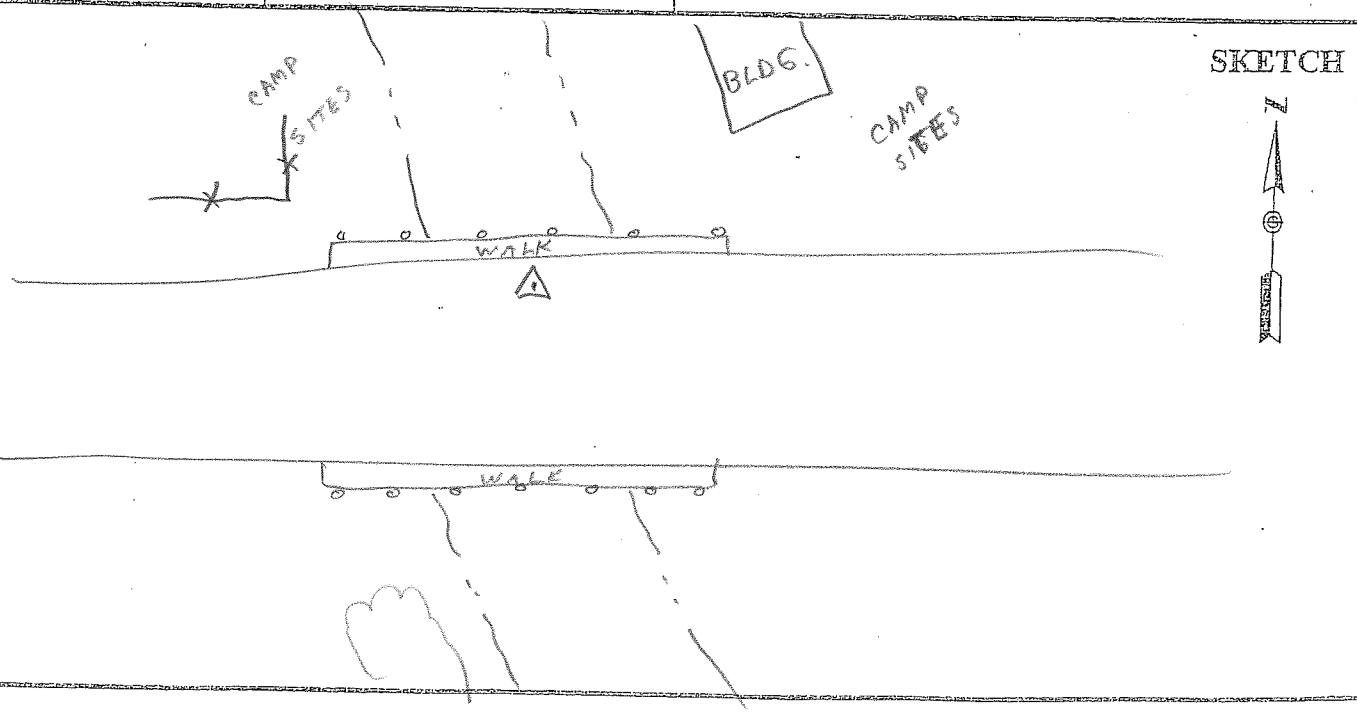
STATION DESCRIPTIONS N. shoulder at bridge

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1225	5.6	8/8
1259		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 2
SITE NAME 2

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:04 p
STOP 12:38 p

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
1.281

STATION DESCRIPTIONS E. shoulder
@ ℄ Drive E.

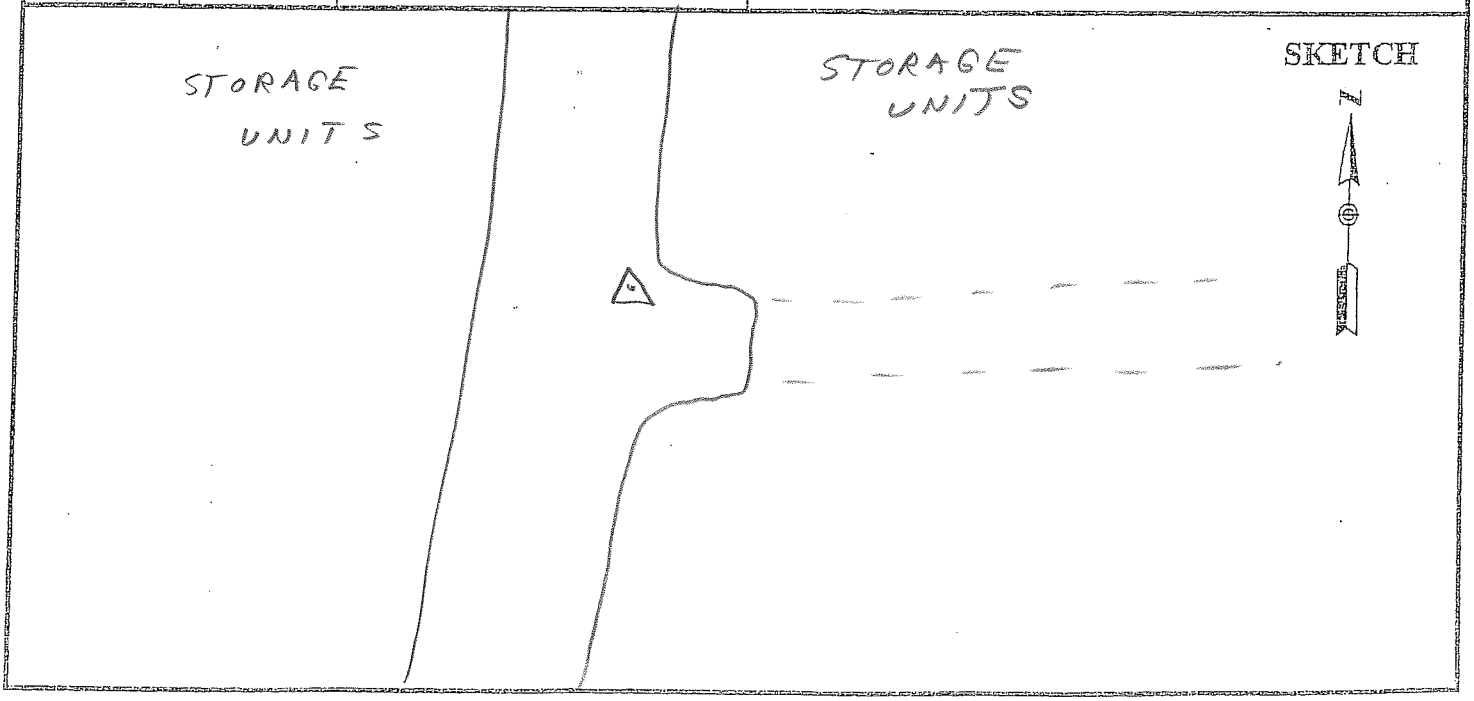
1641

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1304	1.9	8/8
1338		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 3
SITE NAME 3

TRACKING TIMES (LOCAL) MEASURE V
START 12:44 P
STOP 1:16 P

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: none

HEIGHT READINGS MTS FT
1.340
1.700

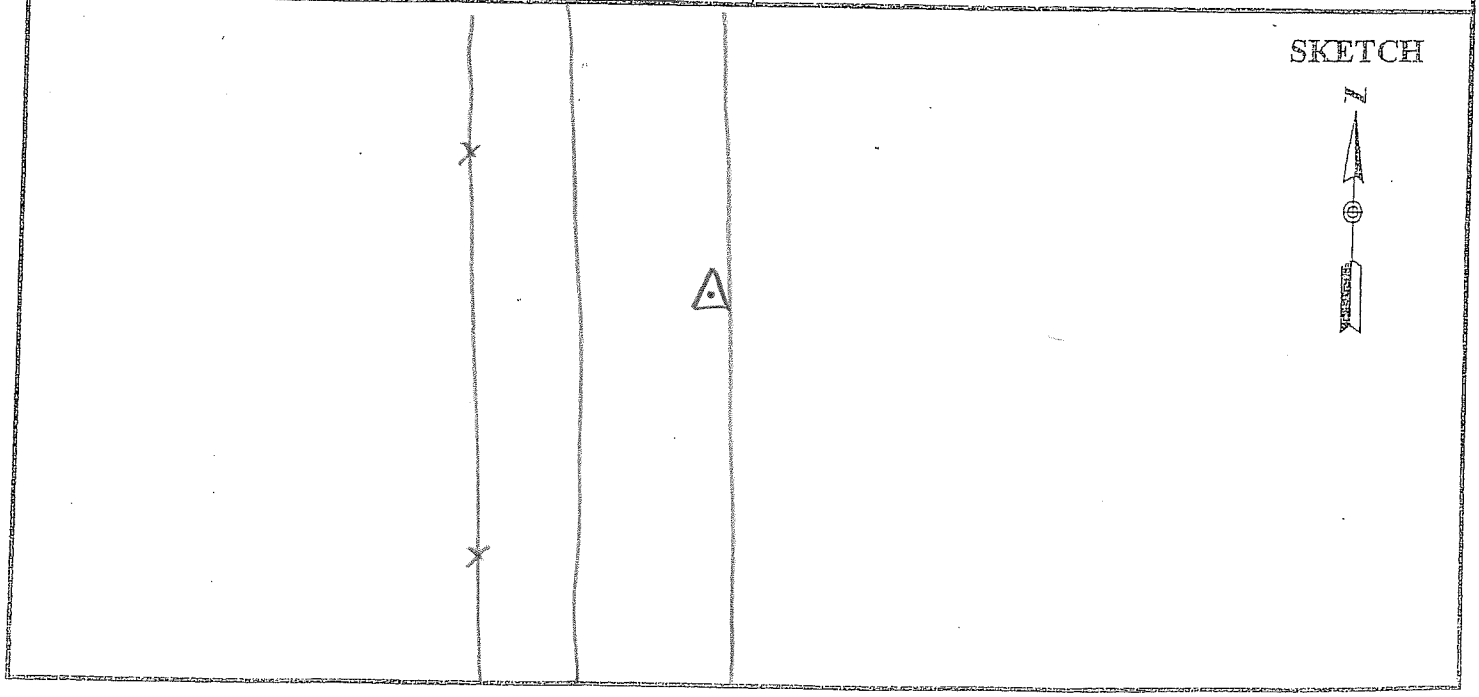
STATION DESCRIPTIONS E. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1344	3.9	7/7
1416		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 4
SITE NAME 4

TRACKING TIMES (LOCAL) MEASURE √
START 1:26p
STOP 1:56p

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
1.372
1.672
1.694

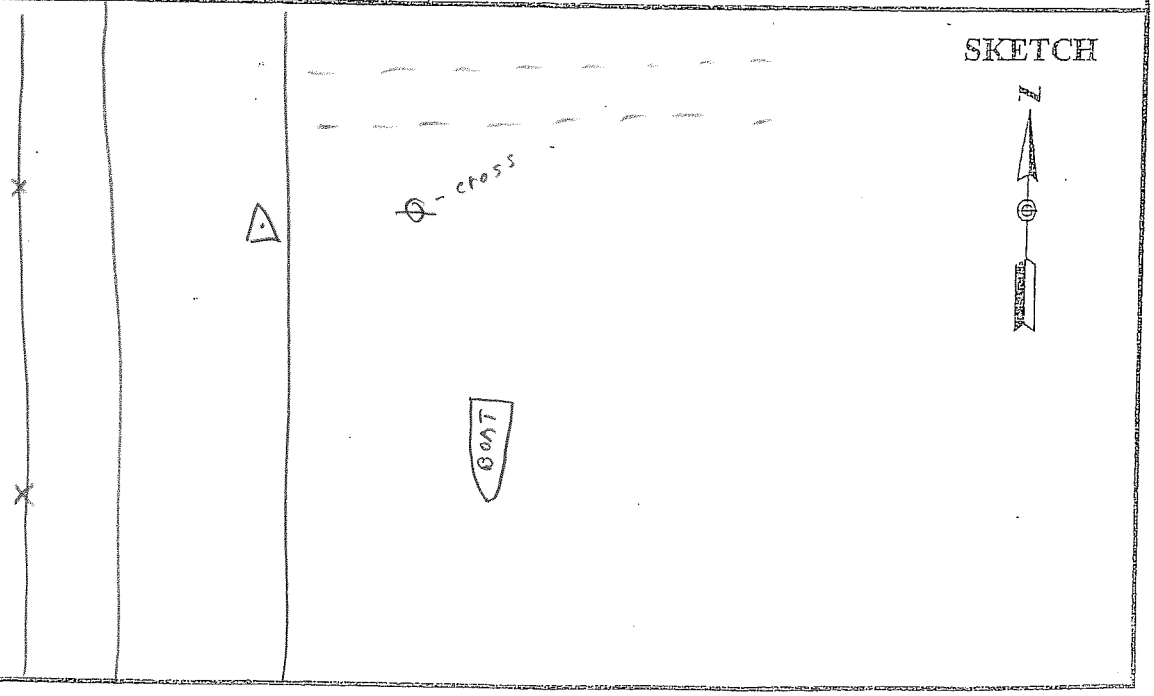
STATION DESCRIPTIONS E. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1426	3.4	5/5
1456		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.9.10

SITE NUMBER 5
SITE NAME 5

TRACKING TIMES (LOCAL) MEASURE √
START 2:04 p
STOP 2:31 p

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
1.314
1.674

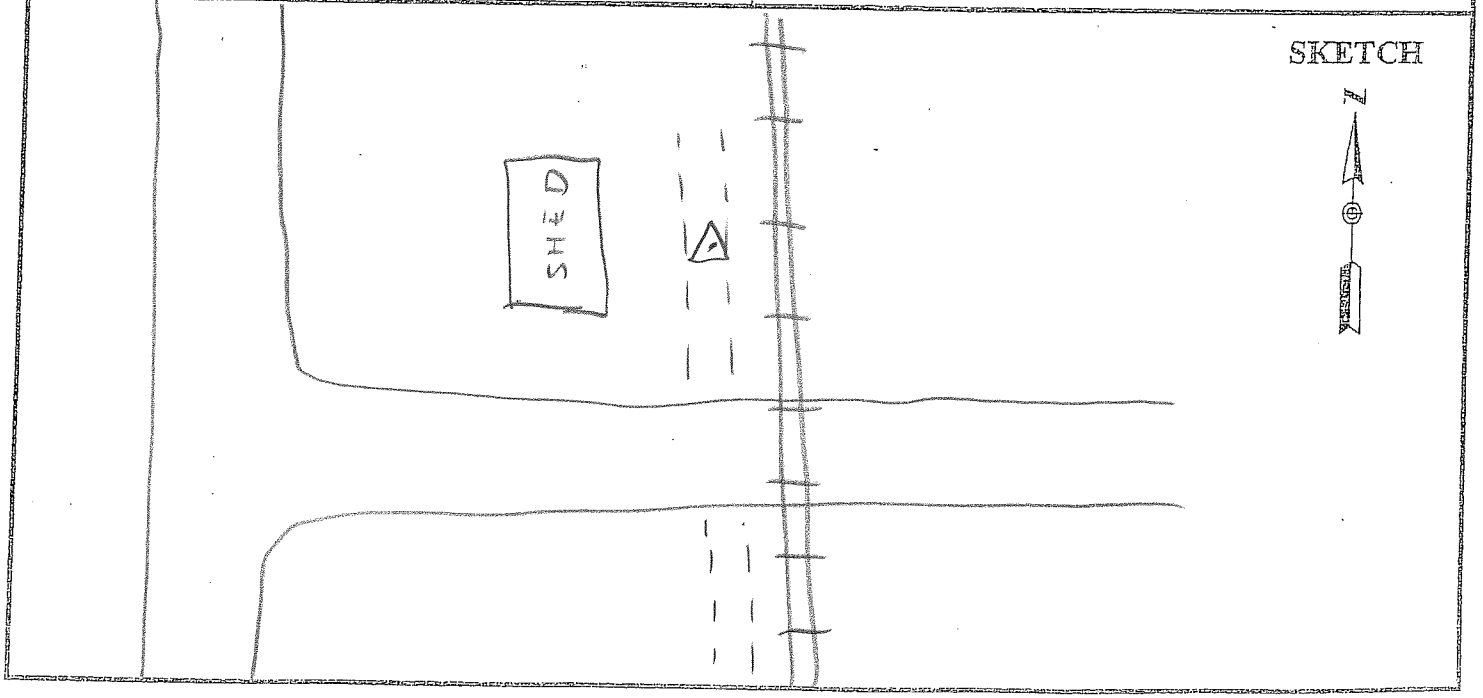
STATION DESCRIPTIONS In drive W. side of tracks

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1504	2.0	9/9
1531		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

1 PT

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 12.9.10

SITE NUMBER 6
SITE NAME 6

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:37 p
STOP 3:04 p

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
1.397

STATION DESCRIPTIONS center of gravel area

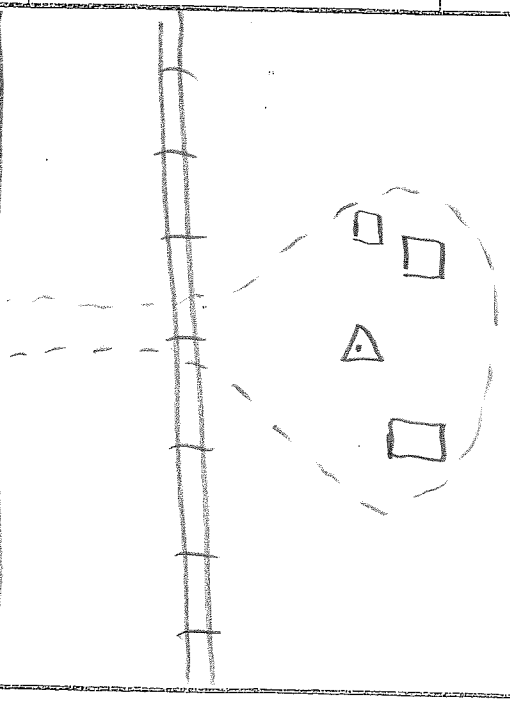
1757

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1537	2.3	10/10
1604		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12-10-10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:24a.
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
1.365

1725

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
824	2.2	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

see previous

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

PROJECT 1-101205/Calhoun
OPERATOR MS
DATE 12.10.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:01a.
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
1.330
1.690

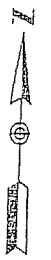
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
901	1.5	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.10.10

SITE NUMBER 1
SITE NAME 7

TRACKING TIMES (LOCAL) MEASURE √
START 8:34 a
STOP 9:21 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
1.367
1.727

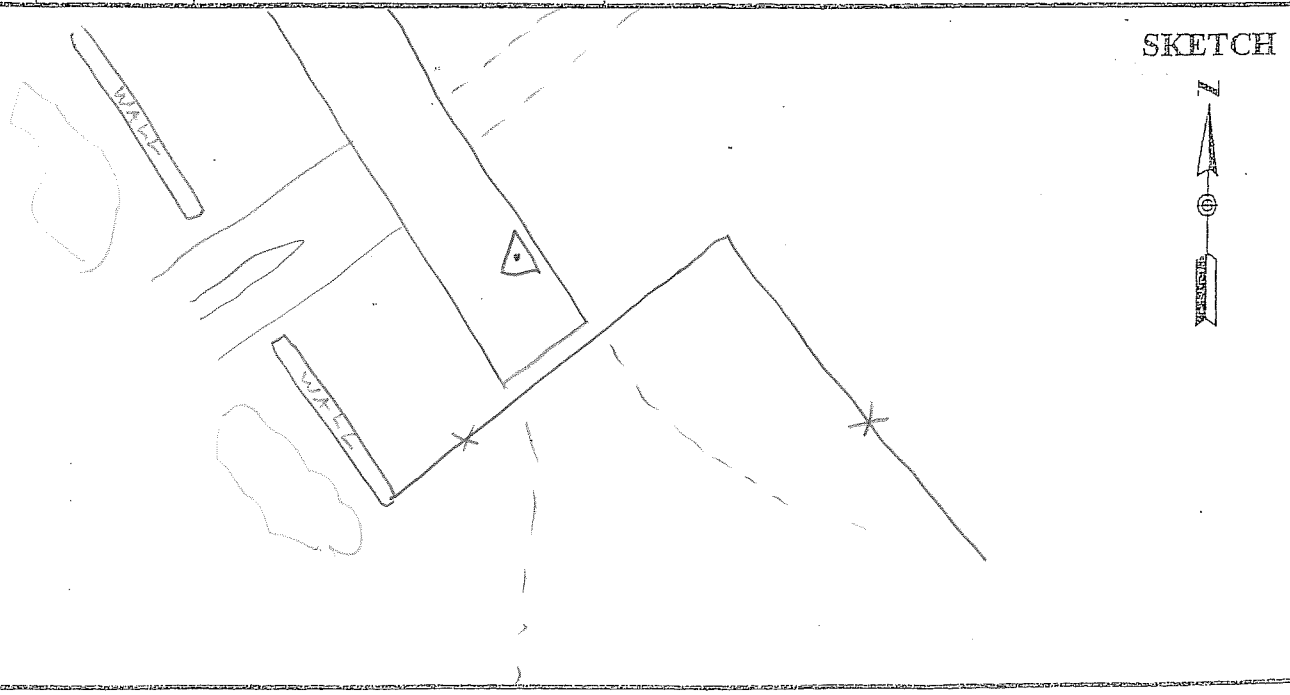
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
934	1.9	9/9
1021		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12 · 10 · 10

SITE NUMBER 2
SITE NAME 8

TRACKING TIMES (LOCAL) MEASURE √
START 9:28 a.
STOP 10:15 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
1.324

1684

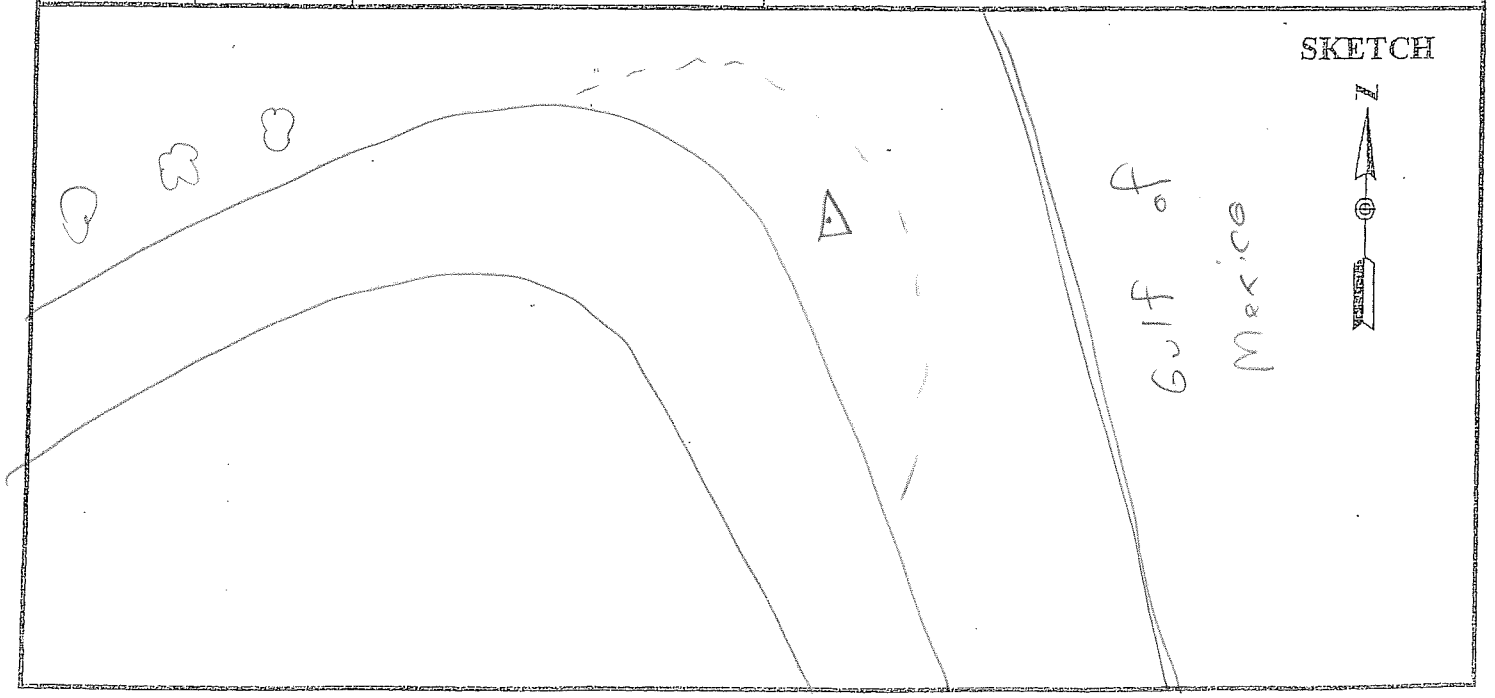
STATION DESCRIPTIONS gravel area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1028	2.4	8/8
1115		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.10.10

SITE NUMBER 3
SITE NAME 9

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:35 a.
STOP 11:15 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
1.362

STATION DESCRIPTIONS N. shoulder

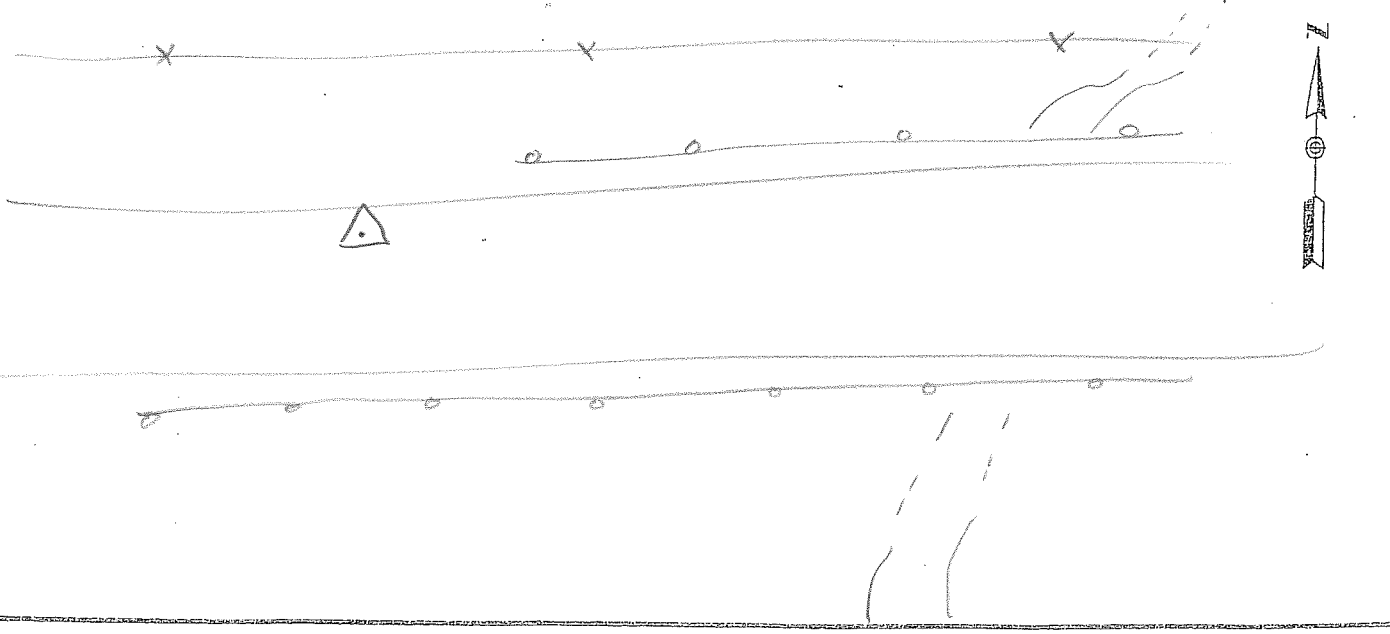
1722

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1135	1.9	9/9
1215		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.10.10

SITE NUMBER 4
SITE NAME 10

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:39 a
STOP 12:20 p

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
1.338
1.698

OBSTRUCTIONS: None

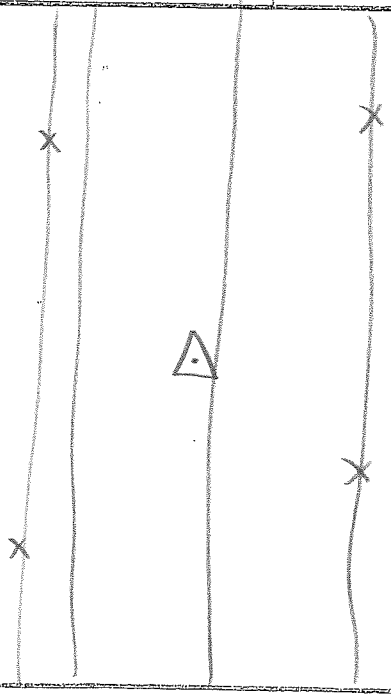
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1239	1.9	9/9
1320		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-10205/Calhoun
OPERATOR MB
DATE 12.10.10

SITE NUMBER 5
SITE NAME 11

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:30 p
STOP 1:05 p

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: pole E

HEIGHT READINGS MTS FT
1.382
1.742

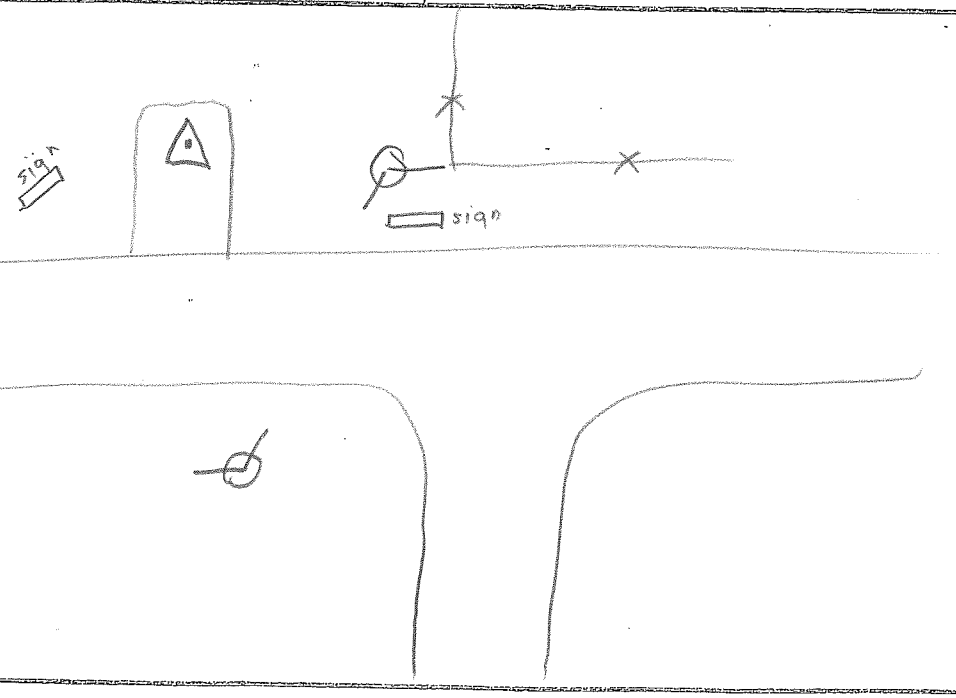
STATION DESCRIPTIONS in entrance

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1330	6.7	6/6
1405		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

VPT

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12·10·10

SITE NUMBER 6
SITE NAME 12

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:11 p
STOP 1:45 p

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
1.317

1.677

OBSTRUCTIONS: none

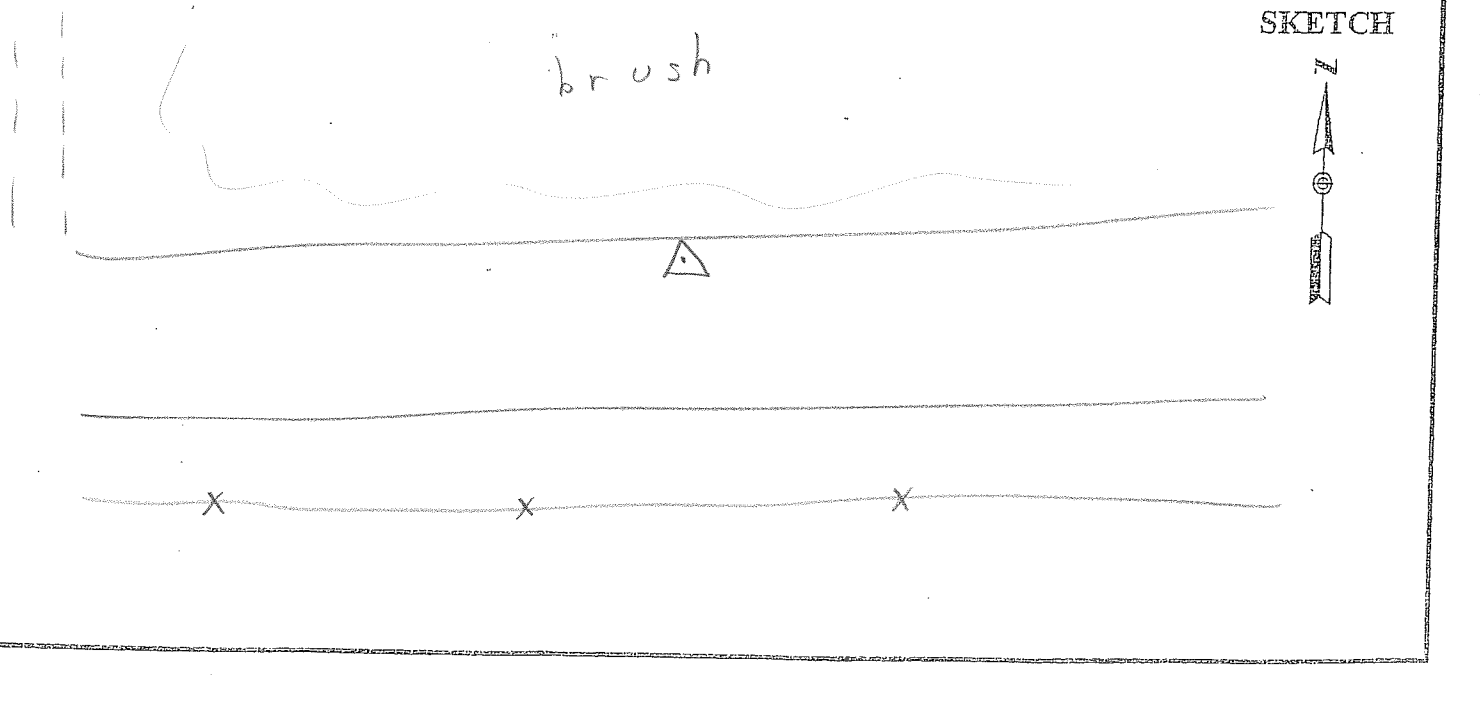
STATION DESCRIPTIONS N. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1411	2.1	8/8
1445		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



37

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

VRS Base

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.10.10

SITE NUMBER 7
SITE NAME 13

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:11 p
STOP 2:48 p

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
1.272

1632

OBSTRUCTIONS: none

STATION DESCRIPTIONS set 6" nail

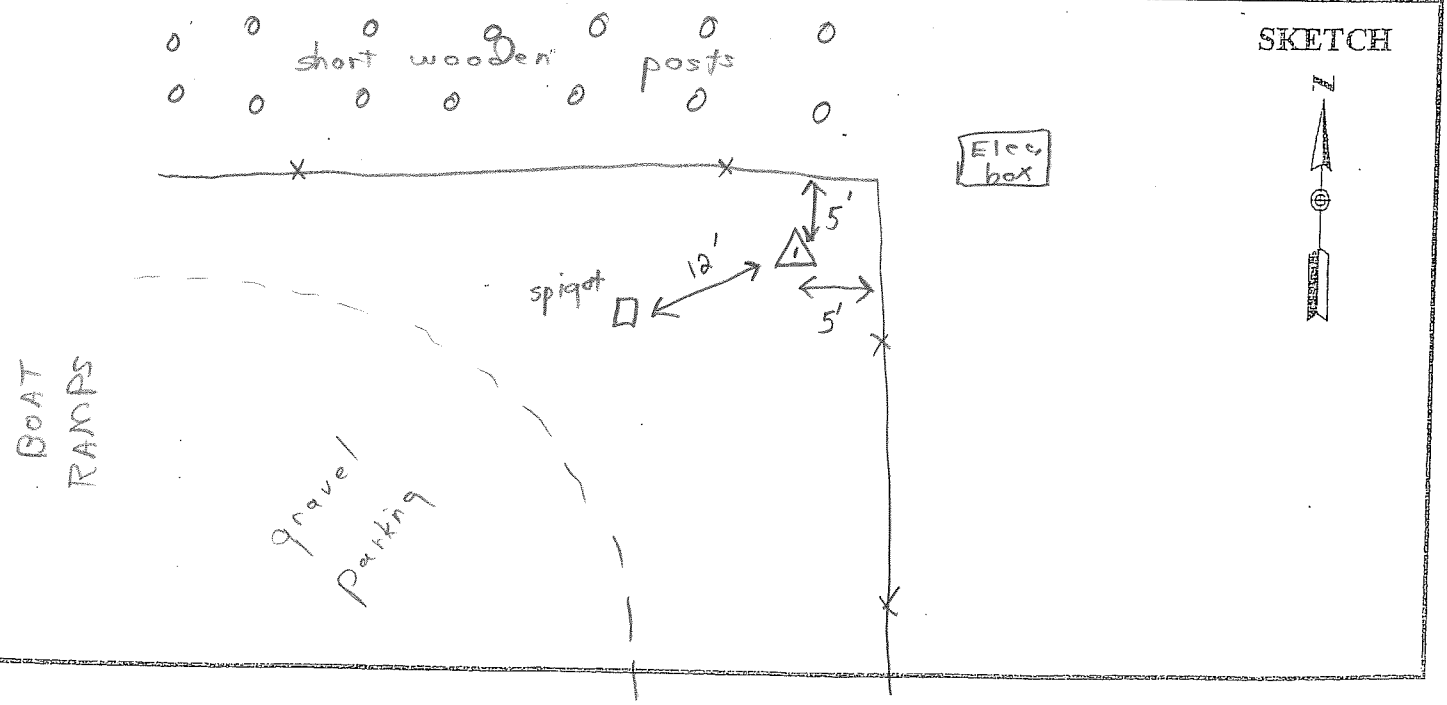
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1511	2.0	10/10
1548		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

28 23 25.3
96 42 27.6

SKETCH



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

✓ PT

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.10.10

SITE NUMBER 8
SITE NAME 14

TRACKING TIMES (LOCAL) MEASURE ✓
START 3:10 p
STOP 3:38 p

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
1.355
1.715

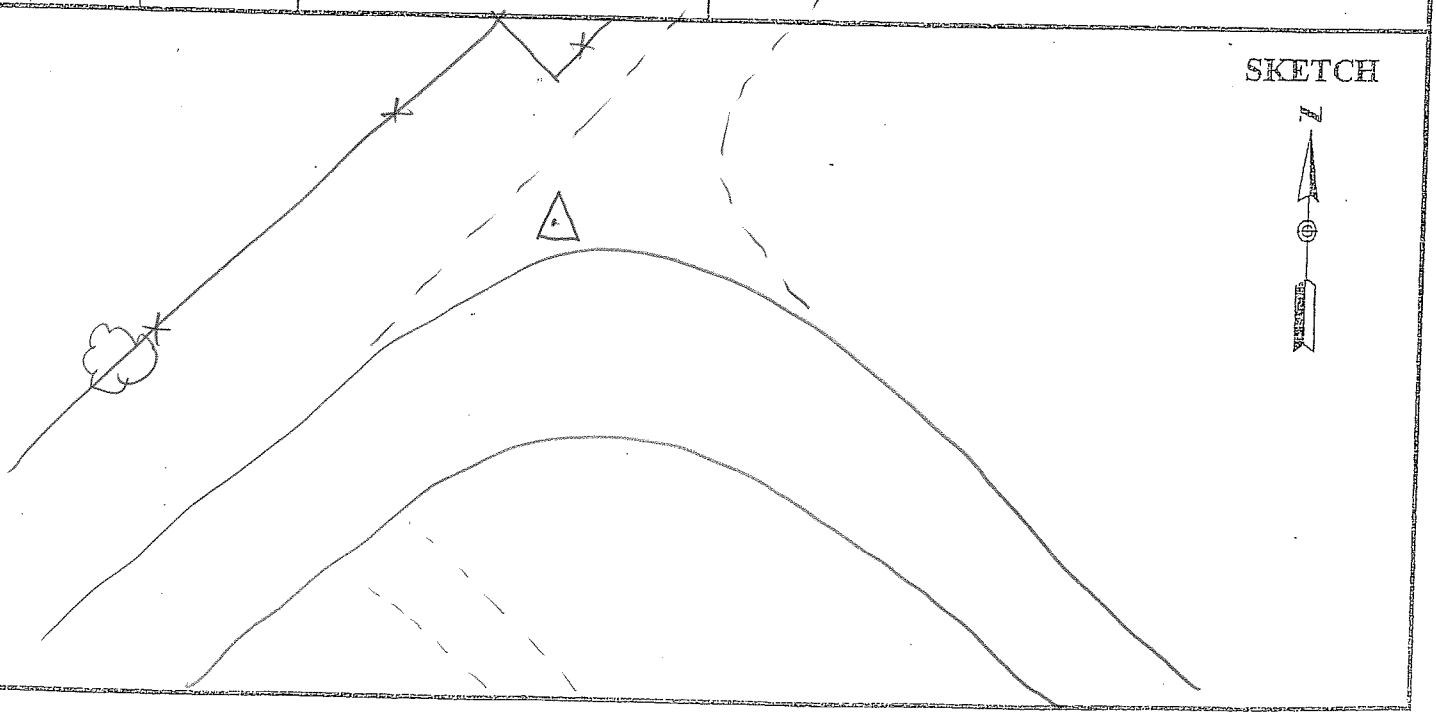
STATION DESCRIPTIONS N. side of curve in road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1610	1.9	9/9
1638		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.11.10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:19a.
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

HEIGHT READINGS MTS FT
1.365
1.725

OBSTRUCTIONS:

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
819	2.1	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.11.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:43a.
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 737
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
1.303
1.663

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
843	2.6	6/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-104205/Calhoun
OPERATOR MB
DATE 12-11-10

SITE NUMBER 1
SITE NAME 15

TRACKING TIMES (LOCAL) MEASURE ✓

START 8:43a
STOP 9:43a

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: tree SW

HEIGHT READINGS
MTS 1.372
FT

1732

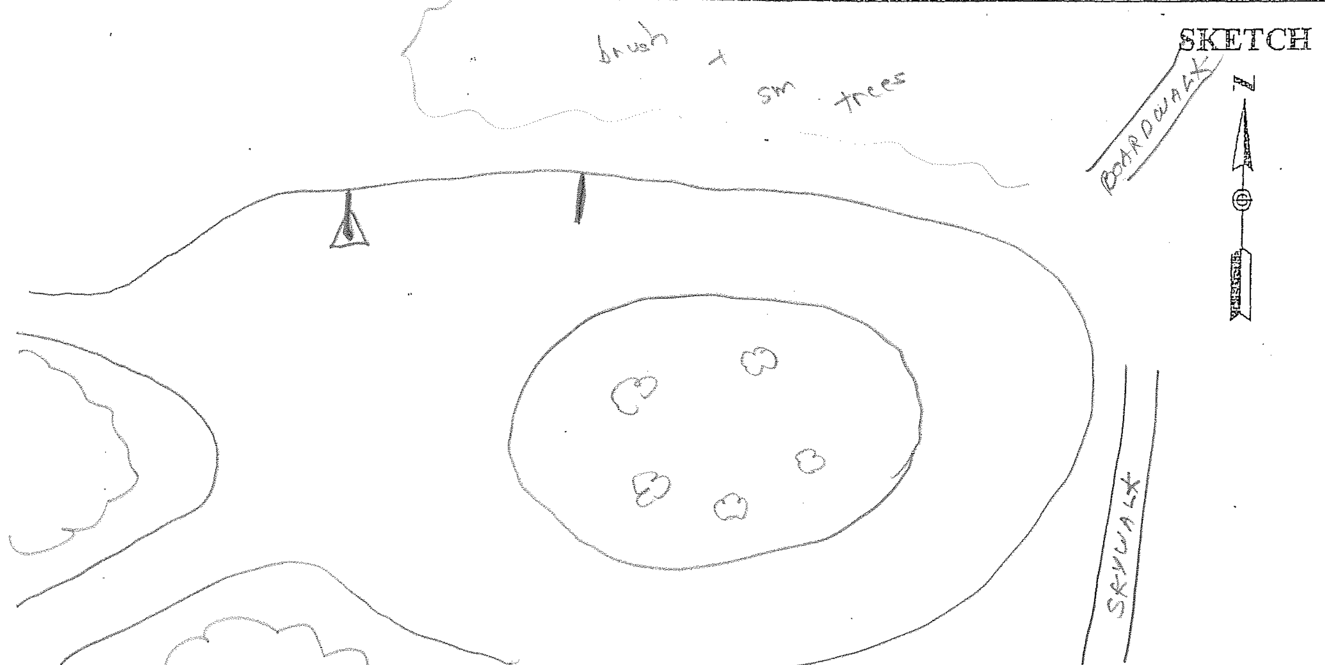
STATION DESCRIPTIONS set PK @ S. tip of W'most paint stripe

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
743	1.8	9/9
1043		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
28° 15' 04.4"
96° 47' 23.2"

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 12-11-10

SITE NUMBER 2
SITE NAME 16

TRACKING TIMES (LOCAL) MEASURE √
START 10:22 a.
STOP 10:55 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
1.300
1.660

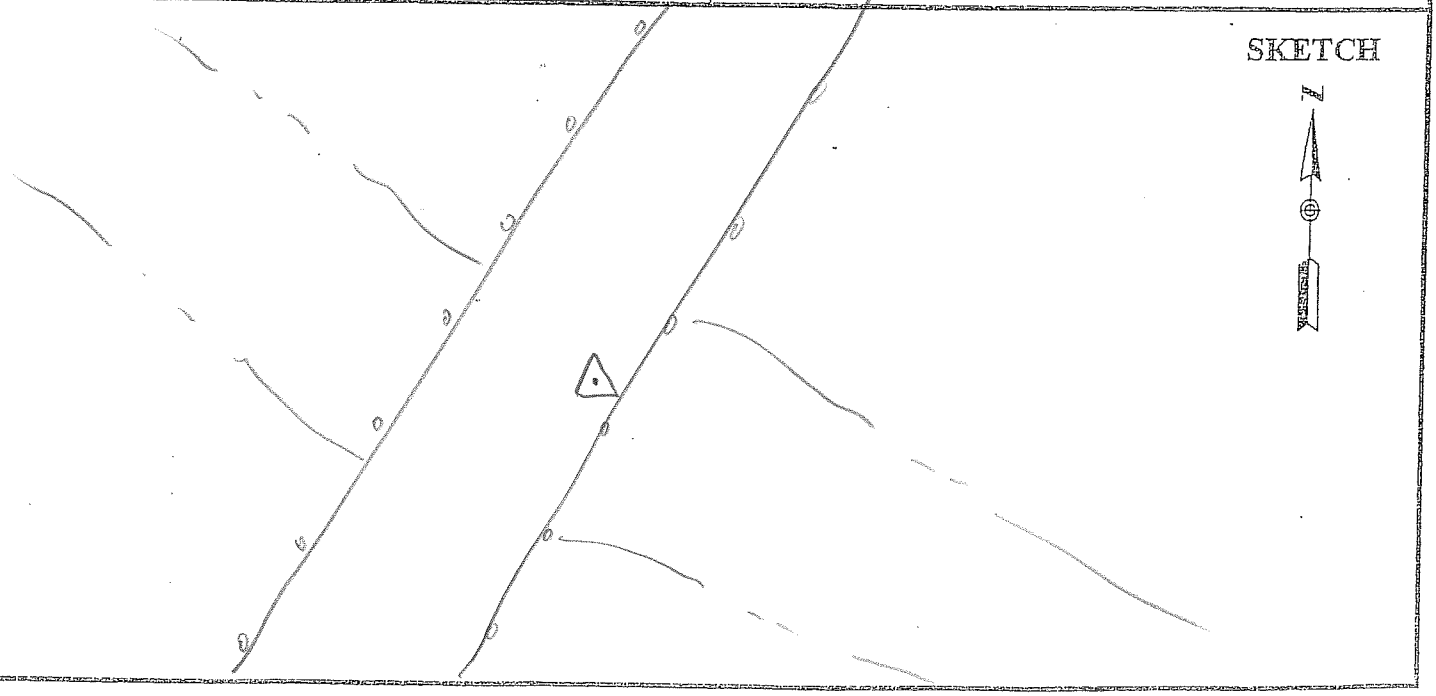
STATION DESCRIPTIONS E. shoulder on bridge.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1122	2.6	8/8
1155		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



SE

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12·11·10

SITE NUMBER 3
SITE NAME 17

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:53 a.
STOP 12:26 p

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
1.153
1.513

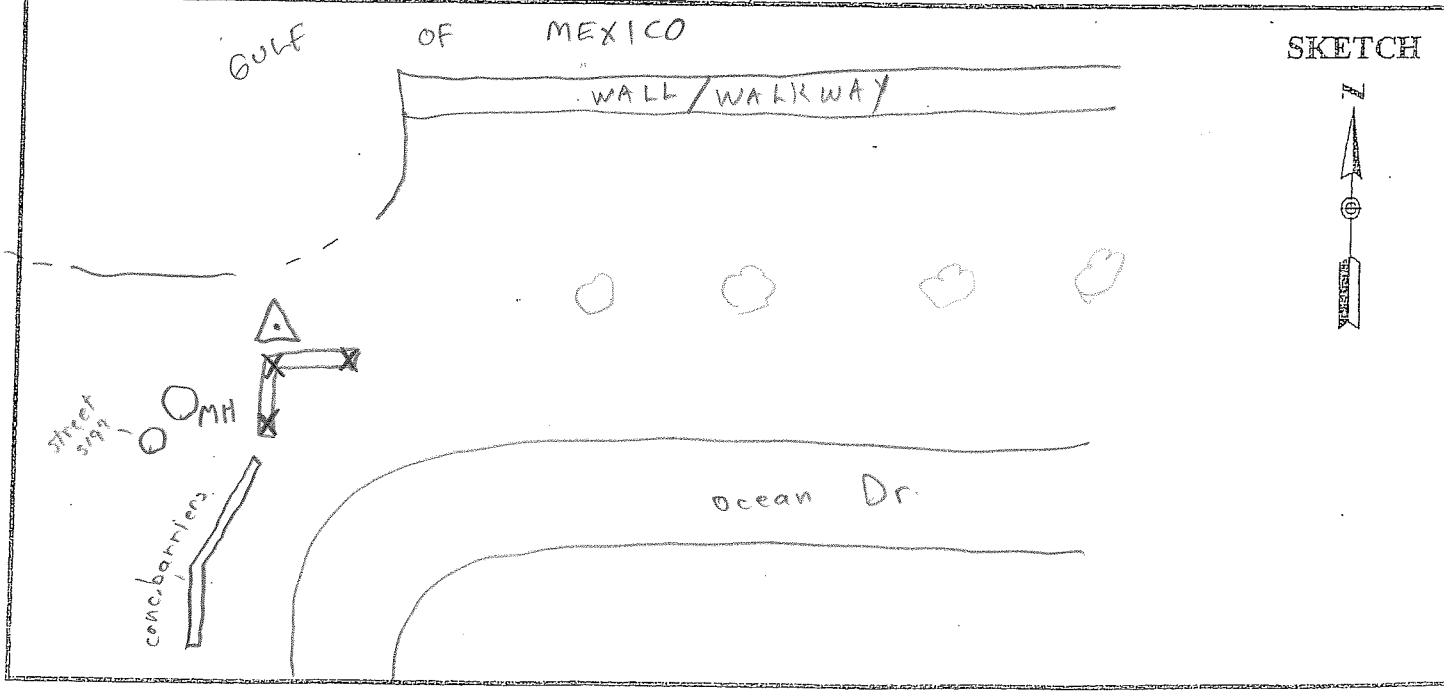
STATION DESCRIPTIONS Set 6" nail ±2' NW of fence corner; ±6' W. of E'most fence post; ±6' N. of S'most fence post; ± 12' NE of street sign and ±60' S. of W. end walk

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1253	1.9	8/8
1326		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
28° 33' 41.3"
96° 32' 27.1"

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12-11-10

SITE NUMBER 4
SITE NAME 18

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:38 p
STOP 1:09 p

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
1.302
1.662

OBSTRUCTIONS: trees E

STATION DESCRIPTIONS E side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1338	4.0	7/7
1409		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.11.10

SITE NUMBER 5
SITE NAME 19

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:25 p
STOP 1:50 p

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
1.352

STATION DESCRIPTIONS NW side of road

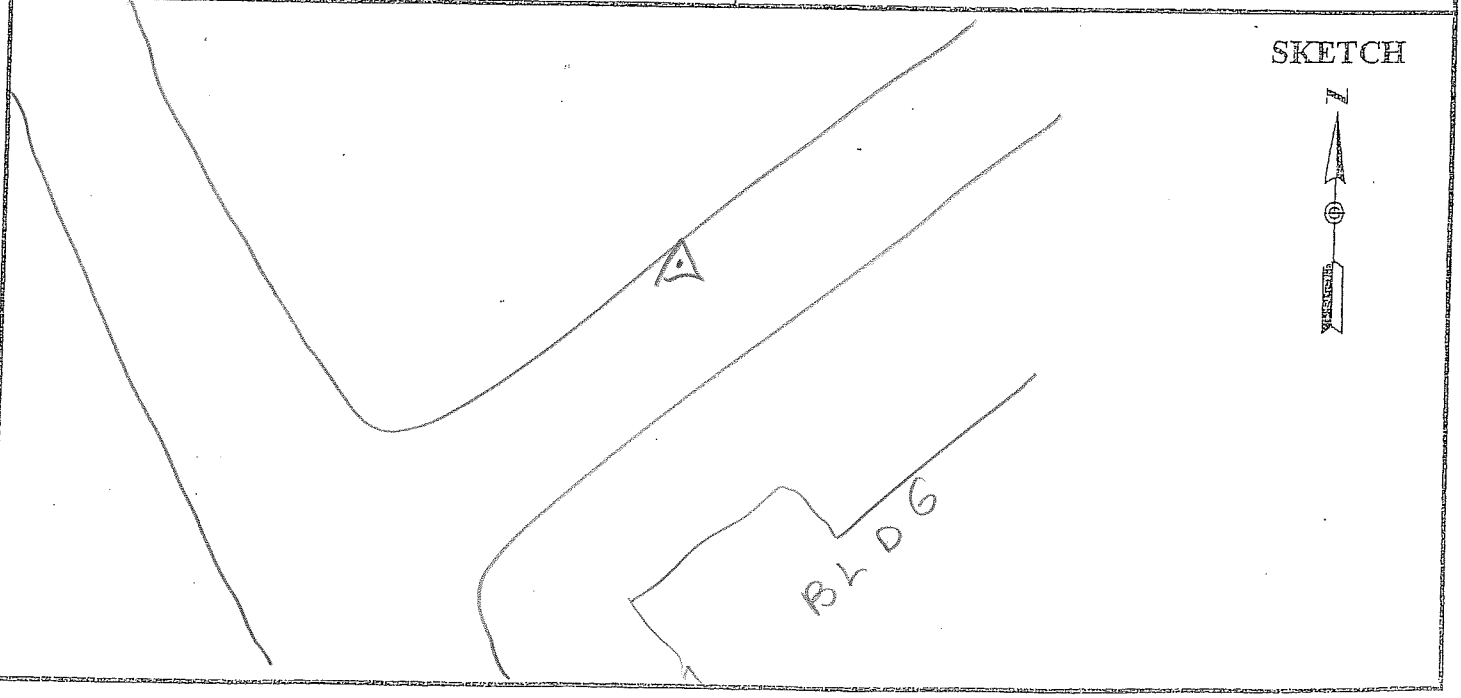
1712

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1425	2.7	7/7
1450		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

√ PT

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12-11-10

SITE NUMBER 6
SITE NAME 20

TRACKING TIMES (LOCAL) MEASURE √
START 2:00 p
STOP 2:24 p

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: PP north

HEIGHT READINGS MTS FT
1.378

1738

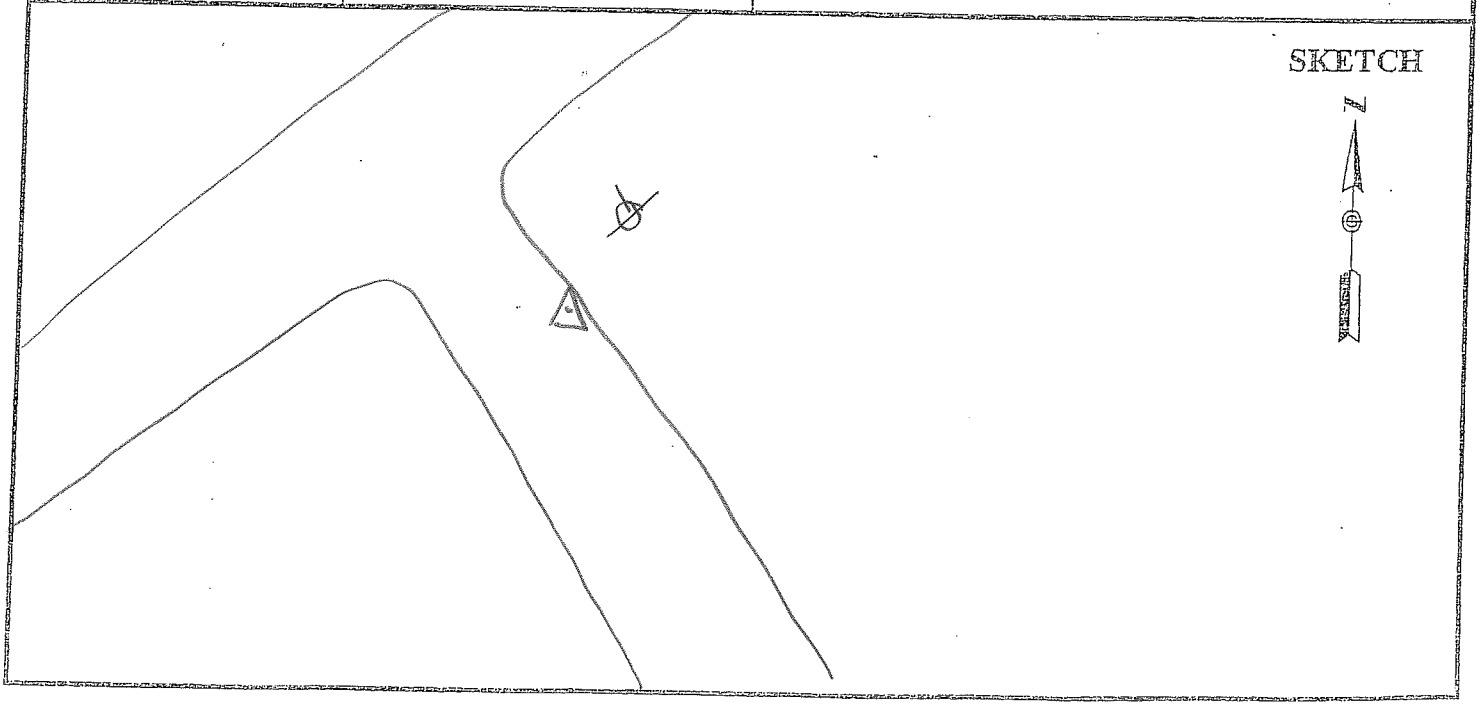
STATION DESCRIPTIONS NE side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1500	1.9	10/10
1524		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

✓ PT

PROJECT 1-101205/Caulhoun
OPERATOR MB
DATE 12.11.10

SITE NUMBER 7
SITE NAME 21

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:35 p
STOP 3:01 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. C13
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: bldg NW

HEIGHT READINGS MTS FT
1.300
1.660

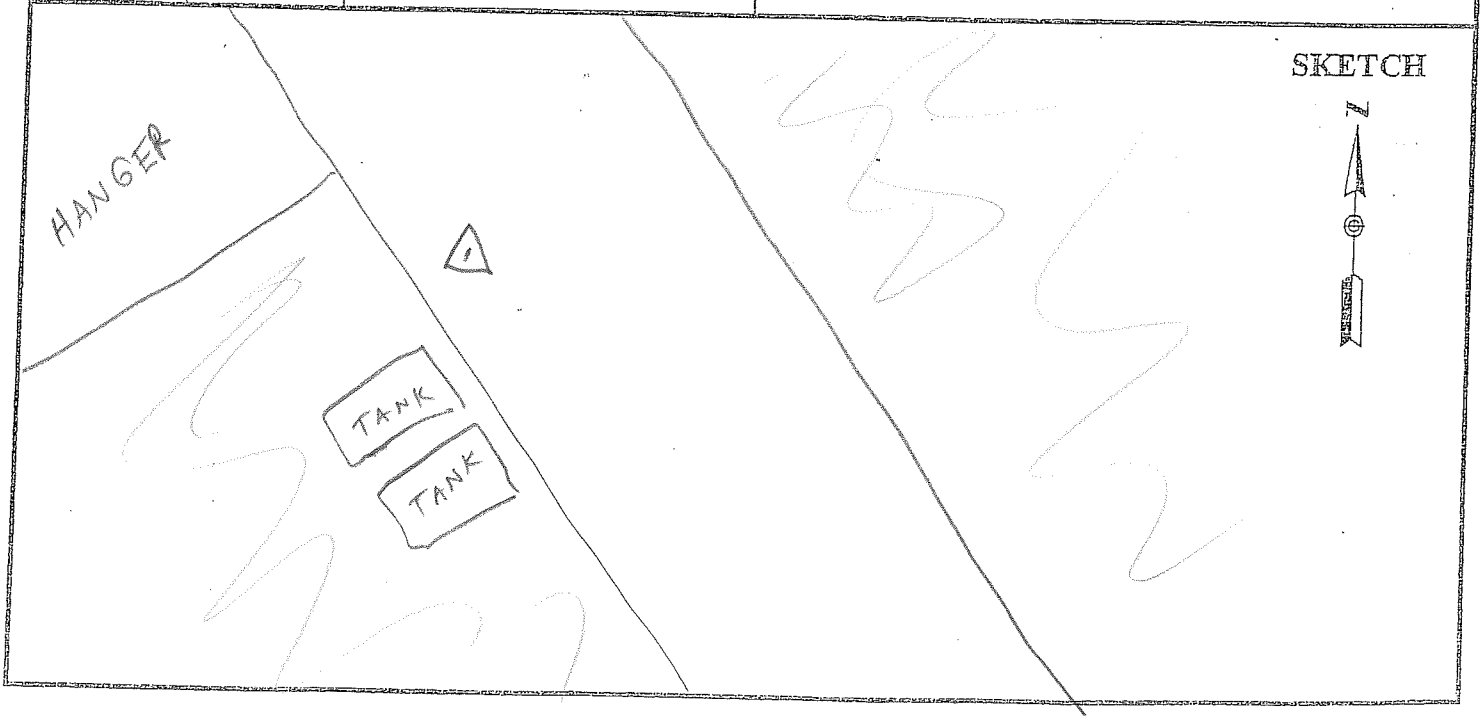
STATION DESCRIPTIONS on tarmac

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1535	2.4	7/7
1601		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR KB
DATE 10.12.10

SITE NUMBER 1
SITE NAME 17

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:45a
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
1.163
1.523

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
845	1.7	10/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:10 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
1.353
1.713

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
910	2.0	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 1
SITE NAME 22

TRACKING TIMES (LOCAL) MEASURE _____
START 8:23 a.
STOP 8:52 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

HEIGHT READINGS MTS FT
1.310 _____
1.670

OBSTRUCTIONS: none

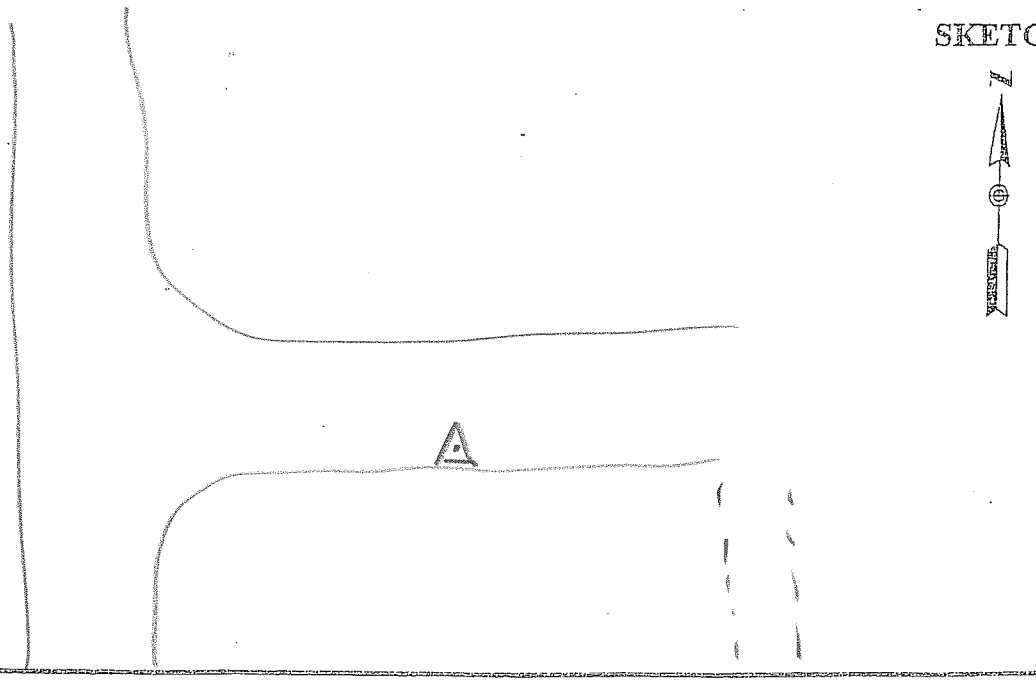
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
923	3.4	7/7
952		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 2
SITE NAME 23

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

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
1.256

STATION DESCRIPTIONS S side paved area

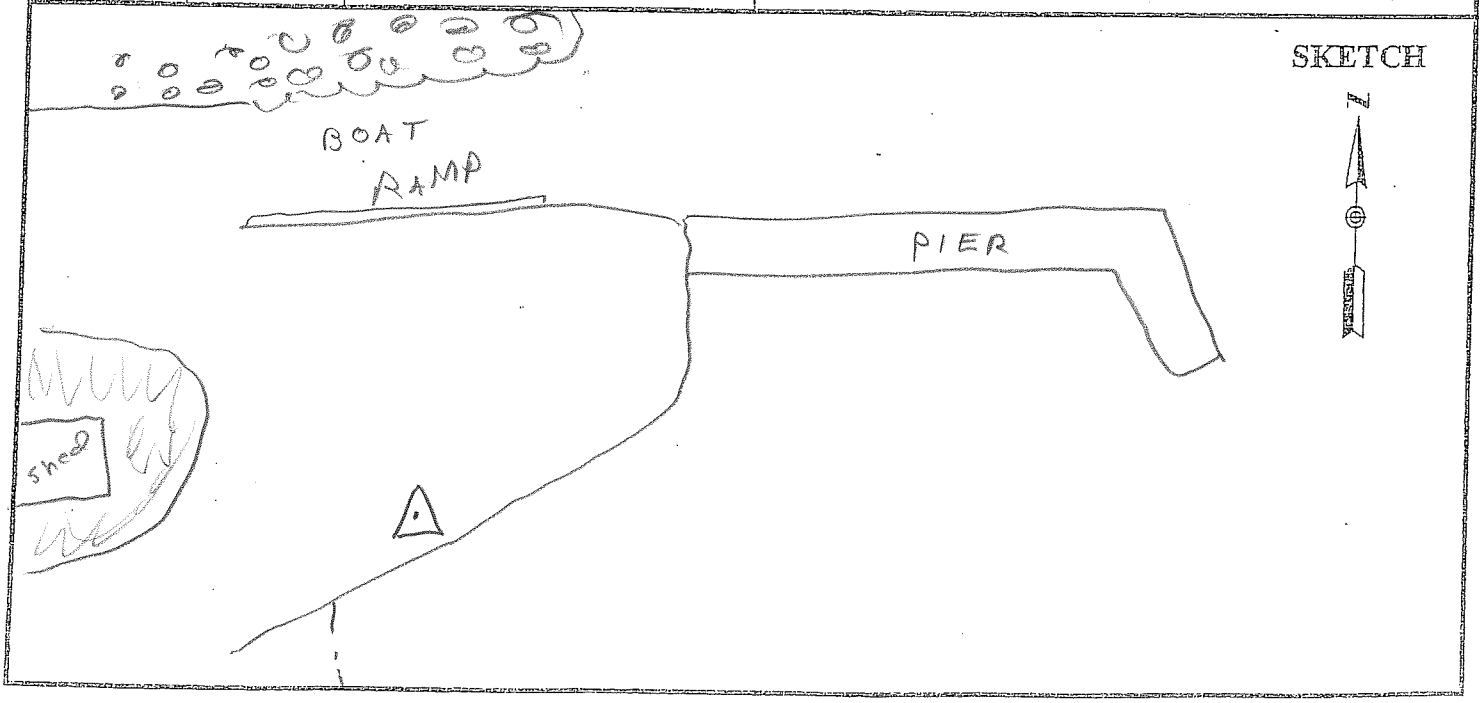
1616

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1001	2.7	6/6
1028		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT I-101205 / Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 3
SITE NAME 24

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:56a.
STOP 10:29a.

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
1.275

1635

OBSTRUCTIONS: none

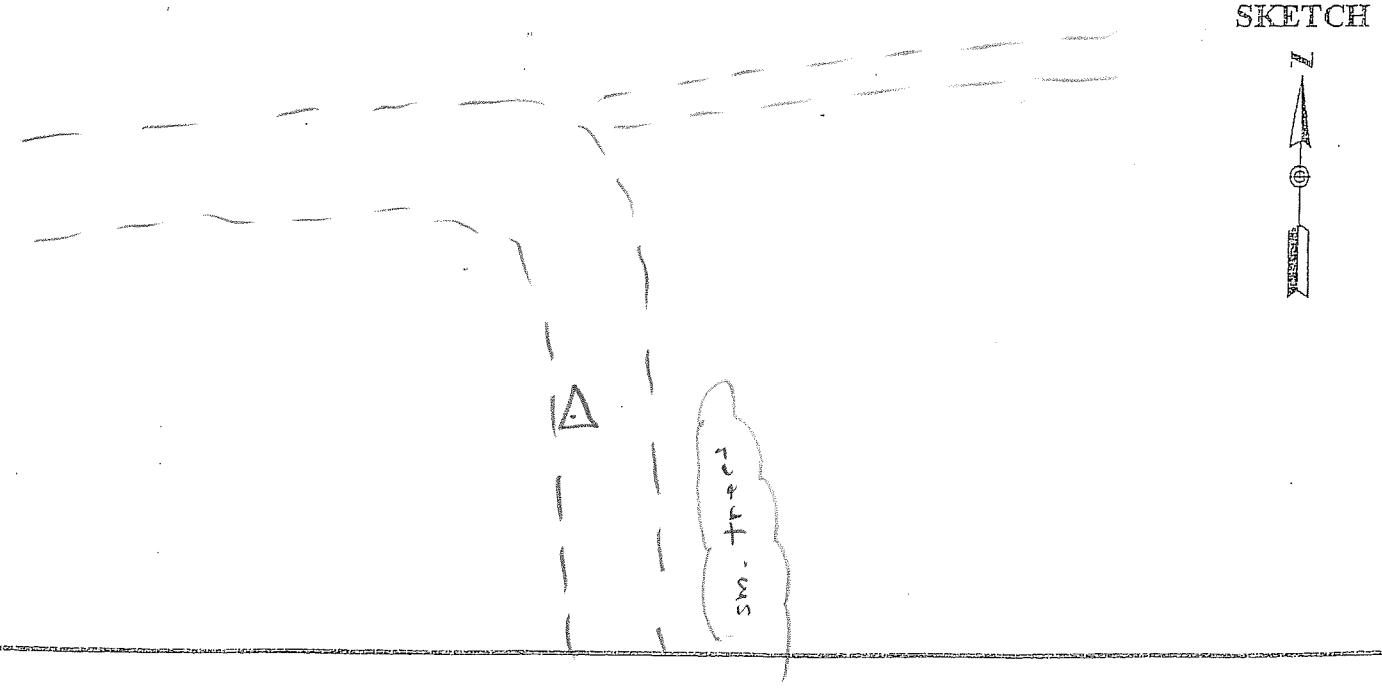
STATION DESCRIPTIONS W. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1056	2.5	8/8
1129		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 4
SITE NAME 25

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:45 a.
STOP 11:16 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: trees S

HEIGHT READINGS MTS FT
1.390
1.750

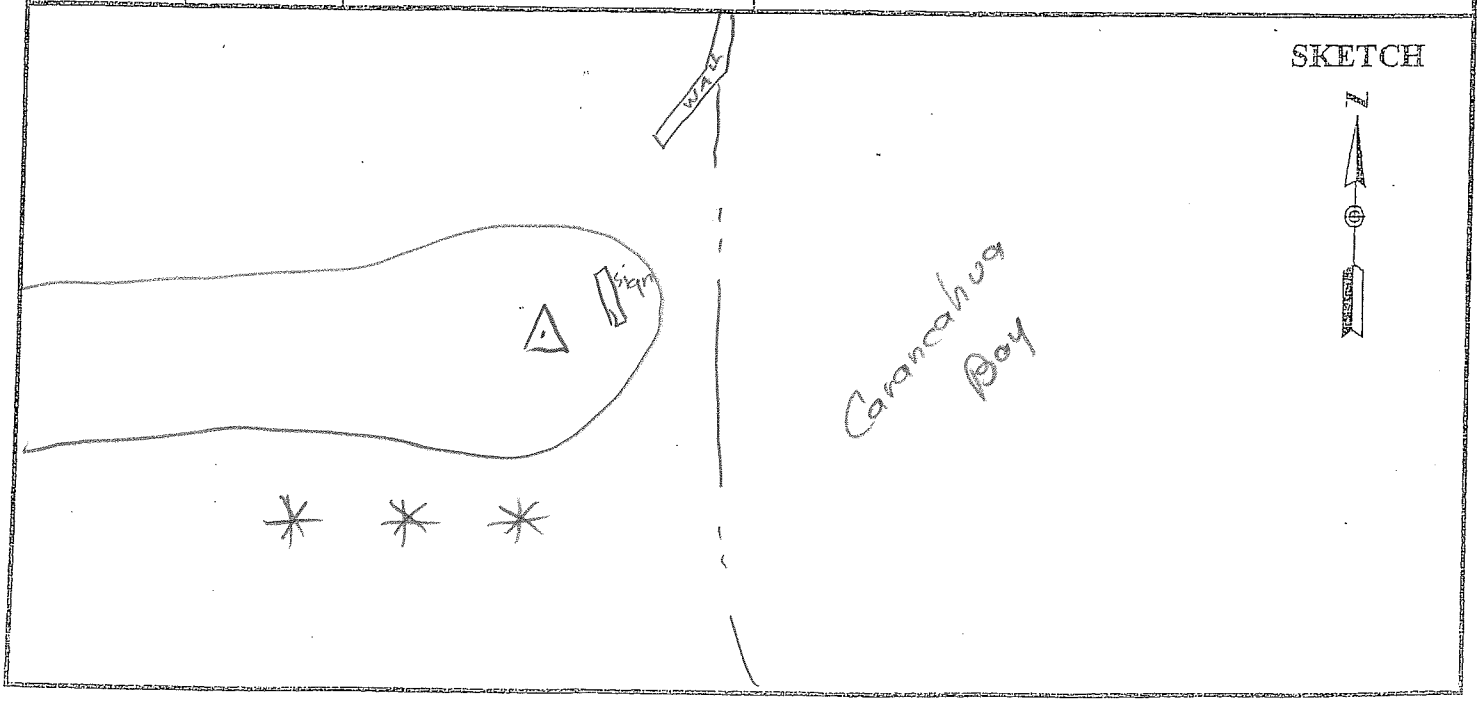
STATION DESCRIPTIONS center of cul-de-sac

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1145	2.7	8/8
1216		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 5
SITE NAME 26

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:25 a.
STOP 11:55 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
1.378

STATION DESCRIPTIONS N. side parking area

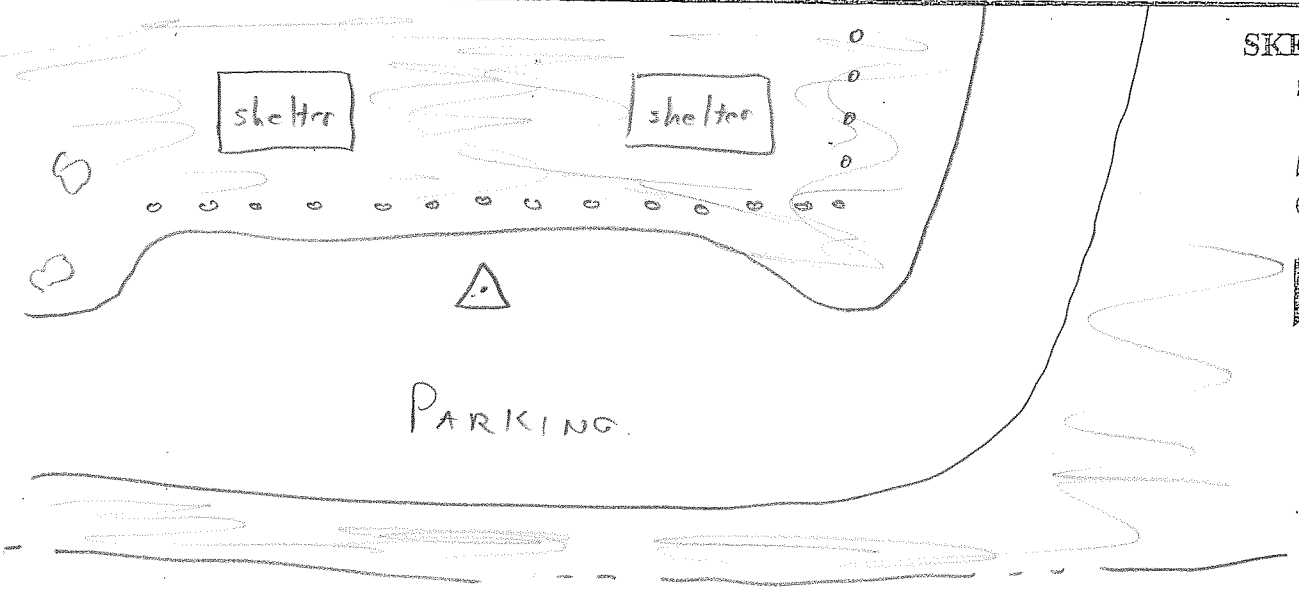
1738

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1225	1.8	9/9
1255		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12-17-10

SITE NUMBER 6
SITE NAME 27

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:04 p
STOP 12:35 p

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

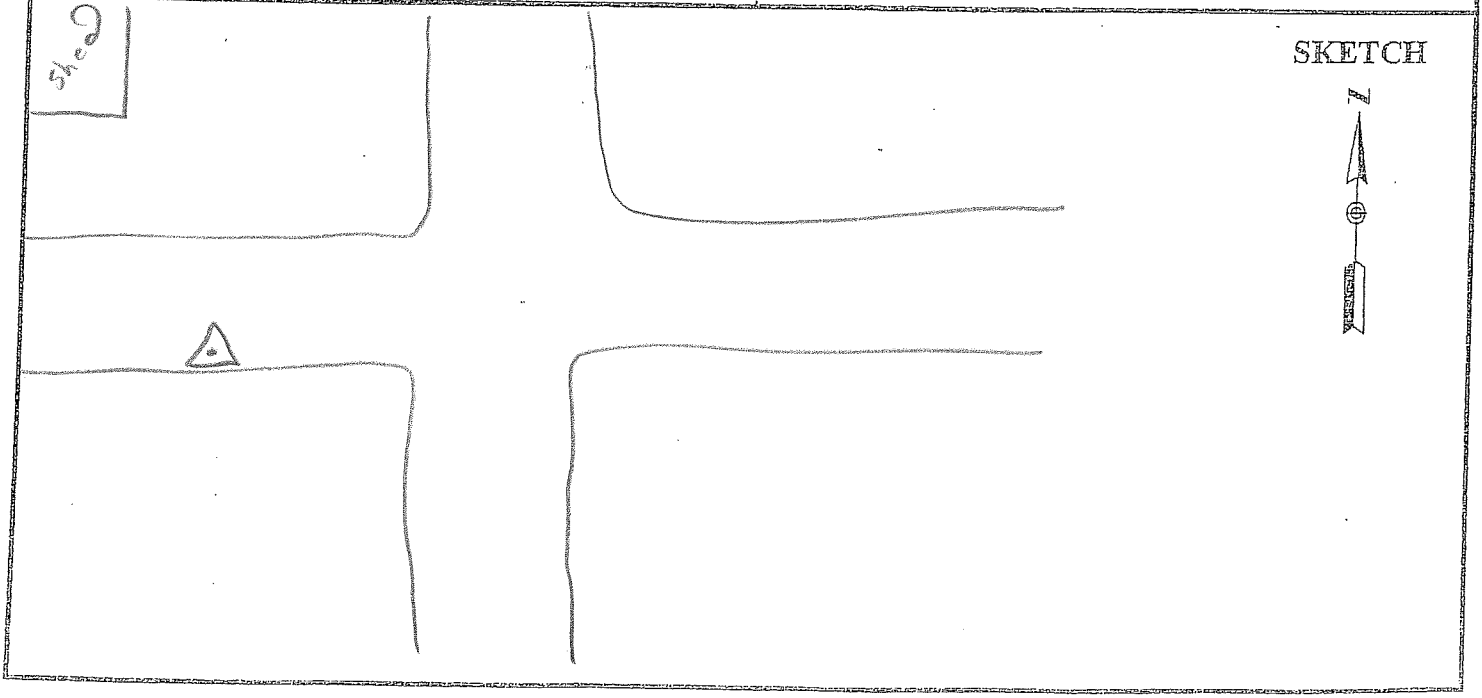
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1304	3.7	7/7
1335		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12·17·10

SITE NUMBER 7
SITE NAME 28

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:41 p
STOP 1:08 p

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
1.371
1.731

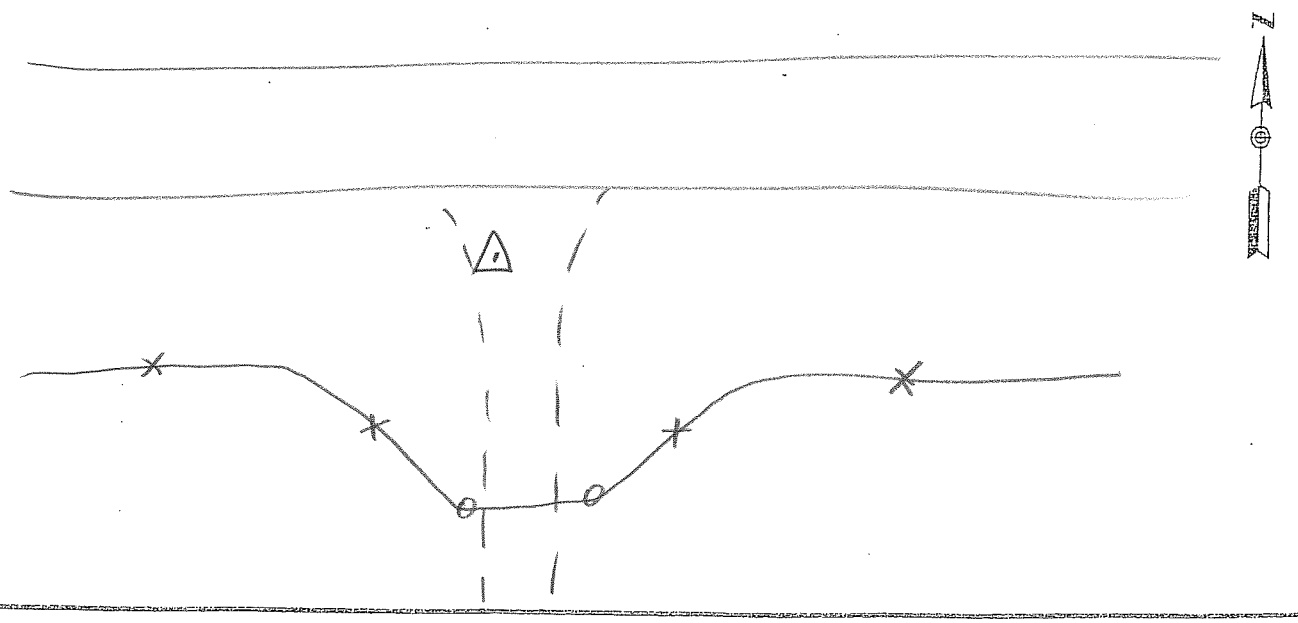
STATION DESCRIPTIONS W. side drive

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1341	2.3	7/7
1408		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

1/PT

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.17.10

SITE NUMBER 8
SITE NAME 29

TRACKING TIMES (LOCAL) MEASURE _____
START 1:18 p
STOP 1:43 p

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
1.400
1.760

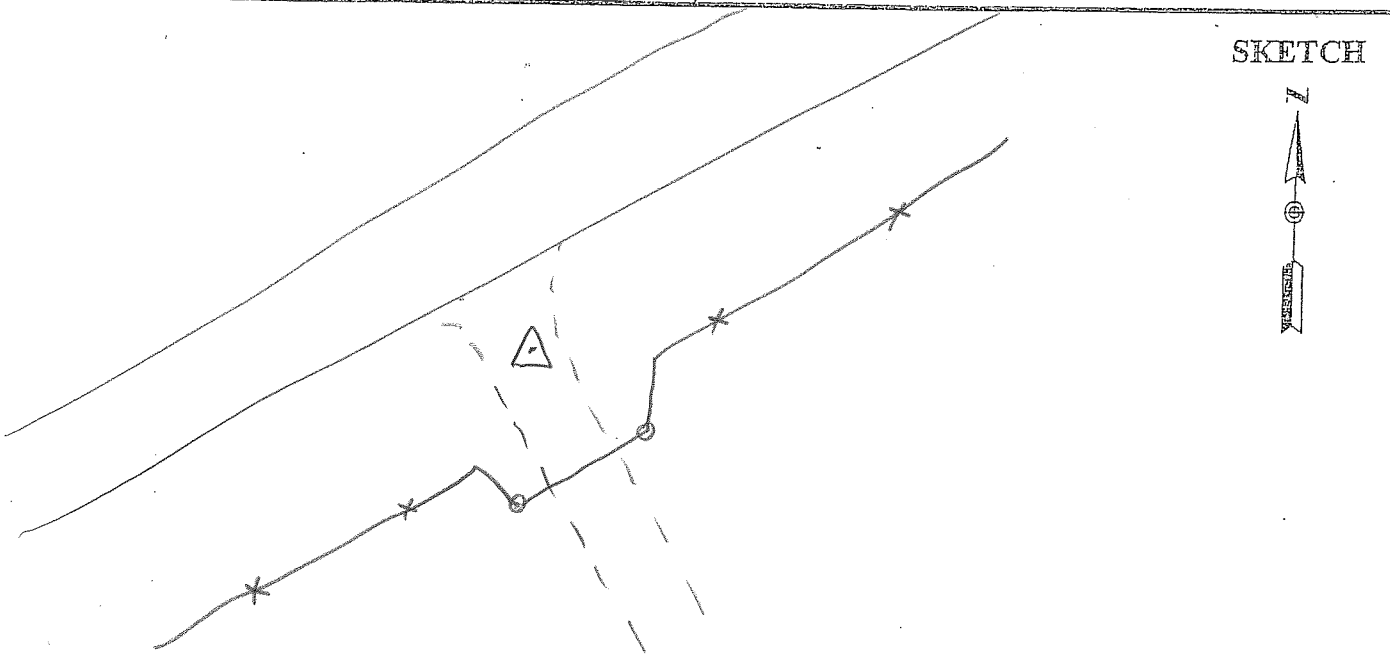
STATION DESCRIPTIONS 2 drive

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1418	3.1	7/8
1443		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

✓ PT

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 12.17.10

SITE NUMBER 9
SITE NAME 30

TRACKING TIMES (LOCAL) MEASURE _____
START 1:52 p
STOP 2:13 p

SENSOR TYPE 500 9500 399 299
MEMORY CARD 782
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
1.340
1.700

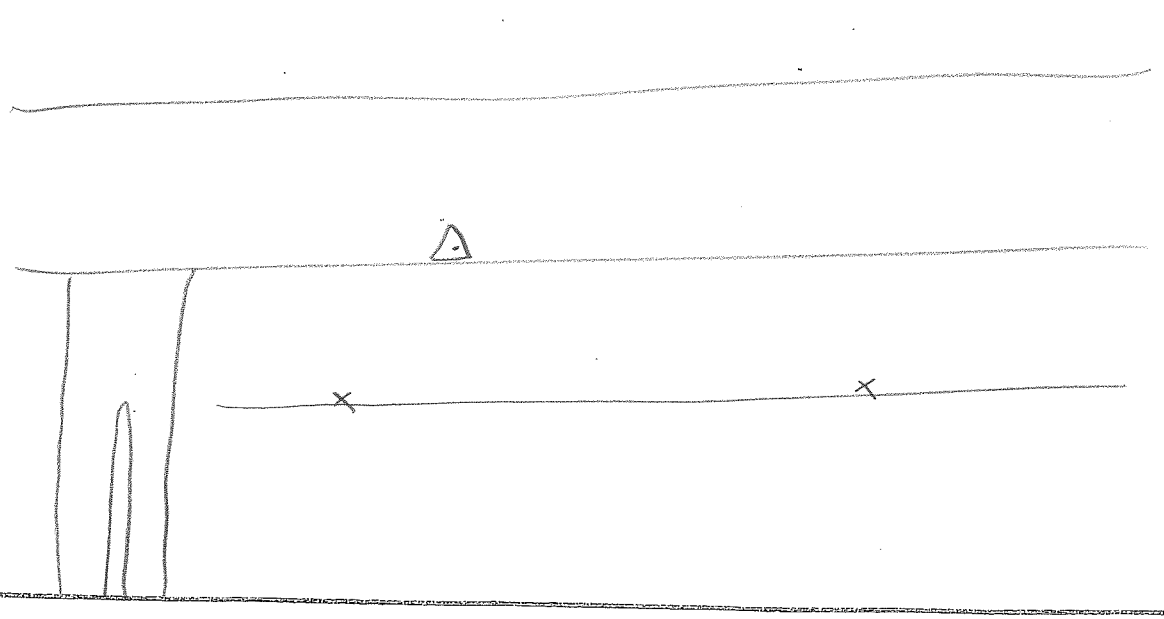
STATION DESCRIPTIONS S. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1452	1.7	11/11
1513		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12-17-10

SITE NUMBER 10
SITE NAME 31

TRACKING TIMES (LOCAL) MEASURE √
START 2:43 p
STOP 3:25 p

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
1.368
1.728

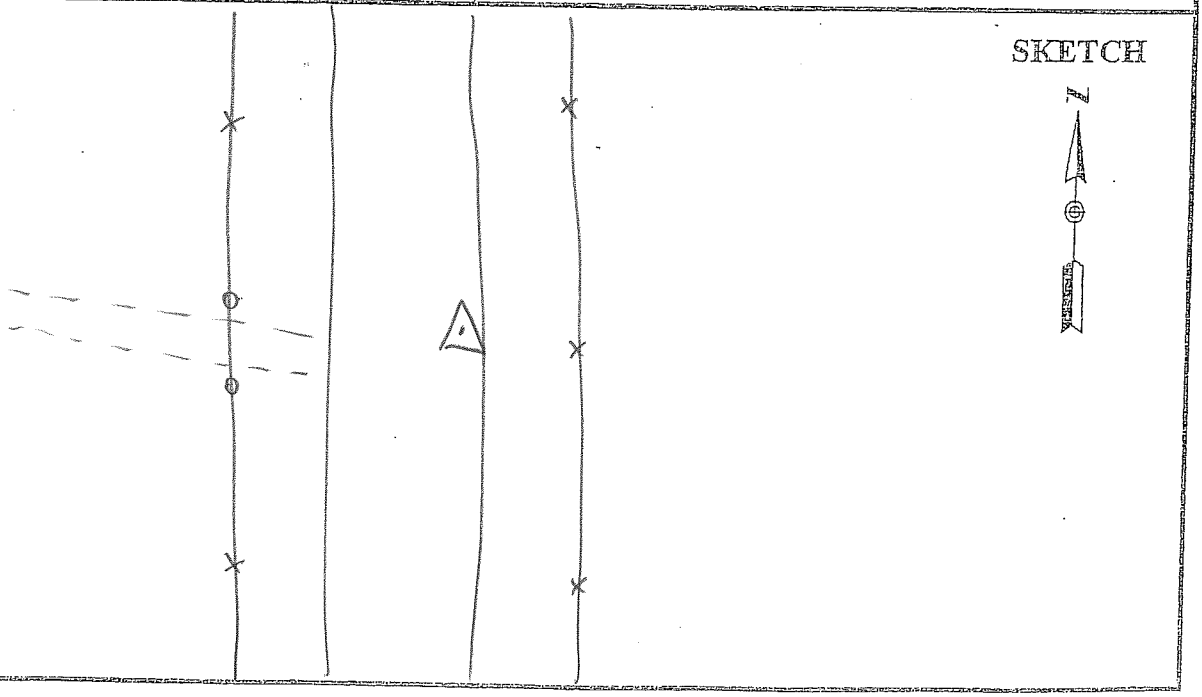
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1543	2.6	8/9
1625		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.18.10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:35a.
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
1.355

STATION DESCRIPTIONS

1.715

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
935	3.0	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

see previous

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

PROJECT 1-101205 / Calhoun
OPERATOR NB
DATE 12.18.10

SITE NUMBER 1
SITE NAME 17

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:04 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
1.172
1,532

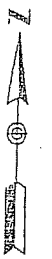
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1904	2.1	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

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

PROJECT 1-101205/Calhoun
OPERATOR MR3
DATE 12·18·10

SITE NUMBER 1
SITE NAME 32

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:21a.
STOP 9:54a.

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

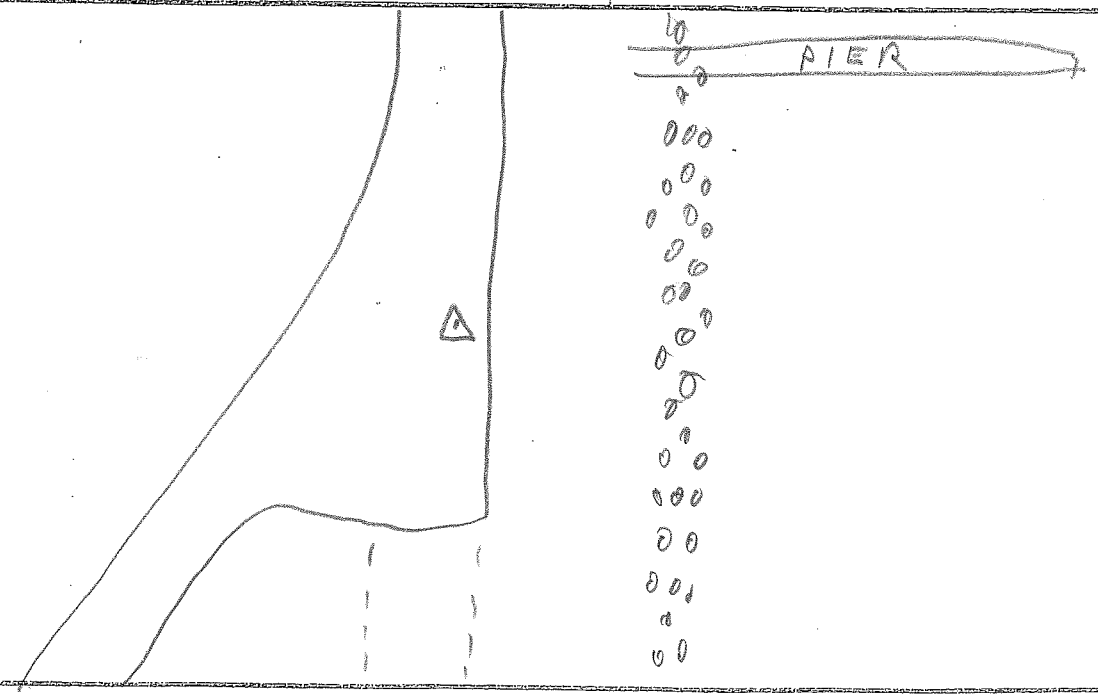
HEIGHT READINGS MTS FT
1.379
1.739

STATION DESCRIPTIONS NE side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1021	3.7	7/8
1054		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.18.10

SITE NUMBER 2
SITE NAME 33

TRACKING TIMES (LOCAL) MEASURE √
START 10:03 a.
STOP 10:32 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. C10
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

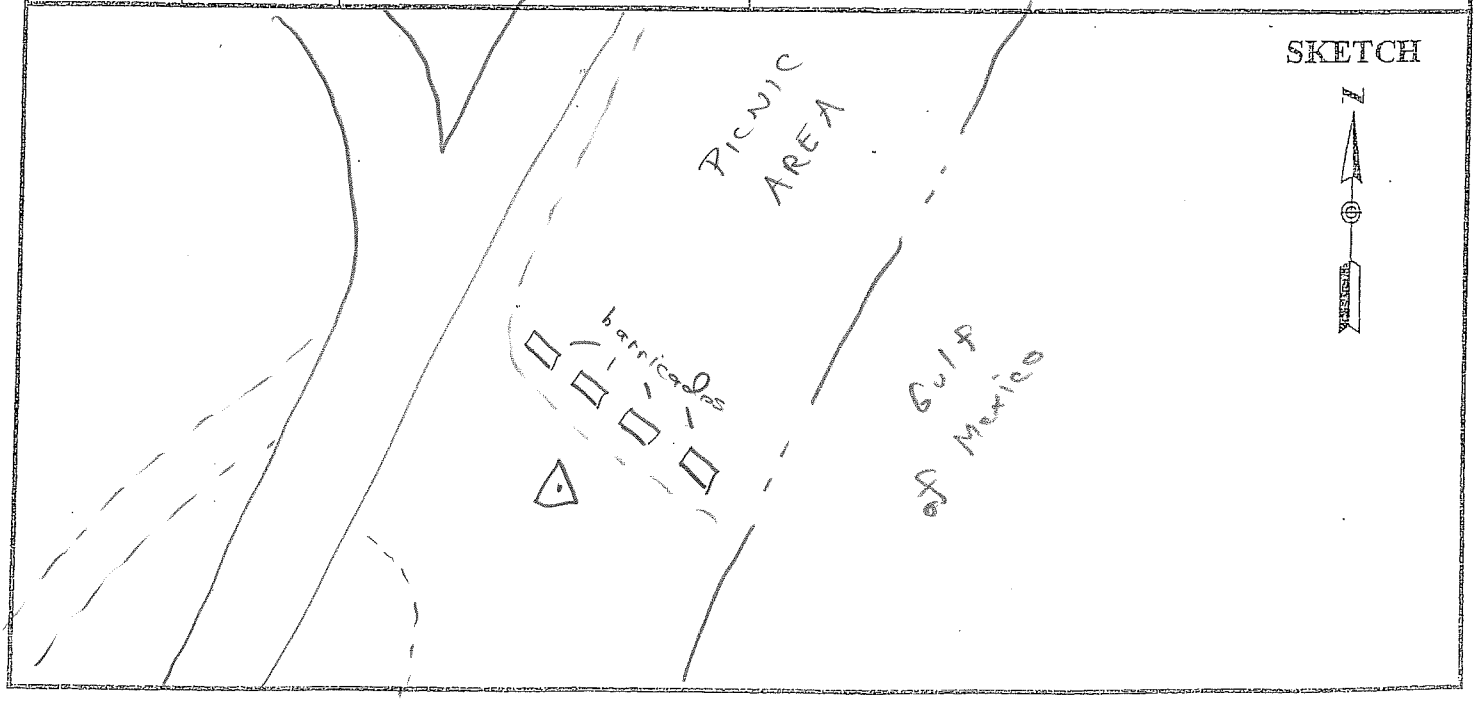
STATION DESCRIPTIONS in gravel area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1103	2.5	8/8
1132		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PT

PROJECT 1-101205 / Calhoun
OPERATOR MS
DATE 12.18.10

SITE NUMBER 3
SITE NAME 34

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:46 a.
STOP 11:06 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
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
1.349

1209

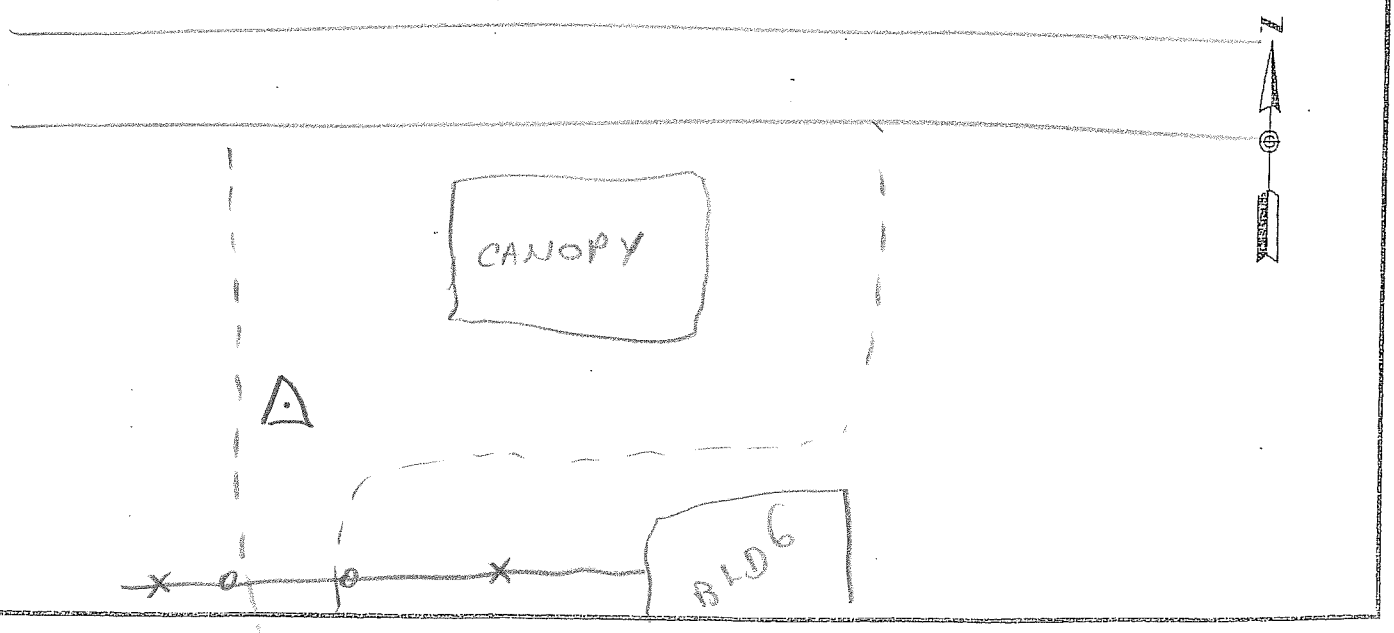
STATION DESCRIPTIONS SW corner of gravel area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1146	2.6	8/8
1206		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.18.10

SITE NUMBER 4
SITE NAME 35

TRACKING TIMES (LOCAL) MEASURE _____
START 11:21
STOP 11:40

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
1.370 _____
1.730

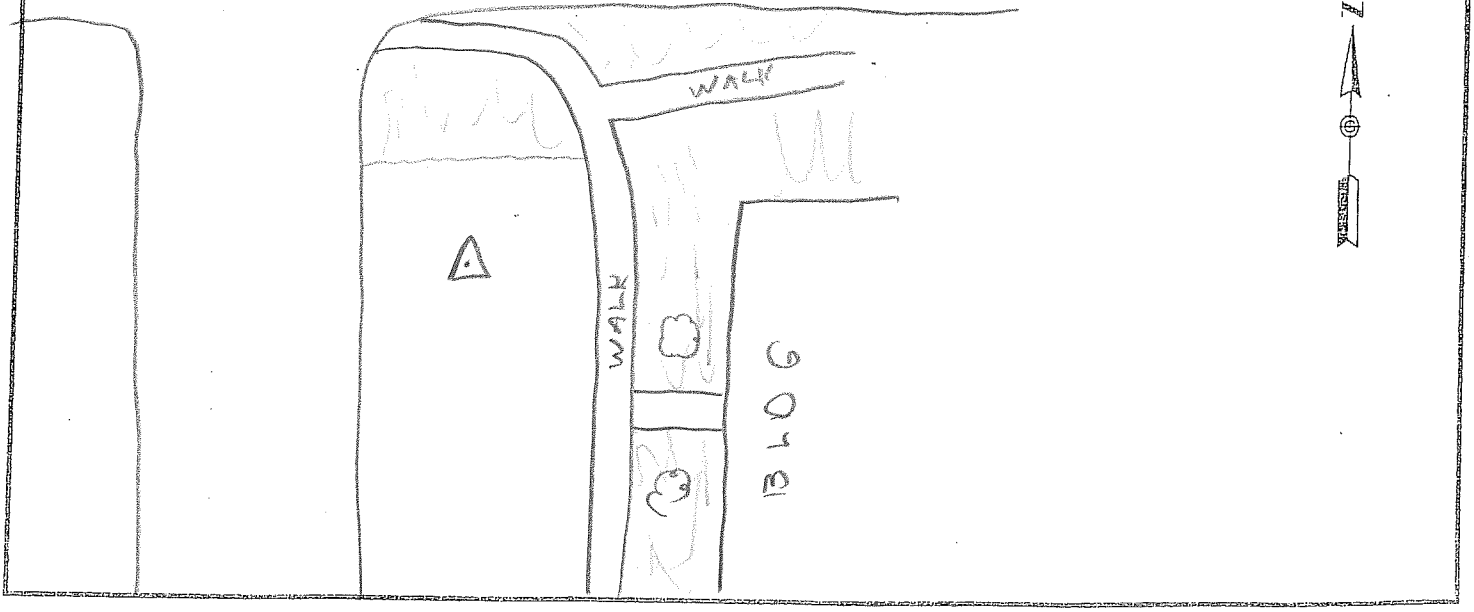
STATION DESCRIPTIONS parking lot

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1221	1.8	9/9
1240		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.18.10

SITE NUMBER 5
SITE NAME 36

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:50 a.
STOP 12:13 p

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
1.291

STATION DESCRIPTIONS E. shoulder

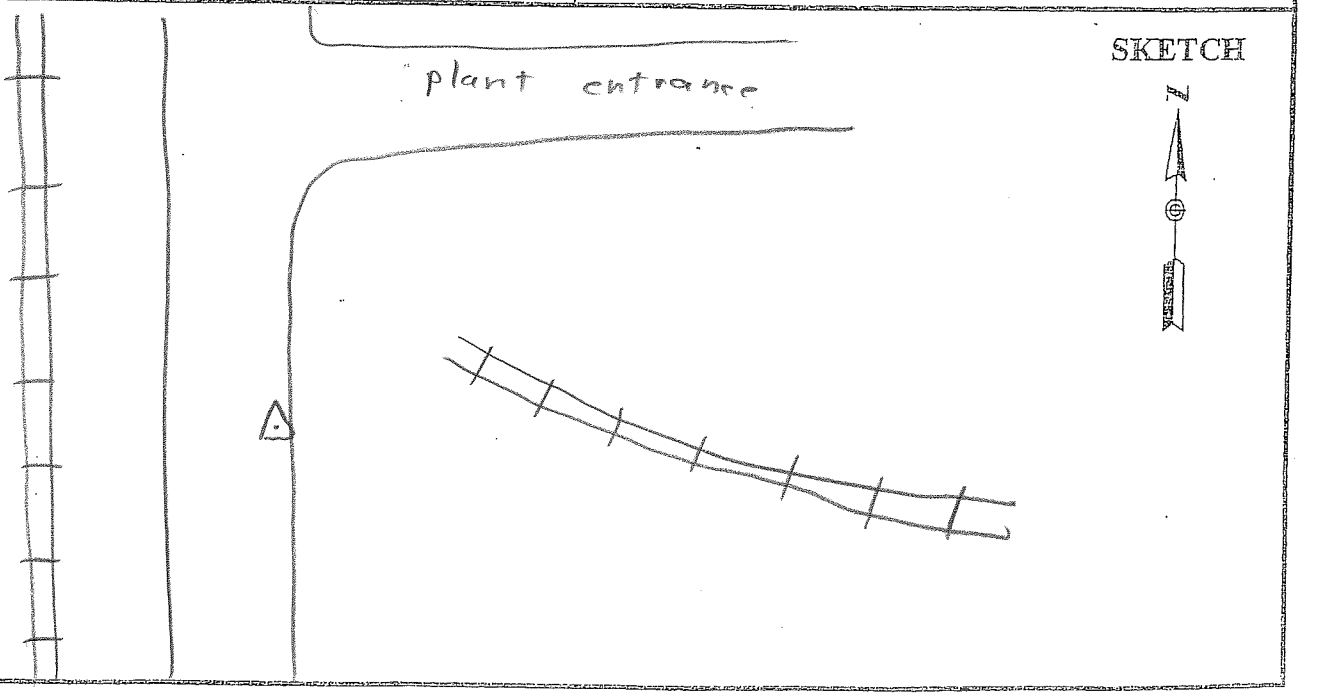
1651

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1250	4.7	6/6
1313		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12·18·10

SITE NUMBER 6
SITE NAME 37

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:32 p
STOP 12:56 p

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
1.370
1.730

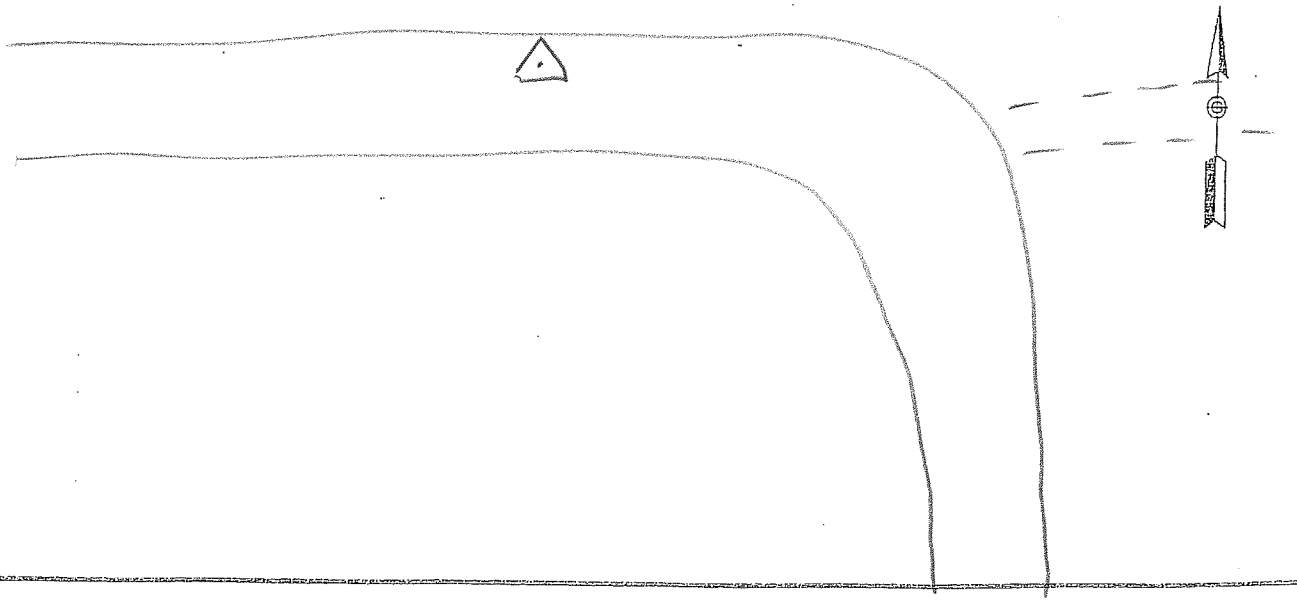
STATION DESCRIPTIONS N. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1332	2.1	8/8
1356		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

VPT

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.18.10

SITE NUMBER 7
SITE NAME 38

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:13 p
STOP 1:42 p

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
1.360
1.720

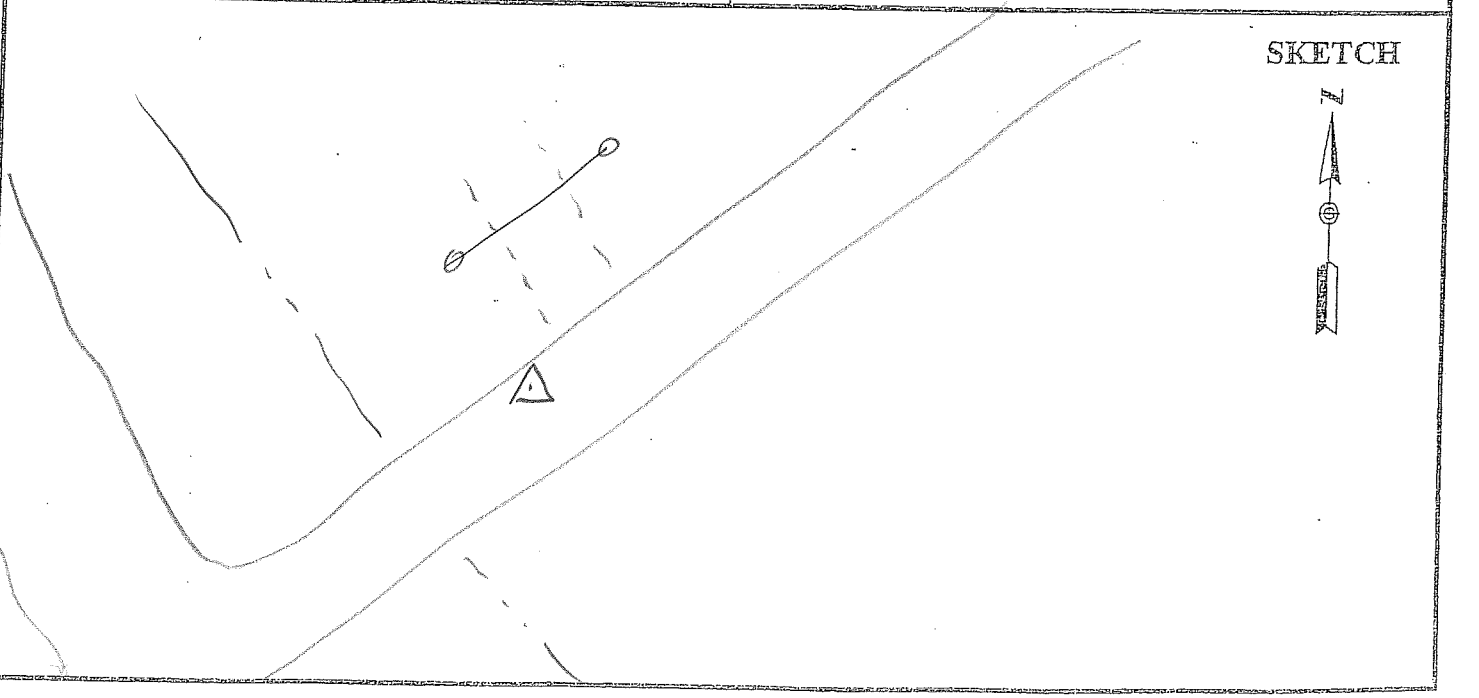
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1413	2.7	8/8
1442		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12·18·10

SITE NUMBER 8
SITE NAME 39

TRACKING TIMES (LOCAL) MEASURE _____
START 1:45 p
STOP 2:11 p

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
1.327
1.687

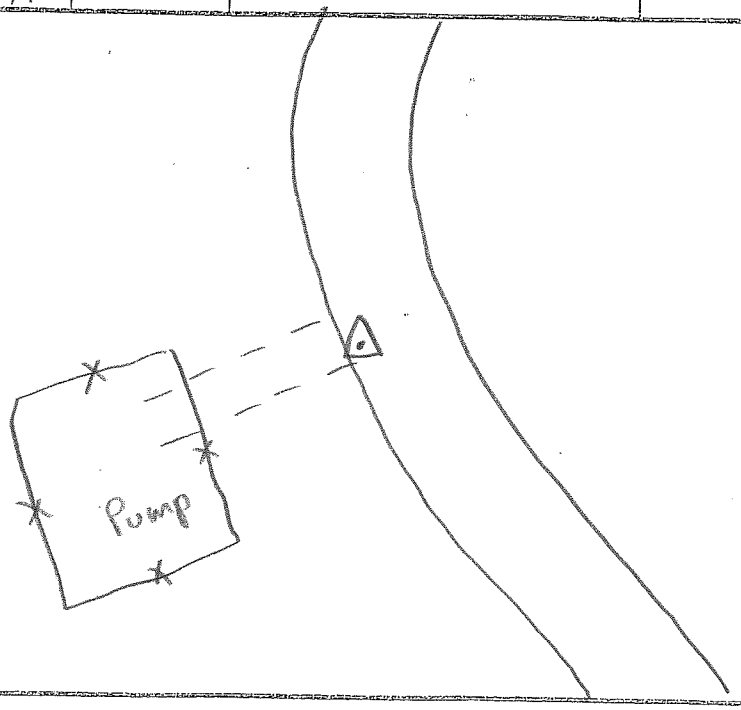
STATION DESCRIPTIONS W. shoulder

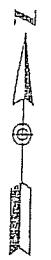
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1445	2.2	9/9
1511		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH





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

PROJECT 1-10205/Calhoun
OPERATOR MB
DATE 12.19.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:55 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
1.327

STATION DESCRIPTIONS

1687

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
855	4.0	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-10#205 / Calhoun
OPERATOR MB
DATE 12.19.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:55 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
1.327

STATION DESCRIPTIONS

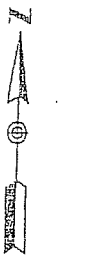
1687

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
855	4.0	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

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

PROJECT 1-10&205/Calhoun
OPERATOR MG
DATE 12.19.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:55 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
1.327

STATION DESCRIPTIONS

1687

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
855	4.0	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.19.10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:32a.
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
1.353

STATION DESCRIPTIONS

1713

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
832	1.7	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT I-10#205 / Calhoun
OPERATOR MS
DATE 12.19.10

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:55 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
1.327

STATION DESCRIPTIONS

1687

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
855	4.0	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12-19-10

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:32a.
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
1.353

STATION DESCRIPTIONS

1713

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
832	1.7	9/10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205-/Calhoun
OPERATOR NB
DATE 12·19·10

SITE NUMBER 1
SITE NAME 40

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:17 a
STOP 8:49 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 E

HEIGHT READINGS MTS FT
1.363
1.723

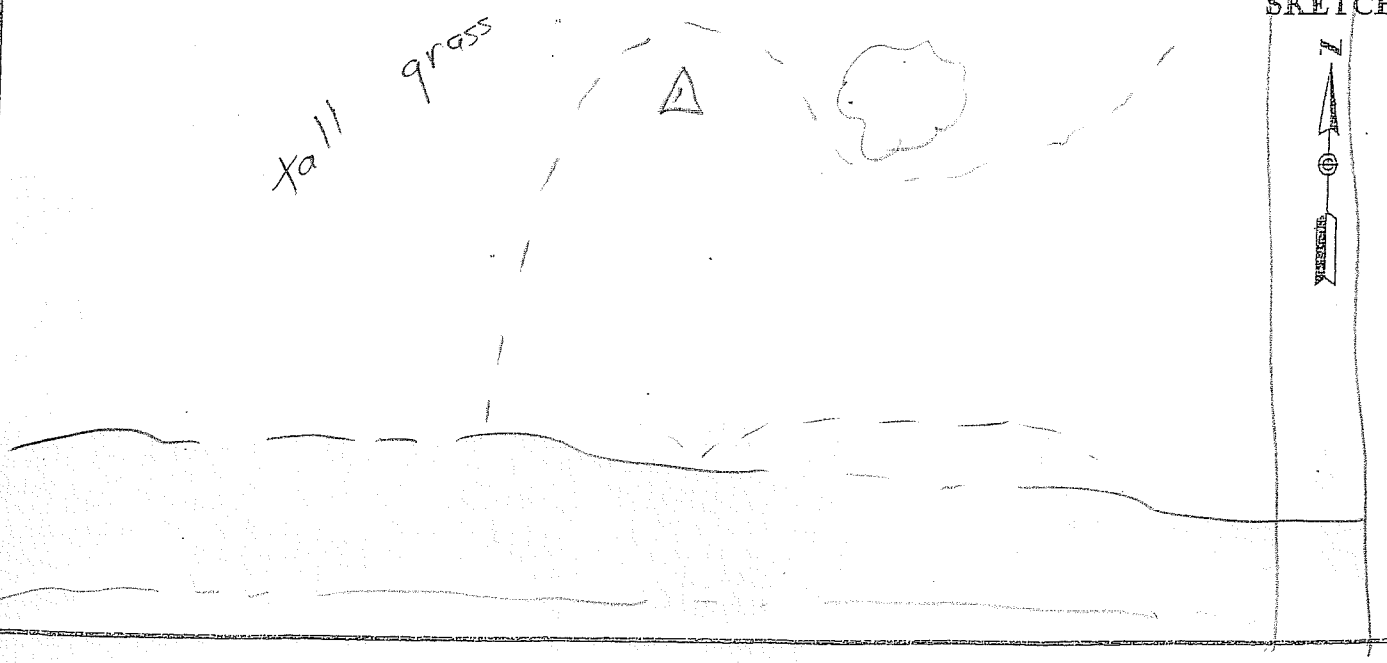
STATION DESCRIPTIONS in hard packed clearing

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
917	2.2	8/8
949		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12.19.10

SITE NUMBER 2
SITE NAME 41

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:55 a.
STOP 9:22 a.

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
1.385

STATION DESCRIPTIONS in Driveway

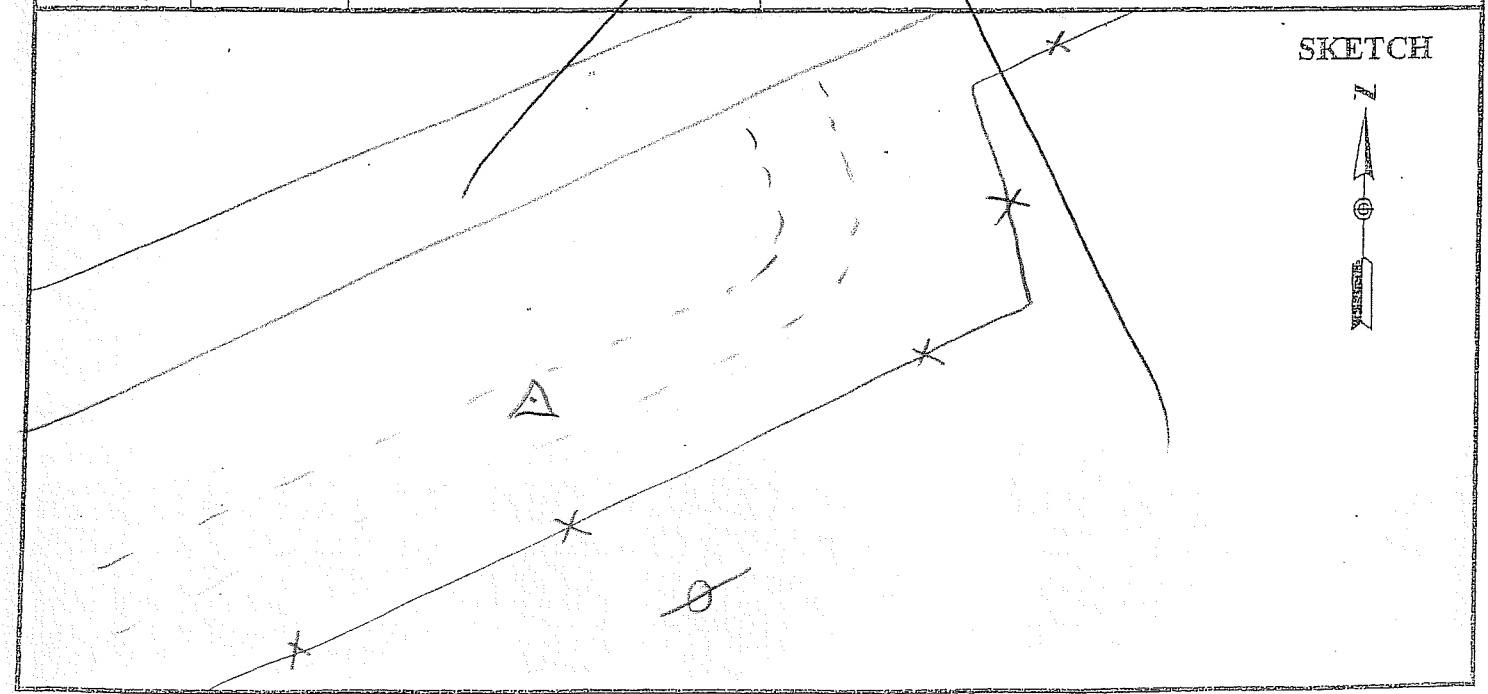
1745

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
955	2.7	7/7
1022		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12·19·10

SITE NUMBER 3
SITE NAME 42

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:34 a.
STOP 9:55 a.

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

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.364
1.724

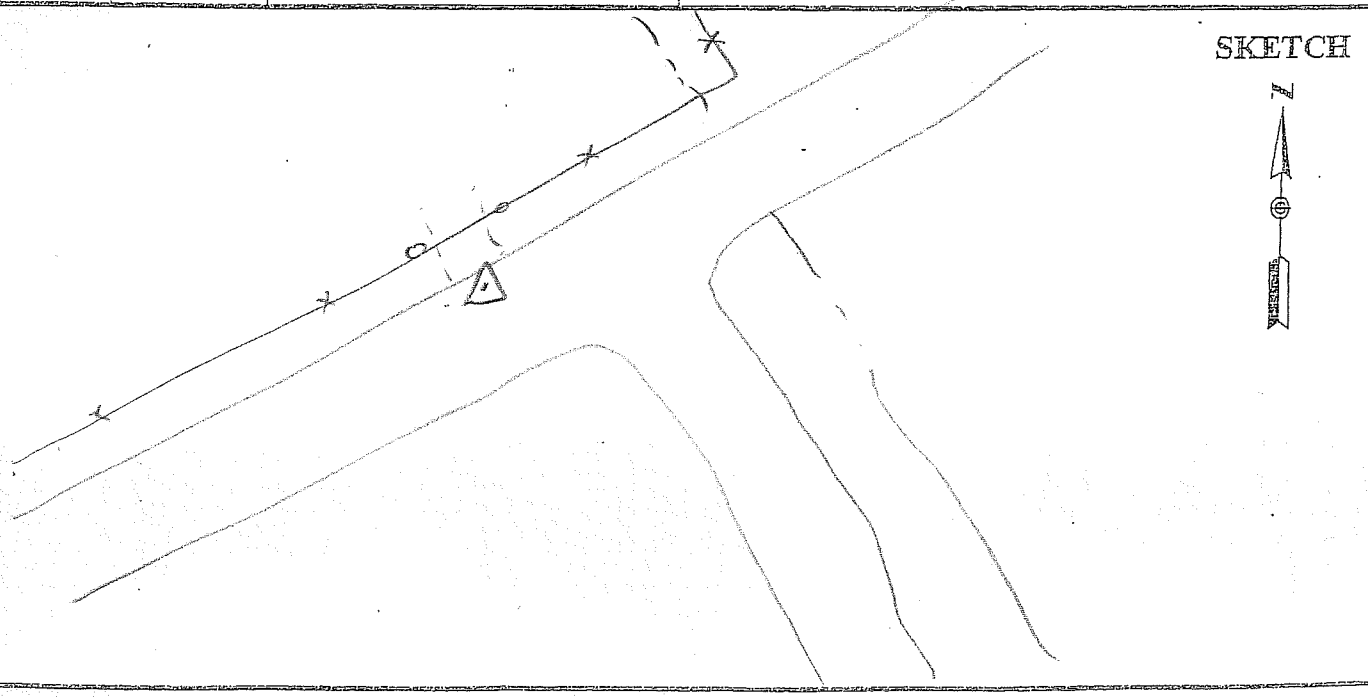
STATION DESCRIPTIONS NW side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1034	2.4	8/8
1055		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12·19·10

SITE NUMBER 4
SITE NAME 43

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:03 a.
STOP 10:28 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
1.415
1.775

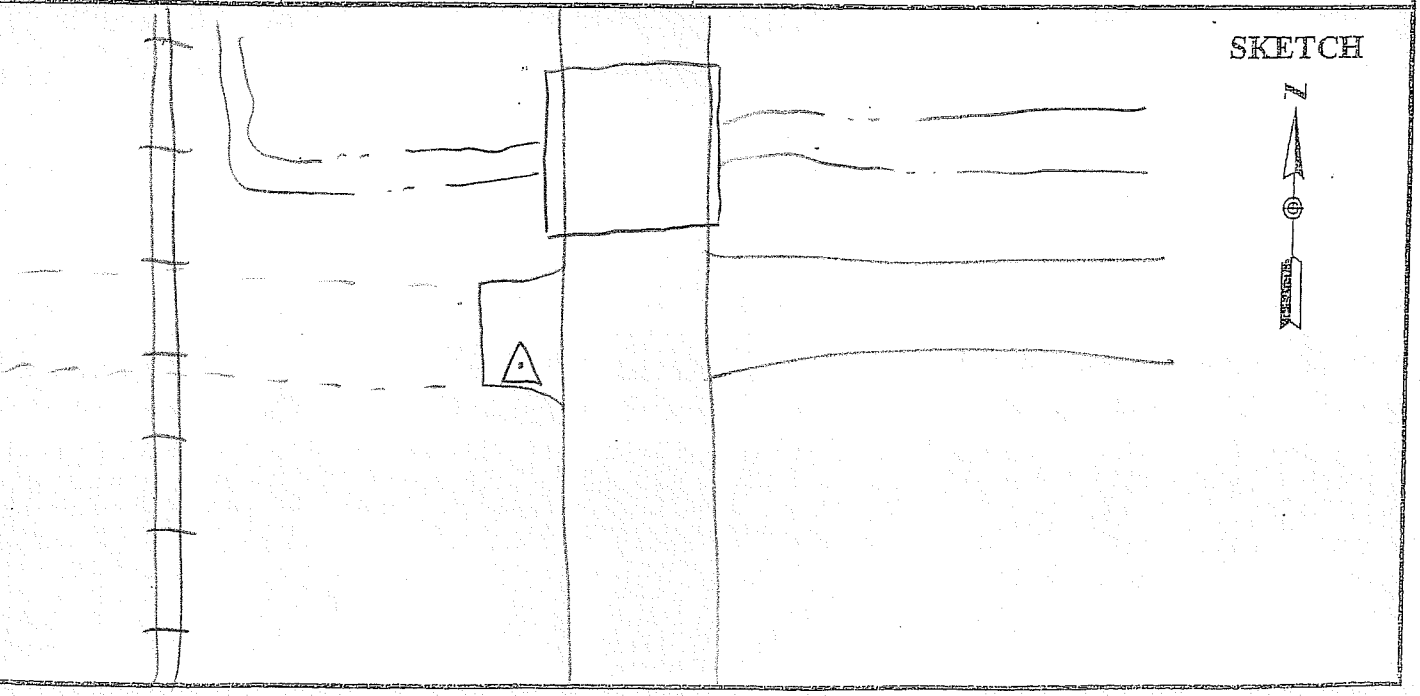
STATION DESCRIPTIONS S. side Drive

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1103	2.9	9/9
1128		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12·19·10

SITE NUMBER 5
SITE NAME 44

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:35 a.
STOP 11:00 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
1.374

1734

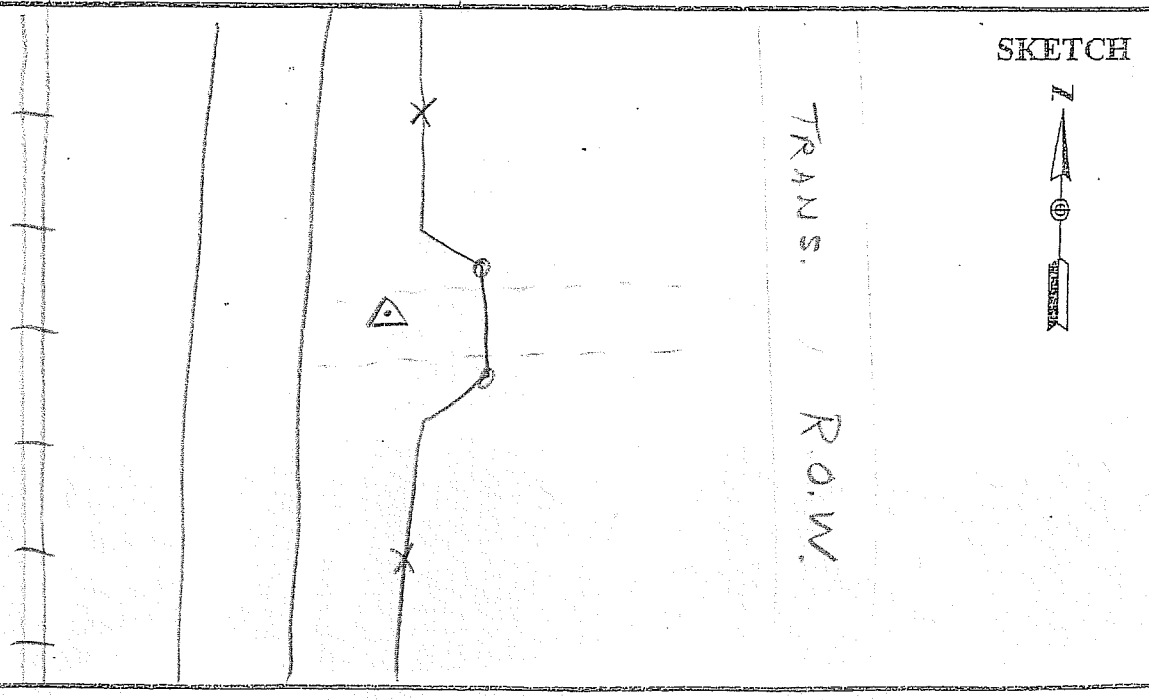
STATION DESCRIPTIONS N. side lane

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1135	2.7	8/8
1200		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 12.19.10

SITE NUMBER 6
SITE NAME 45

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:05 a.
STOP 11:30 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
1.359
1.719

OBSTRUCTIONS: none

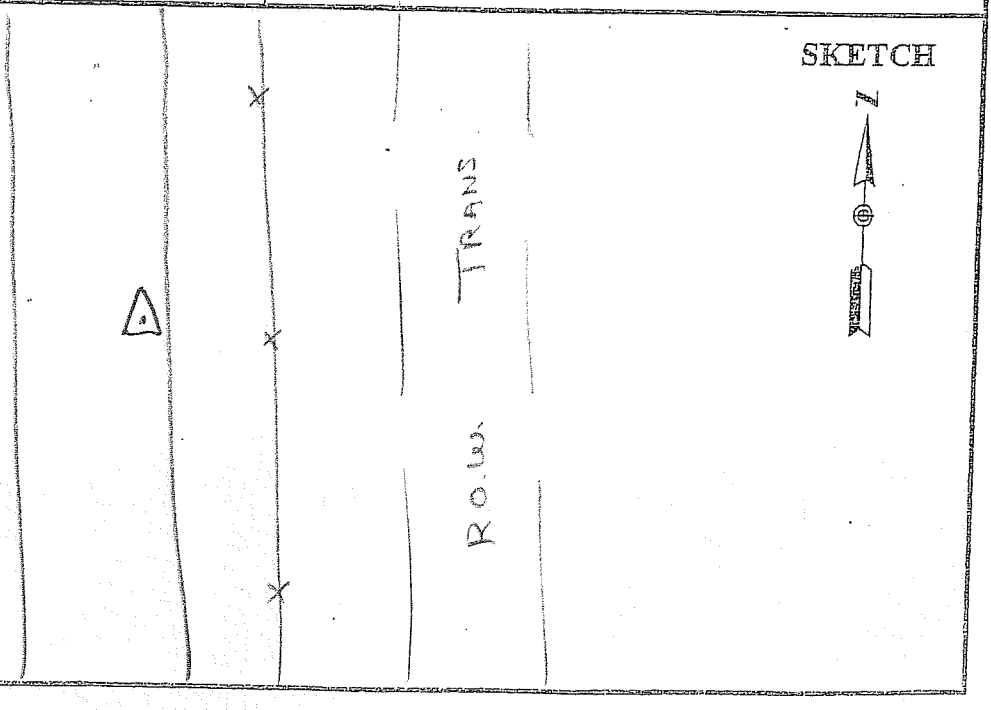
STATION DESCRIPTIONS E. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1205	1.9	9/9
1230		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12·19·10

SITE NUMBER 7
SITE NAME 46

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:38a
STOP 12:05p

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: tower SE

HEIGHT READINGS MTS FT
1.383

STATION DESCRIPTIONS in drive E

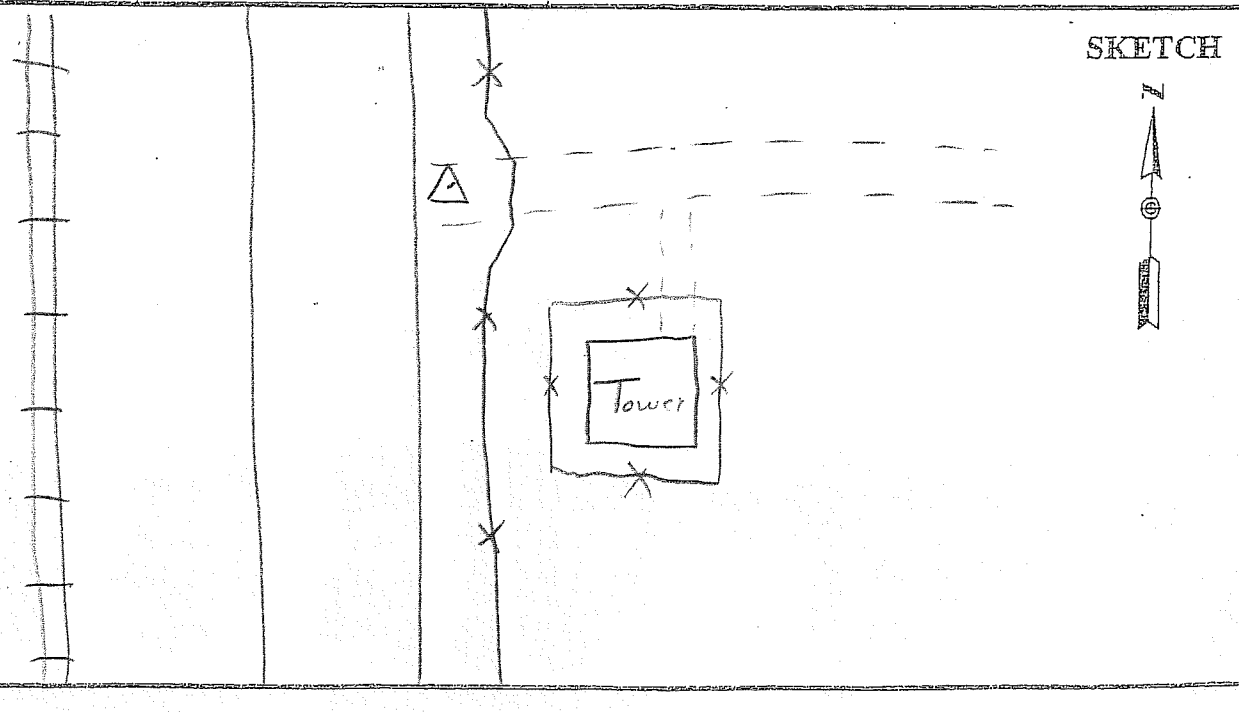
1743

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1238	4.4	6/6
1305		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR NB
DATE 12-19-10

SITE NUMBER 8
SITE NAME 47

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:22 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
1.341
1.701

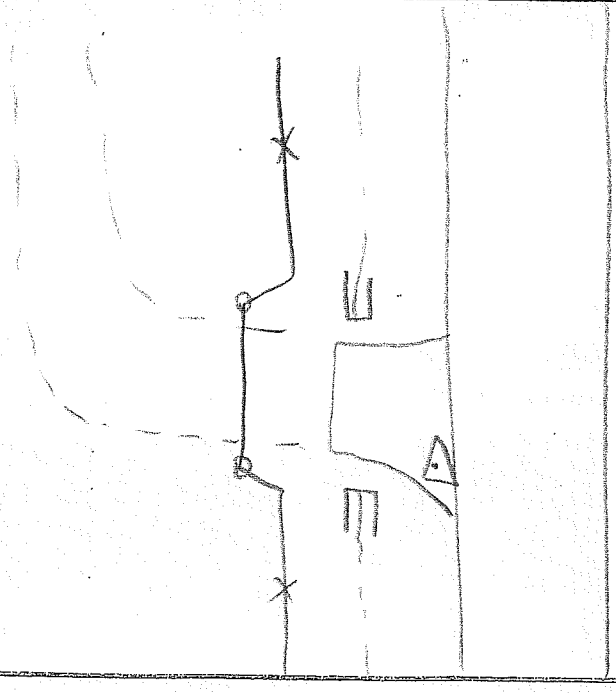
STATION DESCRIPTIONS W. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1322	2.0	7/7
1346		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 12 · 19 · 10

SITE NUMBER 9
SITE NAME 48

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:06 p
STOP 1:26 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
1.335
1.695

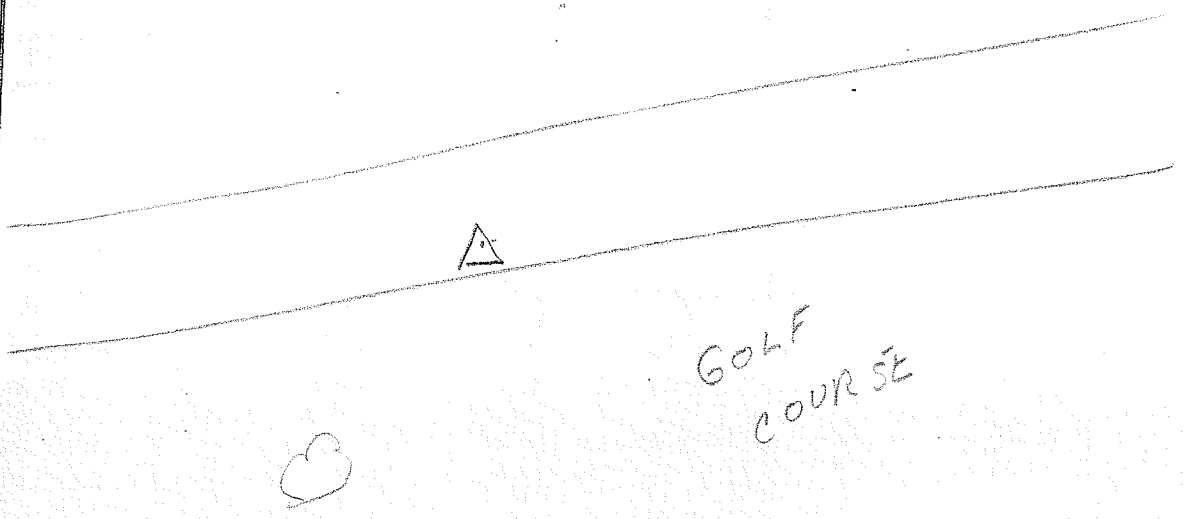
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1406	1.9	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR NB
DATE 12.19.10

SITE NUMBER 10
SITE NAME 49

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:33 p
STOP 1:57 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
1.420
1.780

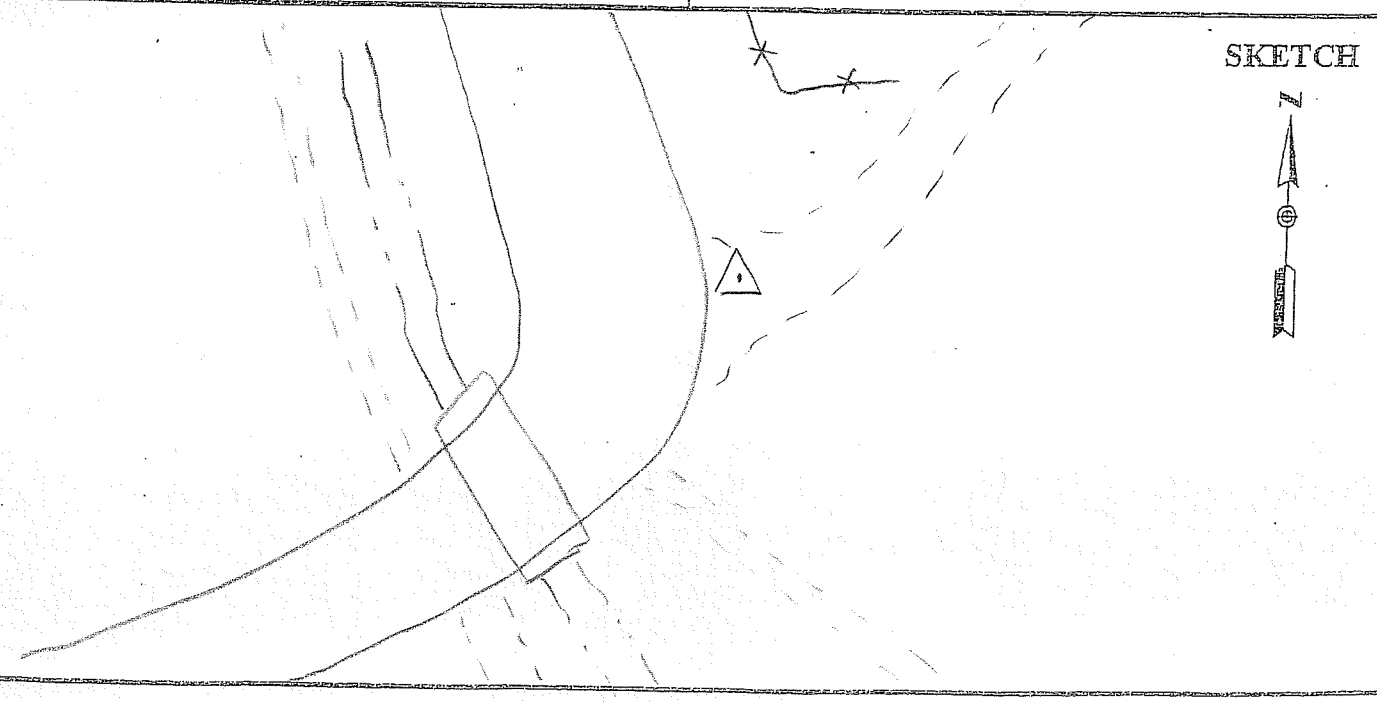
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1433	2.1	8/9
1457		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 12.19.10

SITE NUMBER 11
SITE NAME 50

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:07 p
STOP 2:25 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
1.312
1.672

STATION DESCRIPTIONS N. shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1507	2.1	10/10
1525		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 1.27.11

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:42 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
1.151

STATION DESCRIPTIONS

1.511

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
842	3.1	6/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See Previous

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

PROJECT 1-101205 / Calhoun
OPERATOR J
DATE 1-27-10

SITE NUMBER 1
SITE NAME 13

TRACKING TIMES (LOCAL) MEASURE √
START 8:19
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 732
BATTERY NO. 98
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.280
1.640

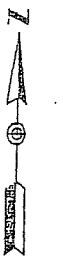
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
8:19	1.9	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See Previous

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 1.27.11

SITE NUMBER 1
SITE NAME 51

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:40a.
STOP 8:58a.

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
1.40c
1.76c

OBSTRUCTIONS: none

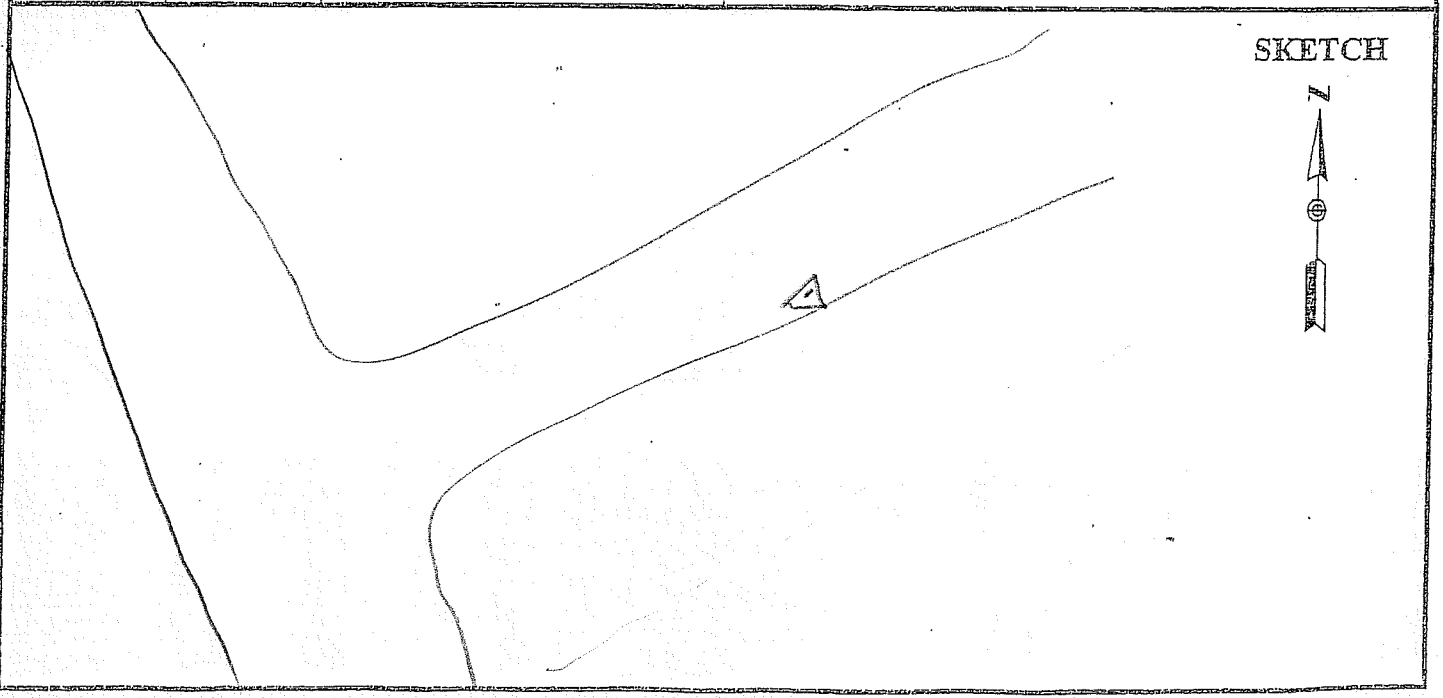
STATION DESCRIPTIONS SE shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
940	2.6	5/6
958		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 1.27.11

SITE NUMBER 2
SITE NAME 52

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:07a.
STOP 9:25a.

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
1.363
1.723

OBSTRUCTIONS: none

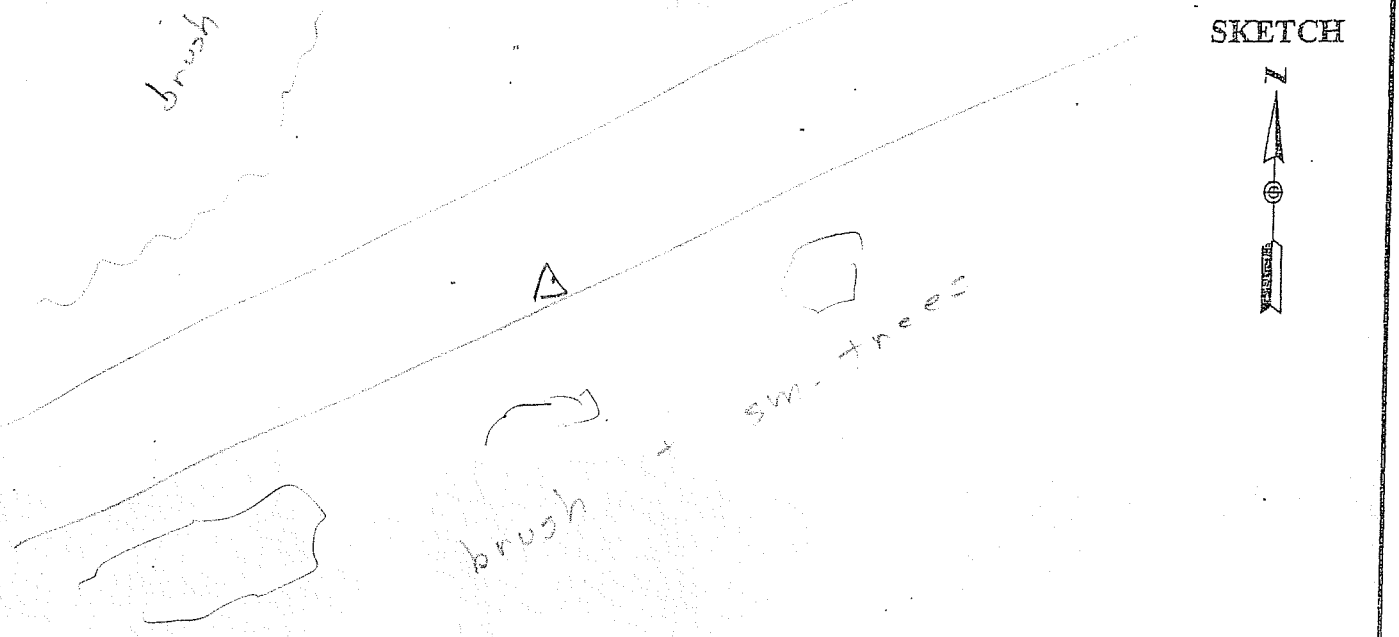
STATION DESCRIPTIONS SE shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1007	3.4	7/7
1025		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 1.27.11

SITE NUMBER 3
SITE NAME 53

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:32 a.
STOP 9:51 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
1.406
1.766

OBSTRUCTIONS: none

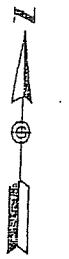
STATION DESCRIPTIONS SE should.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1032	5.4	6/6
1051		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT I-101205/Calhoun
OPERATOR MB
DATE 1.27.11

SITE NUMBER 4
SITE NAME 54

TRACKING TIMES (LOCAL) MEASURE _____
START 10:04 a.
STOP 10:25 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
1.401
1.761

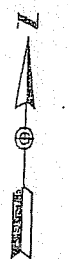
STATION DESCRIPTIONS New side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1104	2.9	7/8
1125		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MG
DATE 1.27.11

SITE NUMBER 5
SITE NAME 55

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:29 a.
STOP 10:49 a.

SENSOR TYPE 500 9500 399 299
MEMORY CARD 408
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

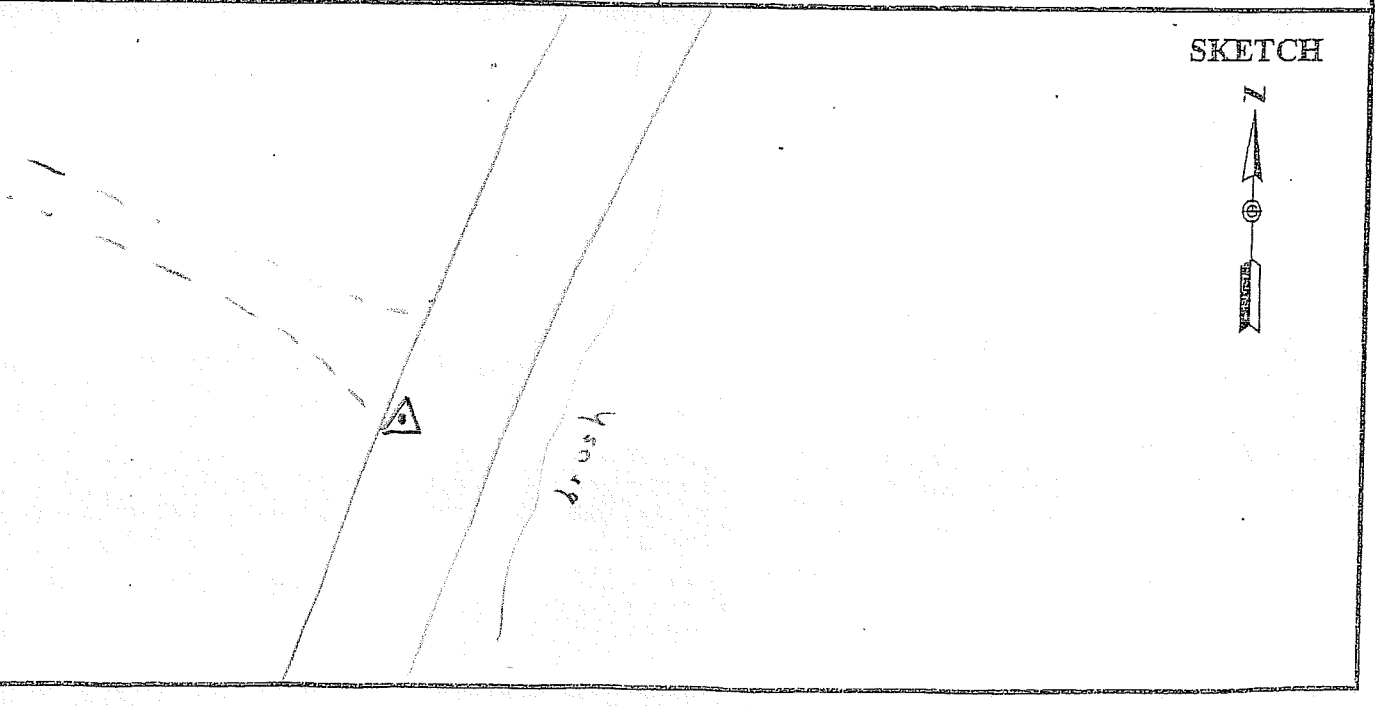
STATION DESCRIPTIONS NW side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1129	2.5	9/9
1149		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MD
DATE 1.27.11

SITE NUMBER 6
SITE NAME 56

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:54 a.
STOP 11:14 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: none

HEIGHT READINGS MTS FT
1.380
1.740

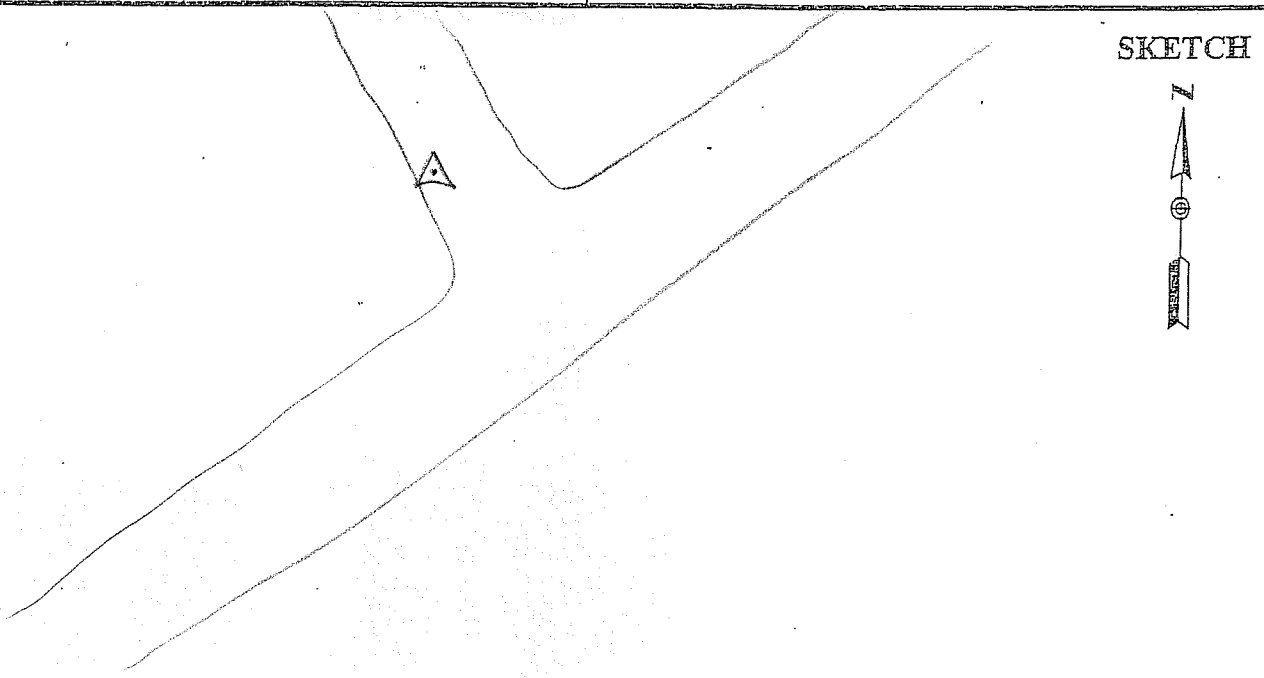
STATION DESCRIPTIONS SW side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1154	2.3	8/9
1214		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MS
DATE 1·27·11

SITE NUMBER 7
SITE NAME 57

TRACKING TIMES (LOCAL) MEASURE √
START 11:20 a.
STOP 11:41 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)

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.404
1.764

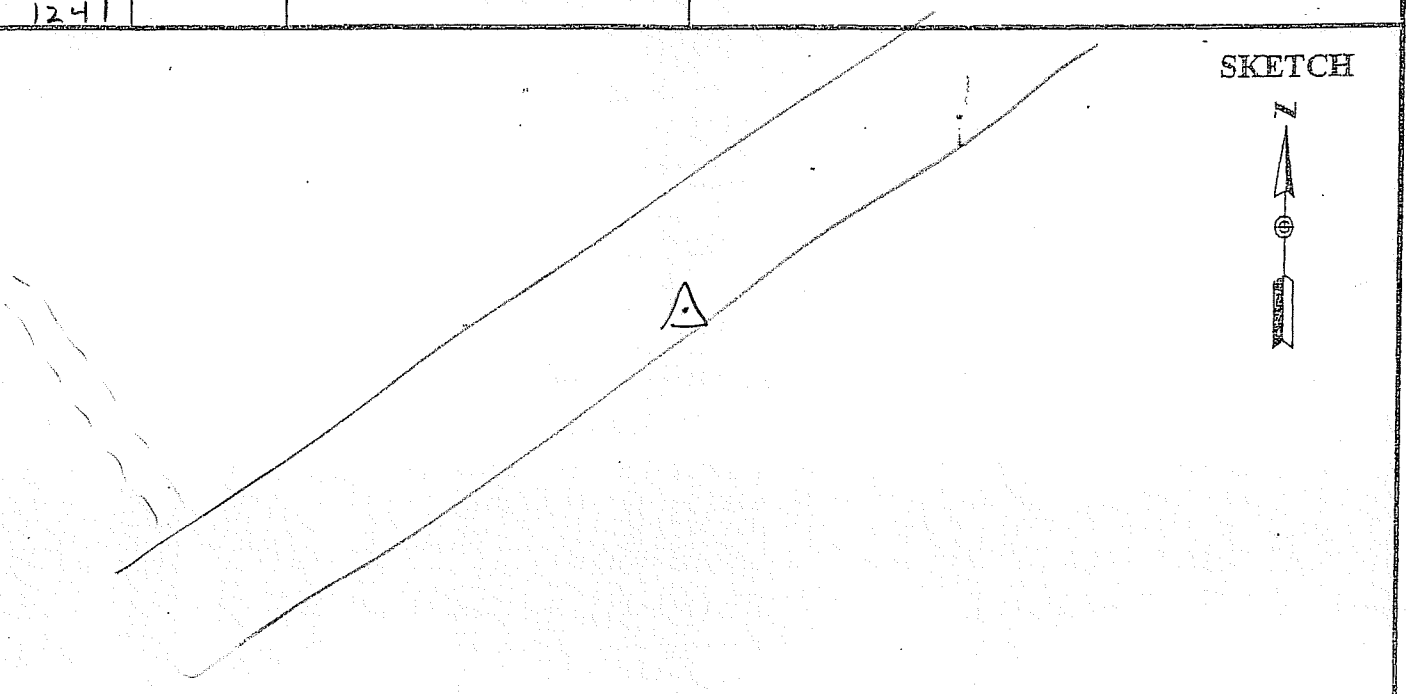
STATION DESCRIPTIONS SE shoulder

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1220	3.0	8/9
1241		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 1-27-11

SITE NUMBER 8
SITE NAME 58

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:48 a.
STOP 12:10 p

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

SENSOR CONSTANT 299/399 0.441
399E/~~9500~~ ~~0.329~~
500 0.360

HEIGHT READINGS MTS FT
1.328
1.688

OBSTRUCTIONS: none

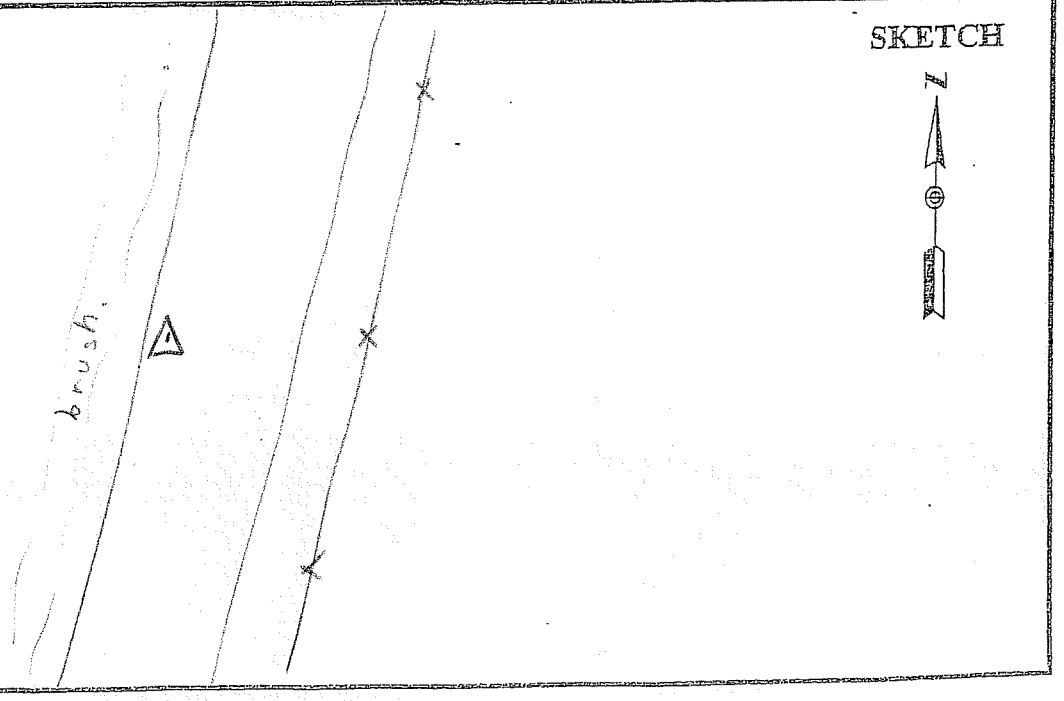
STATION DESCRIPTIONS W. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1248	3.1	9/9
1310		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR NB
DATE 1.27.11

SITE NUMBER 9
SITE NAME 59

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:22 P
STOP 12:42 P

SENSOR TYPE 500 9500 399 299
MEMORY CARD 609
BATTERY NO. CB
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.390
1.750

OBSTRUCTIONS: none

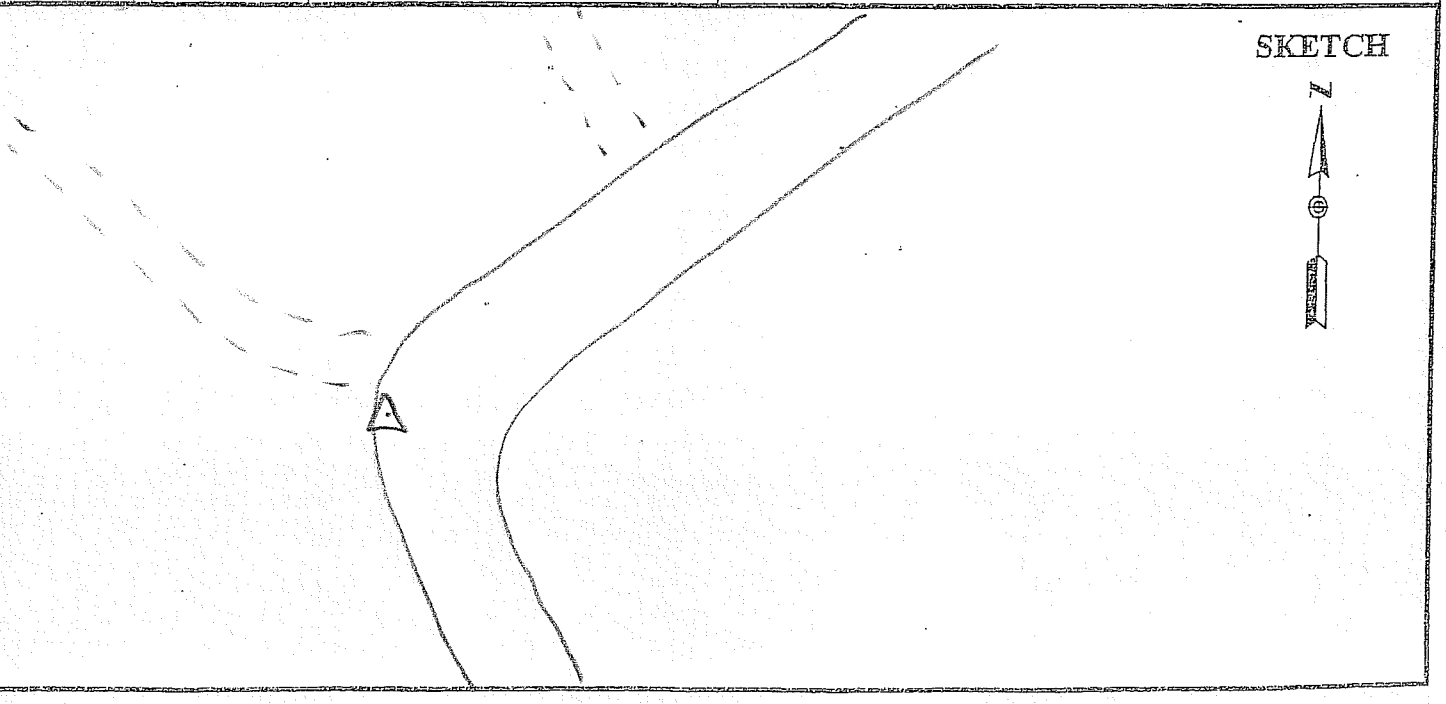
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1322	2.2	7/7
1342		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 1-27-11

SITE NUMBER 10
SITE NAME 60

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:50 p
STOP 1:11 p

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
1.375

STATION DESCRIPTIONS NW side of road

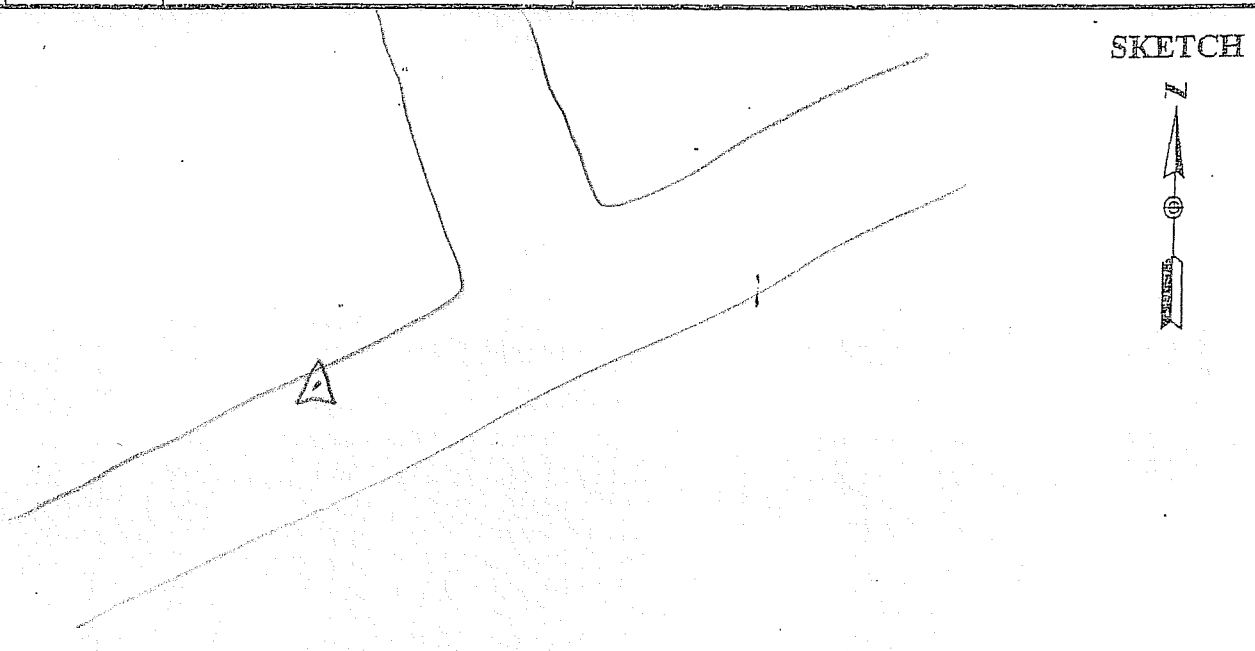
1735

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1350	2.5	6/6
1411		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 1.31.11

SITE NUMBER 1
SITE NAME 13

TRACKING TIMES (LOCAL) MEASURE _____
START 12:09p
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
1.050 _____
1.410

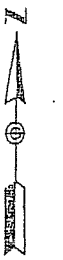
STATION DESCRIPTIONS _____

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1309	3.0	5/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



see previous

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

PROJECT I-10/I-205/Calhoun
OPERATOR MB
DATE 1-11-11

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE /
START 12:32 p
STOP

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:

HEIGHT READINGS MTS FT
.962

STATION DESCRIPTIONS

1328

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
1332	2.3	6/8

SKETCH

see previous

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

PROJECT 1-10 12 05 / Calhoun
OPERATOR MB
DATE 1.31.11

SITE NUMBER 1
SITE NAME A 595

TRACKING TIMES (LOCAL) MEASURE V
START 12:51 p
STOP 1:21 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 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
.912
1.272

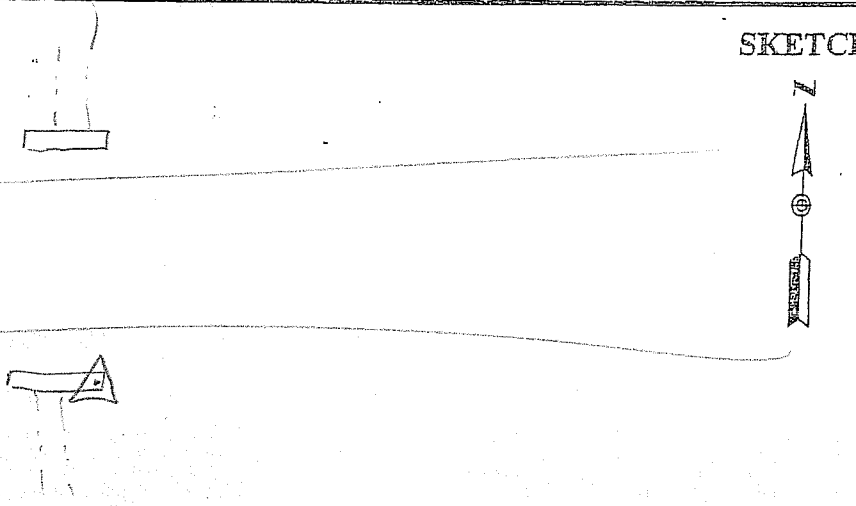
STATION DESCRIPTIONS fnd USC + GS
cap in E. end S headwall
"A 595 1971"

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1351	2.4	6/6
1421		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

VRT

PROJECT 1-101205/ Calhoun
OPERATOR MS
DATE 1.31.11

SITE NUMBER 2
SITE NAME 61

TRACKING TIMES (LOCAL) MEASURE ✓

START ~~1:43 p~~ 1:57 p
STOP ~~2:10 p~~ 2:24 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

~~1.322~~
1.322

1.682
~~1.548~~

OBSTRUCTIONS: none

STATION DESCRIPTIONS Wooded area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
5T1443	1.6	9/11
24 1510		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

1 PT

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 1.31.11

SITE NUMBER 3
SITE NAME 62

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:30 p
STOP 2:55 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
1.302

STATION DESCRIPTIONS NW corner of intersection

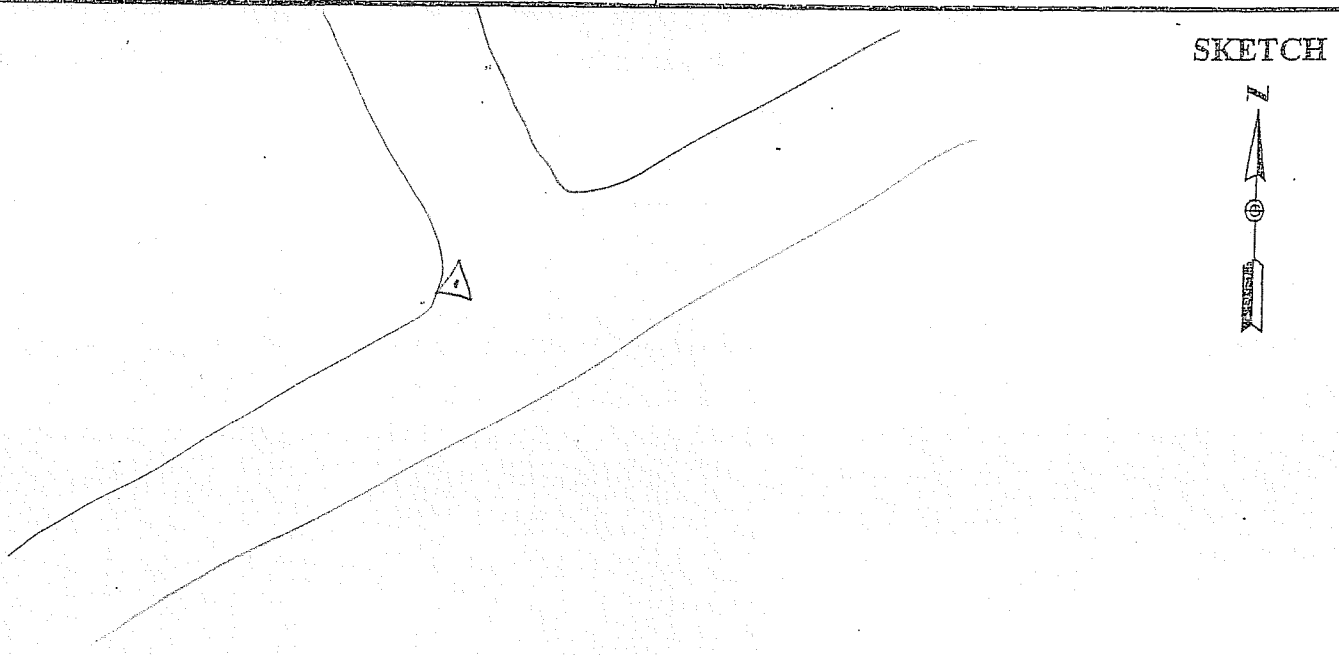
1662

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1530	5.4	5/5
1555		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MS
DATE 1.31.11

SITE NUMBER 4
SITE NAME 63

TRACKING TIMES (LOCAL) MEASURE _____
START 3:00 p
STOP 3:23 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
500 0.360

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.250
1.610

STATION DESCRIPTIONS NW side of road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1600	3.6	6/6
1623		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 2-1-11

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:27a
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
1.014

1.374

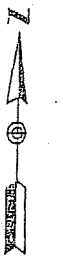
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
927	1.9	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

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

PROJECT 1-101205/Calhoun
OPERATOR MG
DATE 2-1-11

SITE NUMBER 1
SITE NAME 17

TRACKING TIMES (LOCAL) MEASURE ✓
START 8:56 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
.912

STATION DESCRIPTIONS

1.272

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
956	2.7	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.1.11

SITE NUMBER 1
SITE NAME 64

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:23a.
STOP 9:46a.

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
1.107
1.462

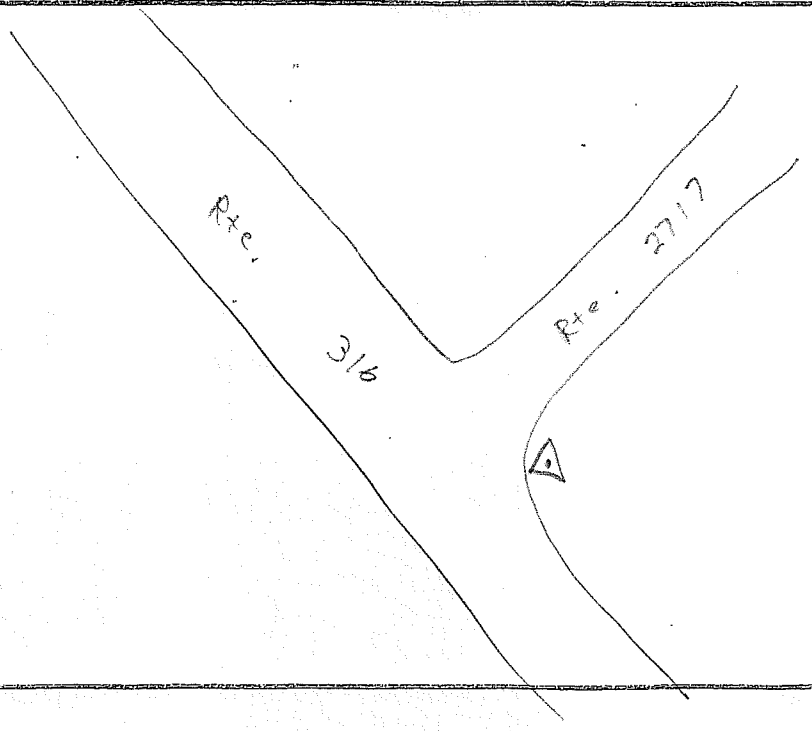
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1023	3.8	6/6
1046		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.1.11

SITE NUMBER 2
SITE NAME 65

TRACKING TIMES (LOCAL) MEASURE 1/
START 10:05 a.
STOP 10:43 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
1.234

STATION DESCRIPTIONS in ranch entrance

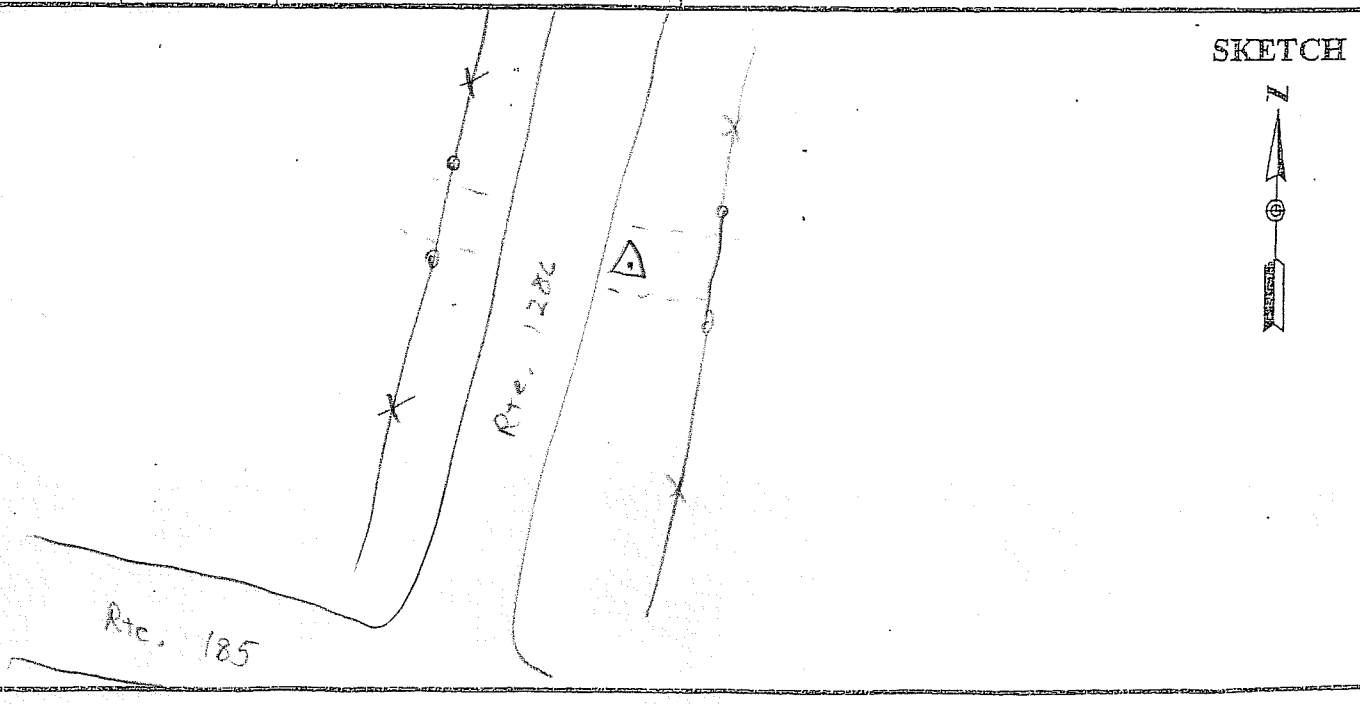
1594

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1105	1.9	9/9
1193		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 2·1·11

SITE NUMBER 3
SITE NAME 66

TRACKING TIMES (LOCAL) MEASURE _____
START 10:50 a.
STOP 11:24 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
1.318 _____

1678

OBSTRUCTIONS: none

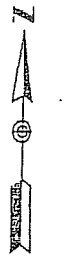
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1150	4.9	9/9
1224		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
4020 TECHNOLOGY PARKWAY
SHEBOYGAN, WISCONSIN 53083 1/07

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2-1-11

SITE NUMBER 4
SITE NAME 67

TRACKING TIMES (LOCAL) MEASURE ✓
START 11:31 a.
STOP 12:00 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
1.298

1658

OBSTRUCTIONS: none

STATION DESCRIPTIONS S. side road -
E. side entrance

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1231	5.0	5/5
1300		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 8 · 1 · 11

SITE NUMBER 5
SITE NAME 68

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:08 p
STOP 12:35 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
1.235

STATION DESCRIPTIONS E. side road
S. side entrance

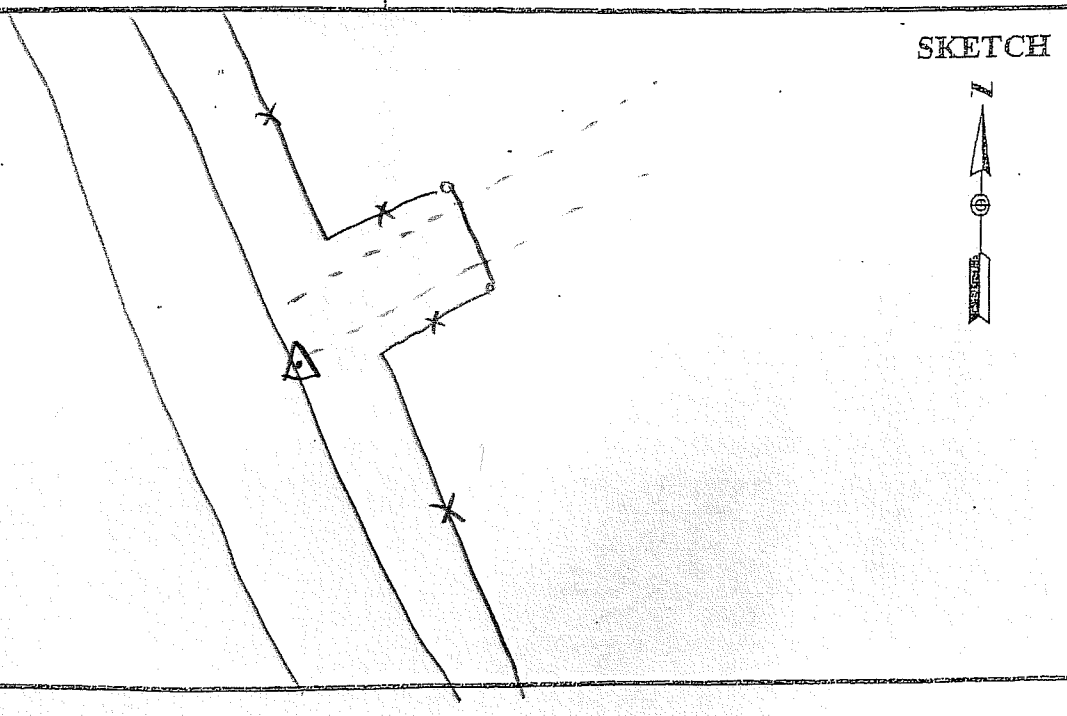
1595

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1308	2.2	7/7
1335		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MD
DATE 2.7/8.11

SITE NUMBER 1
SITE NAME 13

TRACKING TIMES (LOCAL) MEASURE _____
START 5:36p
STOP _____

SENSOR TYPE 500 9500 399 299
MEMORY CARD 204
BATTERY NO. _____
CONTROLLER NO. _____
SENSOR NO. _____

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

OBSTRUCTIONS: _____

HEIGHT READINGS MTS FT
.990 _____

1350

STATION DESCRIPTIONS _____

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1836	2.6	6/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

See previous

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

Base

PROJECT 1-101205/calhoun
OPERATOR MD
DATE 2.8.11

SITE NUMBER 1
SITE NAME 15

TRACKING TIMES (LOCAL) MEASURE ✓
START 7:26 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
1.285
1.645

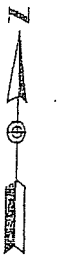
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
826	1.9	9/9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See Revision

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

LOT

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 2.8.10

SITE NUMBER 1
SITE NAME 69

TRACKING TIMES (LOCAL) MEASURE V
START 9:47a
STOP 10:14a

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
1.274
1.634

STATION DESCRIPTIONS center of
2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1047	3.9	4/5
1114		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-101205 / Calhoun
OPERATOR MA
DATE 2.8.18

SITE NUMBER 2
SITE NAME 70

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

OBSTRUCTIONS: none

HEIGHT READINGS MTS FT
1.348

STATION DESCRIPTIONS

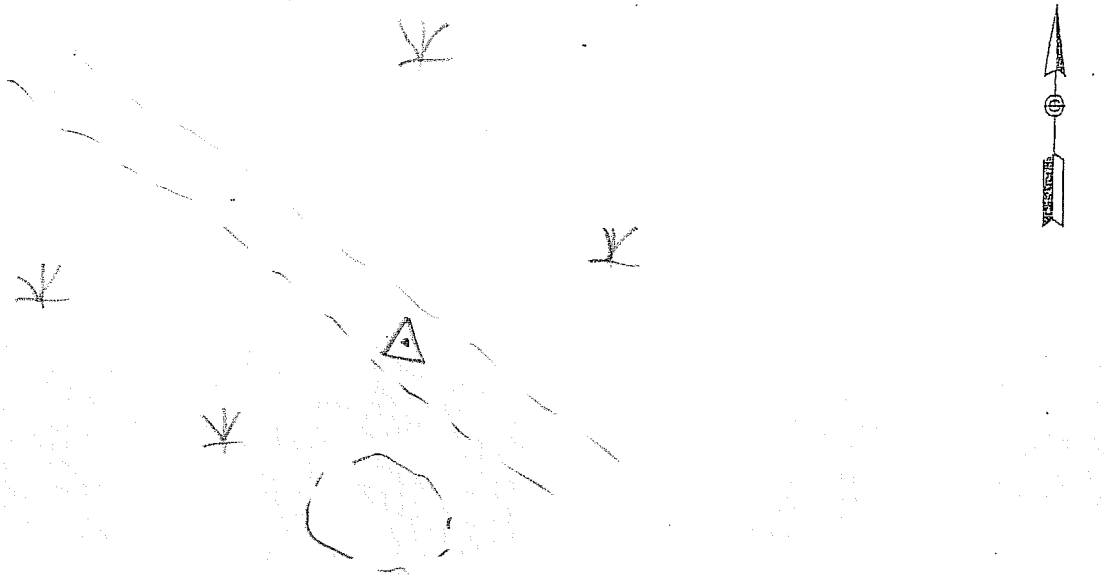
1708

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1125	2.6	7/7
1153		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

√PT

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 2.8.11

SITE NUMBER 3
SITE NAME 71

TRACKING TIMES (LOCAL) MEASURE √
START 11:08 a.
STOP 11:30 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
1.381

1.741

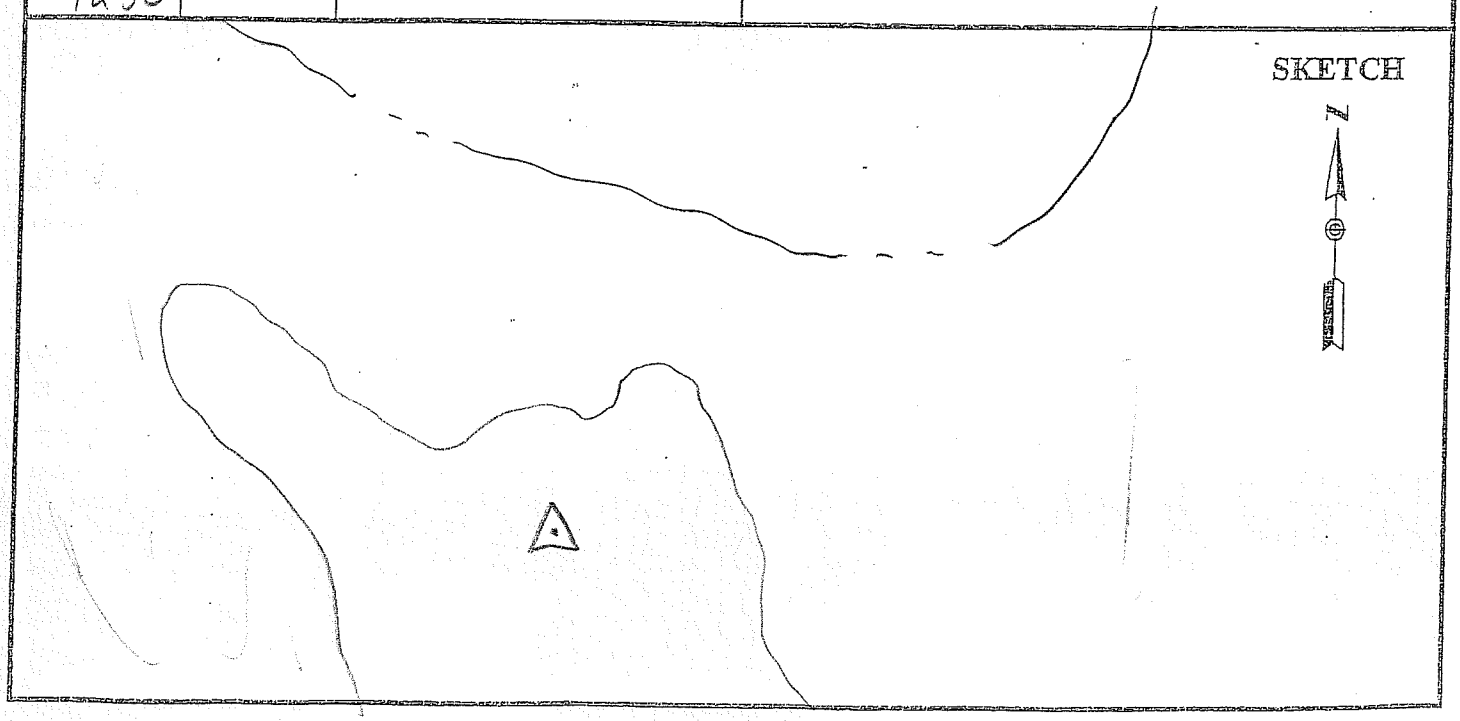
STATION DESCRIPTIONS in open area

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1202	2.0	9/9
1230		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.8.11

SITE NUMBER 4
SITE NAME 72

TRACKING TIMES (LOCAL) MEASURE V
START 11:41a.
STOP 12:13p

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
1.289
1.649

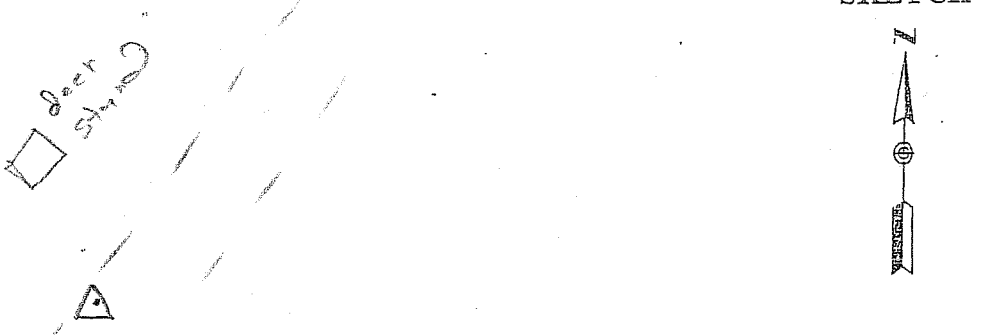
STATION DESCRIPTIONS NW side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1241	1.9	8/8
1313		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 2-8-11

SITE NUMBER 5
SITE NAME 73

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:23p
STOP 12:55p

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
1.326
1.686

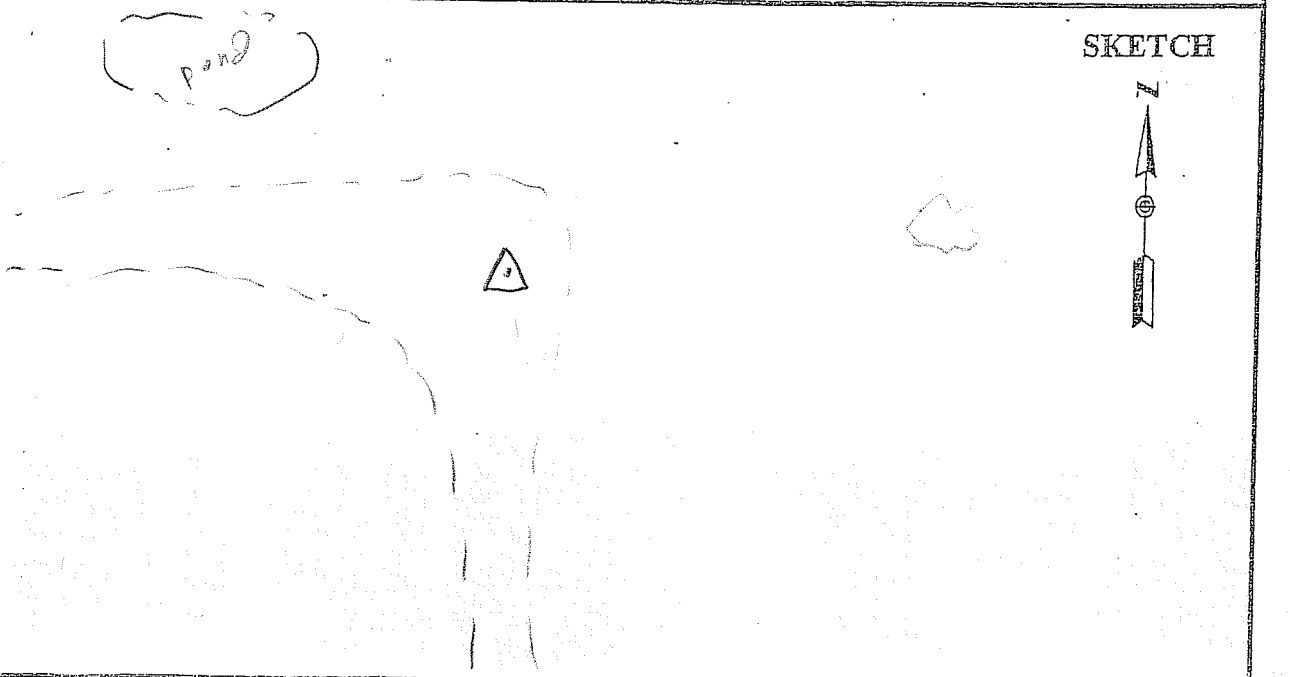
STATION DESCRIPTIONS in need of curve

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1323	2.2	8/8
1355		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

√PT

PROJECT 1-101205/Calhoun
OPERATOR WG
DATE 2.8.11

SITE NUMBER 6
SITE NAME 74

TRACKING TIMES (LOCAL) MEASURE √
START 1:09 p
STOP 1:48 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
1.222
1.582

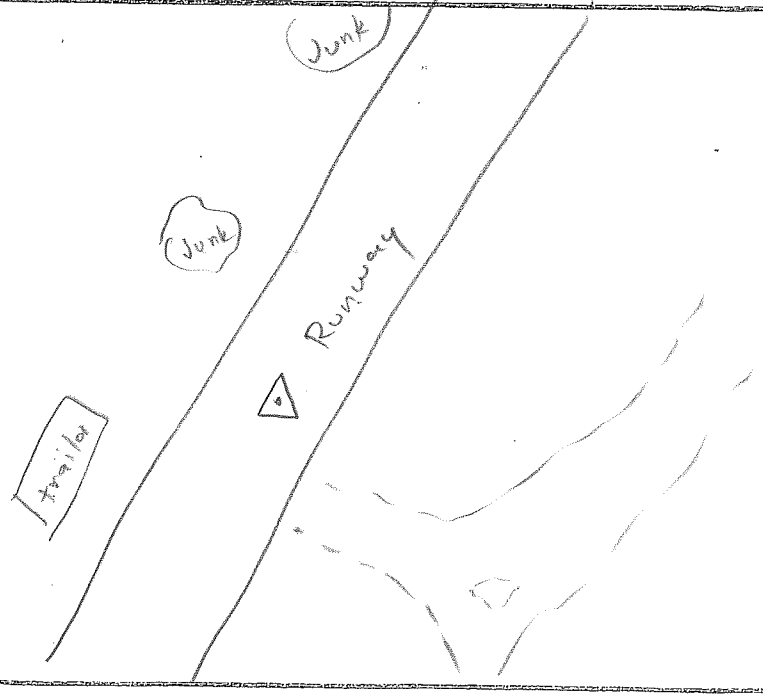
STATION DESCRIPTIONS on runway

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1409	4.6	7/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 2.8.11

SITE NUMBER 7
SITE NAME 75

TRACKING TIMES (LOCAL) MEASURE ✓
START 1:56 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
1.355

1715

OBSTRUCTIONS: none

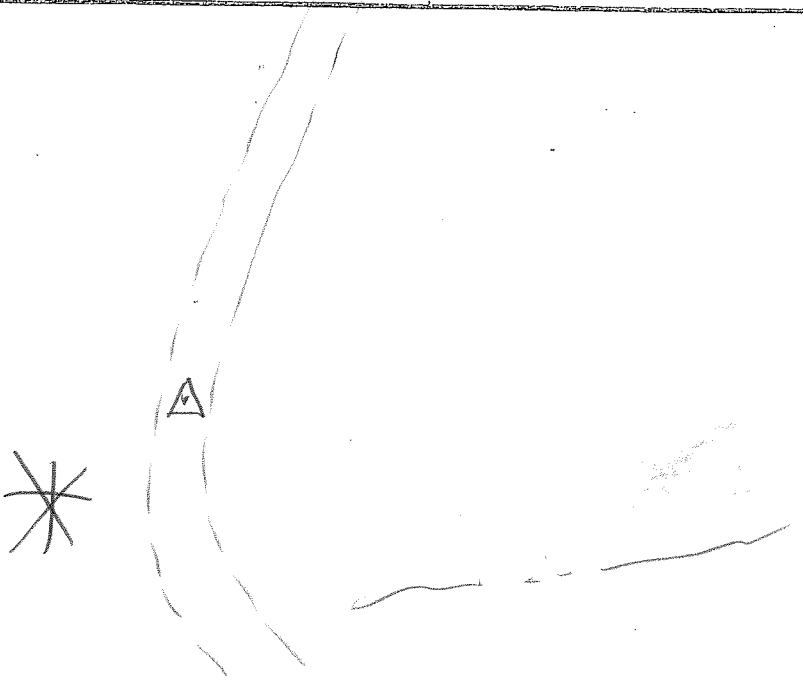
STATION DESCRIPTIONS center of 2 track

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1456	2.1	10/10
1536		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2·9·11

SITE NUMBER 1
SITE NAME LAVAPORT

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:01a
STOP

SENSOR TYPE 500 9500 399 299
MEMORY CARD 781
BATTERY NO. C8
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.227
1.587

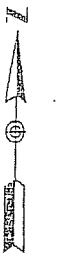
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1001	3.2	8/8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



see previous

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.9.11

SITE NUMBER 1
SITE NAME 17

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:18 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

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
1018	2.6	8/9

SKETCH

See Previous

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

PROJECT 1-101205/Calhoun
OPERATOR MG
DATE 2.9.11

SITE NUMBER 1
SITE NAME 76

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:13a.
STOP 9:33a

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: none

HEIGHT READINGS MTS FT
1.212

STATION DESCRIPTIONS in drive

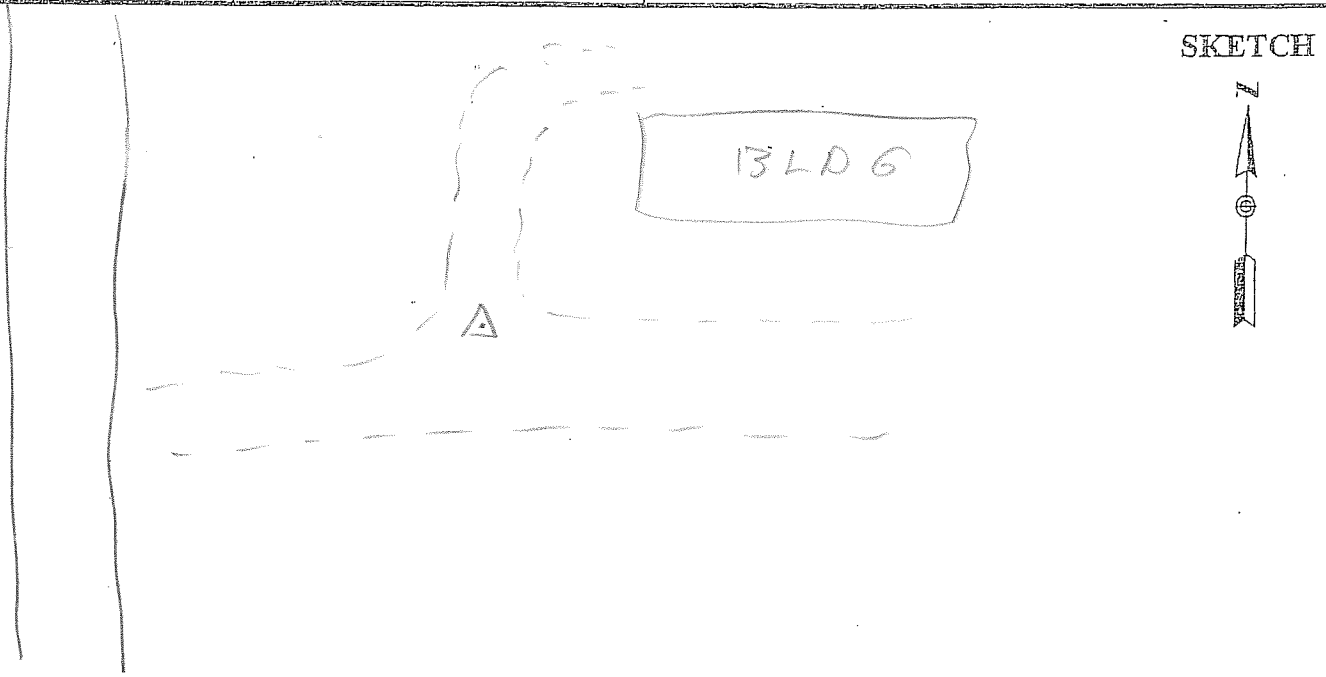
1,572

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1013	4.3	5/5
1033		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT I-101205/Calhoun
OPERATOR NG
DATE 2.9.11

SITE NUMBER 2
SITE NAME 77

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:52 a.
STOP 10:15 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
1.290
1.650

STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1052	2.4	9/9
1115		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH

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

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 2.9.11

SITE NUMBER 3
SITE NAME 78

TRACKING TIMES (LOCAL) MEASURE V
START 10:24 a.
STOP 10:45 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: none

HEIGHT READINGS MTS FT
1.291

STATION DESCRIPTIONS W. side road

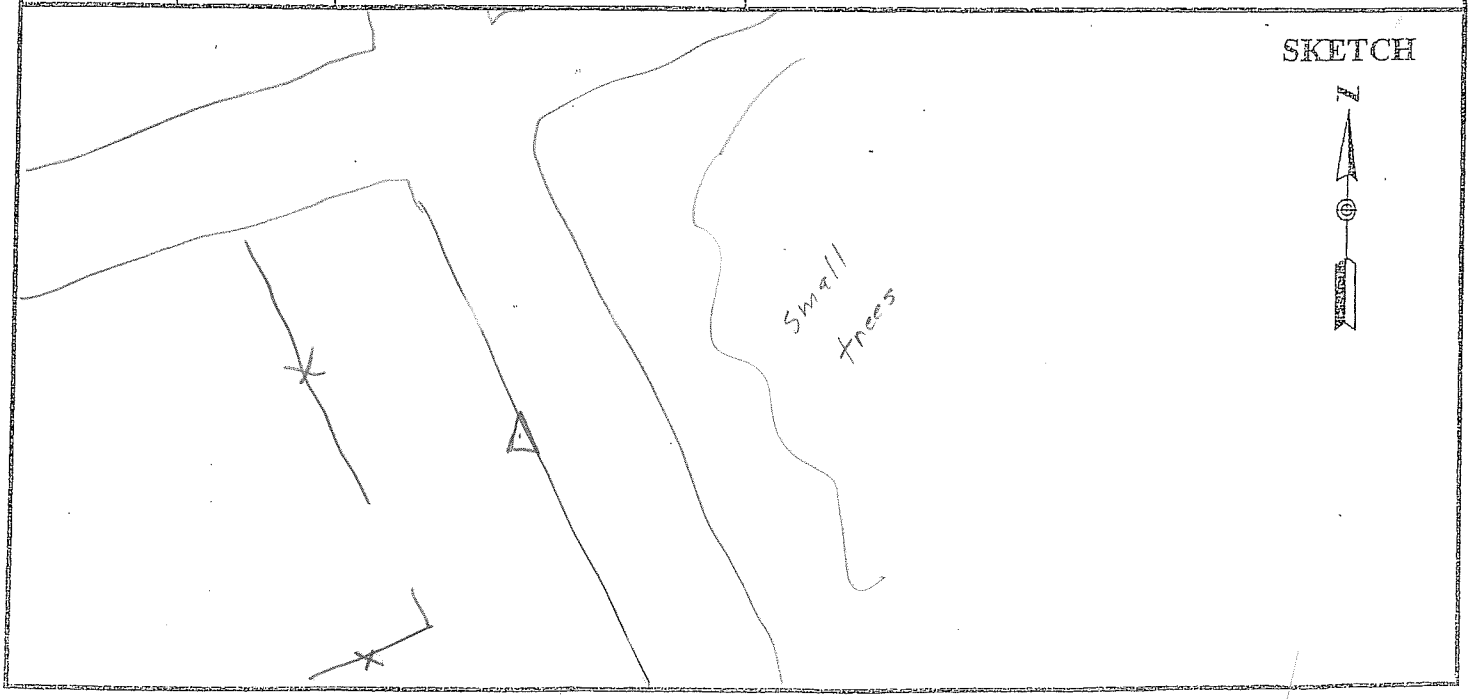
1651

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1124	2.6	9/9
1145		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

VDT

PROJECT 1-101205/Calhoun
OPERATOR NB
DATE 2-9-11

SITE NUMBER 4
SITE NAME 79

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:51
STOP 11:12

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
1.001
1.360

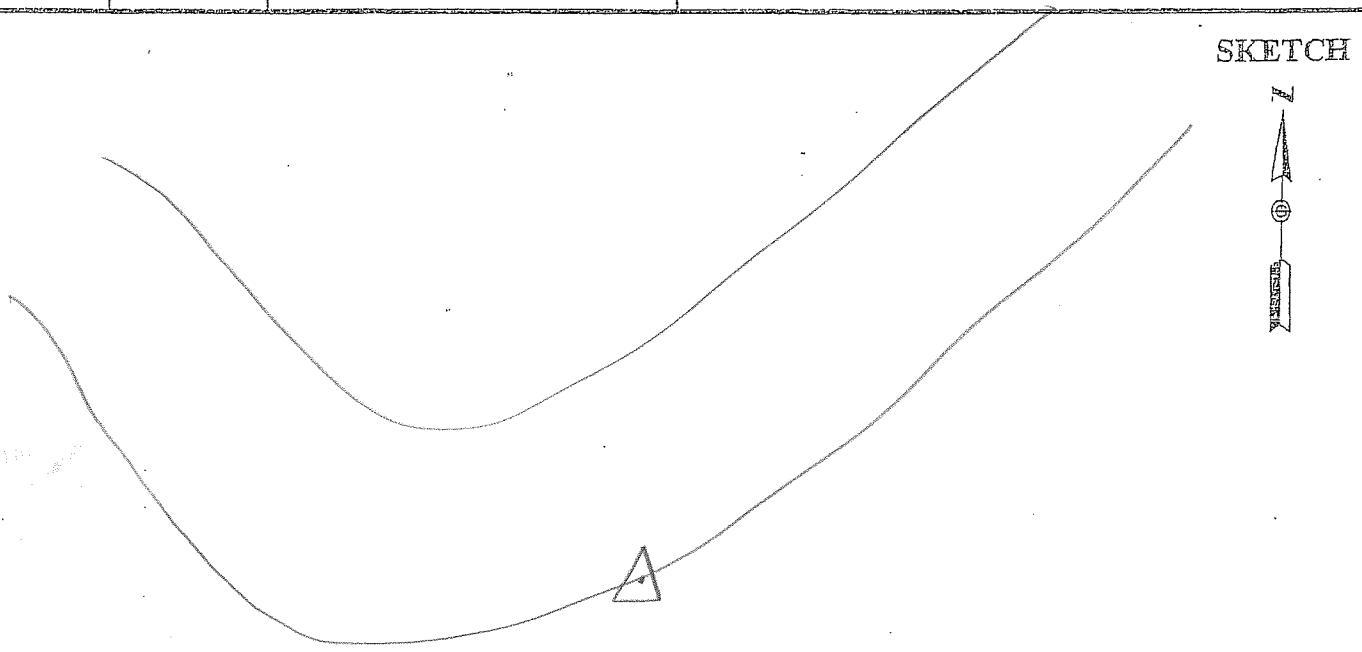
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
8/8	2.8	11 5 1

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

√PT

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2·9·11

SITE NUMBER 5
SITE NAME 80

TRACKING TIMES (LOCAL) MEASURE √
START 11:22 p
STOP 11:45 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
1.204
1.504

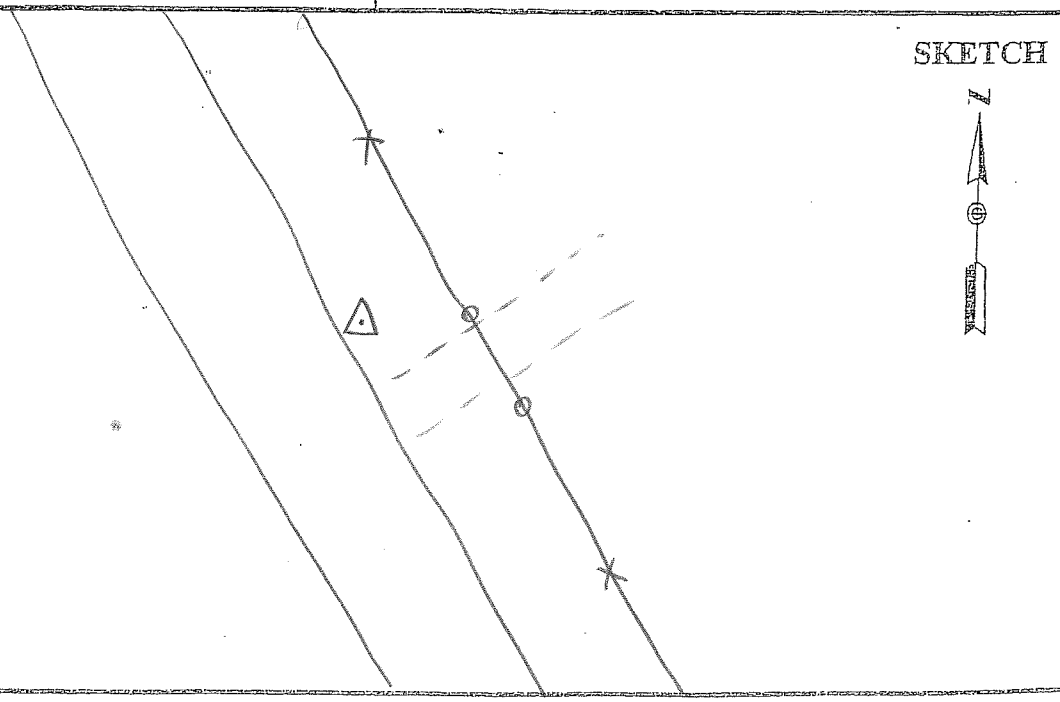
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1222	2.4	6/6
1245		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

VPT

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.9.11

SITE NUMBER 6
SITE NAME 81

TRACKING TIMES (LOCAL) MEASURE _____
START 11:52 a
STOP 12:13 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
1.230
1.590

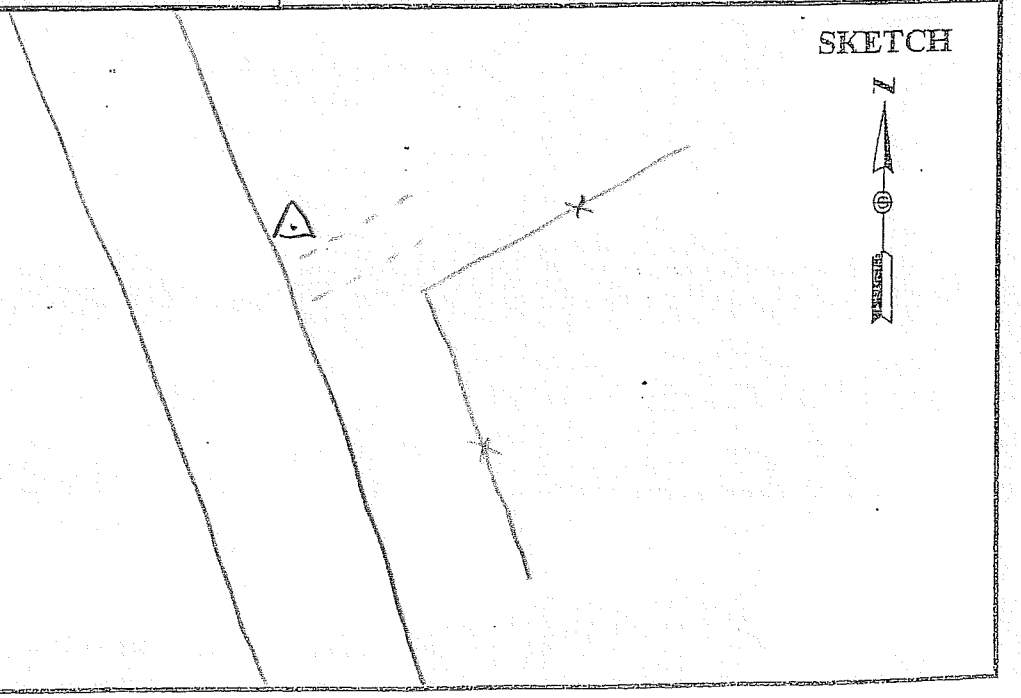
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1252	2.3	7/7
1313		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2·9·11

SITE NUMBER 7
SITE NAME 82

TRACKING TIMES (LOCAL) MEASURE ____
START 12:21 p
STOP 12:45 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
1.220
1.580

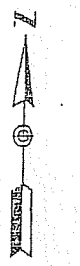
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1321	2.2	8/8
1345		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

√ PT

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.9.11

SITE NUMBER 8
SITE NAME 83

TRACKING TIMES (LOCAL) MEASURE √
START 1:08 p
STOP 1:35 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
1.328
1.688

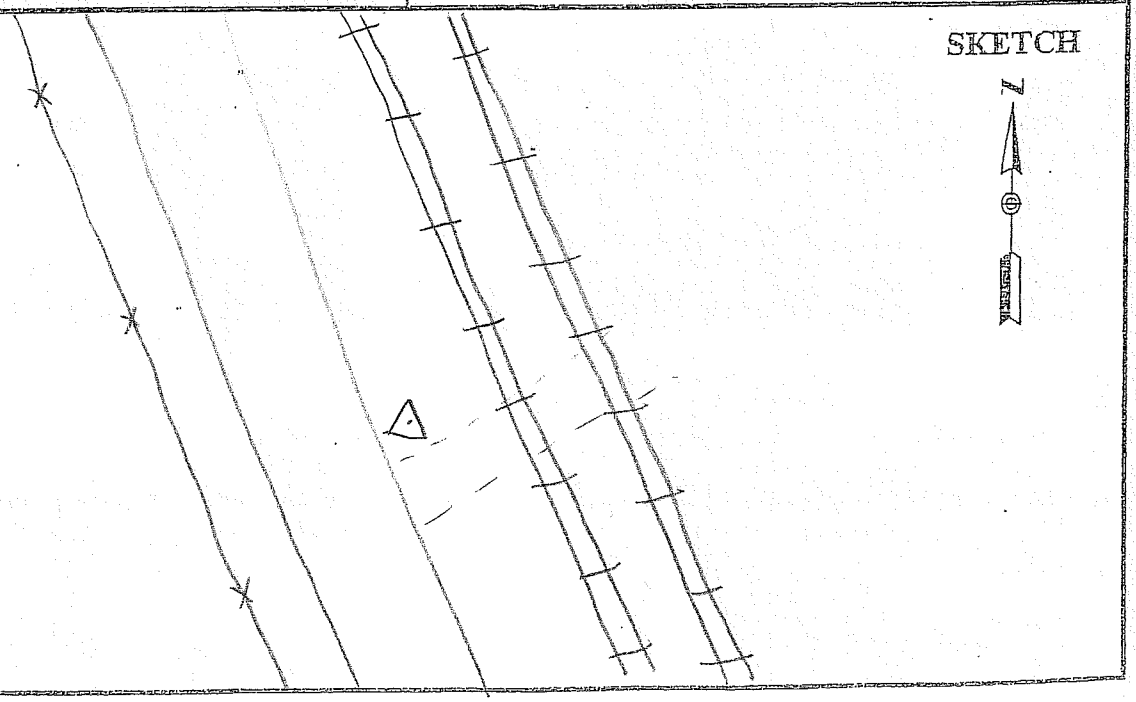
STATION DESCRIPTIONS E. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1408	3.7	8/9
1435		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.9.11

SITE NUMBER 9
SITE NAME 84

TRACKING TIMES (LOCAL) MEASURE V
START 1:41 P
STOP 2:04 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: None

HEIGHT READINGS MTS FT
1.333
1.693

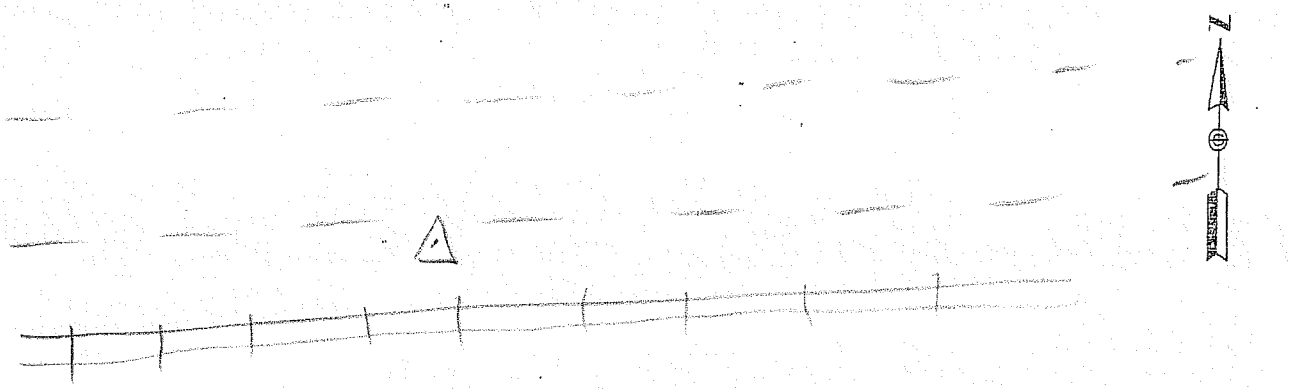
STATION DESCRIPTIONS S. side road

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1441	2.2	10/10
1504		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR MB
DATE 2-9-11

SITE NUMBER 10
SITE NAME 85

TRACKING TIMES (LOCAL) MEASURE √
START 2:09 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:

HEIGHT READINGS MTS FT
1.337
1.697

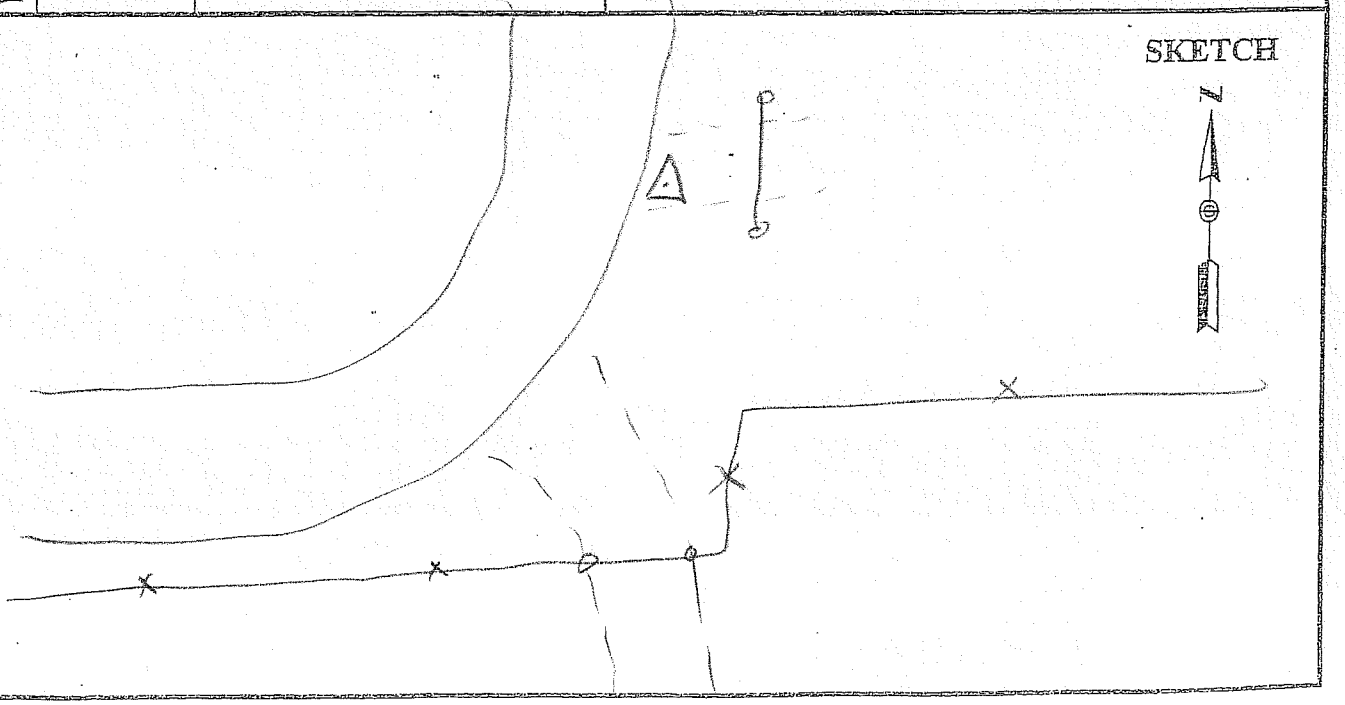
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1509	2.7	9/9
1532		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

✓ PT

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 2.9.11

SITE NUMBER 11
SITE NAME 86

TRACKING TIMES (LOCAL) MEASURE ✓
START 2:47 p
STOP 3:07 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
1.334
1.694

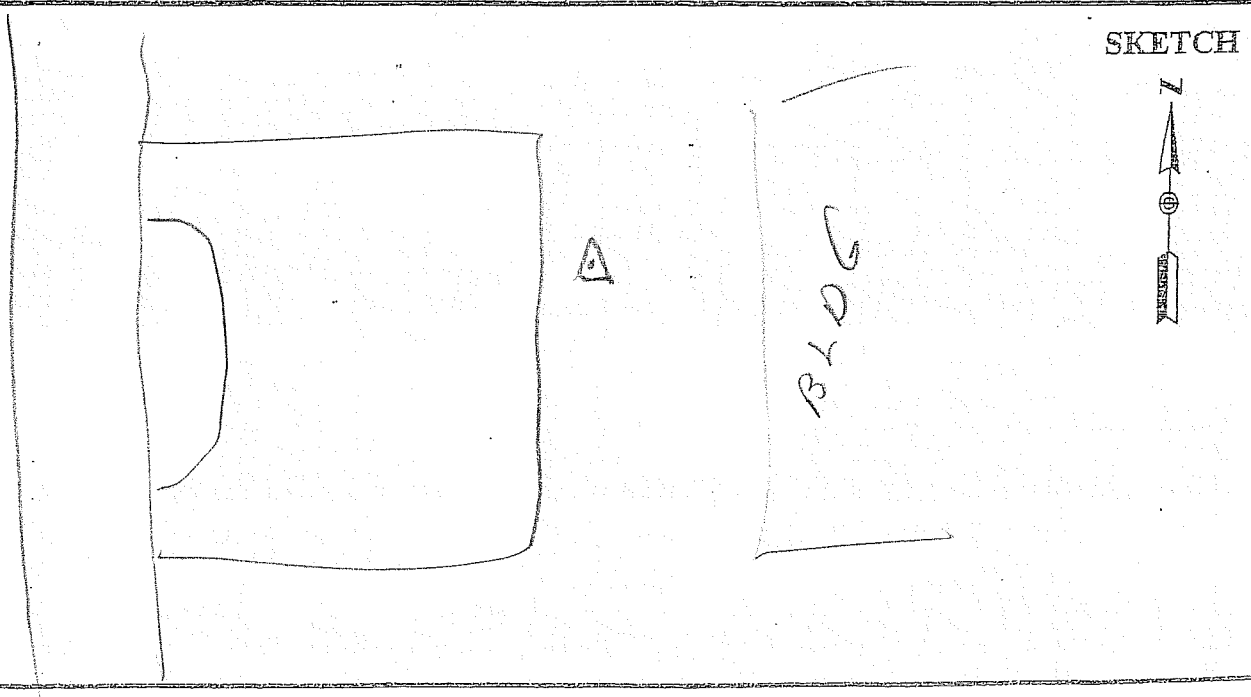
STATION DESCRIPTIONS E side parking lot

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

TIME	GDOP	SATELLITES
1547	2.3	9/9
1607		

SKETCH



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

PROJECT 1-101205/Calhoun
OPERATOR NMB
DATE 2-12-11

SITE NUMBER 2
SITE NAME A 1257

TRACKING TIMES (LOCAL) MEASURE ✓
START 12:04 p
STOP 12:31 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: sm. trees

HEIGHT READINGS MTS FT
1.378
1738

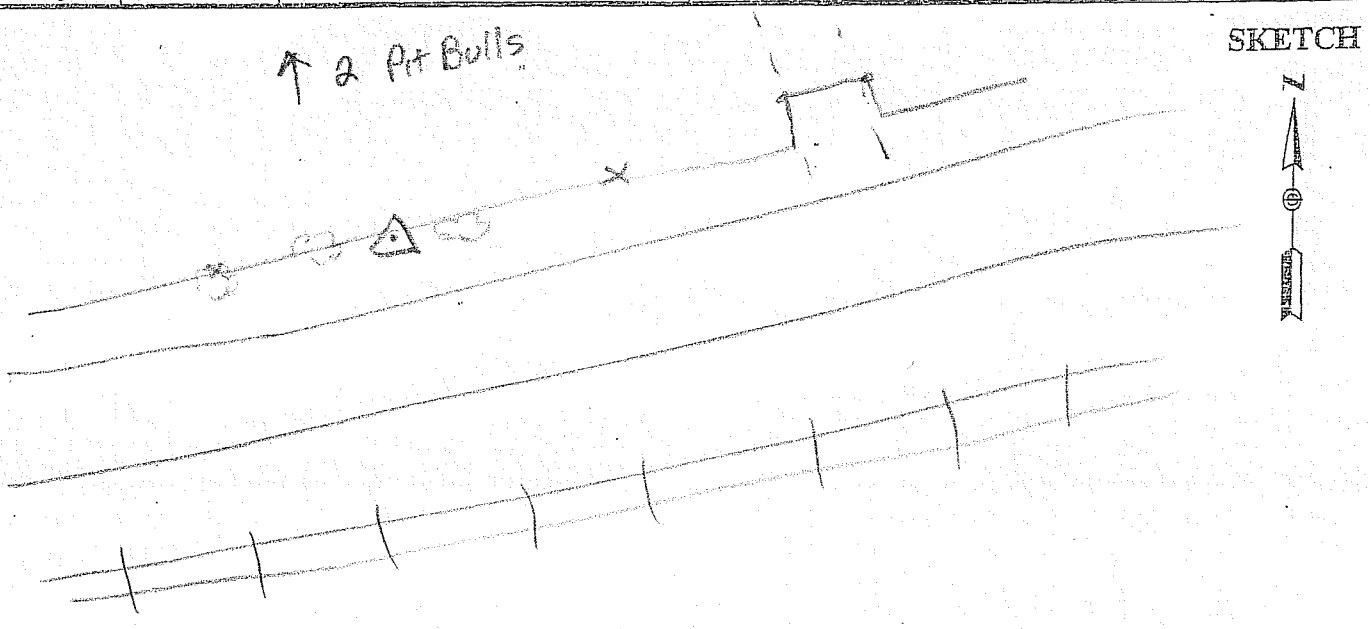
STATION DESCRIPTIONS cap in PVC pipe

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1304	2.6	6/6
1331		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

PROJECT 1-10205/Calhoun
OPERATOR MO
DATE 2.12.11

SITE NUMBER 1
SITE NAME 100

TRACKING TIMES (LOCAL) MEASURE ✓
START 9:52 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
1.265
1.625

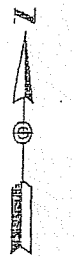
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1052	3.0	6/6

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



See previous

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

PROJECT 1-10 1205 / Calhoun
OPERATOR MB
DATE 2.12.11

SITE NUMBER 1
SITE NAME LAVA PONT

TRACKING TIMES (LOCAL) MEASURE ✓
START 10:18 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
~~500~~ ~~0.389~~ 0.360

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.399
1.759

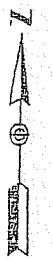
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1118	2.5	6/7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



see previous

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

PROJECT 1-101205 / Calhoun
OPERATOR MB
DATE 8.12.11

SITE NUMBER 1
SITE NAME E 1258

TRACKING TIMES (LOCAL) MEASURE _____
START 11:09 a
STOP 11:44 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
1.119

STATION DESCRIPTIONS fnd cap in tube w/screw top

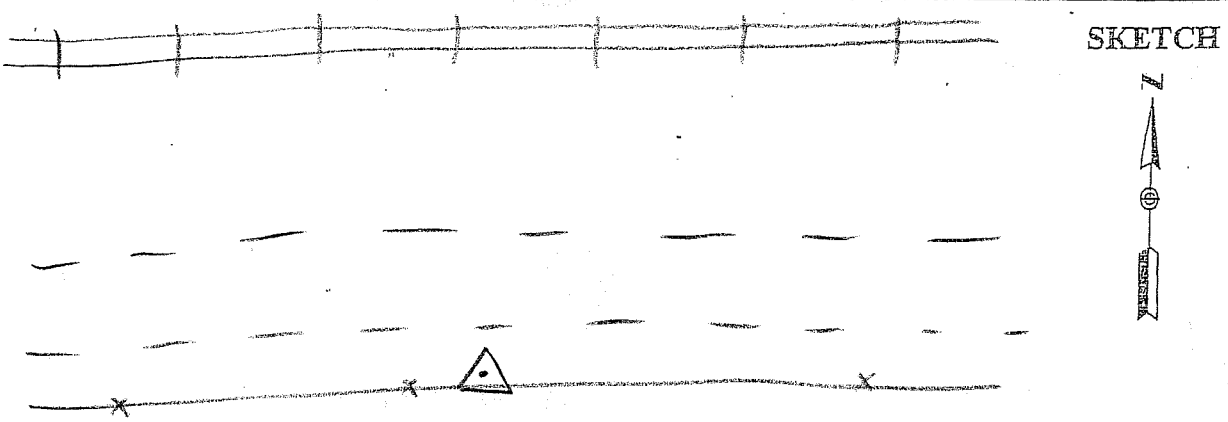
1.479

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1209	2.6	7/7
1244		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



CALHOUN

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

IN LONG GRASS 2 BASE

PROJECT 110205
OPERATOR WJN
DATE 05/19/11

SITE NUMBER 1
SITE NAME 87

TRACKING TIMES (LOCAL) MEASURE CDT
START 13:20
STOP 17:01

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 67
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.301
1.651

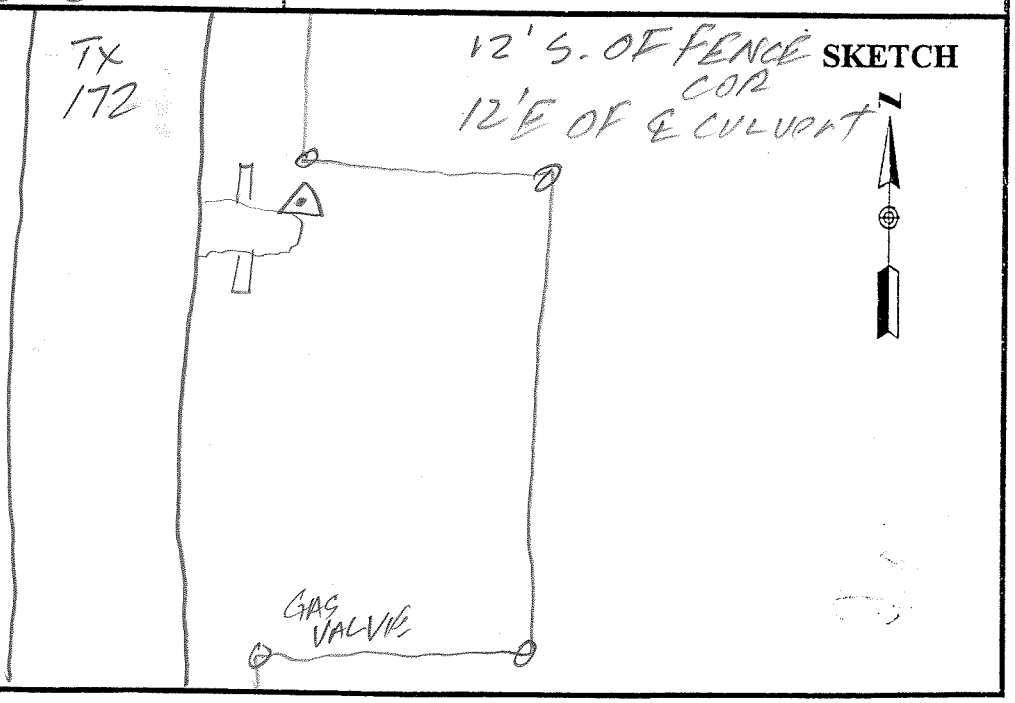
STATION DESCRIPTIONS Set 7"
SPIKE

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
18:20	1.9	9/9-9
22:01	2.0	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC WINDY

SKETCH



18 4

CALHOUN

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

SHORT GRASS 1

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 1
SITE NAME 38

TRACKING TIMES (LOCAL) MEASURE CDT
START 13:30
STOP 13:52

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.292
1.642

OBSTRUCTIONS: OPL NW

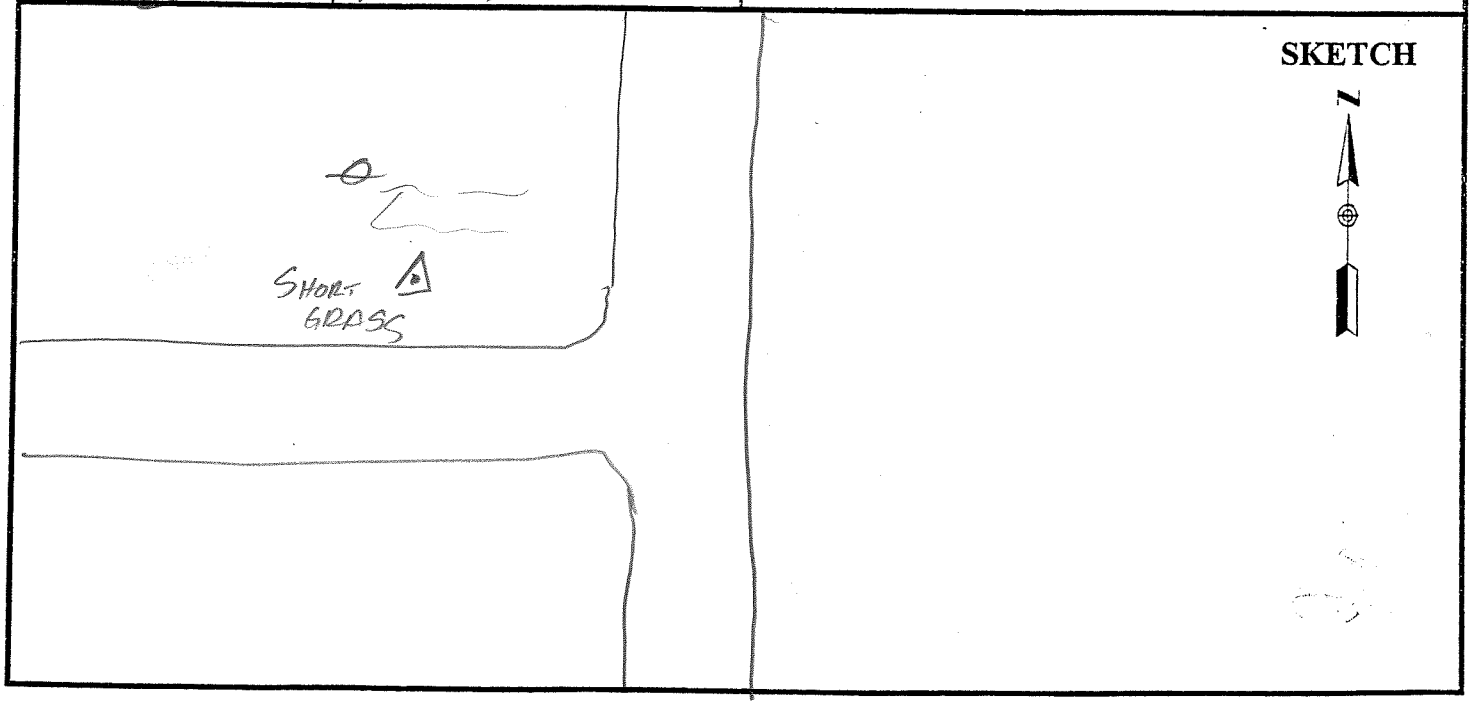
STATION DESCRIPTIONS POINT IN SHORT GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
18:30	1.9	9/9-9
18:52	2.3	7/7-7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



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

SL1
SHORT GRASS

PROJECT 101205
OPERATOR WW
DATE 5/19/11

SITE NUMBER 2
SITE NAME 89

TRACKING TIMES (LOCAL) MEASURE CDT
START 13:57
STOP 14:19

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

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

OBSTRUCTIONS: TREES S.

HEIGHT READINGS MTS FT
1.345
1.705

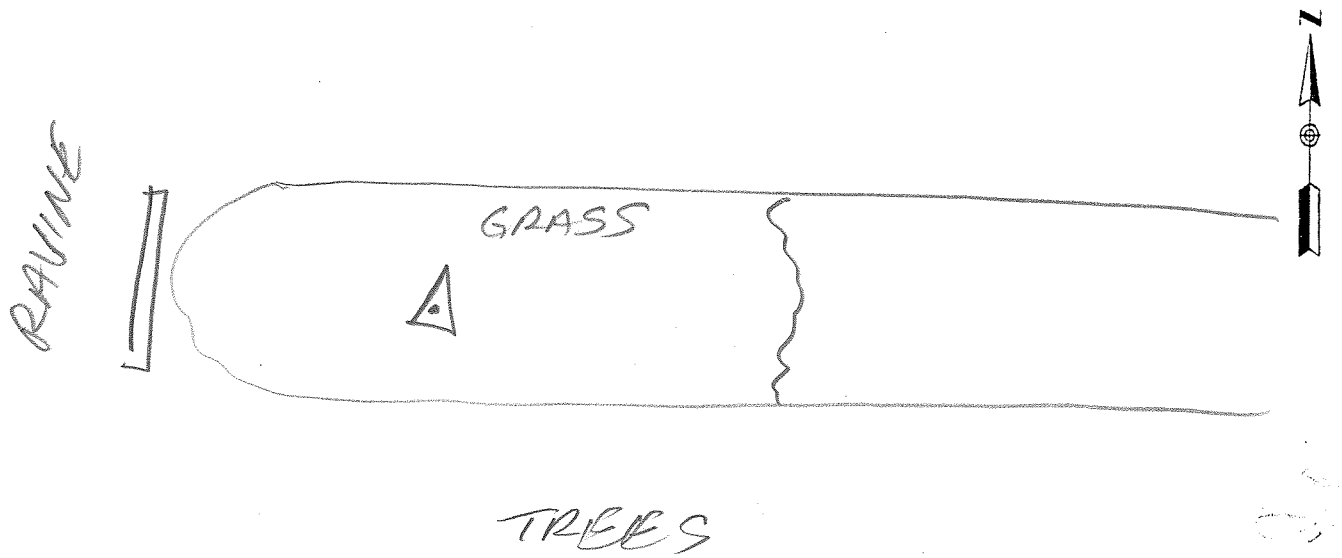
STATION DESCRIPTIONS POINT IN GRASS AREA BEYOND END OF RD.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
18:57	2.3	7/7-7
19:19	2.1	8/9-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



CALHOUN

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

LONG 2 GRASS

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 3
SITE NAME 90

TRACKING TIMES (LOCAL) MEASURE CDT
START 14:26
STOP 14:52

SENSOR TYPE (500) 9500 399 299
MEMORY CARD
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: NO

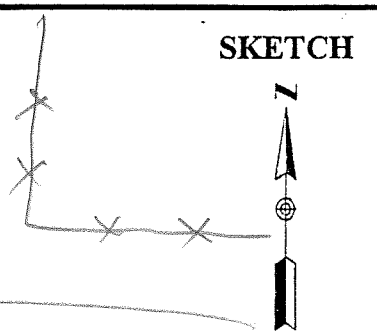
STATION DESCRIPTIONS POINT IN N/R/W LINE OF E-W RD IN LONG GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
19:26	2.0	9/9-9
19:52	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC WINDY

SKETCH



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

CALHOUN

LONG GRASS 2

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 4
SITE NAME 91

TRACKING TIMES (LOCAL) MEASURE CDT
START 14:58
STOP 15:20

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

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.315
1.675

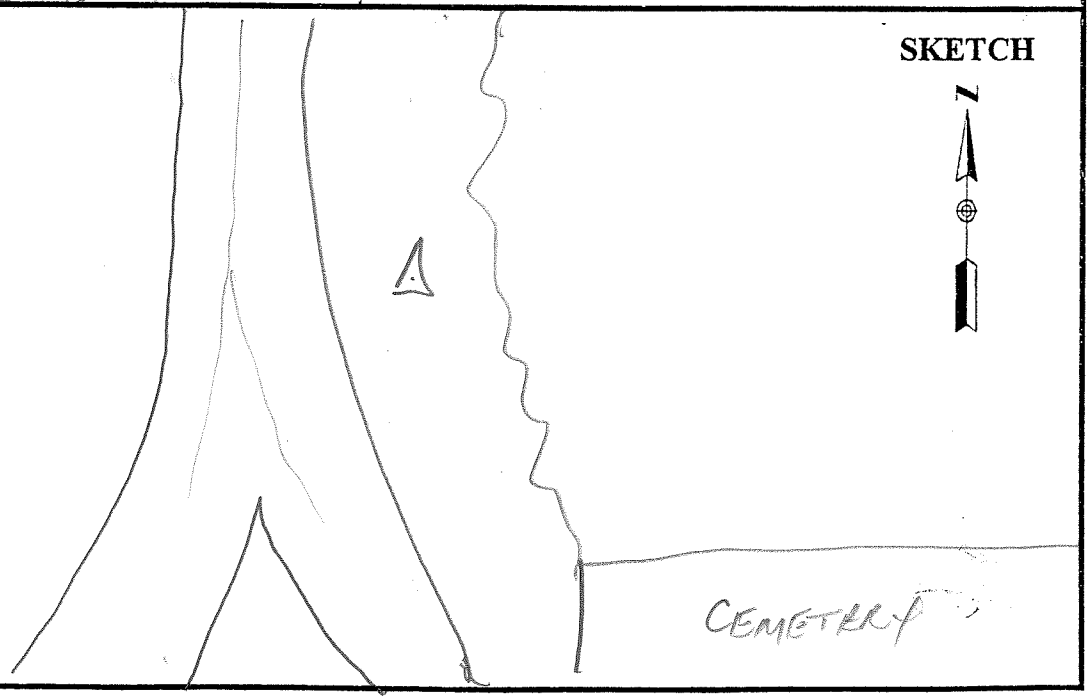
STATION DESCRIPTIONS POINT IN LONG GRASS IN R/W

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14:58	2.2	9/9-9
20:20	2.4	8/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



CALHOUN

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

1 SHORT GRASS

PROJECT 110205
OPERATOR WNN
DATE 5/19/11

SITE NUMBER 5
SITE NAME 92

TRACKING TIMES (LOCAL) MEASURE CDT
START 14:25
STOP 14:47

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.257
1.617

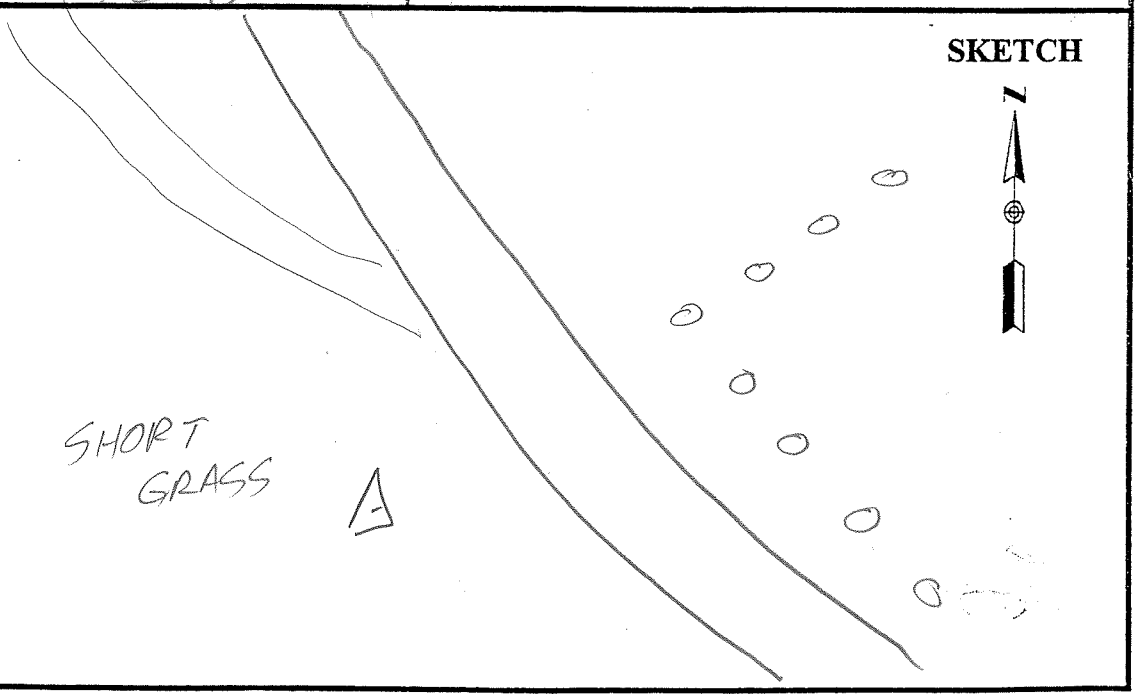
STATION DESCRIPTIONS POINT IN SHORT GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
19:25	2.2	8/9-9
19:47	2.2	8/9-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC Very Windy

SKETCH



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

CALHOUN

LONG GRASS 2

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 6
SITE NAME 93

TRACKING TIMES (LOCAL) MEASURE CDT
START 15:57
STOP 16:22

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

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

OBSTRUCTIONS: PPL E

HEIGHT READINGS MTS FT
1.297
1.657

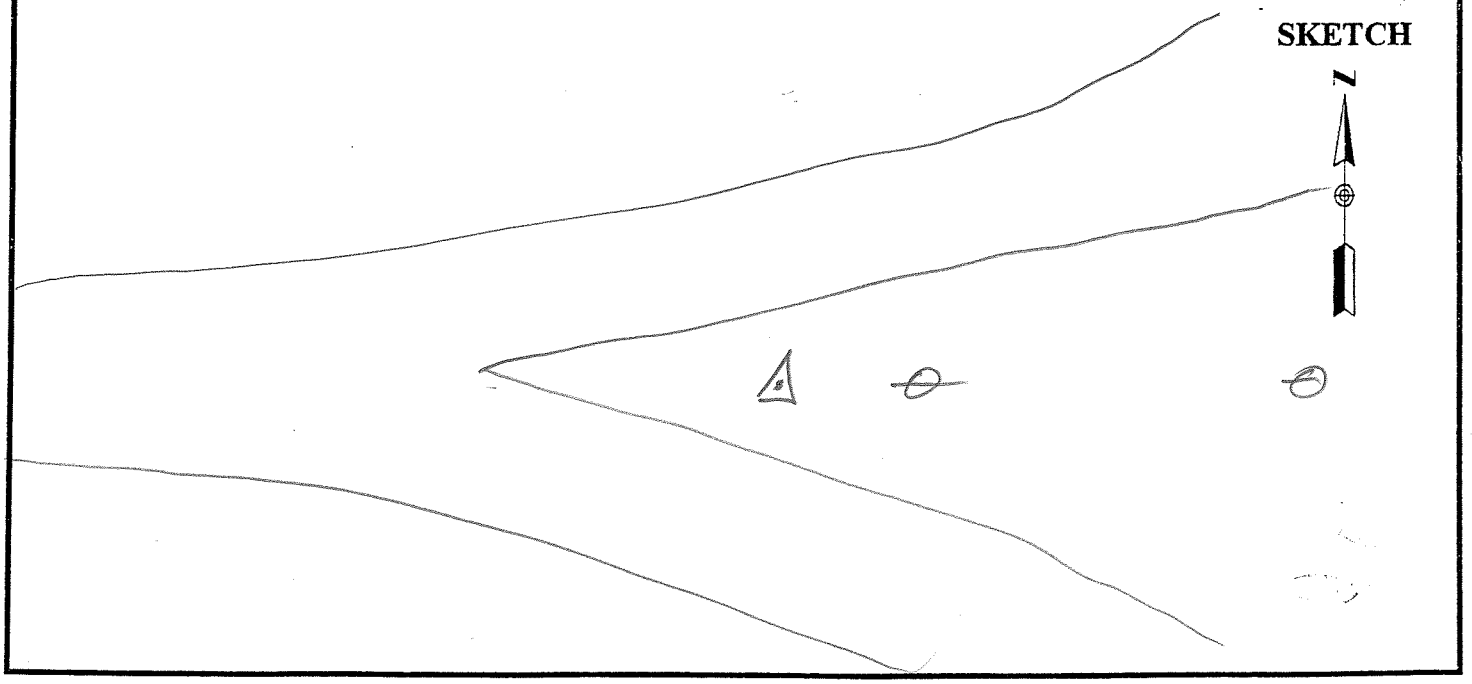
STATION DESCRIPTIONS POINT IN VACANT AREA 25' W OF PPL, IN LINE.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
20:57	2.7	9/9-9
21:22	2.3	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC Very Windy

SKETCH



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

LONG GRASS 2

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 7
SITE NAME 94

TRACKING TIMES (LOCAL) MEASURE CDT
START 16:35
STOP 16:55

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.325
1.685

OBSTRUCTIONS: NO

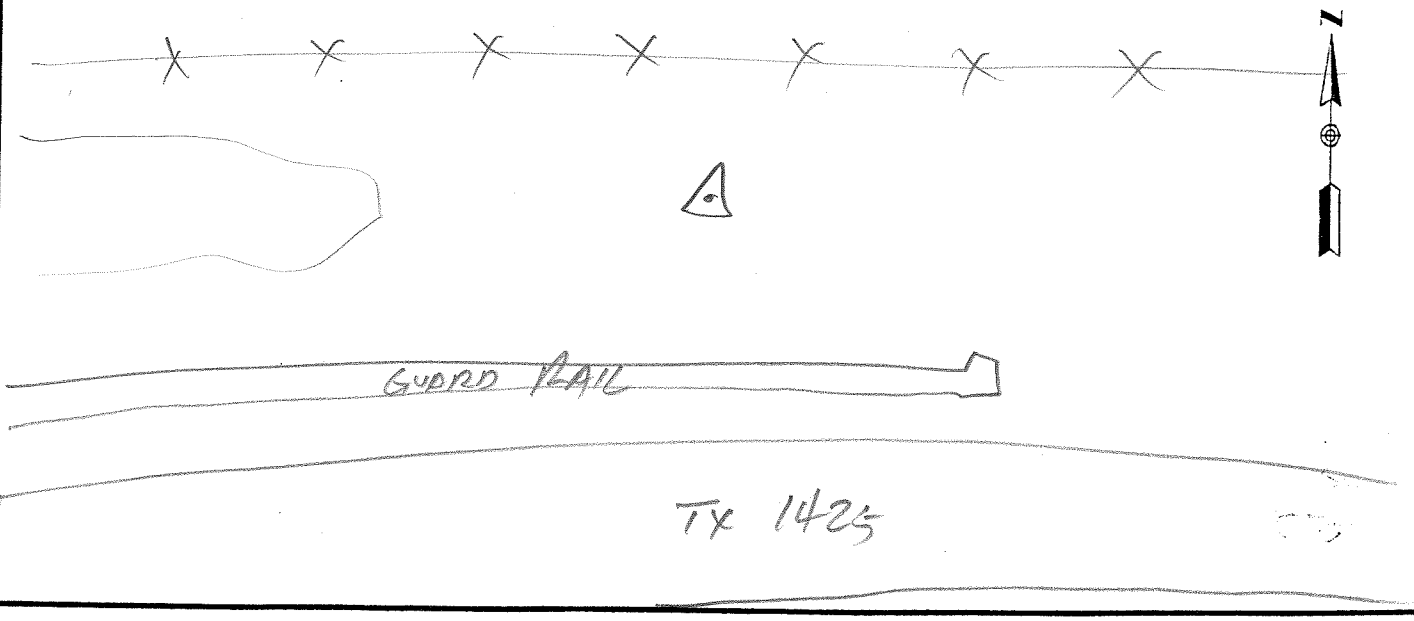
STATION DESCRIPTIONS POINT IN LONG GRASS BETWEEN GUARD RAIL AND R/W FENCE

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
21:35	2.3	9/9-10
21:55	2.2	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC WINDY

SKETCH



18 4

CALHOUN

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

BASE

PROJECT 110205
OPERATOR WJN
DATE 5/20/11

SITE NUMBER 1
SITE NAME 17

TRACKING TIMES (LOCAL) MEASURE CDT
START 8:27
STOP 15:37

SENSOR TYPE 500 9500 (399) 299
MEMORY CARD 67
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: No

HEIGHT READINGS MTS FT
1.200
1.550

STATION DESCRIPTIONS Fd Small nail Set 12/10/11 By MB

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
13:27	2.7	9/9-9
20:37	2.2	9/9-10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH

Set 12/10/11
As Described

N

13 8

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

CALHOUN 2

PROJECT 1101205
OPERATOR WN
DATE 5/20/11

SITE NUMBER 1
SITE NAME 95

TRACKING TIMES (LOCAL) MEASURE CDT
START 8:32
STOP 9:49

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.259
1.619

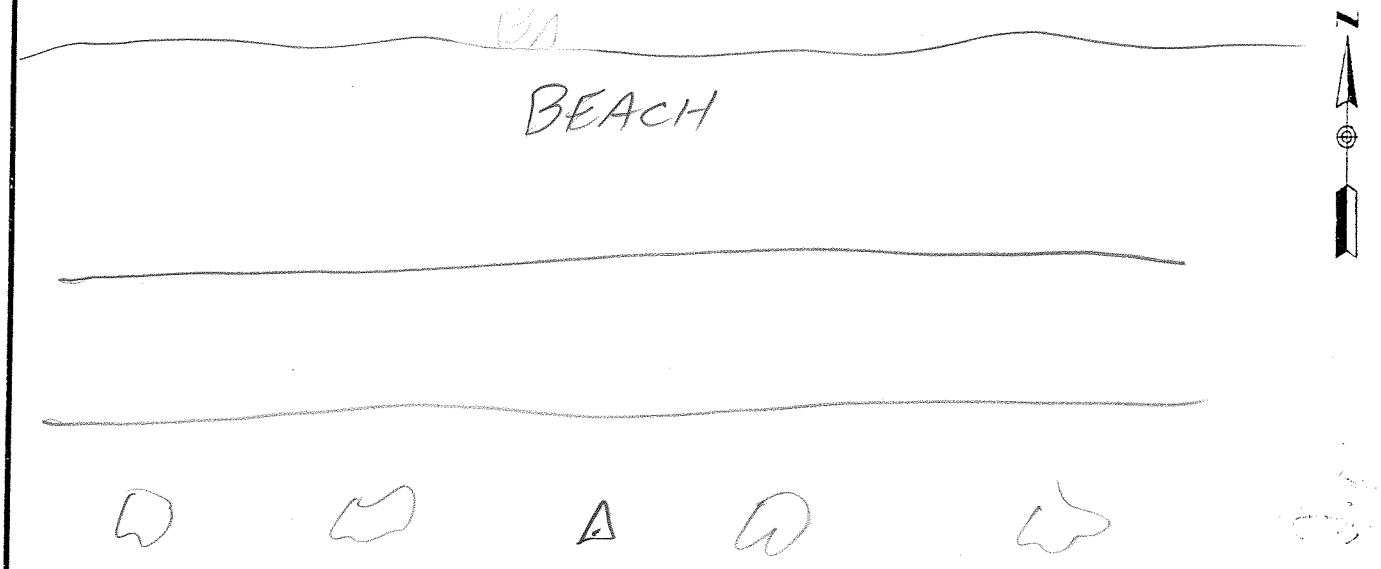
STATION DESCRIPTIONS POINT IN LONG GRASS ± 25' South OF S. EDGE RD

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
13:32	2.7	9/9-9
13:49	2.3	10/10-10

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



CALHOUN

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

PROJECT 110205
OPERATOR WKW
DATE 5/19/11

SITE NUMBER 2
SITE NAME 96

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:02
STOP 9:19

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.261
1.621

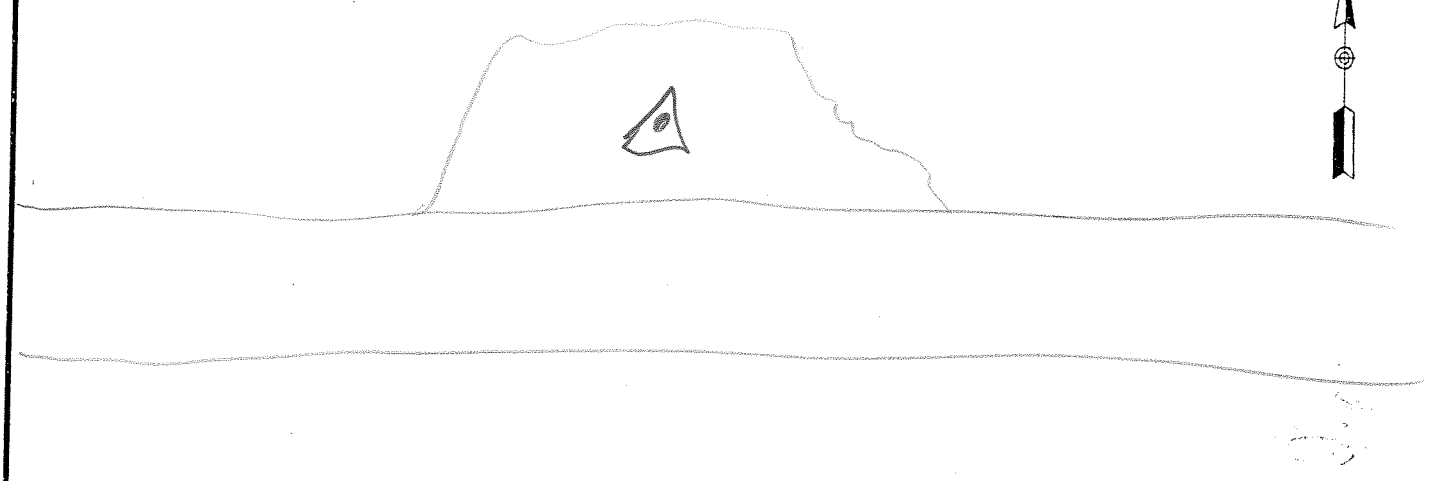
STATION DESCRIPTIONS CENTER OF BARE/SPARSE GRASS AREA N. OF E-W RD

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
9:02	2.3	9/9-9
9:19	2.1	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



CALHOUN

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

2

PROJECT 1101205
OPERATOR WJN
DATE 5/20/11

SITE NUMBER 3
SITE NAME 97

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:27
STOP 9:47

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.265
1.625

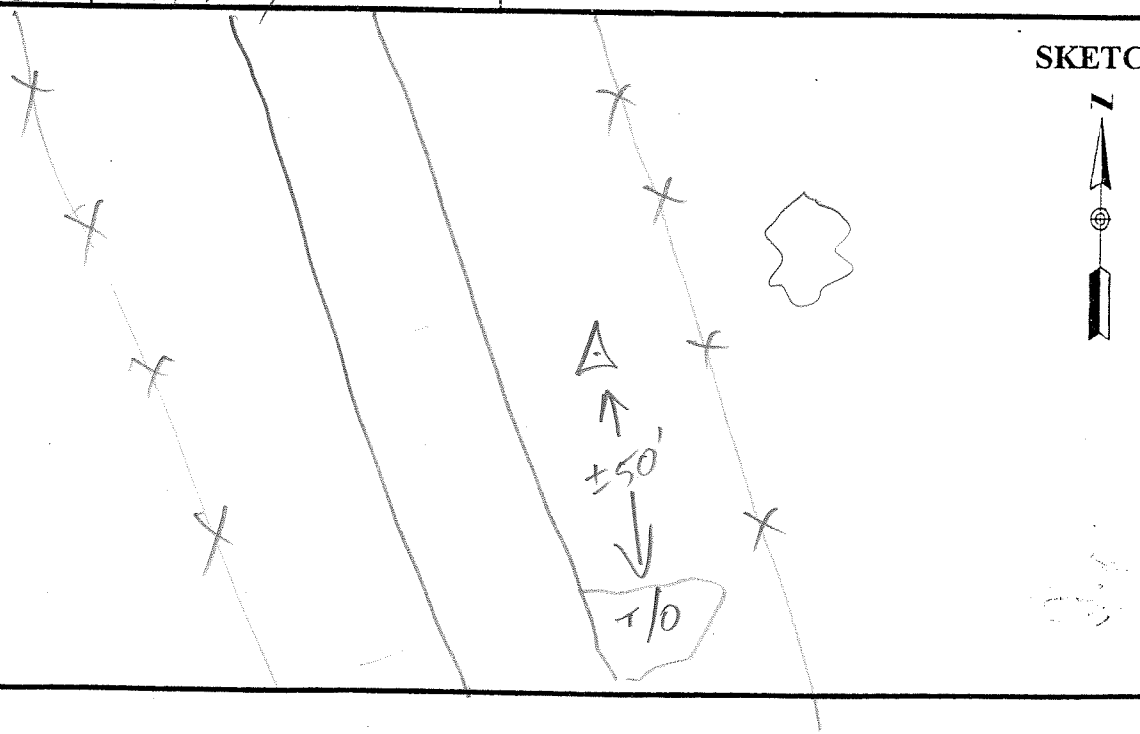
STATION DESCRIPTIONS POINT IN LONG GRASS Between ROAD AND E R/W FENCE

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14 27	1.9	10/10-10
14 41	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

1

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 4
SITE NAME 98

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:54
STOP 10:12

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 60
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.342
1.702

OBSTRUCTIONS: NO

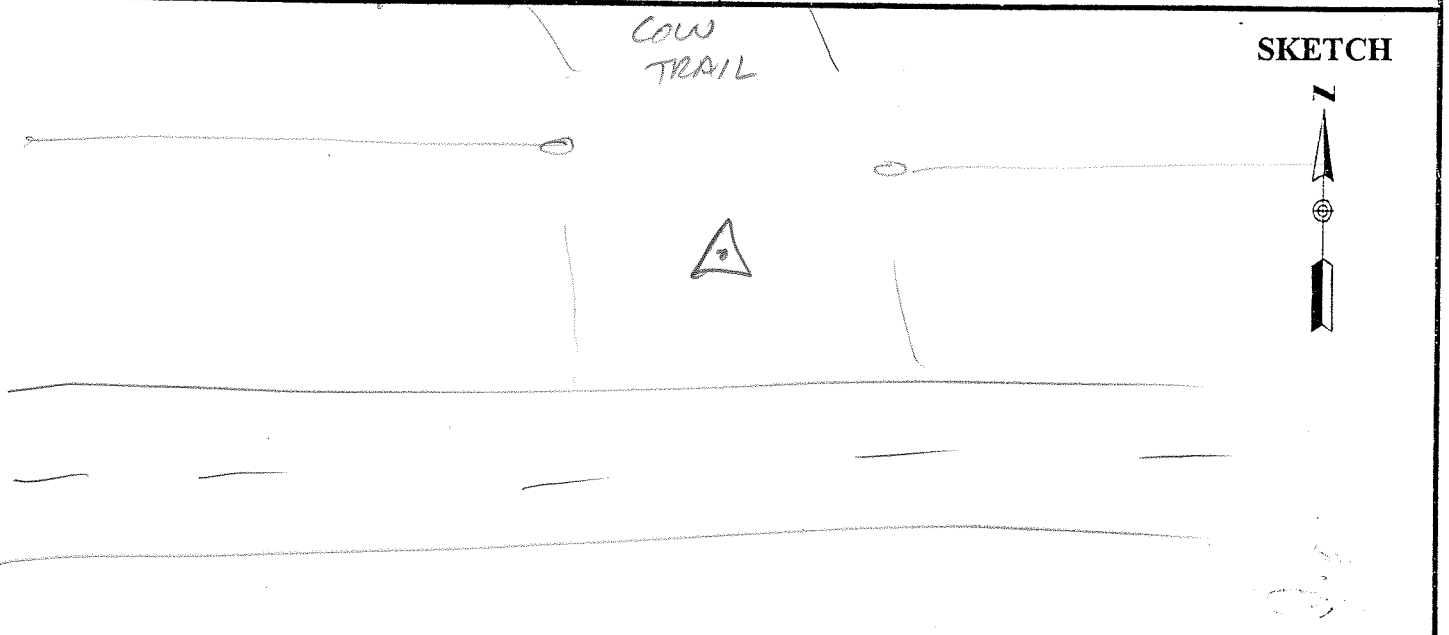
STATION DESCRIPTIONS POINT IN CENTER OF SPARSE GRASS CATTLE TRAIL N. OF RD.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1454	2.0	9/9-9
1512	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



CACHOON

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

2

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 5
SITE NAME 99

TRACKING TIMES (LOCAL) MEASURE CDT
START 10:21
STOP 10:37

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.294
1.654

OBSTRUCTIONS: NO

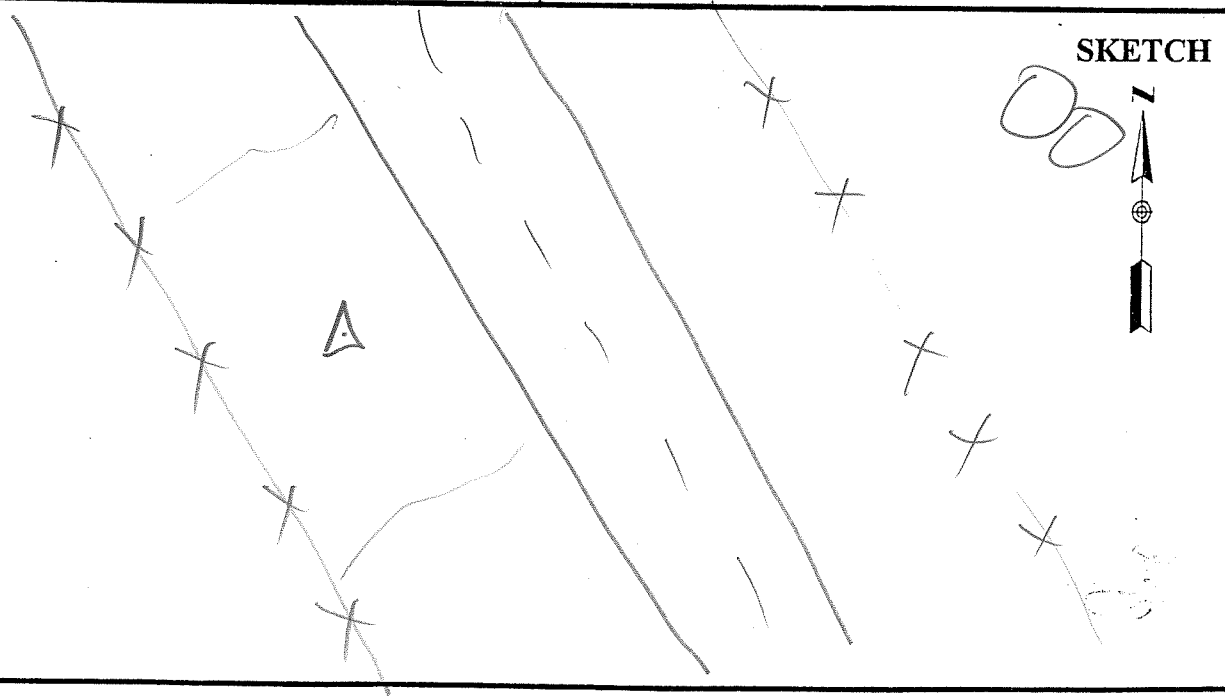
STATION DESCRIPTIONS POINT IN LONG GRASS / SCRUB MIX BETWEEN RD AND SW R/W FENCE

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
15:21	1.9	10/10-10
15:37		

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

CALHOUN

1

PROJECT	1101205	SITE NUMBER	6
OPERATOR	WJN	SITE NAME	100
DATE	5/20/11		

TRACKING TIMES (LOCAL) MEASURE CDT

START 10:48

STOP 11:04

SENSOR TYPE (500) 9500 399 299

MEMORY CARD 601

BATTERY NO.

CONTROLLER NO.

SENSOR NO.

SENSOR CONSTANT

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

HEIGHT READINGS

MTS	FT
1.292	
1.652	

OBSTRUCTIONS: NO

STATION DESCRIPTIONS POINT IN SHORT GRASS SW OF RD, SE OF TRAIL AND SW OF BOX CULVERT

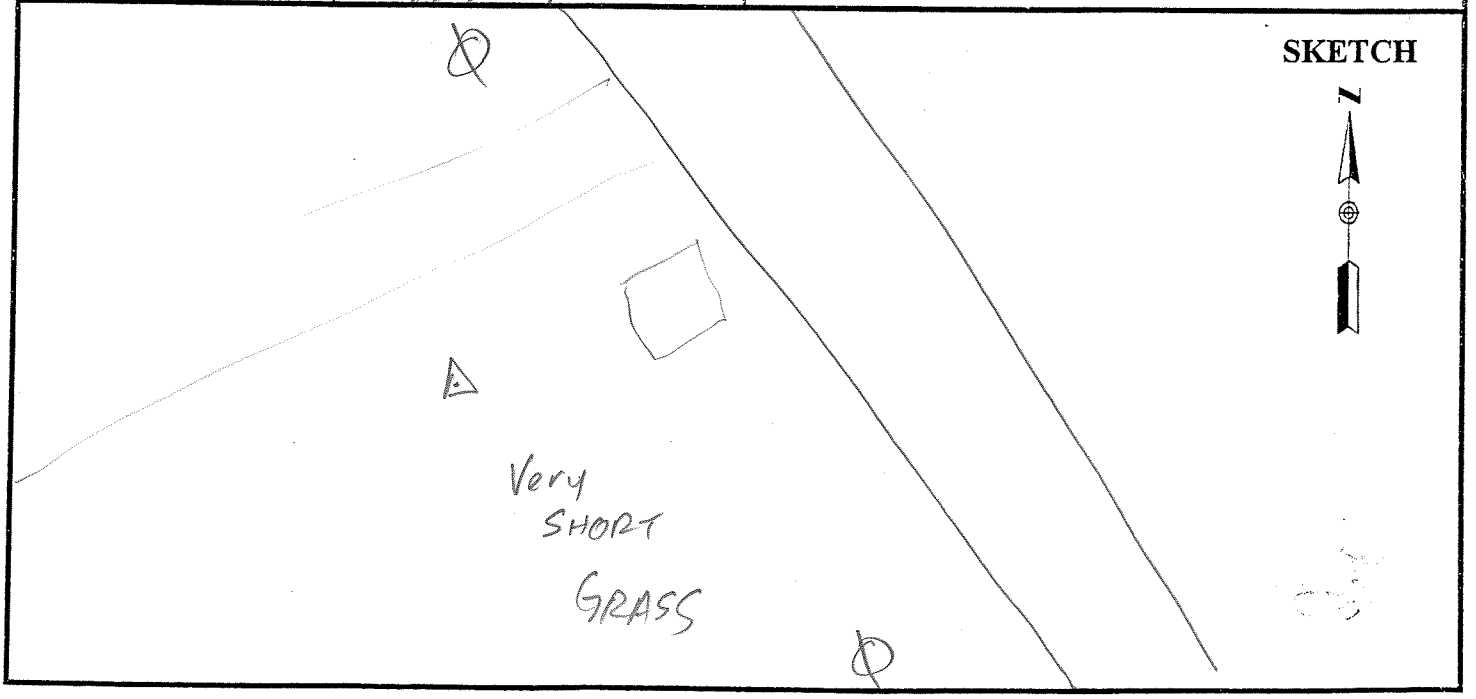
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
15:46	2.2	7/7-7
17:04	2.5	7/7-7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

OVC

SKETCH



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

CALHOUN

2

PROJECT 1101205
OPERATOR WJN
DATE 5/20/11

SITE NUMBER 7
SITE NAME 101

TRACKING TIMES (LOCAL) MEASURE CDT
START 11:09
STOP

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.205
1.565

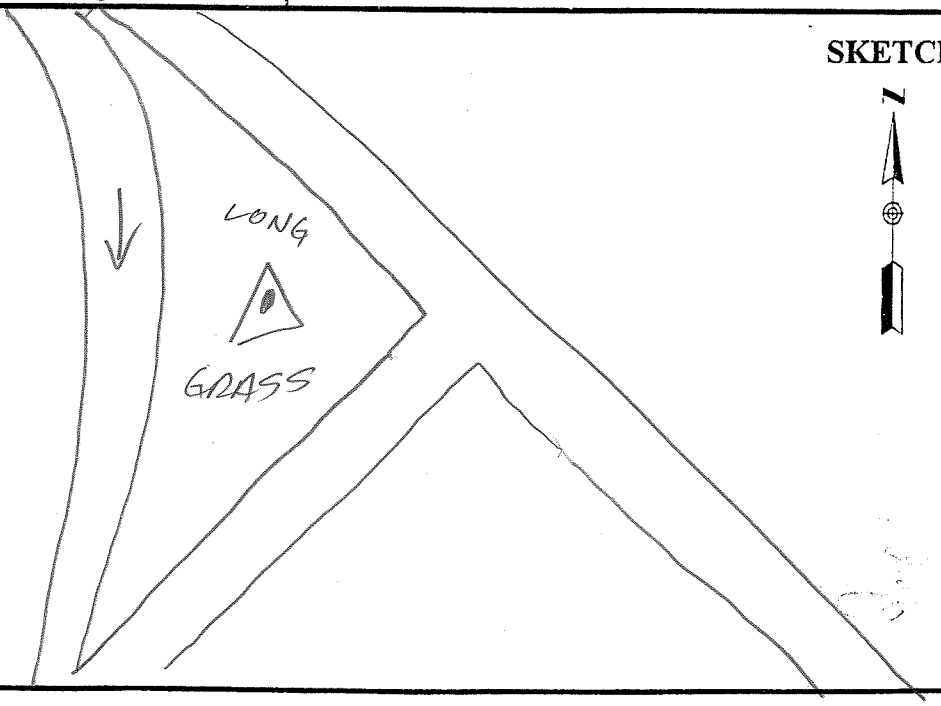
STATION DESCRIPTIONS POINT NEAR CENTER OF LARGE INT. ISLAND

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
16:09	2.3	8/8-8
16:26	2.2	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
Low set-up due to wind

SKETCH



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

CALHOUN

1

PROJECT 1101205
OPERATOR WJN
DATE 5/20/11

SITE NUMBER 8
SITE NAME 102

TRACKING TIMES (LOCAL) MEASURE CDT
START 11:37
STOP 11:54

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.275
1.635

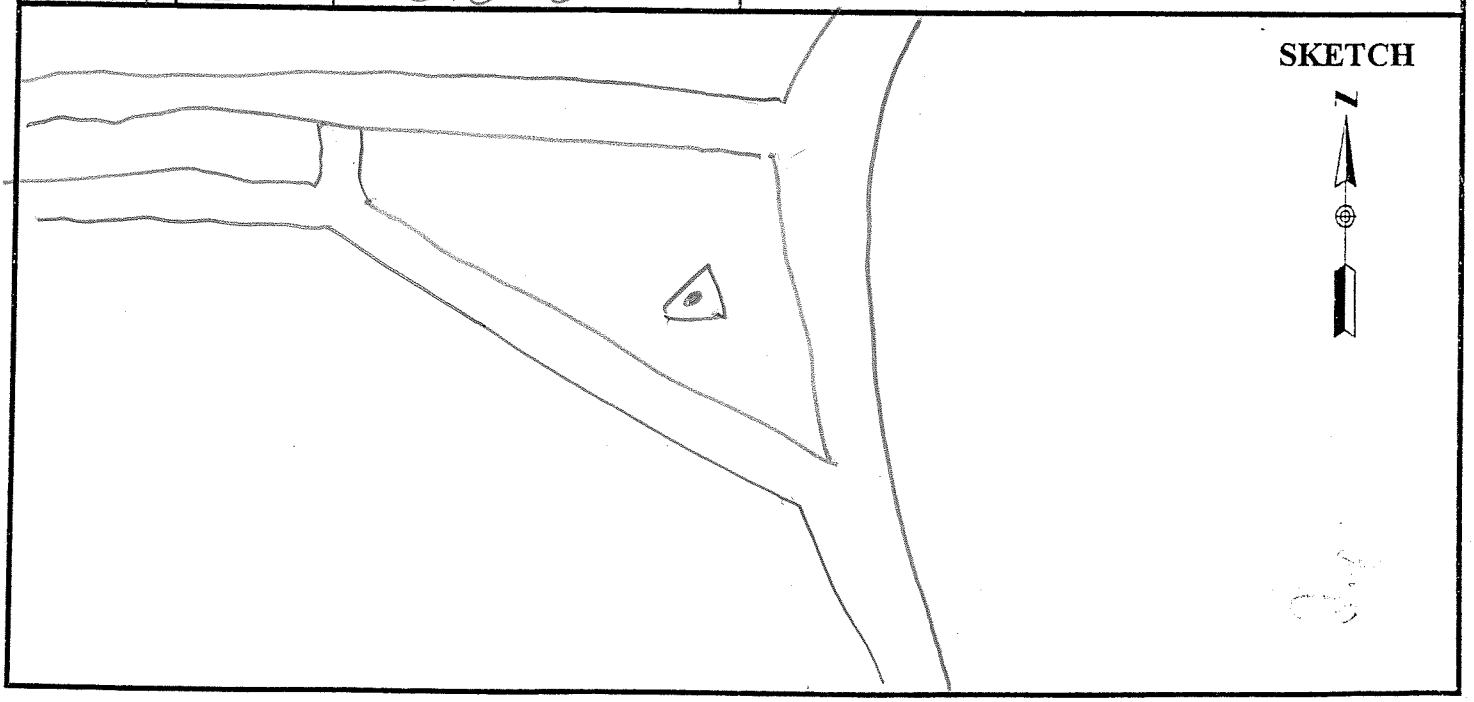
STATION DESCRIPTIONS POINT IN
SHORT GRASS IN
CNT ISLAND

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
10:37	2.3	8/8-8
16:54	2.2	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
FIRE ANTS!

SKETCH



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

CALHOUN

1

PROJECT 1101205
OPERATOR WJN
DATE 5/20/11

SITE NUMBER 9
SITE NAME 103

TRACKING TIMES (LOCAL) MEASURE CDT
START 12:03
STOP 12:21

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.301

1.661

OBSTRUCTIONS: NO

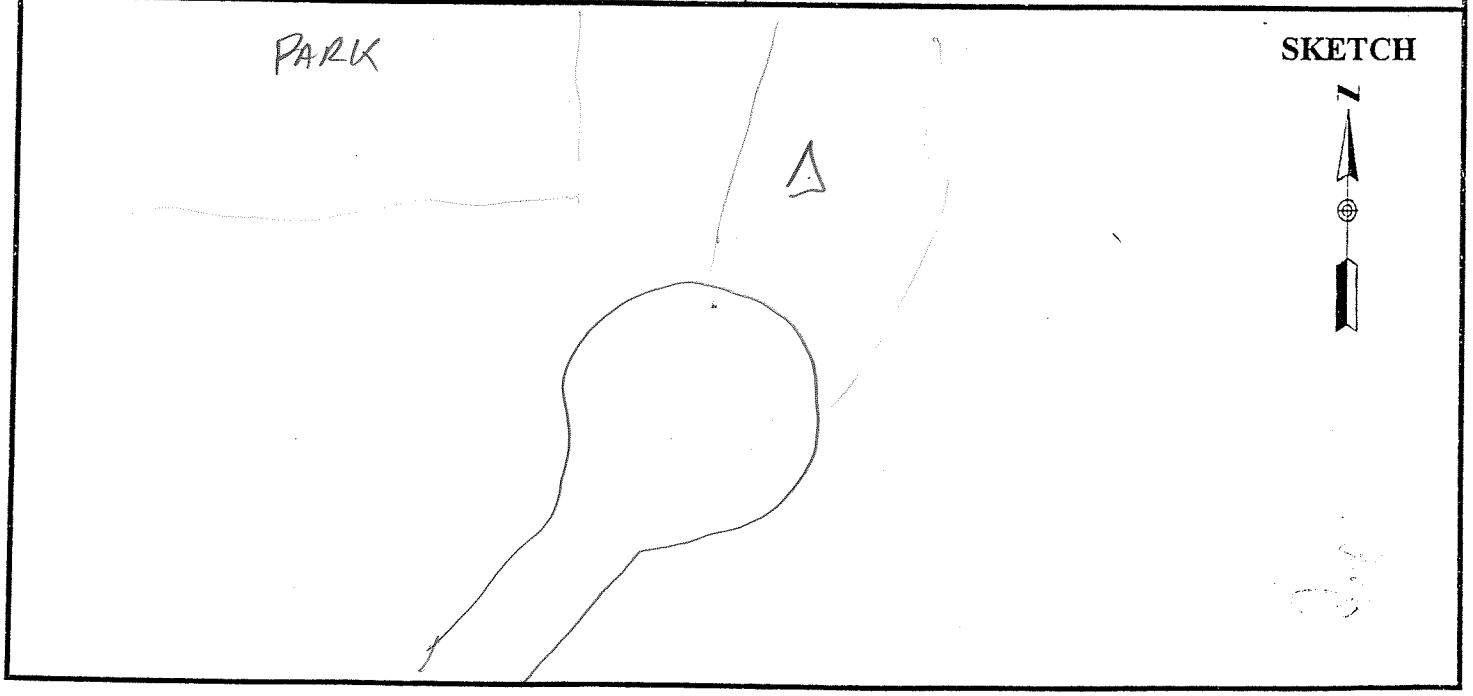
STATION DESCRIPTIONS POINT IN VERY SHORT GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
17:03	2.1	8/8-8
17:21	2.7	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC Very Windy

SKETCH



CALHOUN

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

2

PROJECT 1101205
OPERATOR WJW
DATE 5/19/11

SITE NUMBER 10
SITE NAME 104

TRACKING TIMES (LOCAL) MEASURE GDT
START 12:32
STOP 12:50

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: PPL W

HEIGHT READINGS MTS FT
1.270
1.630

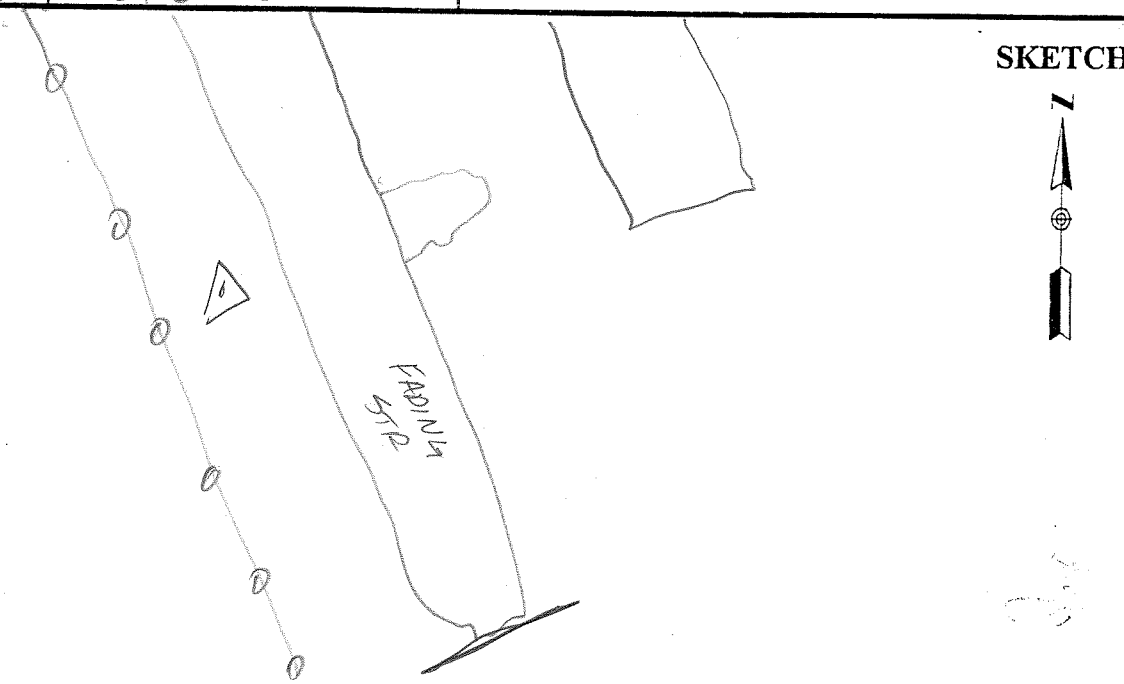
STATION DESCRIPTIONS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
17:32	2.5	8/8-9
17:50	2.5	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC Very Windy

SKETCH



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

CALHOUN

2

PROJECT 1101205
OPERATOR WJN
DATE 5/19/11

SITE NUMBER 11
SITE NAME 105

TRACKING TIMES (LOCAL) MEASURE CAT
START 13:04
STOP 13:22

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 801
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.294
1.654

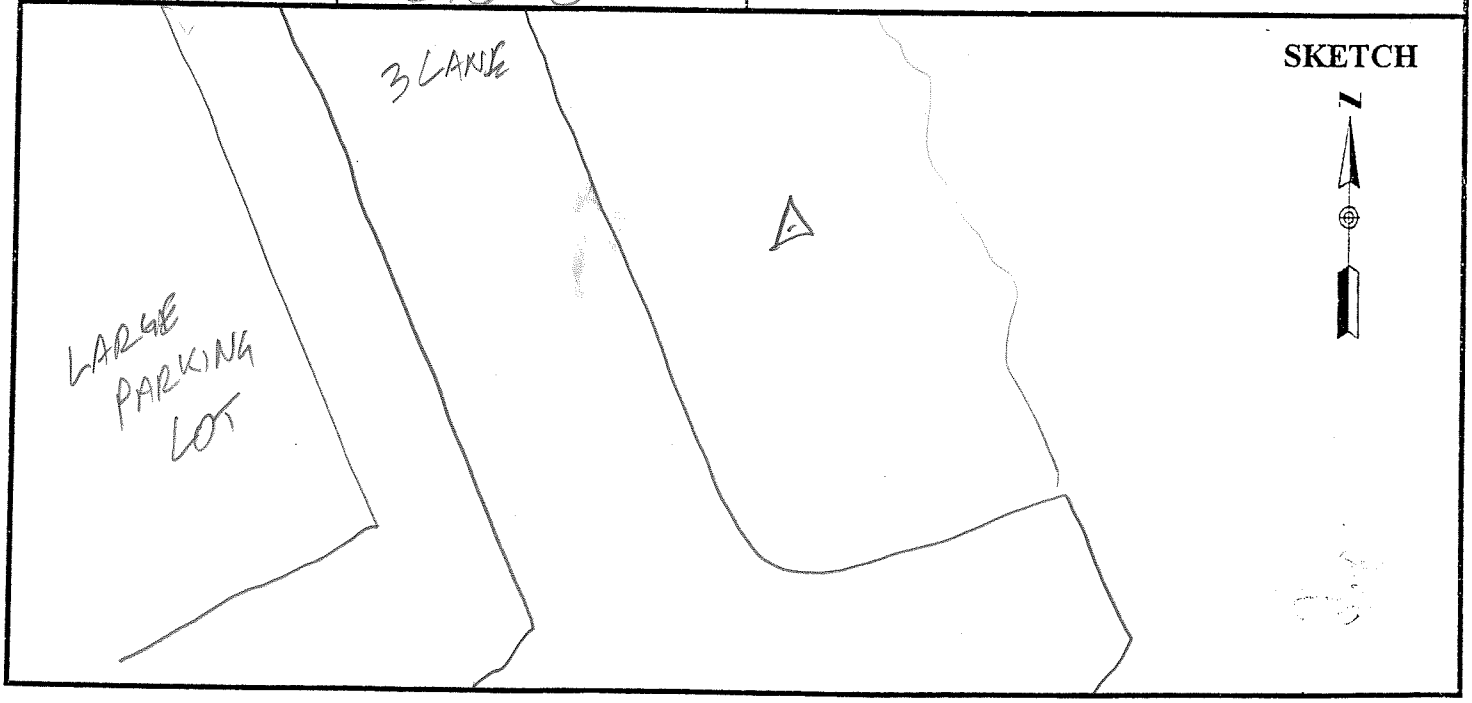
STATION DESCRIPTIONS POINT 11
LONG GRASS / WEEDS
±27' NE OF NE EDGE
PAVEMENT

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
13:04	2.0	10/10-10
13:22	2.3	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



AERO-METRIC, INC.
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SHEBOYGAN, WISCONSIN 53083

CALHOUN

1

PROJECT 1101205
OPERATOR WJW
DATE 5/20/11

SITE NUMBER 17
SITE NAME 106

TRACKING TIMES (LOCAL) MEASURE CDT
START 13:32
STOP 13:52

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.269
1.629

OBSTRUCTIONS: A FEW PALM TREES NW

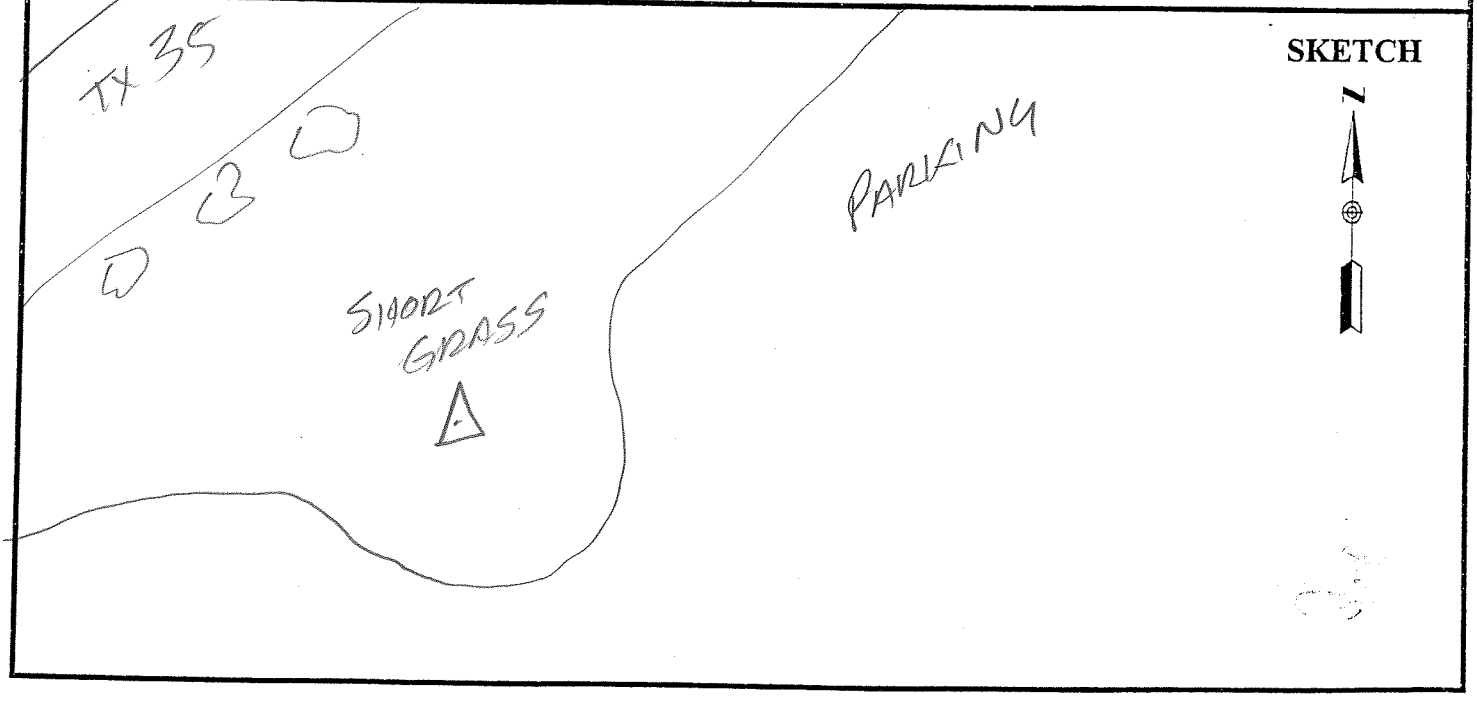
STATION DESCRIPTIONS POINT IN SHORT GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
18:32	2.5	7/7-7
18:52	2.5	7/7-7

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



CALHOUN

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

2

PROJECT 1101205
OPERATOR WJW
DATE 5/20/11

SITE NUMBER 13
SITE NAME 107

TRACKING TIMES (LOCAL) MEASURE CDT
START 14:29
STOP 14:46

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 604
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.278
1.638

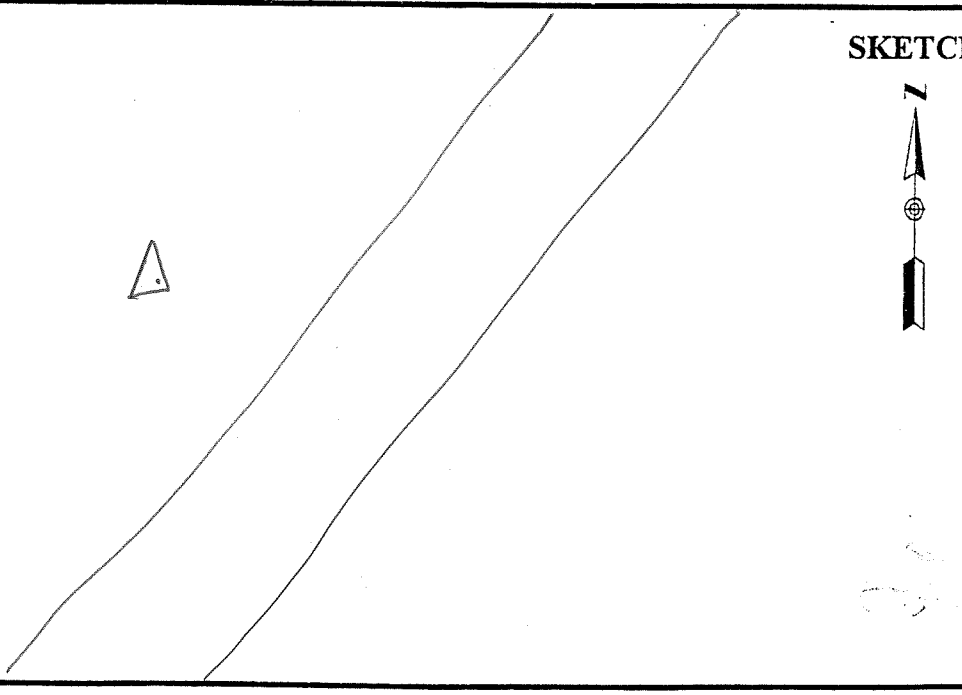
STATION DESCRIPTIONS POINT IN LONG RUSH GRASS NW OF RD

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14:29	2.0	9/9-9
14:46	2.2	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC Very Windy

SKETCH



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

1

PROJECT 110205
OPERATOR WN
DATE 5/20/11

SITE NUMBER 14
SITE NAME 108

TRACKING TIMES (LOCAL) MEASURE CDT
START 15:01
STOP 15:25

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.295
1.655

OBSTRUCTIONS: NO
SHORT, THICK SEA GRASS
BETWEEN RD AND GULF
SHORE RIP RAP OPP SE EDGE HOUSE SW

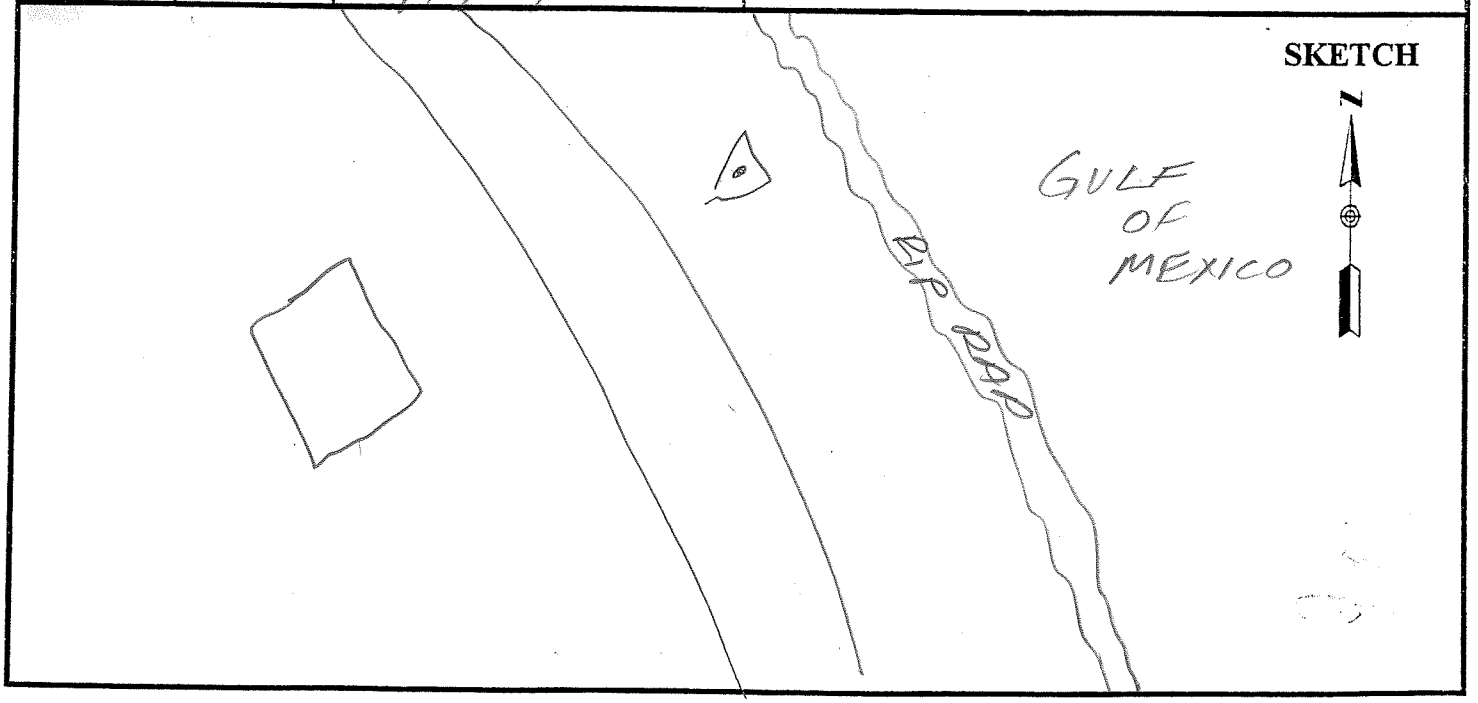
STATION DESCRIPTIONS POINT IN
SHORT THICK GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
~~20~~ 15:01	2.0	9/9-9
~~20~~ 25	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC, clearing somewhat during session

SKETCH



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

CALHOUN

BASE

PROJECT 110205
OPERATOR WJN
DATE 5/24/11

SITE NUMBER 1
SITE NAME L7

TRACKING TIMES (LOCAL) MEASURE CDT
START 8:08
STOP 15:58

SENSOR TYPE 500 9500 (399) 299
MEMORY CARD 67
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.187
(1.537) 0.350

STATION DESCRIPTIONS POINT SET
12/11/10

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
13:08	2.2	8/8-9
20:58	2.2	8/8-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

As described

SKETCH

62612963 62613533

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

CALIBOON — BASE

PROJECT 110205
OPERATOR WN
DATE 5/21/11

SITE NUMBER 1
SITE NAME 13

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:06
STOP 15:18

SENSOR TYPE 500 (9500) 399 299
MEMORY CARD 101
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.192
1.581 AT302

STATION DESCRIPTIONS POINT SET 12/11/10

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14:06	2.2	8/8-8
20:18	2.1	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

As Described

SKETCH

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

CALHOUN

PROJECT 1101205
OPERATOR WJN
DATE 5/20/11
21

SITE NUMBER 1
SITE NAME 109

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:10
STOP 9:40

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.301 1.661

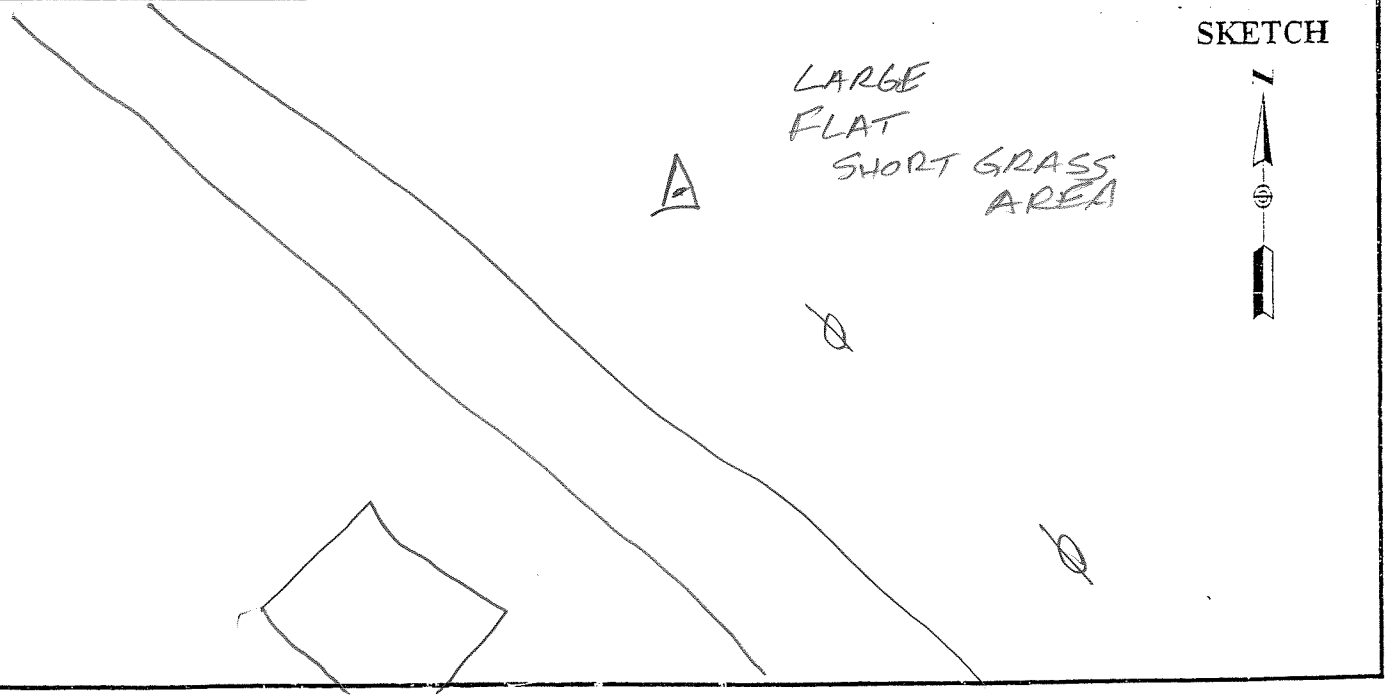
STATION DESCRIPTIONS POINT 1N
SHORT GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14:10	2.0	8/8-8
14:40	2.0	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



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

CALHOUN

1

PROJECT 110205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 2
SITE NAME 110

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:56
STOP 10:24

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.278
1.638

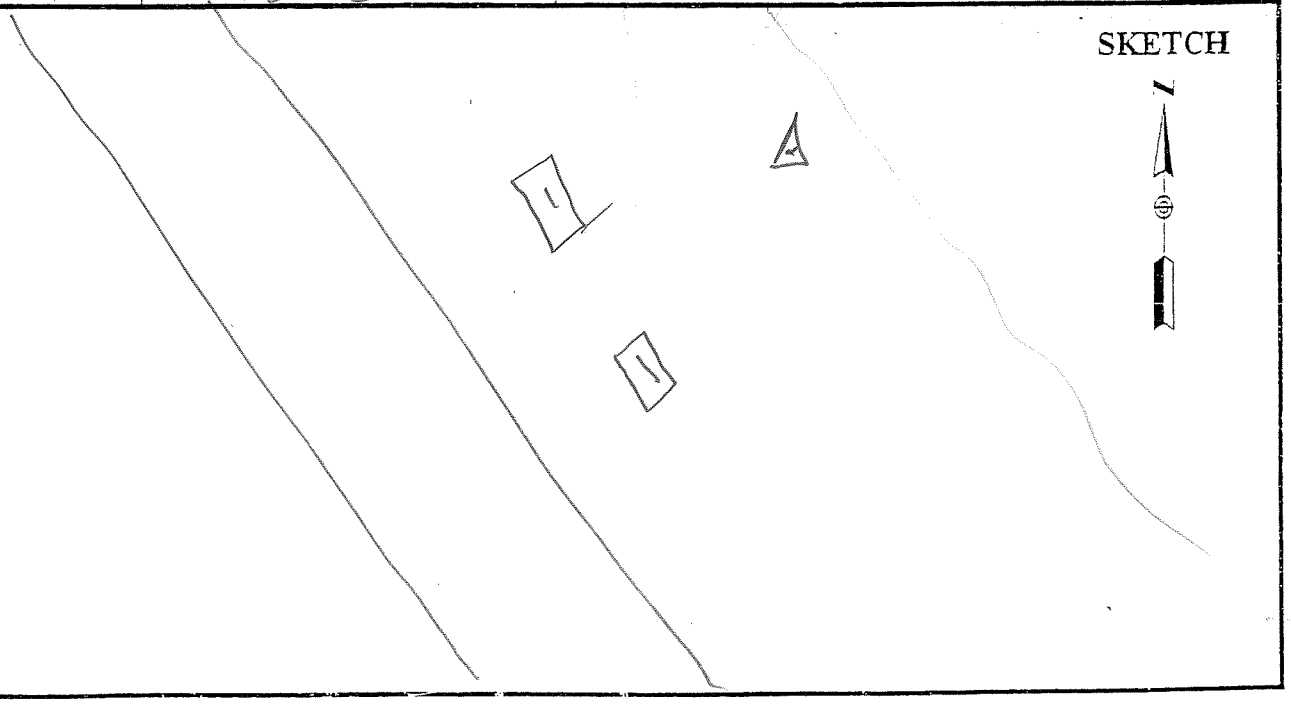
STATION DESCRIPTIONS POINT IN SHORT GRASS NE OF HWY

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

TIME	GDOP	SATELLITES
14:56	2.1	9/9-9
15:24	2.2	8/8-8

SKETCH



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

CALHOUN

2

PROJECT 1101205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 3
SITE NAME 111

TRACKING TIMES (LOCAL) MEASURE CNT
START 10:31
STOP 10:58

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS FT
1.252

1/6/12

OBSTRUCTIONS:

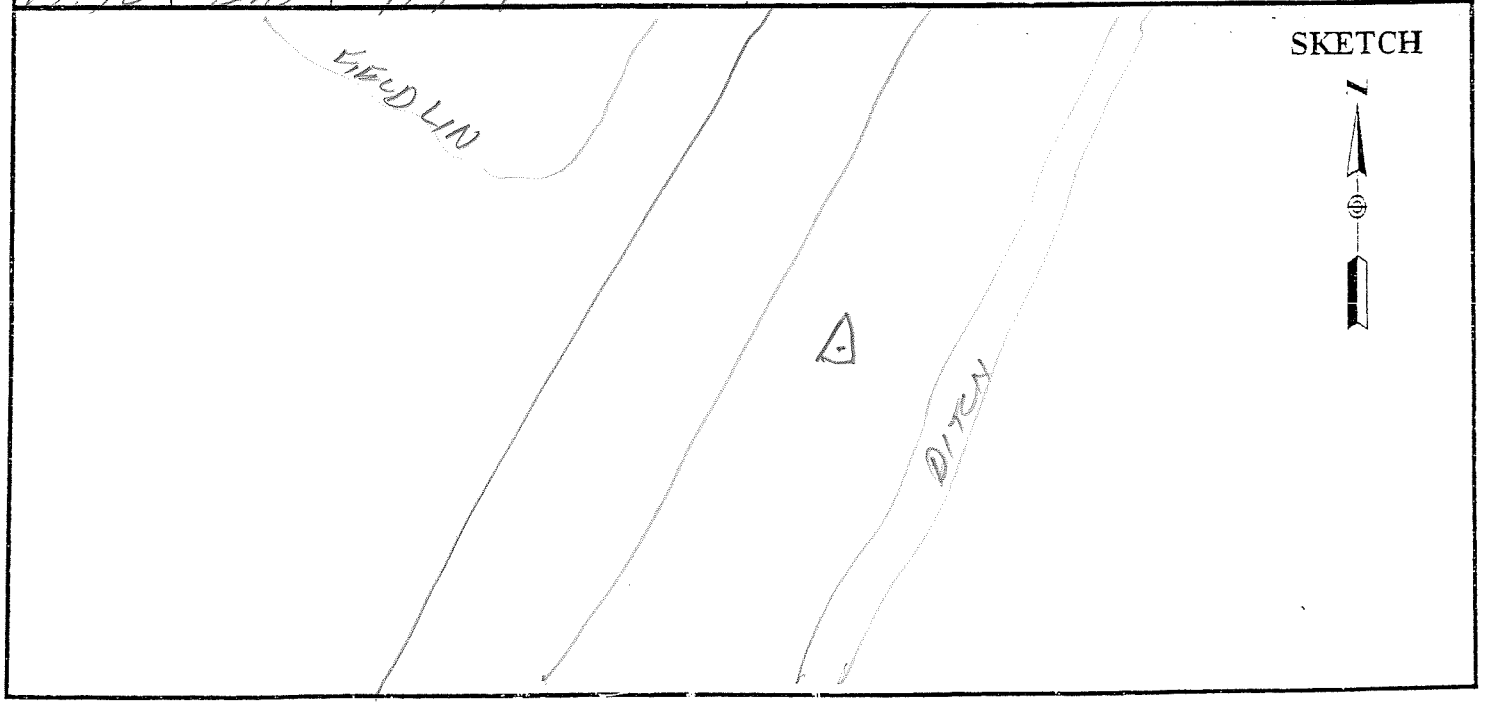
STATION DESCRIPTIONS POINT IN LONG TIM GRASS INSE R/W.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
15:31	1.9	9/9-9
15:58	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



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

CALHOUN

1

PROJECT 1101205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 4
SITE NAME 112

TRACKING TIMES (LOCAL) MEASURE CDT
START 11:06
STOP 11:30

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS:

HEIGHT READINGS MTS FT
1.307
1.667

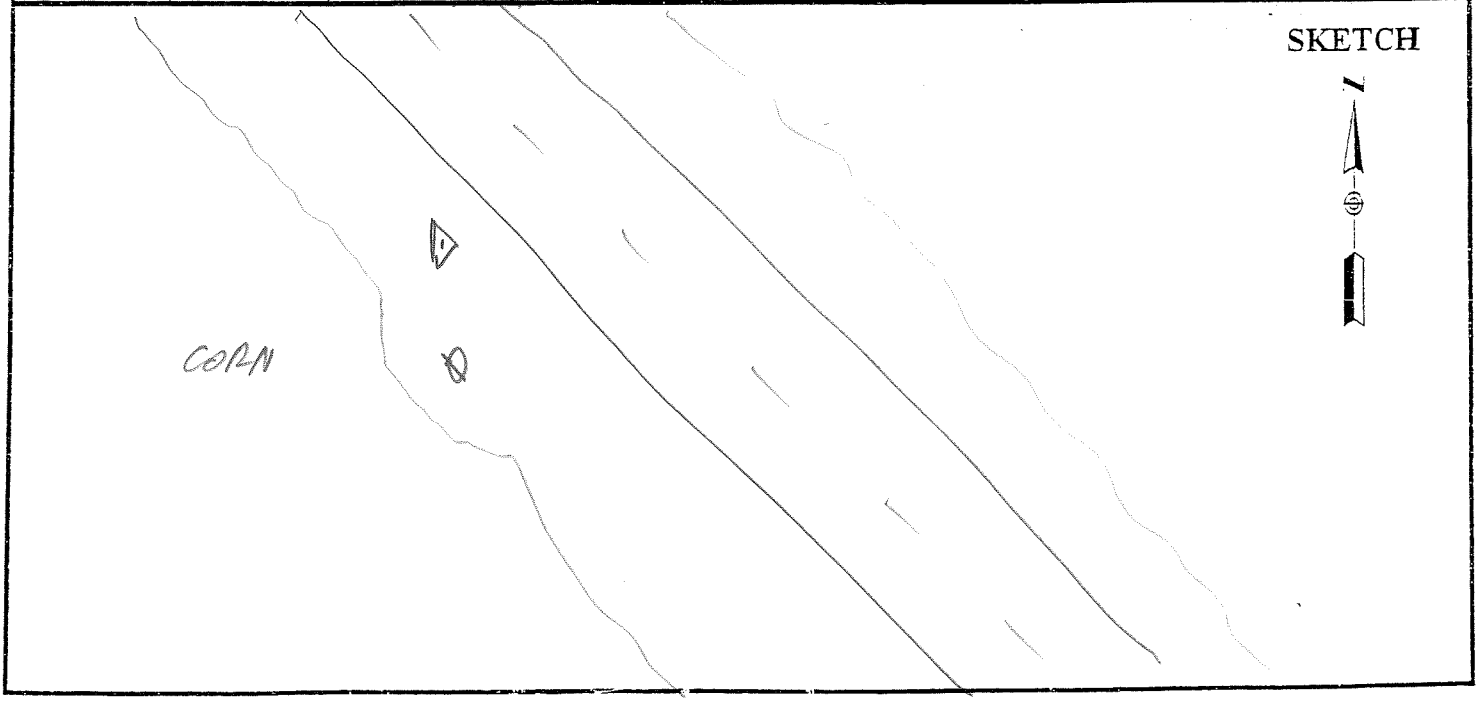
STATION DESCRIPTIONS POINT IN SPARSE GRASS, BROKEN EARTH SW OF HWY IN R/W

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

TIME	GDOP	SATELLITES
16 06	2.0	9/9-9
16 30	2.1	9/9-9

SKETCH



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

2

CALHOUN

PROJECT 110205
OPERATOR NWN
DATE 5/21/11

SITE NUMBER 5
SITE NAME 113

TRACKING TIMES (LOCAL) MEASURE CDT
START 11:38
STOP 11:58

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS MTS 1.255 FT

OBSTRUCTIONS: NO

STATION DESCRIPTIONS POINT IN LONG GRASS ±12' SE OF R/W FENCE AND OPP SW END HEDGE NW

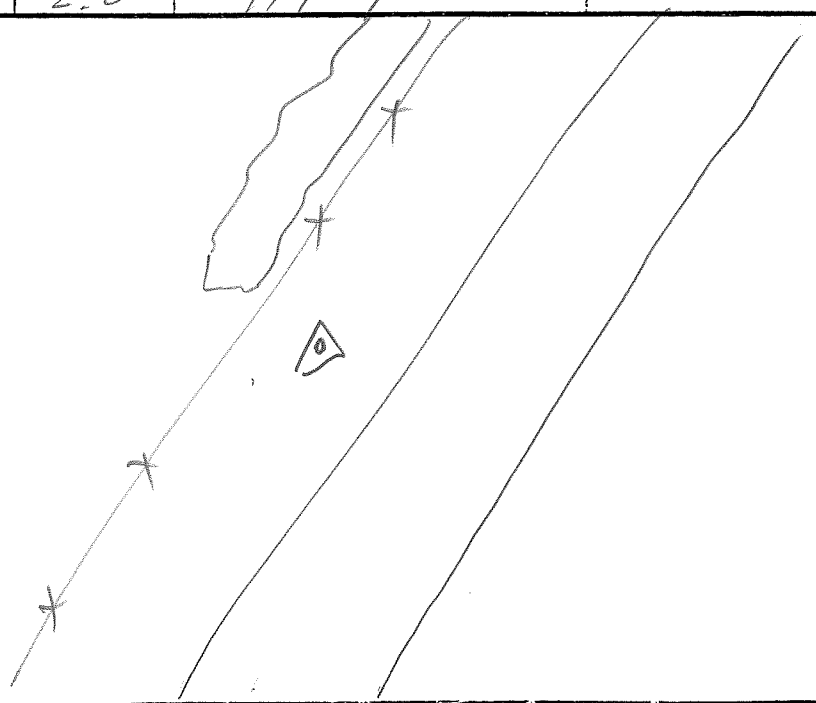
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
1638	2.0	9/9-9
1658	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

OVC, clearing

SKETCH



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

CALHOUN

1

PROJECT 110205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 6
SITE NAME 114

TRACKING TIMES (LOCAL) MEASURE EDT
START 12:05
STOP 12:25

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 001
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.266
1.626

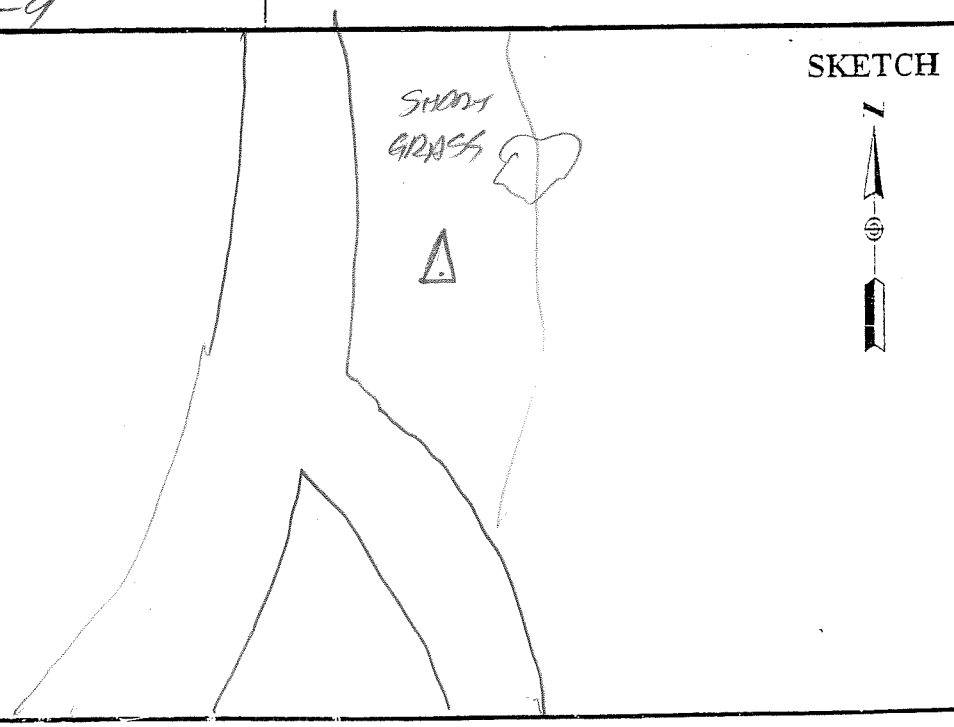
STATION DESCRIPTIONS POINT IN SHORT GRASS NE OF INT.

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
17:05	2.9	9/9-9
17:25	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



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

CALHOUN

1

PROJECT 110205
OPERATOR MWM
DATE 5/21/11

SITE NUMBER 7
SITE NAME 115

TRACKING TIMES (LOCAL) MEASURE CDT
START 12:33
STOP 12:53

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.304
1.664

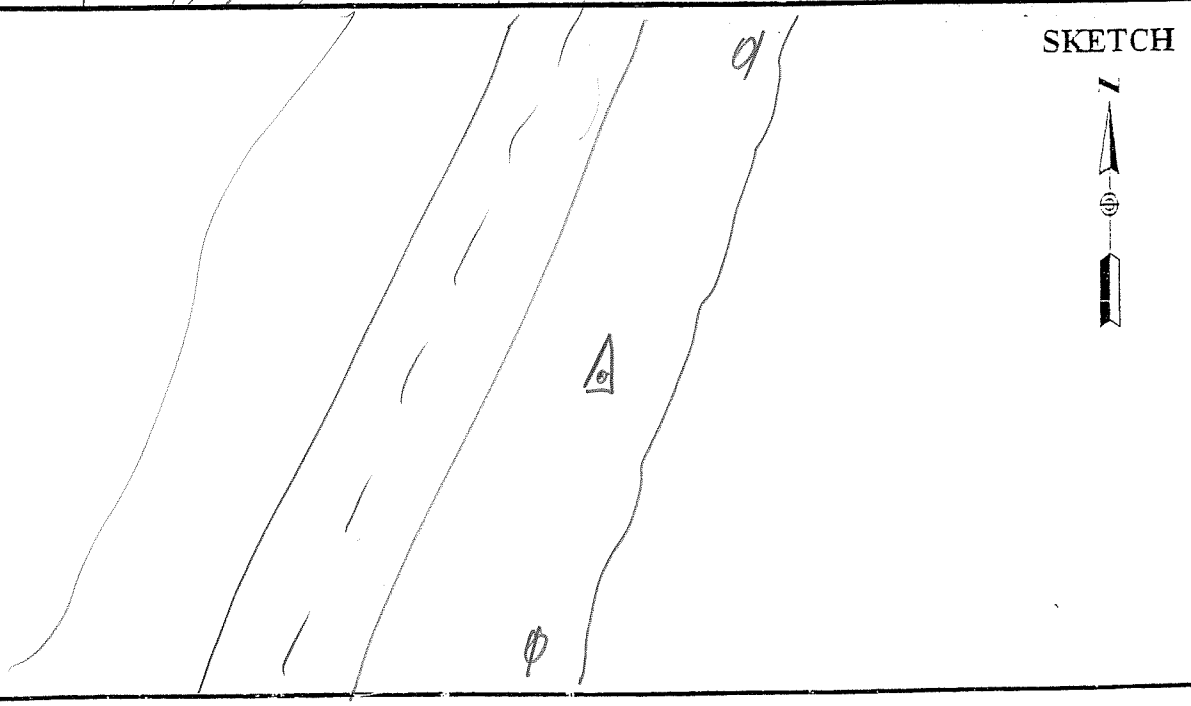
STATION DESCRIPTIONS POINT IN SHORT GRASS SE OF HWY IN R/W

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
17:33	2.2	8/8-9
17:53	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



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

2

CALHOUN

PROJECT 1101205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 8
SITE NAME 116

TRACKING TIMES (LOCAL) MEASURE CDT
START 13:05
STOP 13:27

SENSOR TYPE ~~500~~ 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.295
1.655

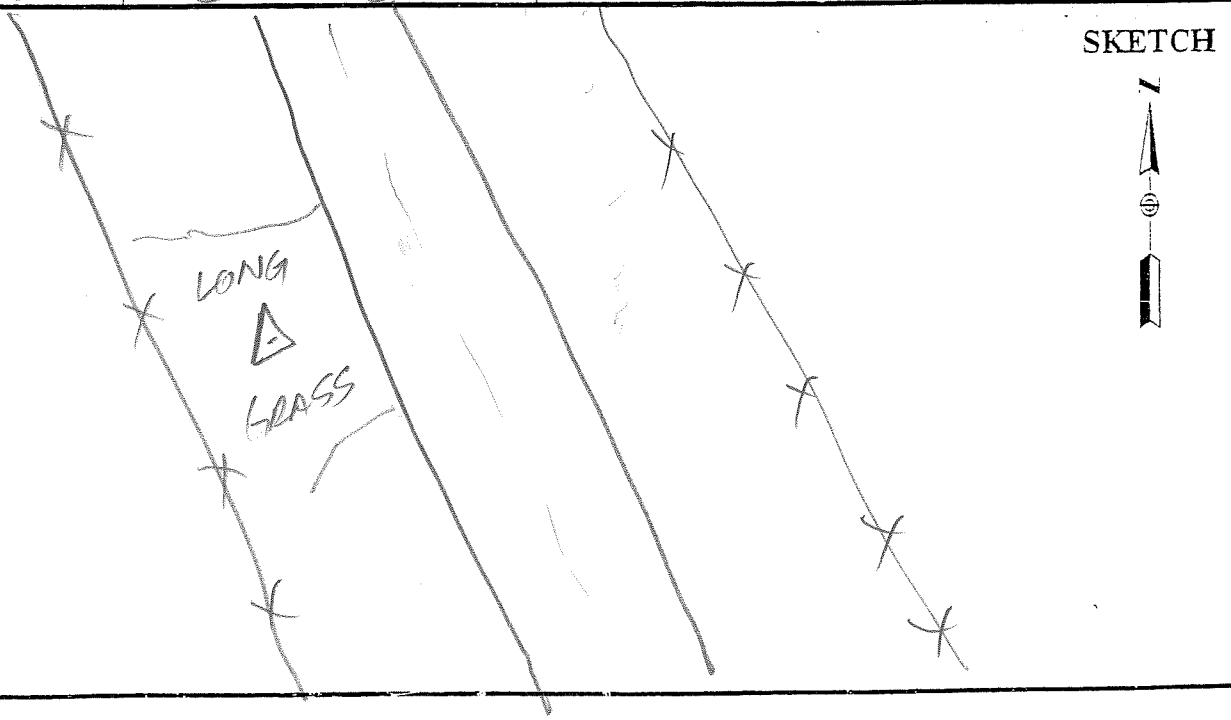
STATION DESCRIPTIONS POINT IN LONG GRASS @ Center OF LARGE APPROACH

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
18:05	2.2	9/9-9
18 27	2.2	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



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

CALHOON

2

PROJECT 1101205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 9
SITE NAME 117

TRACKING TIMES (LOCAL) MEASURE CDT
START 13:36
STOP

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.286
1.646

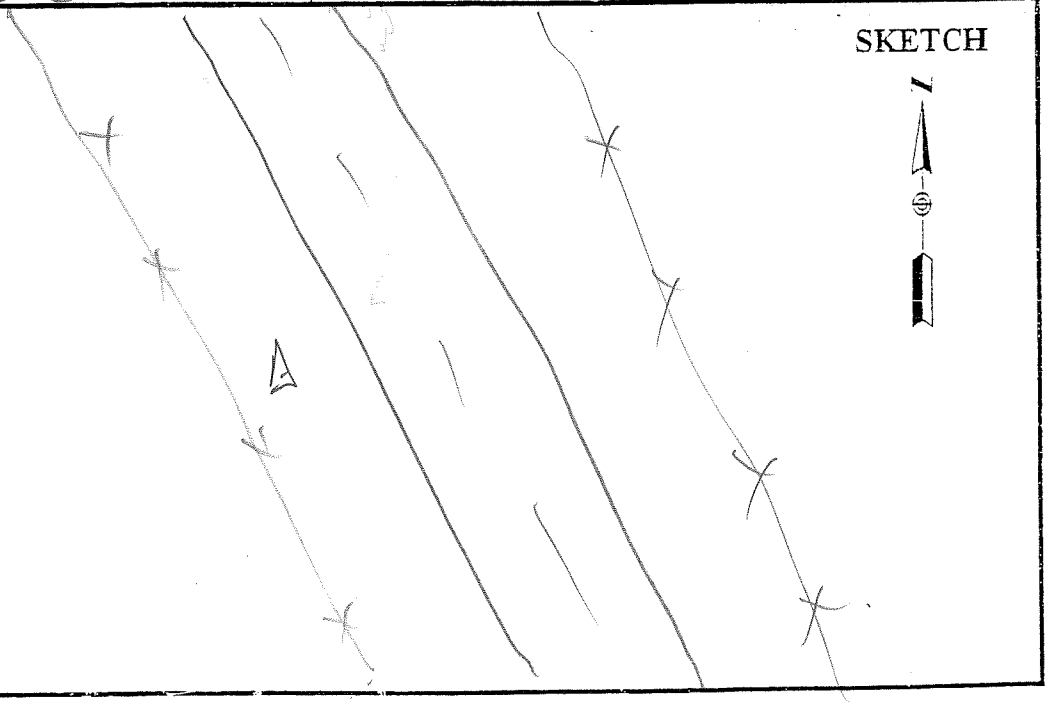
STATION DESCRIPTIONS POINT IN LONG WEED/GRASS MIX 6' NE OF SW R/W FENCE

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
18:36	2.2	7/7-7
18:58	2.2	8/8-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

SKETCH



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

CALHOUN

2

PROJECT 110205
OPERATOR WJN
DATE 5/24/11

SITE NUMBER 10
SITE NAME 118

TRACKING TIMES (LOCAL) MEASURE CDT

START 14:08
STOP 14:30

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.305

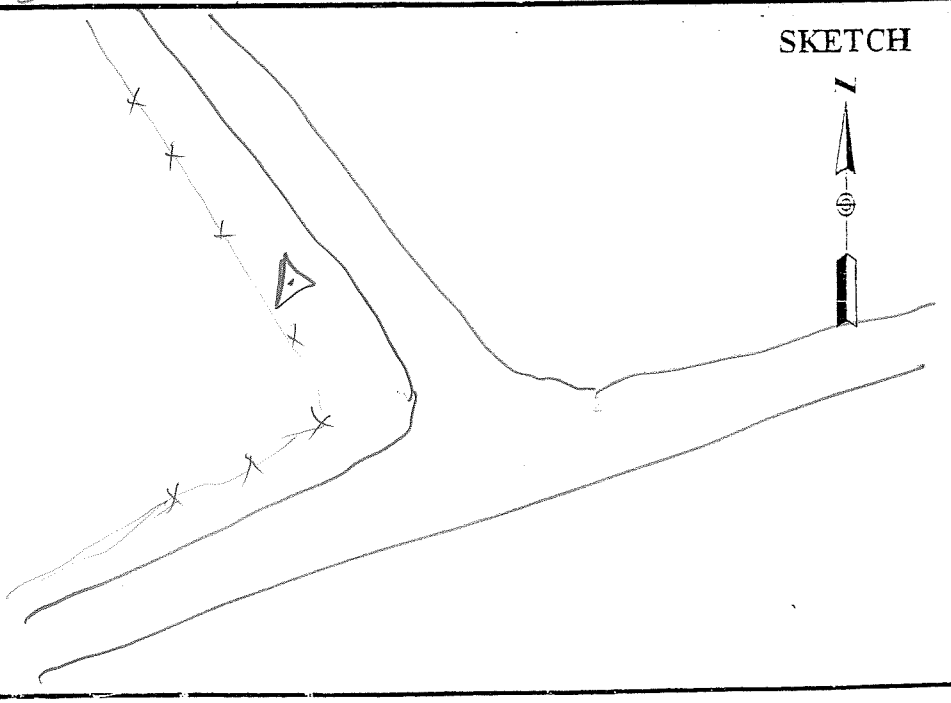
STATION DESCRIPTIONS POINT IN TALL NEEDLE GRASS IN R/W, 120' NE OF FENCE

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC WINDY

TIME	GDOP	SATELLITES
19:08	1.9	8/7-8
19:30	2.0	8/8-8

SKETCH



AERO-METRIC, INC.
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SHEBOYGAN, WISCONSIN 53083

CALHOUN

PROJECT 1101205
OPERATOR WJN
DATE 5/21/11

SITE NUMBER 11
SITE NAME 119

TRACKING TIMES (LOCAL) MEASURE CST
START 14:40
STOP 15:02

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 001
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.366

STATION DESCRIPTIONS POINT IN CENTER OF LARGE APPROACH, IN SHORT GRASS

I-726

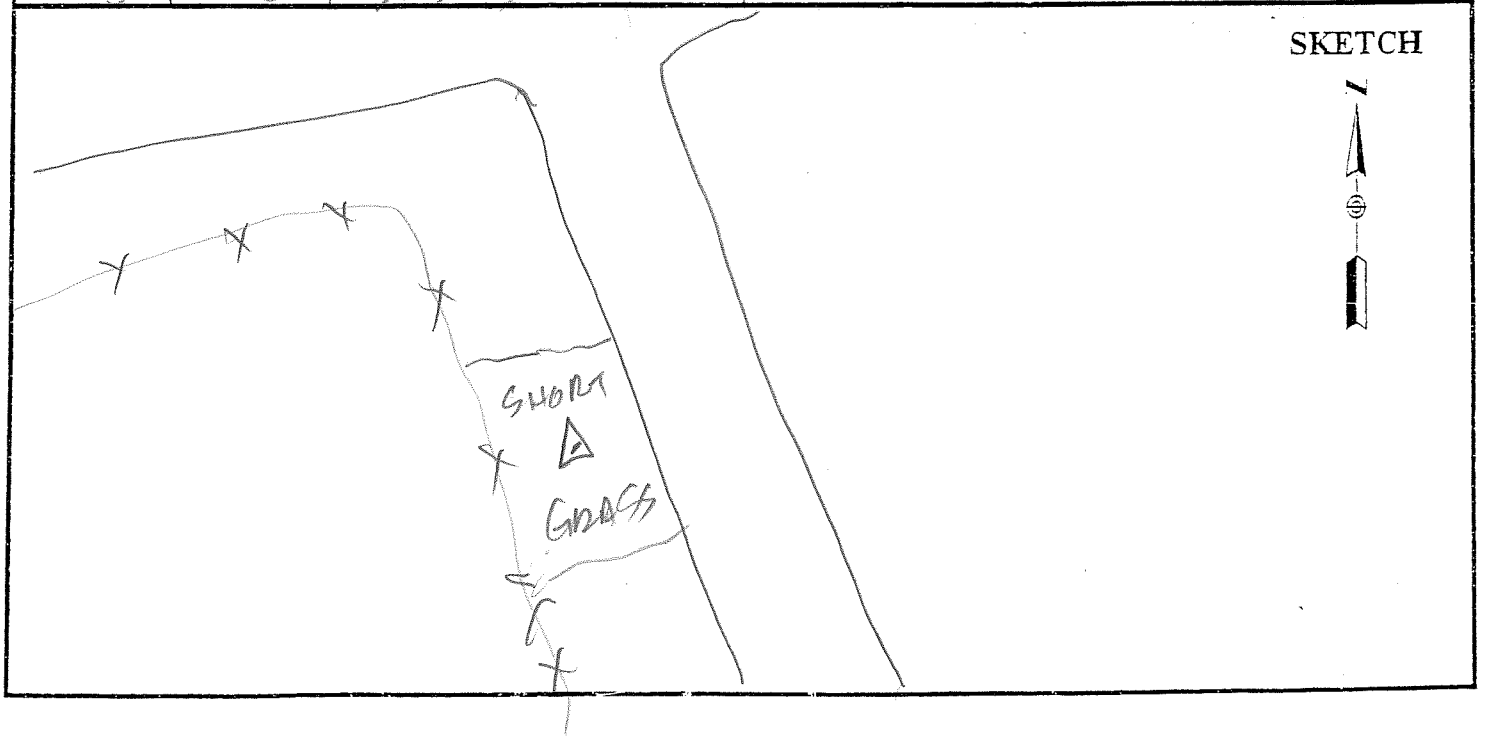
SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
19:40	1.9	8/7-8
20:02	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
OVC

HIGH SET-UP

SKETCH



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

CALHOUN

BASE

PROJECT 110201
OPERATOR WJN
DATE 5/22/11

SITE NUMBER 1
SITE NAME 100 C

TRACKING TIMES (LOCAL) MEASURE CDT
START 8:26
STOP 13:06

SENSOR TYPE 500 9500 (399) 299
MEMORY CARD 67
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.099
1.449

STATION DESCRIPTIONS SMALL NAIL SET 12/9/10

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
13:26	2.7	9/9-9
18:06	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

THIS POINT WAS ORIG. CALLED 100, SINCE THE SCEME OF NUMBERING WAS ORIGINALLY BROKEN

AS BEFORE DESCRIBED

SKETCH

6

13 5

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

CALHOUN

1

PROJECT	110205	SITE NUMBER	1
OPERATOR	WJN	SITE NAME	120
DATE	5/22/11		

TRACKING TIMES (LOCAL) MEASURE CUT

START 8:34

STOP 9:00

SENSOR TYPE (500) 9500 399 299

MEMORY CARD 601

BATTERY NO.

CONTROLLER NO.

SENSOR NO.

SENSOR CONSTANT

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

HEIGHT READINGS

MTS	FT
1.255	
1.615	

OBSTRUCTIONS: NO

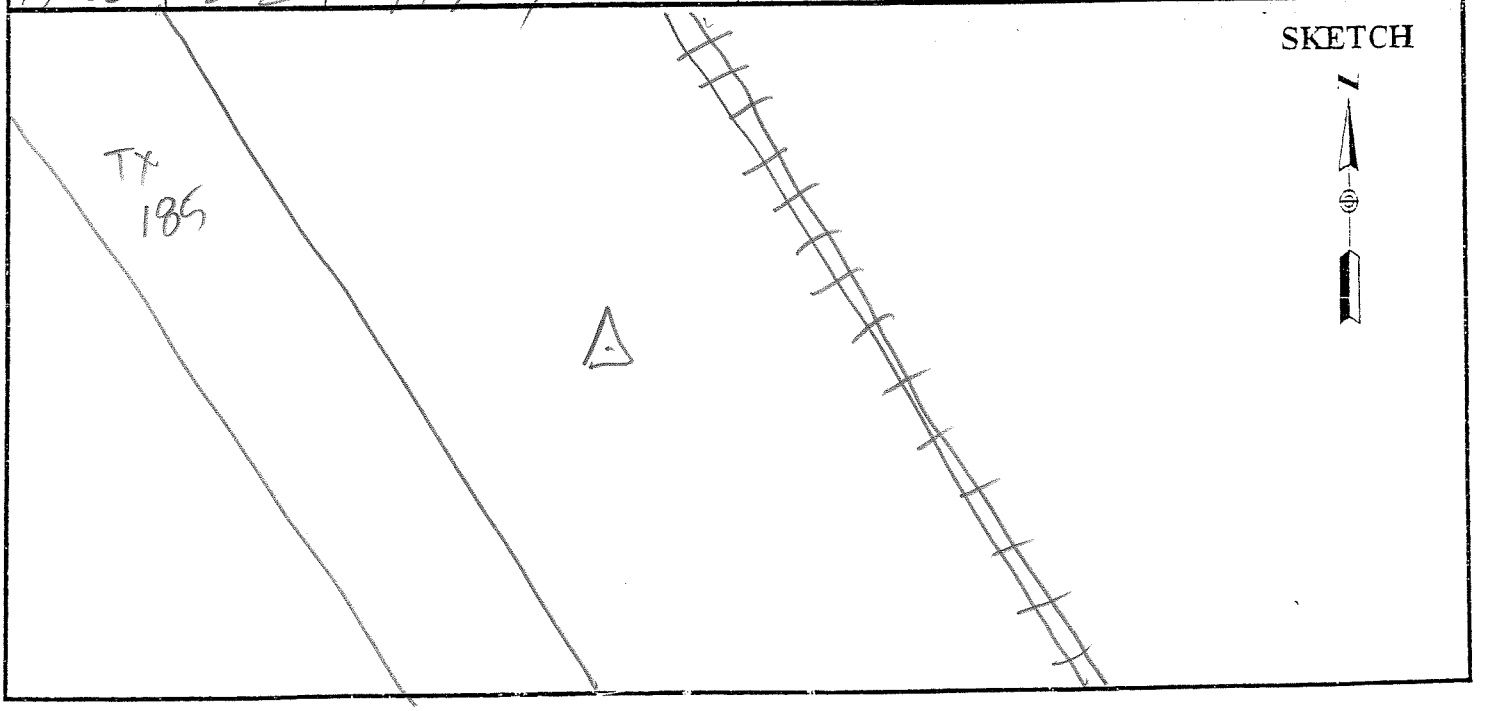
STATION DESCRIPTIONS POINT IN SHORT GRASSY AREA BETWEEN RxR AND Hwy

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
13:00	2.3	9/9-9
14:00	2.2	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS

SKETCH



AERO-METRIC, INC.
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SHEBOYGAN, WISCONSIN 53083

CALHOUN

PROJECT 1101205
OPERATOR WDN
DATE 5/22/11

SITE NUMBER 2
SITE NAME 121

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:10
STOP 9:38

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
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
1.605

OBSTRUCTIONS:

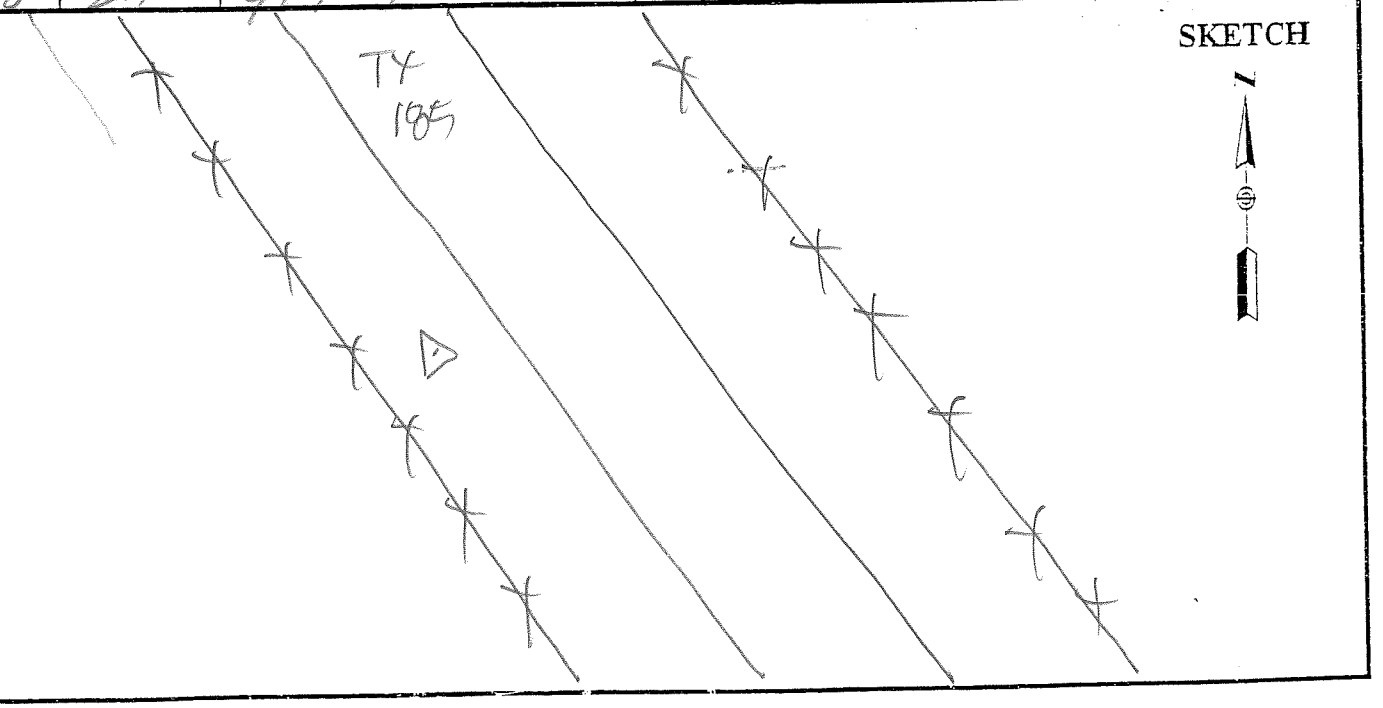
STATION DESCRIPTIONS POINT IN LONG BRUM GRASS IN SW R/W

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14:10	2.3	9/9-9
14:38	2.1	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
MC

SKETCH



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SHEBOYGAN, WISCONSIN 53083

CALHOUN

1

PROJECT 1101205
OPERATOR WVN
DATE 5/22/11

SITE NUMBER 3
SITE NAME 122

TRACKING TIMES (LOCAL) MEASURE CDT
START 9:46
STOP 10:14

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.306
1.666

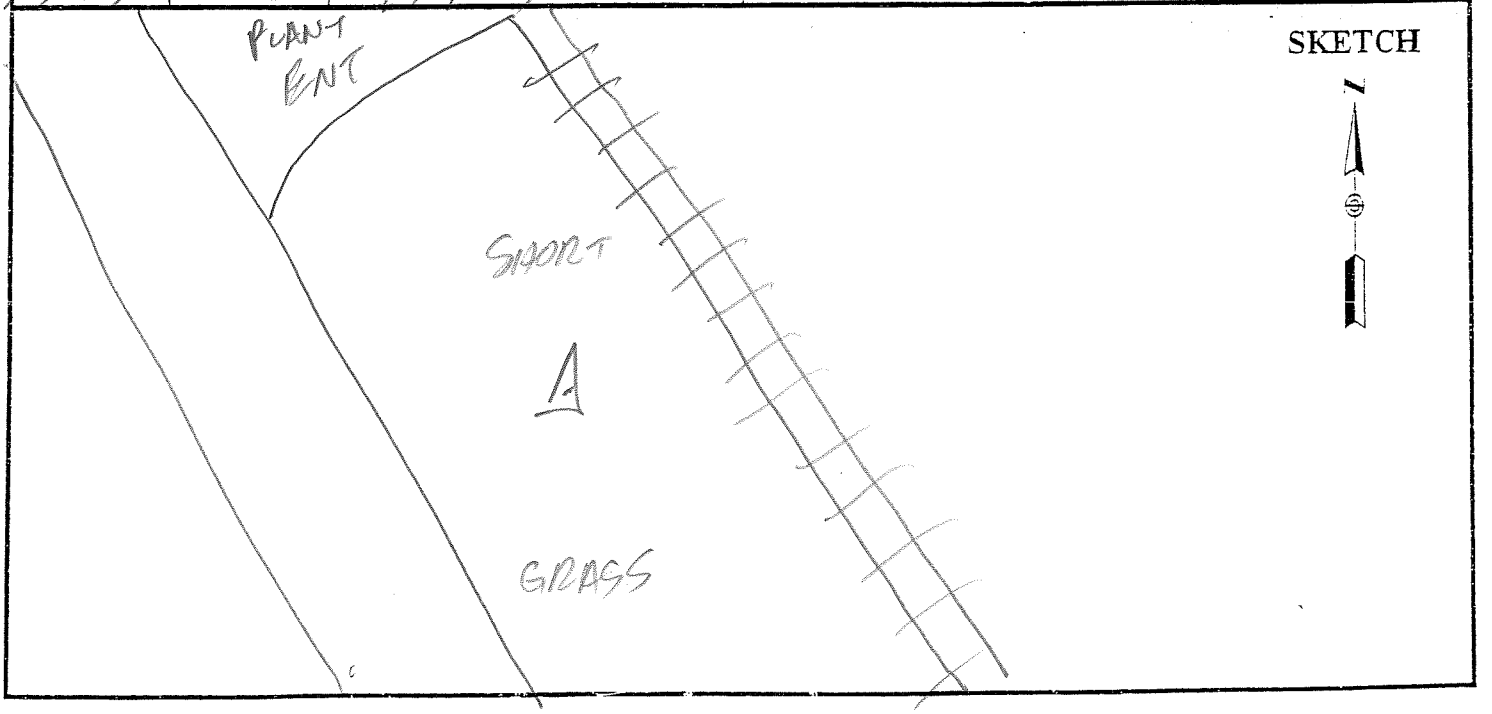
STATION DESCRIPTIONS POINT IN SHORT GRASS BETWEEN RD AND RxR

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
14:46	2.1	9/9-9
15:14	2.0	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
NIC

SKETCH



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SHEBOYGAN, WISCONSIN 53083

CALHOUN

1

PROJECT 110205
OPERATOR WJN
DATE 5/22/11

SITE NUMBER 4
SITE NAME 123

TRACKING TIMES (LOCAL) MEASURE 607
START 10:27
STOP 10:51

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: NO

HEIGHT READINGS MTS FT
1.326
1.686

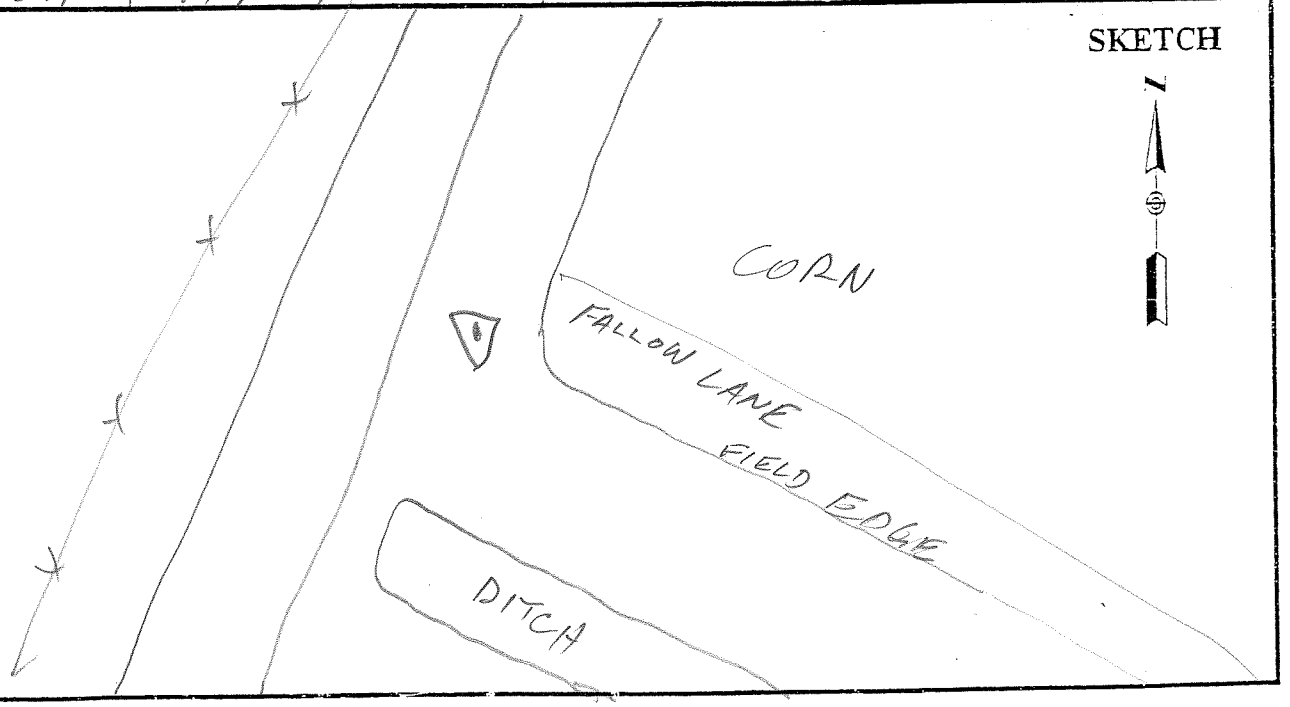
STATION DESCRIPTIONS POINT IN SHORT GRASS BETWEEN SE EDGE RD AND FIELD COR, OPP SW EDGE FIELD SE

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
15:27	2.0	9/9-9
15:51	2.1	9/9-9

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
MC

SKETCH



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

2

CALHOUN

PROJECT 110205
OPERATOR WJN
DATE 5/22/11

SITE NUMBER 5
SITE NAME 124

TRACKING TIMES (LOCAL) MEASURE CDT
START 11:04
STOP 11:31

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

HEIGHT READINGS
MTS 1.265
FT
1.665

OBSTRUCTIONS: NO

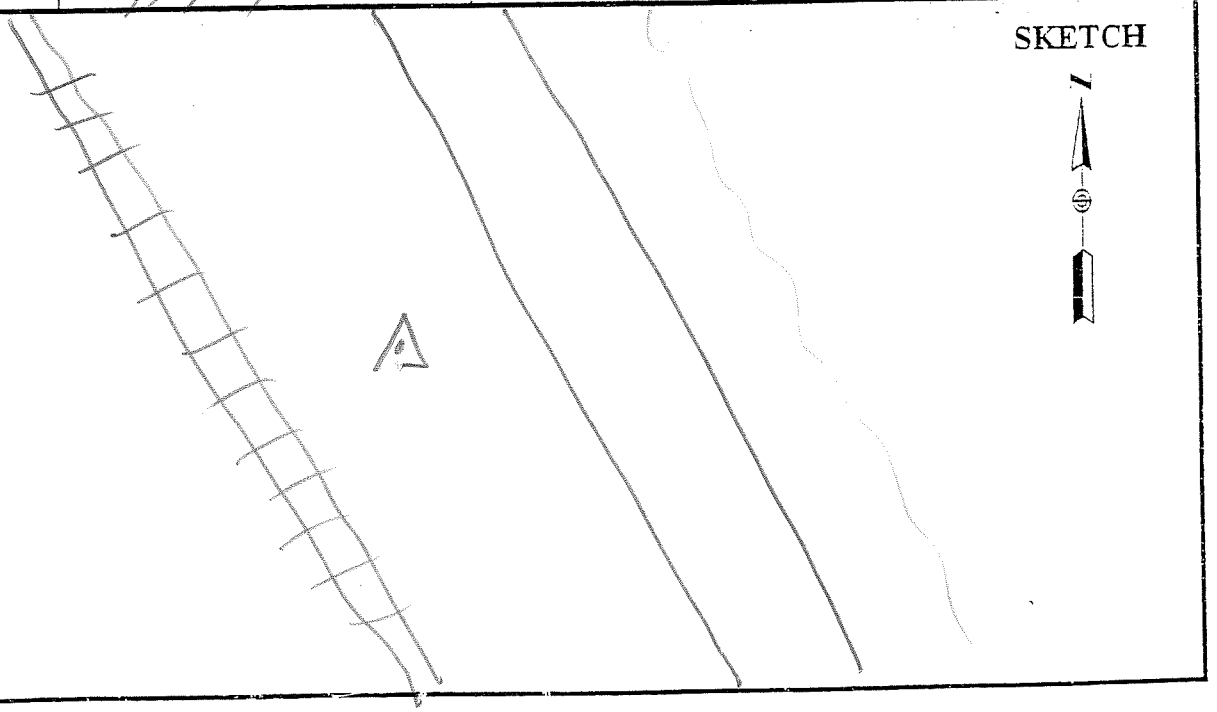
STATION DESCRIPTIONS POINT IN LONG GRASS Between SW EDGE RD AND RxR.

SATELLITE OBSERVATIONS

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
MC

TIME	GDOP	SATELLITES
16:04	2.1	9/9-9
16:31	2.1	9/9-9

SKETCH



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

CALHOUN

2

PROJECT 1101205
OPERATOR WJN
DATE 5/22/11

SITE NUMBER 6
SITE NAME 125

TRACKING TIMES (LOCAL) MEASURE CDT
START 11:41
STOP 12:10

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: TREE W

HEIGHT READINGS MTS FT
1284

STATION DESCRIPTIONS POINT IN LONG GRASS IN SW R/W

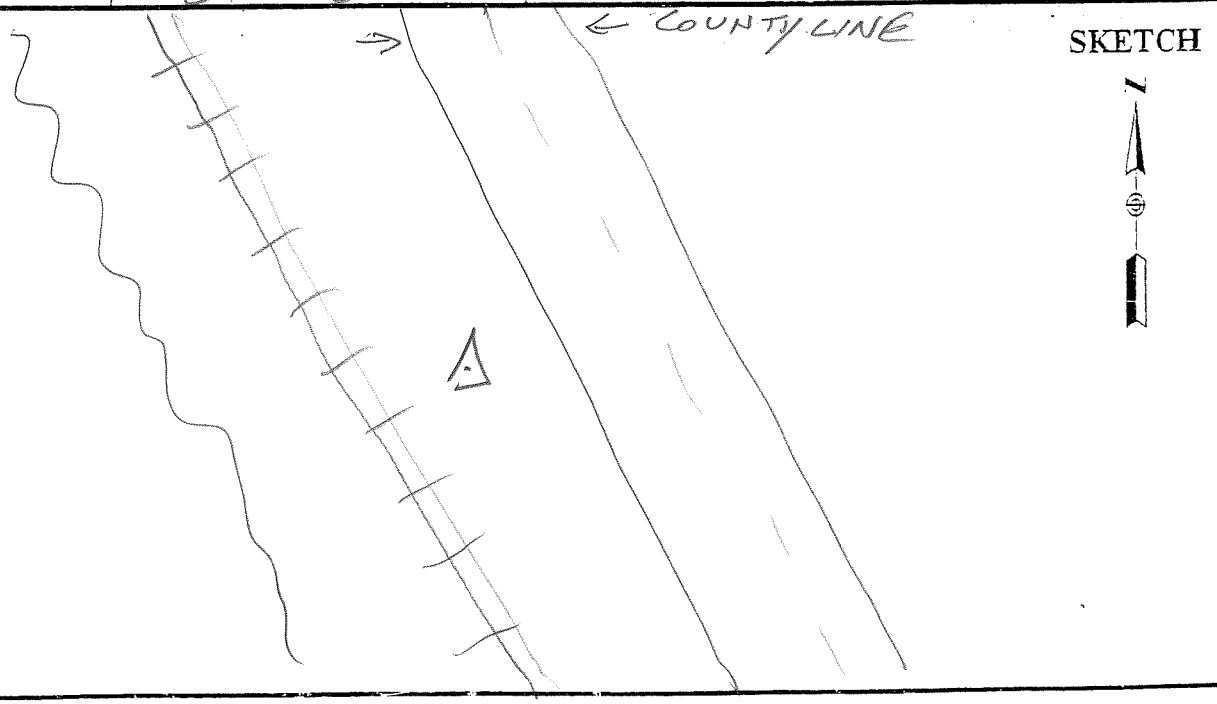
I-64C

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
16:41	2.3	8 18 8
17:10	2.2	8 18 8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
MC

SKETCH



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

CALHOUN

1

PROJECT 1101205
OPERATOR WJN
DATE 5/22/11

SITE NUMBER 7
SITE NAME 126

TRACKING TIMES (LOCAL) MEASURE CDT
START 12:27
STOP 13:00

SENSOR TYPE (500) 9500 399 299
MEMORY CARD 601
BATTERY NO.
CONTROLLER NO.
SENSOR NO.

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

OBSTRUCTIONS: OH Power lines

HEIGHT READINGS MTS FT
1.310

1-670

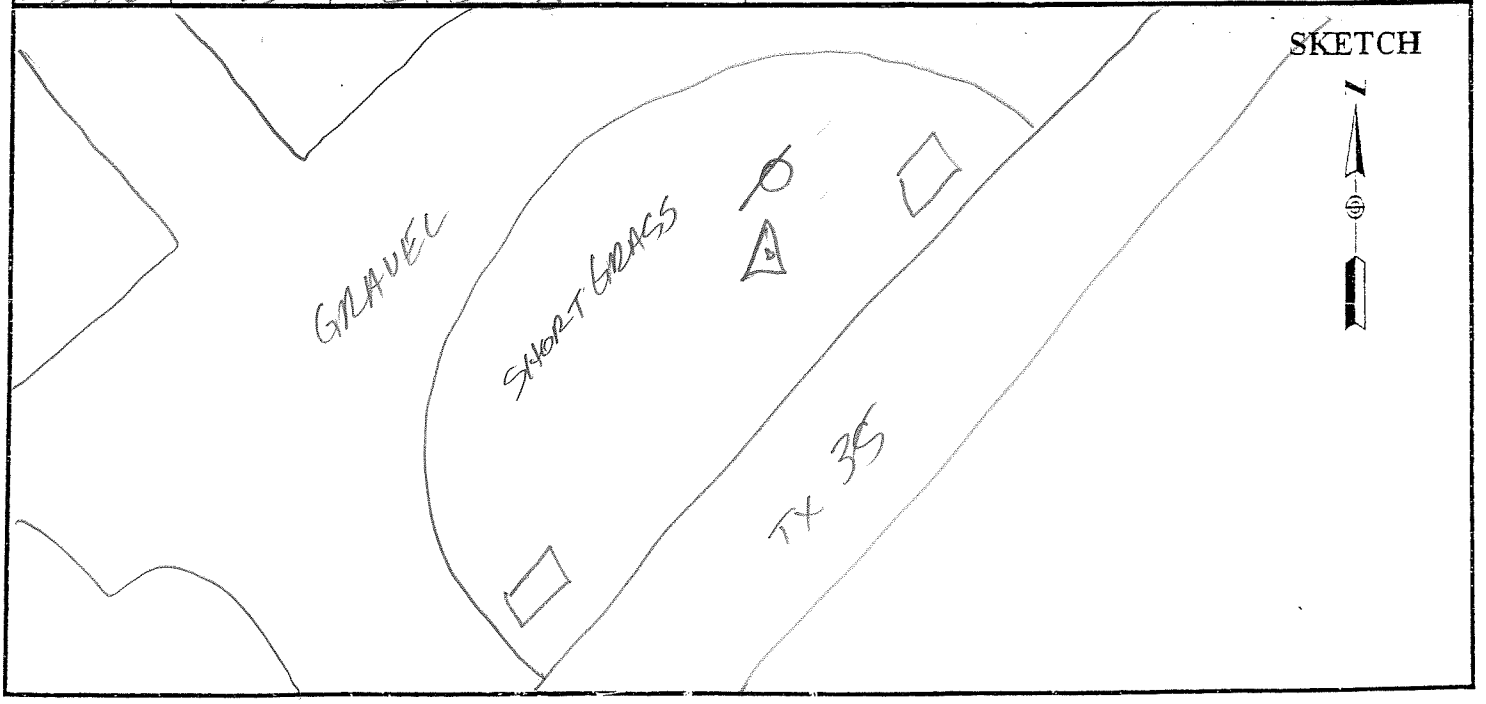
STATION DESCRIPTIONS POINT IN SHORT GRASS

SATELLITE OBSERVATIONS

TIME	GDOP	SATELLITES
12:27	2.1	9/9-9
13:00	2.3	8/9-8

WEATHER CONDITIONS/IMPORTANT OBSERVATIONS
MC

SKETCH



06:34:11, Wed May 25, 2011

INI file: C:\WINNT\GEOLAB.INI
Input file: R:\1101205\GEOM~6IZ\SURVEY\CALHOUN\GEO\C.IOB
Output file: R:\1101205\GEOM~6IZ\SURVEY\CALHOUN\GEO\C.LST

Geoid File: C:\GEOLAB2\G2009U06.GEO

PARAMETERS		OBSERVATIONS	
Description	Number	Description	Number
No. of Stations	133	Directions	0
Coord Parameters	388	Distances	0
Free Latitudes	130	Azimuths	0
Free Longitudes	130	Vertical Angles	0
Free Heights	128	Zenithal Angles	0
Fixed Coordinates	11	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.	945
Rotation Pars.	0		
Translation Pars.	0		
	--------		--------
Total Parameters	388	Total Observations	945
Degrees of Freedom = 557			

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	3145314.049		724479.715	2.496	UTM 14
			0.014		0.014	0.014	
SFMC		1	1.00022195	1	5 27.332234	UTM 14	
NEO	000	10	3140666.055		737006.278	1.735	UTM 14
			0.019		0.019	0.019	
SFMC		10	1.00029331	1	8 58.997287	UTM 14	
NEO	000	100	3161321.798		732813.292	4.408	UTM 14
			0.007		0.007	0.007	
SFMC		100	1.00026897	1	8 17.496848	UTM 14	
NEO	000	100C	3156552.661		716761.536	9.472	UTM 14
			0.003		0.003	0.003	
SFMC		100C	1.00017990	1	3 28.466527	UTM 14	
NEO	000	101	3162234.273		731478.276	4.519	UTM 14
			0.007		0.007	0.008	
SFMC		101	1.00026132	1	7 55.419576	UTM 14	
NEO	000	102	3163985.233		729556.717	5.542	UTM 14
			0.007		0.007	0.007	
SFMC		102	1.00025038	1	7 24.276393	UTM 14	
NEO	000	103	3165559.527		731076.494	4.251	UTM 14
			0.005		0.005	0.006	
SFMC		103	1.00025902	1	7 53.420435	UTM 14	
NEO	000	104	3166674.412		732634.451	4.897	UTM 14
			0.004		0.004	0.005	
SFMC		104	1.00026794	1	8 22.563606	UTM 14	
NEO	000	105	3169641.795		732111.197	5.713	UTM 14
			0.002		0.002	0.004	
SFMC		105	1.00026493	1	8 17.891289	UTM 14	
NEO	000	106	3170312.294		733339.368	1.684	UTM 14
			0.001		0.001	0.003	
SFMC		106	1.00027199	1	8 40.582248	UTM 14	
NEO	000	107	3162483.961		738408.001	2.764	UTM 14
			0.004		0.004	0.004	
SFMC		107	1.00030151	1	9 57.672692	UTM 14	
NEO	000	108	3157242.085		745067.318	0.975	UTM 14
			0.007		0.007	0.008	
SFMC		108	1.00034126	1	11 46.313227	UTM 14	
NEO	000	109	3142317.172		724951.768	1.737	UTM 14
			0.004		0.004	0.004	
SFMC		109	1.00022457	1	5 31.151697	UTM 14	
NEO	000	11	3146013.011		734101.905	4.058	UTM 14
			0.015		0.015	0.015	
SFMC		11	1.00027641	1	8 16.560215	UTM 14	
NEO	000	110	3146207.933		723486.588	3.322	UTM 14
			0.006		0.006	0.006	
SFMC		110	1.00021646	1	5 11.288857	UTM 14	
NEO	000	111	3148352.815		723058.321	4.340	UTM 14
			0.008		0.008	0.008	
SFMC		111	1.00021409	1	5 6.947607	UTM 14	
NEO	000	112	3150495.349		725896.466	3.887	UTM 14
			0.009		0.009	0.009	
SFMC		112	1.00022982	1	5 59.789301	UTM 14	
NEO	000	113	3152728.481		728413.393	3.667	UTM 14

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV		EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
			0.011		0.011	0.011	
SFMC		113	1.00024393	1	6 47.217271	UTM 14	
NEO	000	114	3154981.780		730312.443	3.688	UTM 14
			0.011		0.011	0.011	
SFMC		114	1.00025468	1	7 23.912705	UTM 14	
NEO	000	115	3158992.622		730975.500	5.206	UTM 14
			0.010		0.010	0.010	
SFMC		115	1.00025845	1	7 41.643294	UTM 14	
NEO	000	116	3156506.139		734587.141	3.514	UTM 14
			0.009		0.009	0.009	
SFMC		116	1.00027921	1	8 41.237717	UTM 14	
NEO	000	117	3152686.865		737777.026	2.357	UTM 14
			0.010		0.010	0.010	
SFMC		117	1.00029781	1	9 31.232886	UTM 14	
NEO	000	118	3146910.962		741843.420	3.824	UTM 14
			0.014		0.013	0.016	
SFMC		118	1.00032190	1	10 33.292700	UTM 14	
NEO	000	119	3145897.292		734177.169	4.095	UTM 14
			0.011		0.011	0.011	
SFMC		119	1.00027685	1	8 17.697609	UTM 14	
NEO	000	12	3145430.747		728621.085	4.156	UTM 14
			0.014		0.014	0.014	
SFMC		12	1.00024511	1	6 39.882907	UTM 14	
NEO	000	120	3156266.228		716898.875	8.916	UTM 14
			0.003		0.003	0.004	
SFMC		120	1.00018063	1	3 30.467973	UTM 14	
NEO	000	121	3149482.305		721352.836	5.072	UTM 14
			0.010		0.010	0.010	
SFMC		121	1.00020474	1	4 38.750924	UTM 14	
NEO	000	122	3153545.738		718693.617	7.784	UTM 14
			0.005		0.005	0.006	
SFMC		122	1.00019029	1	3 58.048758	UTM 14	
NEO	000	123	3159768.243		717325.973	9.540	UTM 14
			0.005		0.005	0.006	
SFMC		123	1.00018292	1	3 42.977681	UTM 14	
NEO	000	124	3163252.831		712310.363	12.844	UTM 14
			0.009		0.009	0.010	
SFMC		124	1.00015632	1	2 19.710070	UTM 14	
NEO	000	125	3167865.873		708064.441	15.739	UTM 14
			0.014		0.014	0.014	
SFMC		125	1.00013428	1	1 11.321673	UTM 14	
NEO	000	126	3159374.075		718915.000	9.528	UTM 14
			0.005		0.005	0.005	
SFMC		126	1.00019148	1	4 10.333413	UTM 14	
NEO	000	13	3142580.343		724609.788	1.667	UTM 14
			0.004		0.004	0.004	
SFMC		13	1.00022267	1	5 25.570156	UTM 14	
NEO	000	14	3152436.998		723264.030	5.196	UTM 14
			0.008		0.008	0.008	
SFMC		14	1.00021522	1	5 16.546150	UTM 14	
NEO	000	15	3127008.468		716834.295	1.721	UTM 14
			0.011		0.011	0.011	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
SFMC		15	1.00018032	1 2 47.654912	UTM 14	
NEO	000	16	3152057.948	709224.027	4.246	UTM 14
			0.010	0.010	0.010	
SFMC		16	1.00014027	1 1 9.966504	UTM 14	
NEO	000	17	3161882.560	740554.494	2.928	UTM 14
			0.003	0.003	0.003	
SFMC		17	1.00031420	1 10 34.466607	UTM 14	
NEO	000	18	3164218.856	737666.719	4.181	UTM 14
			0.013	0.013	0.014	
SFMC		18	1.00029715	1 9 47.354926	UTM 14	
NEO	000	19	3162310.529	731495.515	4.851	UTM 14
			0.010	0.010	0.010	
SFMC		19	1.00026142	1 7 55.839118	UTM 14	
NEO	000	2	3146031.513	723469.576	4.619	UTM 14
			0.013	0.013	0.013	
SFMC		2	1.00021636	1 5 10.732253	UTM 14	
NEO	000	20	3166738.587	729675.049	5.944	UTM 14
			0.006	0.006	0.007	
SFMC		20	1.00025105	1 7 30.529692	UTM 14	
NEO	000	21	3171559.429	726631.464	8.718	UTM 14
			0.000	0.000	0.001	
SFMC		21	1.00023390	1 6 44.122783	UTM 14	
NEO	000	22	3173018.135	723911.451	9.468	UTM 14
			0.003	0.003	0.004	
SFMC		22	1.00021877	1 5 58.273800	UTM 14	
NEO	000	23	3176299.105	728376.146	1.322	UTM 14
			0.006	0.005	0.007	
SFMC		23	1.00024369	1 7 22.063604	UTM 14	
NEO	000	24	3176204.051	751688.767	3.134	UTM 14
			0.017	0.017	0.017	
SFMC		24	1.00038184	1 14 13.991131	UTM 14	
NEO	000	25	3173080.077	752884.188	1.807	UTM 14
			0.016	0.016	0.017	
SFMC		25	1.00038929	1 14 29.899382	UTM 14	
NEO	000	26	3170359.460	748671.854	2.625	UTM 14
			0.012	0.012	0.012	
SFMC		26	1.00036321	1 13 11.075464	UTM 14	
NEO	000	27	3174522.151	748968.450	5.221	UTM 14
			0.015	0.015	0.015	
SFMC		27	1.00036503	1 13 23.148663	UTM 14	
NEO	000	28	3175968.622	745507.353	3.649	UTM 14
			0.014	0.014	0.014	
SFMC		28	1.00034390	1 12 24.361745	UTM 14	
NEO	000	29	3176599.370	742557.366	7.275	UTM 14
			0.013	0.013	0.013	
SFMC		29	1.00032613	1 11 33.236704	UTM 14	
NEO	000	3	3148478.540	722041.681	5.042	UTM 14
			0.011	0.011	0.011	
SFMC		3	1.00020851	1 4 49.342949	UTM 14	
NEO	000	30	3171297.854	739165.881	5.641	UTM 14
			0.009	0.009	0.009	
SFMC		30	1.00030597	1 10 24.906663	UTM 14	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
NEO	000	31	3171699.300	758564.409	2.340	UTM 14
			0.020	0.020	0.020	
SFMC		31	1.00042515	1 16 7.803571		UTM 14
NEO	000	32	3156575.186	745883.279	1.093	UTM 14
			0.009	0.009	0.009	
SFMC		32	1.00034621	1 11 59.553135		UTM 14
NEO	000	33	3158870.856	743280.351	2.134	UTM 14
			0.005	0.005	0.005	
SFMC		33	1.00033049	1 11 17.562097		UTM 14
NEO	000	34	3165805.370	730949.068	4.967	UTM 14
			0.007	0.007	0.007	
SFMC		34	1.00025829	1 7 51.551180		UTM 14
NEO	000	35	3170098.617	732964.157	4.773	UTM 14
			0.007	0.007	0.007	
SFMC		35	1.00026983	1 8 33.635354		UTM 14
NEO	000	36	3175780.043	739099.176	6.995	UTM 14
			0.011	0.011	0.011	
SFMC		36	1.00030557	1 10 30.807459		UTM 14
NEO	000	37	3173064.026	730536.473	6.615	UTM 14
			0.005	0.005	0.005	
SFMC		37	1.00025593	1 7 55.329957		UTM 14
NEO	000	38	3169720.759	720849.914	10.179	UTM 14
			0.007	0.007	0.007	
SFMC		38	1.00020197	1 4 59.400431		UTM 14
NEO	000	39	3167290.782	724242.156	8.549	UTM 14
			0.006	0.005	0.006	
SFMC		39	1.00022061	1 5 55.635745		UTM 14
NEO	000	4	3150978.914	720383.325	6.841	UTM 14
			0.008	0.008	0.009	
SFMC		4	1.00019945	1 4 23.949666		UTM 14
NEO	000	40	3154123.675	711075.484	1.507	UTM 14
			0.007	0.007	0.008	
SFMC		40	1.00014987	1 1 45.282478		UTM 14
NEO	000	41	3156141.665	714092.275	8.238	UTM 14
			0.004	0.004	0.004	
SFMC		41	1.00016570	1 2 41.034155		UTM 14
NEO	000	42	3162705.645	718536.922	11.417	UTM 14
			0.007	0.007	0.007	
SFMC		42	1.00018943	1 4 8.489304		UTM 14
NEO	000	43	3159757.158	714678.655	11.543	UTM 14
			0.005	0.005	0.005	
SFMC		43	1.00016880	1 2 56.438694		UTM 14
NEO	000	44	3162670.466	712751.041	13.416	UTM 14
			0.008	0.008	0.008	
SFMC		44	1.00015863	1 2 26.647974		UTM 14
NEO	000	45	3164604.427	711119.452	14.768	UTM 14
			0.010	0.010	0.010	
SFMC		45	1.00015009	1 2 0.634575		UTM 14
NEO	000	46	3167597.135	708342.386	16.719	UTM 14
			0.013	0.013	0.013	
SFMC		46	1.00013571	1 1 15.852058		UTM 14
NEO	000	47	3171579.201	717984.017	11.949	UTM 14

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV		EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
			0.009		0.009	0.009	
SFMC		47	1.00018644	1	4 11.524961	UTM 14	
NEO	000	48	3164773.262		724631.988	7.825	UTM 14
			0.007		0.007	0.007	
SFMC		48	1.00022277	1	5 58.774608	UTM 14	
NEO	000	49	3167104.276		727545.034	6.435	UTM 14
			0.005		0.005	0.005	
SFMC		49	1.00023903	1	6 53.555227	UTM 14	
NEO	000	5	3153295.238		718875.074	7.786	UTM 14
			0.005		0.005	0.005	
SFMC		5	1.00019127	1	4 0.869177	UTM 14	
NEO	000	50	3162265.343		723320.886	9.004	UTM 14
			0.008		0.008	0.008	
SFMC		50	1.00021552	1	5 31.999998	UTM 14	
NEO	000	51	3147943.713		722489.505	4.920	UTM 14
			0.007		0.007	0.007	
SFMC		51	1.00021096	1	4 56.396383	UTM 14	
NEO	000	52	3149321.380		724349.508	4.723	UTM 14
			0.007		0.007	0.008	
SFMC		52	1.00022122	1	5 30.968536	UTM 14	
NEO	000	53	3150781.293		726306.451	4.735	UTM 14
			0.008		0.008	0.009	
SFMC		53	1.00023211	1	6 7.394031	UTM 14	
NEO	000	54	3155397.216		724298.800	5.411	UTM 14
			0.008		0.008	0.008	
SFMC		54	1.00022093	1	5 39.050080	UTM 14	
NEO	000	55	3153893.404		726403.166	5.179	UTM 14
			0.009		0.009	0.009	
SFMC		55	1.00023264	1	6 13.724781	UTM 14	
NEO	000	56	3152642.202		728326.254	4.214	UTM 14
			0.010		0.010	0.010	
SFMC		56	1.00024344	1	6 45.560564	UTM 14	
NEO	000	57	3154468.348		729743.242	4.552	UTM 14
			0.011		0.011	0.011	
SFMC		57	1.00025145	1	7 13.153008	UTM 14	
NEO	000	58	3153506.442		730092.597	4.137	UTM 14
			0.011		0.011	0.011	
SFMC		58	1.00025343	1	7 17.822132	UTM 14	
NEO	000	59	3148150.158		726485.365	3.777	UTM 14
			0.007		0.007	0.007	
SFMC		59	1.00023311	1	6 6.607237	UTM 14	
NEO	000	6	3156541.604		716757.953	9.567	UTM 14
			0.003		0.003	0.003	
SFMC		6	1.00017988	1	3 28.387849	UTM 14	
NEO	000	60	3146083.072		727074.068	4.209	UTM 14
			0.006		0.006	0.006	
SFMC		60	1.00023641	1	6 13.820069	UTM 14	
NEO	000	61	3161231.684		724395.714	8.767	UTM 14
			0.010		0.010	0.010	
SFMC		61	1.00022146	1	5 49.375384	UTM 14	
NEO	000	62	3158582.928		723413.436	6.900	UTM 14
			0.008		0.008	0.008	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
SFMC		62	1.00021604	1 5 28.205908	UTM 14	
NEO	000	63	3156088.146	722270.363	6.413	UTM 14
			0.007	0.007	0.007	
SFMC		63	1.00020975	1 5 4.476076	UTM 14	
NEO	000	64	3159983.076	734843.372	4.256	UTM 14
			0.007	0.007	0.007	
SFMC		64	1.00028069	1 8 51.112792	UTM 14	
NEO	000	65	3146942.877	741846.296	4.282	UTM 14
			0.015	0.015	0.015	
SFMC		65	1.00032191	1 10 33.393719	UTM 14	
NEO	000	66	3150047.643	740163.971	3.124	UTM 14
			0.012	0.012	0.013	
SFMC		66	1.00031190	1 10 8.885063	UTM 14	
NEO	000	67	3152507.895	738356.041	2.066	UTM 14
			0.010	0.010	0.010	
SFMC		67	1.00030122	1 9 41.097437	UTM 14	
NEO	000	68	3154514.556	736140.197	3.022	UTM 14
			0.009	0.009	0.010	
SFMC		68	1.00028824	1 9 5.393316	UTM 14	
NEO	000	69	3124185.728	729985.128	2.073	UTM 14
			0.015	0.015	0.015	
SFMC		69	1.00025286	1 6 31.660423	UTM 14	
NEO	000	7	3149113.782	754325.810	1.387	UTM 14
			0.022	0.022	0.022	
SFMC		7	1.00039835	1 14 15.180896	UTM 14	
NEO	000	70	3122062.040	728775.520	1.468	UTM 14
			0.015	0.015	0.015	
SFMC		70	1.00024601	1 6 7.507580	UTM 14	
NEO	000	71	3122231.443	726683.177	0.667	UTM 14
			0.014	0.014	0.014	
SFMC		71	1.00023424	1 5 31.512172	UTM 14	
NEO	000	72	3117052.502	722370.476	1.590	UTM 14
			0.015	0.015	0.015	
SFMC		72	1.00021034	1 4 9.254574	UTM 14	
NEO	000	73	3118276.461	720376.263	0.987	UTM 14
			0.014	0.014	0.014	
SFMC		73	1.00019944	1 3 36.534843	UTM 14	
NEO	000	74	3112751.408	715923.994	1.705	UTM 14
			0.018	0.018	0.018	
SFMC		74	1.00017547	1 2 11.701779	UTM 14	
NEO	000	75	3112138.848	714953.352	1.911	UTM 14
			0.018	0.018	0.018	
SFMC		75	1.00017031	1 1 54.082093	UTM 14	
NEO	000	76	3172025.025	728712.916	6.914	UTM 14
			0.002	0.002	0.003	
SFMC		76	1.00024560	1 7 21.560448	UTM 14	
NEO	000	77	3167561.387	729470.850	5.974	UTM 14
			0.004	0.004	0.004	
SFMC		77	1.00024989	1 7 28.178157	UTM 14	
NEO	000	78	3163194.726	724916.527	5.380	UTM 14
			0.008	0.008	0.008	
SFMC		78	1.00022435	1 6 1.442564	UTM 14	

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
NEO	000	79	3160975.762	728872.432	6.551	UTM 14
			0.008	0.008	0.009	
SFMC		79	1.00024651	1 7 7.693439	UTM 14	
NEO	000	8	3150322.218	753947.666	2.412	UTM 14
			0.021	0.021	0.021	
SFMC		8	1.00039597	1 14 10.584078	UTM 14	
NEO	000	80	3157743.443	733648.472	4.029	UTM 14
			0.011	0.011	0.011	
SFMC		80	1.00027378	1 8 26.670218	UTM 14	
NEO	000	81	3160417.818	731583.478	4.914	UTM 14
			0.009	0.009	0.009	
SFMC		81	1.00026192	1 7 54.497105	UTM 14	
NEO	000	82	3156600.911	730586.685	5.129	UTM 14
			0.012	0.012	0.012	
SFMC		82	1.00025624	1 7 31.181017	UTM 14	
NEO	000	83	3155104.676	717655.418	8.920	UTM 14
			0.016	0.016	0.016	
SFMC		83	1.00018469	1 3 42.080715	UTM 14	
NEO	000	84	3158124.592	718347.036	9.073	UTM 14
			0.014	0.014	0.014	
SFMC		84	1.00018841	1 3 58.556460	UTM 14	
NEO	000	85	3159131.936	719641.466	9.194	UTM 14
			0.013	0.013	0.013	
SFMC		85	1.00019541	1 4 22.747252	UTM 14	
NEO	000	86	3168100.802	730369.727	6.234	UTM 14
			0.003	0.003	0.003	
SFMC		86	1.00025499	1 7 44.837737	UTM 14	
NEO	000	87	3176581.929	748915.446	4.617	UTM 14
			0.007	0.007	0.007	
SFMC		87	1.00036470	1 13 25.599471	UTM 14	
NEO	000	88	3175438.696	748923.427	4.812	UTM 14
			0.007	0.007	0.007	
SFMC		88	1.00036475	1 13 23.860474	UTM 14	
NEO	000	89	3175406.024	747892.806	3.224	UTM 14
			0.007	0.007	0.007	
SFMC		89	1.00035843	1 13 5.597379	UTM 14	
NEO	000	9	3147522.632	748259.989	2.853	UTM 14
			0.019	0.019	0.020	
SFMC		9	1.00036071	1 12 26.464411	UTM 14	
NEO	000	90	3173690.402	748412.949	4.460	UTM 14
			0.007	0.007	0.008	
SFMC		90	1.00036162	1 13 11.972565	UTM 14	
NEO	000	91	3171718.465	749115.889	3.233	UTM 14
			0.008	0.008	0.009	
SFMC		91	1.00036594	1 13 21.140745	UTM 14	
NEO	000	92	3170376.791	748600.727	2.715	UTM 14
			0.009	0.009	0.009	
SFMC		92	1.00036277	1 13 9.849579	UTM 14	
NEO	000	93	3173486.938	753096.253	3.108	UTM 14
			0.009	0.009	0.009	
SFMC		93	1.00039061	1 14 34.322672	UTM 14	
NEO	000	94	3176005.496	745955.976	1.431	UTM 14

Adjusted NEO Coordinates:

CODE	FFF	STATION	NORTHING STD DEV	EASTING STD DEV	O-HEIGHT STD DEV	MAPPROJ
			0.007	0.007	0.008	
SFMC		94	1.00034662	1 12 32.350077	UTM 14	
NEO	000	95	3161365.615	741958.797	0.919	UTM 14
			0.003	0.003	0.003	
SFMC		95	1.00032257	1 10 58.331602	UTM 14	
NEO	000	96	3160677.515	740080.136	1.076	UTM 14
			0.003	0.003	0.003	
SFMC		96	1.00031139	1 10 24.220005	UTM 14	
NEO	000	97	3159365.482	740679.306	2.165	UTM 14
			0.004	0.004	0.004	
SFMC		97	1.00031495	1 10 32.668846	UTM 14	
NEO	000	98	3160328.333	737987.800	3.851	UTM 14
			0.004	0.004	0.004	
SFMC		98	1.00029904	1 9 46.901898	UTM 14	
NEO	000	99	3159938.587	735133.020	4.290	UTM 14
			0.006	0.006	0.006	
SFMC		99	1.00028237	1 8 56.133095	UTM 14	
NEO	001	A 1257	3171454.774	706886.619	16.961	UTM 14
			0.012	0.012	0.000	
SFMC		A 1257	1.00012825	1 0 55.459239	UTM 14	
NEO	000	B 595	3149759.857	705327.854	12.016	UTM 14
			0.013	0.013	0.013	
SFMC		B 595	1.00012034	0 59 58.580590	UTM 14	
NEO	001	E 1258	3168647.639	703055.575	8.168	UTM 14
			0.013	0.013	0.000	
SFMC		E 1258	1.00010887	0 59 44.065386	UTM 14	
NEO	111	LAVAPORT	3171696.909	726581.293	8.315	UTM 14
			0.000	0.000	0.000	
SFMC		LAVAPORT	1.00023362	1 6 43.443006	UTM 14	
NEO	111	TXPV	3170219.011	732795.934	11.996	UTM 14
			0.000	0.000	0.000	
SFMC		TXPV	1.00026886	1 8 30.853330	UTM 14	
NEO	111	TXVA	3191492.113	703952.777	38.634	UTM 14
			0.000	0.000	0.000	
SFMC		TXVA	1.00011335	1 0 30.699980	UTM 14	

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	1	N 28 24 54.05514	0.014	W 96 42 30.24078	0.014	-24.544	0.014
PLH	000	10	N 28 22 15.18626	0.019	W 96 34 53.63795	0.019	-25.199	0.019
PLH	000	100	N 28 33 28.54431	0.007	W 96 37 12.53674	0.007	-22.699	0.007
PLH	000	100C	N 28 31 3.68238	0.003	W 96 47 6.10163	0.003	-17.768	0.003
PLH	000	101	N 28 33 59.02905	0.007	W 96 38 0.96745	0.007	-22.611	0.008
PLH	000	102	N 28 34 57.10723	0.007	W 96 39 10.37462	0.007	-21.626	0.007
PLH	000	103	N 28 35 47.25017	0.005	W 96 38 13.32950	0.005	-22.915	0.006
PLH	000	104	N 28 36 22.44504	0.004	W 96 37 15.20090	0.004	-22.260	0.005
PLH	000	105	N 28 37 59.12556	0.002	W 96 37 32.28340	0.002	-21.478	0.004
PLH	000	106	N 28 38 20.10020	0.001	W 96 36 46.59408	0.001	-25.497	0.003
PLH	000	107	N 28 34 2.62304	0.004	W 96 33 45.93462	0.004	-24.290	0.004
PLH	000	108	N 28 31 7.98625	0.007	W 96 29 45.07149	0.007	-26.004	0.008
PLH	000	109	N 28 23 16.45386	0.004	W 96 42 15.00283	0.004	-25.273	0.004
PLH	000	11	N 28 25 10.67226	0.015	W 96 36 36.35707	0.015	-22.921	0.015
PLH	000	110	N 28 25 23.69265	0.006	W 96 43 6.09246	0.006	-23.737	0.006
PLH	000	111	N 28 26 33.60138	0.008	W 96 43 20.33060	0.008	-22.745	0.008
PLH	000	112	N 28 27 41.41193	0.009	W 96 41 34.55806	0.009	-23.193	0.009
PLH	000	113	N 28 28 52.34165	0.011	W 96 40 0.48817	0.011	-23.411	0.011
PLH	000	114	N 28 30 4.29972	0.011	W 96 38 49.07892	0.011	-23.391	0.011
PLH	000	115	N 28 32 14.10150	0.010	W 96 38 21.80704	0.010	-21.900	0.010
PLH	000	116	N 28 30 51.04495	0.009	W 96 36 10.84759	0.009	-23.537	0.009
PLH	000	117	N 28 28 44.96251	0.010	W 96 34 16.43649	0.010	-24.643	0.010
PLH	000	118	N 28 25 34.75013	0.014	W 96 31 51.37965	0.013	-23.122	0.016
PLH	000	119	N 28 25 6.86654	0.011	W 96 36 33.67738	0.011	-22.883	0.011
PLH	000	12	N 28 24 55.26000	0.014	W 96 39 58.06255	0.014	-22.852	0.014
PLH	000	120	N 28 30 54.29911	0.003	W 96 47 1.24708	0.003	-18.320	0.004

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	121	N 28 27 11.32184	0.010	W 96 44 22.20413	0.010	-22.042	0.010
PLH	000	122	N 28 29 24.88070	0.005	W 96 45 57.12944	0.005	-19.403	0.006
PLH	000	123	N 28 32 47.75740	0.005	W 96 46 43.16047	0.005	-17.725	0.006
PLH	000	124	N 28 34 43.89371	0.009	W 96 49 45.28496	0.009	-14.490	0.010
PLH	000	125	N 28 37 16.16771	0.014	W 96 52 18.46045	0.014	-11.647	0.014
PLH	000	126	N 28 32 33.99852	0.005	W 96 45 44.99694	0.005	-17.717	0.005
PLH	000	13	N 28 23 25.21062	0.004	W 96 42 27.37540	0.004	-25.347	0.004
PLH	000	14	N 28 28 46.08922	0.008	W 96 43 9.92606	0.008	-21.930	0.008
PLH	000	15	N 28 15 4.27640	0.011	W 96 47 23.35474	0.011	-25.209	0.011
PLH	000	16	N 28 28 42.16590	0.010	W 96 51 46.16133	0.010	-23.025	0.010
PLH	000	17	N 28 33 41.67344	0.003	W 96 32 27.45147	0.003	-24.103	0.003
PLH	000	18	N 28 34 59.43757	0.013	W 96 34 11.90054	0.013	-22.894	0.014
PLH	000	19	N 28 34 1.49384	0.010	W 96 38 0.27802	0.010	-22.280	0.010
PLH	000	2	N 28 25 17.97471	0.013	W 96 43 6.84016	0.013	-22.438	0.013
PLH	000	20	N 28 36 26.42788	0.006	W 96 39 4.03374	0.006	-21.250	0.007
PLH	000	21	N 28 39 4.88172	0.000	W 96 40 52.57253	0.000	-18.551	0.001
PLH	000	22	N 28 39 53.94889	0.003	W 96 42 31.66112	0.003	-17.838	0.004
PLH	000	23	N 28 41 37.66516	0.006	W 96 39 44.93832	0.005	-25.957	0.007
PLH	000	24	N 28 41 18.98977	0.017	W 96 25 26.68641	0.017	-23.864	0.017
PLH	000	25	N 28 39 36.73994	0.016	W 96 24 45.17252	0.016	-25.172	0.017
PLH	000	26	N 28 38 11.35959	0.012	W 96 27 22.33702	0.012	-24.375	0.012
PLH	000	27	N 28 40 26.28752	0.015	W 96 27 8.15507	0.015	-21.794	0.015
PLH	000	28	N 28 41 15.62752	0.014	W 96 29 14.43679	0.014	-23.412	0.014
PLH	000	29	N 28 41 38.10962	0.013	W 96 31 2.55937	0.013	-19.829	0.013
PLH	000	3	N 28 26 38.30769	0.011	W 96 43 57.59133	0.011	-22.055	0.011
PLH	000	30	N 28 38 48.27024	0.009	W 96 33 11.43173	0.009	-21.472	0.009

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	31	N 28 38 47.87814	0.020	W 96 21 17.25239	0.020	-24.609	0.020
PLH	000	32	N 28 30 45.78169	0.009	W 96 29 15.59305	0.009	-25.879	0.009
PLH	000	33	N 28 32 2.07135	0.005	W 96 30 49.51352	0.005	-24.862	0.005
PLH	000	34	N 28 35 55.31383	0.007	W 96 38 17.83868	0.007	-22.203	0.007
PLH	000	35	N 28 38 13.40594	0.007	W 96 37 0.55936	0.007	-22.411	0.007
PLH	000	36	N 28 41 13.83047	0.011	W 96 33 10.50484	0.011	-20.150	0.011
PLH	000	37	N 28 39 51.24941	0.005	W 96 38 27.74618	0.005	-20.622	0.005
PLH	000	38	N 28 38 8.77856	0.007	W 96 44 26.66405	0.007	-17.133	0.007
PLH	000	39	N 28 36 47.78074	0.006	W 96 42 23.53405	0.005	-18.712	0.006
PLH	000	4	N 28 28 0.50887	0.008	W 96 44 56.79459	0.008	-20.300	0.009
PLH	000	40	N 28 29 48.17139	0.007	W 96 50 36.75317	0.007	-25.767	0.008
PLH	000	41	N 28 30 51.92719	0.004	W 96 48 44.51084	0.004	-19.025	0.004
PLH	000	42	N 28 34 22.40632	0.007	W 96 45 56.61472	0.007	-15.862	0.007
PLH	000	43	N 28 32 48.98116	0.005	W 96 48 20.52096	0.005	-15.747	0.005
PLH	000	44	N 28 34 24.72341	0.008	W 96 49 29.46327	0.008	-13.912	0.008
PLH	000	45	N 28 35 28.48242	0.010	W 96 50 28.19755	0.010	-12.583	0.010
PLH	000	46	N 28 37 7.28028	0.013	W 96 52 8.40780	0.013	-10.664	0.013
PLH	000	47	N 28 39 10.87107	0.009	W 96 46 10.86448	0.009	-15.398	0.009
PLH	000	48	N 28 35 25.79595	0.007	W 96 42 10.96886	0.007	-19.408	0.007
PLH	000	49	N 28 36 39.65322	0.005	W 96 40 22.13945	0.005	-20.787	0.005
PLH	000	5	N 28 29 16.63699	0.005	W 96 45 50.63164	0.005	-19.396	0.005
PLH	000	50	N 28 34 5.17957	0.008	W 96 43 0.96043	0.008	-18.219	0.008
PLH	000	51	N 28 26 20.66706	0.007	W 96 43 41.51082	0.007	-22.167	0.007
PLH	000	52	N 28 27 4.25423	0.007	W 96 42 32.21928	0.007	-22.359	0.008
PLH	000	53	N 28 27 50.44058	0.008	W 96 41 19.29225	0.008	-22.343	0.009
PLH	000	54	N 28 30 21.56749	0.008	W 96 42 29.82261	0.008	-21.735	0.008

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	55	N 28 29 31.42860	0.009	W 96 41 13.53648	0.009	-21.929	0.009
PLH	000	56	N 28 28 49.59523	0.010	W 96 40 3.75195	0.010	-22.864	0.010
PLH	000	57	N 28 29 47.99127	0.011	W 96 39 10.36882	0.011	-22.528	0.011
PLH	000	58	N 28 29 16.53767	0.011	W 96 38 58.22116	0.011	-22.931	0.011
PLH	000	59	N 28 26 24.89704	0.007	W 96 41 14.57853	0.007	-23.273	0.007
PLH	000	6	N 28 31 3.32547	0.003	W 96 47 6.24087	0.003	-17.672	0.003
PLH	000	60	N 28 25 17.41163	0.006	W 96 40 54.41630	0.006	-22.816	0.006
PLH	000	61	N 28 33 30.95027	0.010	W 96 42 22.15690	0.010	-18.435	0.010
PLH	000	62	N 28 32 5.55521	0.008	W 96 43 0.13751	0.008	-20.288	0.008
PLH	000	63	N 28 30 45.25442	0.007	W 96 43 43.90363	0.007	-20.762	0.007
PLH	000	64	N 28 32 43.76478	0.007	W 96 35 58.87032	0.007	-22.818	0.007
PLH	000	65	N 28 25 35.78437	0.015	W 96 31 51.24999	0.015	-22.664	0.015
PLH	000	66	N 28 27 17.70188	0.012	W 96 32 50.70907	0.012	-23.847	0.013
PLH	000	67	N 28 28 38.77130	0.010	W 96 33 55.29397	0.010	-24.929	0.010
PLH	000	68	N 28 29 45.37336	0.009	W 96 35 15.23265	0.009	-24.003	0.010
PLH	000	69	N 28 13 24.58514	0.015	W 96 39 23.11564	0.015	-24.750	0.015
PLH	000	7	N 28 26 37.72718	0.022	W 96 24 11.23679	0.022	-25.511	0.022
PLH	000	70	N 28 12 16.38661	0.015	W 96 40 8.95753	0.015	-25.342	0.015
PLH	000	71	N 28 12 23.18826	0.014	W 96 41 25.53100	0.014	-26.159	0.014
PLH	000	72	N 28 09 37.66236	0.015	W 96 44 7.15936	0.015	-25.213	0.015
PLH	000	73	N 28 10 18.61051	0.014	W 96 45 19.39799	0.014	-25.841	0.014
PLH	000	74	N 28 07 21.84089	0.018	W 96 48 6.21770	0.018	-25.078	0.018
PLH	000	75	N 28 07 2.51769	0.018	W 96 48 42.17533	0.018	-24.869	0.018
PLH	000	76	N 28 39 18.68054	0.002	W 96 39 35.62377	0.002	-20.336	0.003
PLH	000	77	N 28 36 53.27271	0.004	W 96 39 10.95242	0.004	-21.230	0.004
PLH	000	78	N 28 34 34.36468	0.008	W 96 42 1.61716	0.008	-21.835	0.008

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	000	79	N 28 33 19.82969	0.008	W 96 39 37.70761	0.008	-20.597	0.009
PLH	000	8	N 28 27 17.22130	0.021	W 96 24 24.16764	0.021	-24.496	0.021
PLH	000	80	N 28 31 31.82485	0.011	W 96 36 44.44583	0.011	-23.040	0.011
PLH	000	81	N 28 32 59.98529	0.009	W 96 37 58.41858	0.009	-22.199	0.009
PLH	000	82	N 28 30 56.69540	0.012	W 96 38 37.83054	0.012	-21.962	0.012
PLH	000	83	N 28 30 16.12738	0.016	W 96 46 34.22589	0.016	-18.296	0.016
PLH	000	84	N 28 31 53.77046	0.014	W 96 46 6.73749	0.014	-18.166	0.014
PLH	000	85	N 28 32 25.69498	0.013	W 96 45 18.45012	0.013	-18.041	0.013
PLH	000	86	N 28 37 10.21233	0.003	W 96 38 37.48786	0.003	-20.964	0.003
PLH	000	87	N 28 41 33.19037	0.007	W 96 27 8.48694	0.007	-22.408	0.007
PLH	000	88	N 28 40 56.07235	0.007	W 96 27 9.09201	0.007	-22.207	0.007
PLH	000	89	N 28 40 55.72468	0.007	W 96 27 47.05734	0.007	-23.807	0.007
PLH	000	9	N 28 25 50.27495	0.019	W 96 27 55.26105	0.019	-24.067	0.020
PLH	000	90	N 28 39 59.67107	0.007	W 96 27 29.25489	0.007	-22.556	0.008
PLH	000	91	N 28 38 55.16971	0.008	W 96 27 4.93122	0.008	-23.770	0.009
PLH	000	92	N 28 38 11.97137	0.009	W 96 27 24.94067	0.009	-24.286	0.009
PLH	000	93	N 28 39 49.79810	0.009	W 96 24 37.04294	0.009	-23.871	0.009
PLH	000	94	N 28 41 16.51749	0.007	W 96 28 57.89204	0.007	-25.625	0.008
PLH	000	95	N 28 33 23.95190	0.003	W 96 31 36.20428	0.003	-26.098	0.003
PLH	000	96	N 28 33 2.86671	0.003	W 96 32 45.80275	0.003	-25.953	0.003
PLH	000	97	N 28 32 19.87180	0.004	W 96 32 24.76212	0.004	-24.851	0.004
PLH	000	98	N 28 32 52.91537	0.004	W 96 34 2.99756	0.004	-23.194	0.004
PLH	000	99	N 28 32 42.13185	0.006	W 96 35 48.25314	0.006	-22.780	0.006
PLH	001	A 1257	N 28 39 13.38892	0.012	W 96 52 59.46713	0.012	-10.446	0.000
PLH	000	B 595	N 28 27 29.76770	0.013	W 96 54 10.83075	0.013	-15.266	0.013
PLH	001	E 1258	N 28 37 44.41523	0.013	W 96 55 22.30069	0.013	-19.248	0.000

Adjusted PLH Coordinates:

CODE	FFF	STATION	LATITUDE	STD DEV	LONGITUDE	STD DEV	ELIP-HEIGHT	STD DEV
PLH	111	LAVAPORT	N 28 39	9.37709	W 96 40	54.32098	-18.956	
				0.000		0.000		0.000
PLH	111	TXPV	N 28 38	17.42370	W 96 37	6.66181	-15.191	
				0.000		0.000		0.000
PLH	111	TXVA	N 28 50	5.73900	W 96 54	34.52532	11.151	
				0.000		0.000		0.000

Geoid Values:

CODE	NAME	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	1	+ 0 0 2.0	- 0 0 1.5	-27.040
GEOI	10	+ 0 0 1.2	- 0 0 0.8	-26.934
GEOI	100	+ 0 0 1.8	- 0 0 2.0	-27.107
GEOI	100C	+ 0 0 2.0	- 0 0 1.9	-27.240
GEOI	101	+ 0 0 2.0	- 0 0 2.0	-27.130
GEOI	102	+ 0 0 2.1	- 0 0 2.0	-27.168
GEOI	103	+ 0 0 2.0	- 0 0 2.2	-27.166
GEOI	104	+ 0 0 2.0	- 0 0 2.2	-27.157
GEOI	105	+ 0 0 1.8	- 0 0 2.2	-27.191
GEOI	106	+ 0 0 1.8	- 0 0 2.3	-27.181
GEOI	107	+ 0 0 1.7	- 0 0 1.6	-27.054
GEOI	108	+ 0 0 0.8	- 0 0 1.0	-26.978
GEOI	109	+ 0 0 1.8	- 0 0 1.3	-27.010
GEOI	11	+ 0 0 1.4	- 0 0 1.0	-26.979
GEOI	110	+ 0 0 2.1	- 0 0 1.7	-27.059
GEOI	111	+ 0 0 2.2	- 0 0 1.7	-27.085
GEOI	112	+ 0 0 2.1	- 0 0 1.7	-27.079
GEOI	113	+ 0 0 1.9	- 0 0 1.8	-27.078
GEOI	114	+ 0 0 1.9	- 0 0 1.8	-27.079
GEOI	115	+ 0 0 2.0	- 0 0 1.9	-27.107
GEOI	116	+ 0 0 1.5	- 0 0 1.6	-27.051
GEOI	117	+ 0 0 1.2	- 0 0 1.2	-27.000
GEOI	118	+ 0 0 1.1	- 0 0 0.7	-26.946
GEOI	119	+ 0 0 1.4	- 0 0 1.0	-26.978
GEOI	12	+ 0 0 1.8	- 0 0 1.2	-27.008
GEOI	120	+ 0 0 2.0	- 0 0 1.9	-27.236
GEOI	121	+ 0 0 2.3	- 0 0 1.9	-27.115
GEOI	122	+ 0 0 2.4	- 0 0 2.0	-27.187
GEOI	123	+ 0 0 1.8	- 0 0 1.9	-27.265
GEOI	124	+ 0 0 1.4	- 0 0 1.2	-27.334
GEOI	125	+ 0 0 0.9	- 0 0 0.9	-27.386
GEOI	126	+ 0 0 1.9	- 0 0 1.9	-27.245
GEOI	13	+ 0 0 1.8	- 0 0 1.3	-27.014
GEOI	14	+ 0 0 2.3	- 0 0 1.9	-27.126
GEOI	15	+ 0 0 2.1	- 0 0 1.1	-26.930
GEOI	16	+ 0 0 2.0	- 0 0 1.6	-27.271
GEOI	17	+ 0 0 1.3	- 0 0 1.5	-27.031
GEOI	18	+ 0 0 1.8	- 0 0 1.9	-27.076
GEOI	19	+ 0 0 2.0	- 0 0 2.0	-27.130
GEOI	2	+ 0 0 2.1	- 0 0 1.7	-27.057
GEOI	20	+ 0 0 1.9	- 0 0 2.1	-27.194
GEOI	21	+ 0 0 1.4	- 0 0 2.0	-27.270
GEOI	22	+ 0 0 1.1	- 0 0 1.6	-27.306
GEOI	23	+ 0 0 0.9	- 0 0 1.8	-27.280
GEOI	24	+ 0 0 0.8	- 0 0 1.5	-26.998
GEOI	25	+ 0 0 0.6	- 0 0 1.2	-26.980
GEOI	26	+ 0 0 0.9	- 0 0 1.2	-27.000
GEOI	27	+ 0 0 1.0	- 0 0 1.6	-27.015
GEOI	28	+ 0 0 1.4	- 0 0 2.1	-27.061
GEOI	29	+ 0 0 1.7	- 0 0 2.4	-27.104
GEOI	3	+ 0 0 2.3	- 0 0 1.8	-27.097
GEOI	30	+ 0 0 1.5	- 0 0 2.4	-27.112
GEOI	31	- 0 0 0.1	- 0 0 0.9	-26.949

Geoid Values:

CODE	NAME	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	32	+ 0 0 0.7	- 0 0 0.9	-26.972
GEOI	33	+ 0 0 0.9	- 0 0 1.1	-26.995
GEOI	34	+ 0 0 2.0	- 0 0 2.2	-27.170
GEOI	35	+ 0 0 1.8	- 0 0 2.3	-27.184
GEOI	36	+ 0 0 1.6	- 0 0 2.4	-27.145
GEOI	37	+ 0 0 1.5	- 0 0 2.1	-27.237
GEOI	38	+ 0 0 1.4	- 0 0 1.6	-27.313
GEOI	39	+ 0 0 1.8	- 0 0 2.0	-27.261
GEOI	4	+ 0 0 2.2	- 0 0 1.8	-27.141
GEOI	40	+ 0 0 1.9	- 0 0 1.8	-27.274
GEOI	41	+ 0 0 1.9	- 0 0 1.9	-27.264
GEOI	42	+ 0 0 1.7	- 0 0 1.8	-27.279
GEOI	43	+ 0 0 1.7	- 0 0 1.6	-27.290
GEOI	44	+ 0 0 1.4	- 0 0 1.4	-27.328
GEOI	45	+ 0 0 1.4	- 0 0 1.2	-27.351
GEOI	46	+ 0 0 0.9	- 0 0 0.9	-27.383
GEOI	47	+ 0 0 0.9	- 0 0 1.3	-27.347
GEOI	48	+ 0 0 2.0	- 0 0 2.0	-27.233
GEOI	49	+ 0 0 1.9	- 0 0 2.1	-27.223
GEOI	5	+ 0 0 2.4	- 0 0 1.9	-27.182
GEOI	50	+ 0 0 2.0	- 0 0 2.0	-27.224
GEOI	51	+ 0 0 2.2	- 0 0 1.8	-27.087
GEOI	52	+ 0 0 2.2	- 0 0 1.8	-27.082
GEOI	53	+ 0 0 2.0	- 0 0 1.7	-27.078
GEOI	54	+ 0 0 2.1	- 0 0 1.9	-27.146
GEOI	55	+ 0 0 2.1	- 0 0 1.7	-27.108
GEOI	56	+ 0 0 1.9	- 0 0 1.8	-27.078
GEOI	57	+ 0 0 1.9	- 0 0 1.8	-27.081
GEOI	58	+ 0 0 1.9	- 0 0 1.6	-27.068
GEOI	59	+ 0 0 2.1	- 0 0 1.4	-27.049
GEOI	6	+ 0 0 2.0	- 0 0 1.9	-27.240
GEOI	60	+ 0 0 1.9	- 0 0 1.4	-27.025
GEOI	61	+ 0 0 2.0	- 0 0 2.1	-27.202
GEOI	62	+ 0 0 2.0	- 0 0 2.0	-27.188
GEOI	63	+ 0 0 2.1	- 0 0 2.0	-27.175
GEOI	64	+ 0 0 1.6	- 0 0 1.9	-27.074
GEOI	65	+ 0 0 1.1	- 0 0 0.7	-26.946
GEOI	66	+ 0 0 1.1	- 0 0 0.9	-26.971
GEOI	67	+ 0 0 1.2	- 0 0 1.2	-26.995
GEOI	68	+ 0 0 1.3	- 0 0 1.4	-27.024
GEOI	69	+ 0 0 2.2	- 0 0 1.4	-26.822
GEOI	7	+ 0 0 1.3	- 0 0 1.4	-26.898
GEOI	70	+ 0 0 2.0	- 0 0 1.4	-26.809
GEOI	71	+ 0 0 2.1	- 0 0 1.3	-26.826
GEOI	72	+ 0 0 2.3	- 0 0 1.1	-26.802
GEOI	73	+ 0 0 2.3	- 0 0 1.1	-26.828
GEOI	74	+ 0 0 2.9	- 0 0 1.1	-26.783
GEOI	75	+ 0 0 2.8	- 0 0 1.0	-26.780
GEOI	76	+ 0 0 1.5	- 0 0 2.0	-27.250
GEOI	77	+ 0 0 1.9	- 0 0 2.1	-27.204
GEOI	78	+ 0 0 2.0	- 0 0 2.2	-27.215
GEOI	79	+ 0 0 2.0	- 0 0 2.0	-27.148
GEOI	8	+ 0 0 1.3	- 0 0 1.3	-26.908

Geoid Values:

CODE	NAME	N/S DEFLECTION	E/W DEFLECTION	UNDULATION
GEOI	80	+ 0 0 1.6	- 0 0 1.9	-27.069
GEOI	81	+ 0 0 1.8	- 0 0 2.0	-27.113
GEOI	82	+ 0 0 1.8	- 0 0 1.9	-27.091
GEOI	83	+ 0 0 2.2	- 0 0 2.0	-27.215
GEOI	84	+ 0 0 2.0	- 0 0 1.9	-27.239
GEOI	85	+ 0 0 2.0	- 0 0 2.0	-27.235
GEOI	86	+ 0 0 1.9	- 0 0 2.1	-27.198
GEOI	87	+ 0 0 1.4	- 0 0 1.8	-27.025
GEOI	88	+ 0 0 1.2	- 0 0 1.6	-27.019
GEOI	89	+ 0 0 1.3	- 0 0 1.9	-27.031
GEOI	9	+ 0 0 1.2	- 0 0 0.8	-26.920
GEOI	90	+ 0 0 1.0	- 0 0 1.5	-27.016
GEOI	91	+ 0 0 0.8	- 0 0 1.4	-27.003
GEOI	92	+ 0 0 0.9	- 0 0 1.2	-27.001
GEOI	93	+ 0 0 0.6	- 0 0 1.2	-26.979
GEOI	94	+ 0 0 1.4	- 0 0 2.1	-27.057
GEOI	95	+ 0 0 1.1	- 0 0 1.5	-27.017
GEOI	96	+ 0 0 1.2	- 0 0 1.4	-27.029
GEOI	97	+ 0 0 1.2	- 0 0 1.3	-27.017
GEOI	98	+ 0 0 1.3	- 0 0 1.6	-27.045
GEOI	99	+ 0 0 1.6	- 0 0 1.9	-27.070
GEOI	A 1257	+ 0 0 0.7	- 0 0 0.9	-27.407
GEOI	B 595	+ 0 0 2.0	- 0 0 1.4	-27.282
GEOI	E 1258	+ 0 0 0.9	- 0 0 0.8	-27.416
GEOI	LAVAPORT	+ 0 0 1.4	- 0 0 2.0	-27.271
GEOI	TXPV	+ 0 0 1.9	- 0 0 2.3	-27.187
GEOI	TXVA	+ 0 0 0.5	- 0 0 1.1	-27.483

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: C012711.ASC ,obs#:		1				
DXCT		100C	13	6741.66320	0.013	0.741
				0.018	0.018	0.83
DYCT		100C	13	-7562.37530	-0.002	-0.085
				0.018	0.018	0.10
DZCT		100C	13	-12412.72030	-0.010	-0.548
				0.018	0.018	0.61
GROUP: C012711.ASC ,obs#:		2				
DXCT		100C	51	5038.10190	0.005	0.544
				0.012	0.010	0.52
DYCT		100C	51	-4776.50210	0.004	0.403
				0.012	0.010	0.39
DZCT		100C	51	-7660.52100	-0.009	-0.886
				0.012	0.010	0.85
GROUP: C012711.ASC ,obs#:		3				
DXCT		13	51	-1703.56750	-0.002	-0.546
				0.007	0.003	0.29
DYCT		13	51	2785.88010	-0.001	-0.423
				0.007	0.003	0.24
DZCT		13	51	4752.19750	0.003	0.895
				0.007	0.003	0.49
GROUP: C012711.ASC ,obs#:		4				
DXCT		100C	52	6985.33720	0.009	0.885
				0.012	0.010	0.82
DYCT		100C	52	-4362.17090	0.012	1.265
				0.012	0.010	1.18
DZCT		100C	52	-6480.77070	-0.011	-1.110
				0.012	0.010	1.04
GROUP: C012711.ASC ,obs#:		5				
DXCT		13	52	243.67290	-0.004	-0.887
				0.008	0.004	0.53
DYCT		13	52	3200.22350	-0.005	-1.270
				0.008	0.004	0.77
DZCT		13	52	5931.94400	0.005	1.115
				0.008	0.004	0.68
GROUP: C012711.ASC ,obs#:		6				
DXCT		100C	53	9034.90070	0.010	1.042
				0.013	0.010	0.93
DYCT		100C	53	-3920.73130	0.015	1.484
				0.013	0.010	1.33
DZCT		100C	53	-5230.71720	-0.006	-0.642
				0.013	0.010	0.58
GROUP: C012711.ASC ,obs#:		7				
DXCT		13	53	2293.24040	-0.006	-1.043
				0.010	0.006	0.70
DYCT		13	53	3641.66880	-0.008	-1.485
				0.010	0.006	1.00
DZCT		13	53	7182.00280	0.004	0.645
				0.010	0.006	0.44
GROUP: C012711.ASC ,obs#:		8				
DXCT		100C	54	7388.38860	-0.001	-0.196
				0.009	0.004	0.11

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		100C	54	-1493.73140	0.007	1.653
				0.009	0.004	0.96
DZCT		100C	54	-1141.16940	-0.003	-0.770
				0.009	0.004	0.44
GROUP: C012711.ASC ,obs#:		9				
DXCT		13	54	646.70880	0.002	0.199
				0.015	0.012	0.19
DYCT		13	54	6068.67300	-0.020	-1.646
				0.015	0.012	1.58
DZCT		13	54	11271.54810	0.009	0.753
				0.015	0.012	0.72
GROUP: C012711.ASC ,obs#:		10				
DXCT		100C	55	9363.00250	0.007	0.930
				0.011	0.007	0.68
DYCT		100C	55	-2466.99350	0.005	0.629
				0.012	0.007	0.47
DZCT		100C	55	-2497.76690	-0.002	-0.233
				0.011	0.007	0.17
GROUP: C012711.ASC ,obs#:		11				
DXCT		13	55	2621.34180	-0.009	-0.929
				0.013	0.010	0.78
DYCT		13	55	5095.39410	-0.006	-0.628
				0.013	0.010	0.53
DZCT		13	55	9914.95930	0.002	0.231
				0.013	0.010	0.19
GROUP: C012711.ASC ,obs#:		12				
DXCT		100C	56	11176.87080	0.006	0.615
				0.014	0.010	0.52
DYCT		100C	56	-3296.95110	0.001	0.128
				0.014	0.010	0.11
DZCT		100C	56	-3630.14360	-0.004	-0.397
				0.014	0.010	0.33
GROUP: C012711.ASC ,obs#:		13				
DXCT		13	56	4435.20550	-0.005	-0.615
				0.012	0.008	0.46
DYCT		13	56	4265.42810	-0.001	-0.129
				0.012	0.008	0.10
DZCT		13	56	8782.57930	0.003	0.398
				0.012	0.008	0.29
GROUP: C012711.ASC ,obs#:		14				
DXCT		100C	57	12718.42930	0.006	0.539
				0.015	0.011	0.43
DYCT		100C	57	-2613.93550	-0.002	-0.227
				0.015	0.011	0.18
DZCT		100C	57	-2049.92810	-0.005	-0.512
				0.015	0.011	0.41
GROUP: C012711.ASC ,obs#:		15				
DXCT		13	57	5976.76400	-0.006	-0.539
				0.015	0.010	0.43
DYCT		13	57	4948.43660	0.002	0.226
				0.015	0.010	0.18
DZCT		13	57	10362.79140	0.005	0.512

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.015	0.010	0.40
GROUP: C012711.ASC ,obs#:		16				
DXCT		100C	58	12993.12930	0.007	0.581
				0.016	0.011	0.49
DYCT		100C	58	-3110.65670	-0.010	-0.836
				0.016	0.012	0.70
DZCT		100C	58	-2901.14390	-0.010	-0.863
				0.016	0.011	0.73
GROUP: C012711.ASC ,obs#:		17				
DXCT		13	58	6251.46480	-0.005	-0.581
				0.014	0.009	0.44
DYCT		13	58	4451.70280	0.008	0.836
				0.014	0.009	0.63
DZCT		13	58	9511.56840	0.008	0.863
				0.014	0.009	0.65
GROUP: C012711.ASC ,obs#:		18				
DXCT		100C	59	9016.24950	0.013	1.009
				0.015	0.013	1.02
DYCT		100C	59	-5180.96060	0.010	0.745
				0.015	0.013	0.76
DZCT		100C	59	-7546.55900	0.007	0.568
				0.015	0.013	0.58
GROUP: C012711.ASC ,obs#:		19				
DXCT		13	59	2274.58890	-0.003	-1.009
				0.007	0.003	0.47
DYCT		13	59	2381.42810	-0.002	-0.740
				0.007	0.003	0.35
DZCT		13	59	4866.18020	-0.002	-0.556
				0.007	0.003	0.27
GROUP: C012711.ASC ,obs#:		20				
DXCT		100C	60	9446.00930	0.019	1.214
				0.017	0.016	1.30
DYCT		100C	60	-6227.61760	0.012	0.732
				0.017	0.016	0.79
DZCT		100C	60	-9373.29870	-0.007	-0.435
				0.017	0.016	0.47
GROUP: C012711.ASC ,obs#:		21				
DXCT		13	60	2704.35360	-0.002	-1.223
				0.005	0.001	0.39
DYCT		13	60	1334.77190	-0.001	-0.757
				0.005	0.001	0.25
DZCT		13	60	3039.42390	0.001	0.471
				0.005	0.001	0.15
GROUP: C012711.ASC ,obs#:		22				
DXCT		100C	TXPV	16923.91610	0.006	0.250
				0.024	0.024	0.28
DYCT		100C	TXPV	4440.50600	-0.009	-0.390
				0.024	0.024	0.44
DZCT		100C	TXPV	11727.39710	0.030	1.274
				0.024	0.024	1.44
GROUP: C012711.ASC ,obs#:		23				
DXCT		13	TXPV	10182.25180	-0.006	-0.190

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.033	0.033	0.22
DYCT		13	TXPV	12002.87870	-0.005	-0.159
				0.033	0.033	0.18
DZCT		13	TXPV	24140.12000	0.038	1.153
				0.033	0.033	1.31
GROUP: C012711.ASC ,obs#:		24				
DXCT		100C	TXVA	-10079.45200	0.009	0.203
				0.043	0.042	0.23
DYCT		100C	TXVA	18177.66600	0.010	0.235
				0.043	0.042	0.27
DZCT		100C	TXVA	30860.91500	0.014	0.322
				0.043	0.042	0.37
GROUP: C012711.ASC ,obs#:		25				
DXCT		13	TXVA	-16821.11610	-0.004	-0.062
				0.061	0.061	0.07
DYCT		13	TXVA	25740.03910	0.014	0.226
				0.061	0.061	0.26
DZCT		13	TXVA	43273.63780	0.021	0.347
				0.061	0.061	0.40
GROUP: C013111.ASC ,obs#:		26				
DXCT		13	100C	-6741.70490	0.028	1.583
				0.018	0.018	1.77
DYCT		13	100C	7562.39320	-0.016	-0.911
				0.018	0.018	1.02
DZCT		13	100C	12412.72640	0.004	0.209
				0.018	0.018	0.23
GROUP: C013111.ASC ,obs#:		27				
DXCT		13	61	1178.56750	0.046	2.410
				0.021	0.019	2.46
DYCT		13	61	8807.20070	0.010	0.496
				0.022	0.019	0.51
DZCT		13	61	16395.27450	0.005	0.262
				0.021	0.019	0.27
GROUP: C013111.ASC ,obs#:		28				
DXCT		100C	61	7920.30040	-0.011	-2.410
				0.010	0.004	1.18
DYCT		100C	61	1244.83560	-0.002	-0.495
				0.010	0.004	0.24
DZCT		100C	61	3982.55050	-0.001	-0.263
				0.010	0.004	0.13
GROUP: C013111.ASC ,obs#:		29				
DXCT		13	62	6.56120	0.048	2.906
				0.018	0.017	3.00
DYCT		13	62	7681.77270	0.021	1.231
				0.019	0.017	1.28
DZCT		13	62	14085.09340	-0.027	-1.642
				0.018	0.017	1.70
GROUP: C013111.ASC ,obs#:		30				
DXCT		100C	62	6748.29490	-0.009	-2.912
				0.008	0.003	1.31
DYCT		100C	62	119.42040	-0.004	-1.253
				0.008	0.003	0.57

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		100C	62	1672.33070	0.005	1.658
				0.008	0.003	0.75
GROUP: C013111.ASC ,obs#:		31				
DXCT		13	63	-1313.36610	0.037	2.636
				0.016	0.014	2.73
DYCT		13	63	6649.14440	0.003	0.238
				0.016	0.014	0.25
DZCT		13	63	11912.81850	-0.010	-0.713
				0.016	0.014	0.74
GROUP: C013111.ASC ,obs#:		32				
DXCT		100C	63	5428.35390	-0.006	-2.641
				0.006	0.002	1.11
DYCT		100C	63	-913.22840	-0.001	-0.271
				0.006	0.002	0.12
DZCT		100C	63	-499.92350	0.002	0.733
				0.006	0.002	0.32
GROUP: C013111.ASC ,obs#:		33				
DXCT		13	B 595	-18585.98460	0.018	0.899
				0.024	0.020	0.86
DYCT		13	B 595	5818.13510	-0.018	-0.922
				0.024	0.020	0.89
DZCT		13	B 595	6625.86810	0.010	0.520
				0.024	0.020	0.50
GROUP: C013111.ASC ,obs#:		34				
DXCT		100C	B 595	-11844.28310	-0.007	-0.900
				0.015	0.008	0.55
DYCT		100C	B 595	-1744.26750	0.008	0.921
				0.015	0.008	0.57
DZCT		100C	B 595	-5786.84760	-0.004	-0.517
				0.015	0.008	0.32
GROUP: C020111.ASC ,obs#:		35				
DXCT		LAVAPORT	17	13123.41300	0.004	0.188
				0.020	0.019	0.21
DYCT		LAVAPORT	17	-6379.30320	0.013	0.667
				0.020	0.019	0.76
DZCT		LAVAPORT	17	-8859.51980	0.014	0.728
				0.020	0.019	0.83
GROUP: C020111.ASC ,obs#:		36				
DXCT		LAVAPORT	64	7316.79920	-0.004	-0.260
				0.016	0.015	0.27
DYCT		LAVAPORT	64	-6569.40110	0.024	1.600
				0.016	0.015	1.67
DZCT		LAVAPORT	64	-10424.81740	0.010	0.640
				0.016	0.015	0.67
GROUP: C020111.ASC ,obs#:		37				
DXCT		17	64	-5806.62200	0.001	0.256
				0.007	0.003	0.11
DYCT		17	64	-190.08260	-0.004	-1.582
				0.007	0.003	0.72
DZCT		17	64	-1565.30050	-0.002	-0.602
				0.007	0.003	0.27
GROUP: C020111.ASC ,obs#:		38				

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		LAVAPORT	65	13289.16870	0.001	0.028
				0.033	0.030	0.03
DYCT		LAVAPORT	65	-13582.34240	0.008	0.278
				0.034	0.030	0.29
DZCT		LAVAPORT	65	-22005.12530	0.018	0.604
				0.033	0.030	0.61
GROUP: C020111.ASC ,obs#:		39				
DXCT		17	65	165.75310	-0.000	-0.028
				0.017	0.008	0.01
DYCT		17	65	-7203.04160	-0.002	-0.281
				0.017	0.008	0.15
DZCT		17	65	-13145.59700	-0.005	-0.606
				0.017	0.008	0.32
GROUP: C020111.ASC ,obs#:		40				
DXCT		LAVAPORT	66	11852.05730	0.004	0.160
				0.029	0.026	0.17
DYCT		LAVAPORT	66	-11912.52700	0.009	0.338
				0.029	0.027	0.35
DZCT		LAVAPORT	66	-19246.82490	0.021	0.778
				0.029	0.026	0.81
GROUP: C020111.ASC ,obs#:		41				
DXCT		17	66	-1271.35420	-0.001	-0.160
				0.014	0.006	0.08
DYCT		17	66	-5533.22580	-0.002	-0.338
				0.014	0.006	0.16
DZCT		17	66	-10387.29420	-0.004	-0.778
				0.014	0.006	0.37
GROUP: C020111.ASC ,obs#:		42				
DXCT		LAVAPORT	67	10242.51950	-0.010	-0.414
				0.026	0.024	0.43
DYCT		LAVAPORT	67	-10529.18650	0.014	0.601
				0.026	0.024	0.63
DZCT		LAVAPORT	67	-17053.32090	-0.002	-0.068
				0.026	0.024	0.07
GROUP: C020111.ASC ,obs#:		43				
DXCT		17	67	-2880.90870	0.002	0.414
				0.011	0.004	0.19
DYCT		17	67	-4149.87940	-0.003	-0.601
				0.011	0.004	0.27
DZCT		17	67	-8193.81710	0.000	0.068
				0.011	0.004	0.03
GROUP: C020111.ASC ,obs#:		44				
DXCT		LAVAPORT	68	8194.48220	-0.002	-0.080
				0.023	0.021	0.08
DYCT		LAVAPORT	68	-9309.49410	0.021	1.023
				0.023	0.021	1.08
DZCT		LAVAPORT	68	-15250.75990	-0.001	-0.044
				0.023	0.021	0.05
GROUP: C020111.ASC ,obs#:		45				
DXCT		17	68	-4928.93640	0.000	0.080
				0.010	0.004	0.04
DYCT		17	68	-2930.17850	-0.004	-1.023

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.010	0.004	0.47
DZCT		17	68	-6391.25530	0.000	0.046
				0.010	0.004	0.02
GROUP: C020811.ASC ,obs#:		46				
DXCT		TXVA	13	16821.13680	-0.017	-0.280
				0.061	0.061	0.32
DYCT		TXVA	13	-25740.02720	-0.026	-0.423
				0.061	0.061	0.48
DZCT		TXVA	13	-43273.64660	-0.012	-0.201
				0.061	0.061	0.23
GROUP: C020811.ASC ,obs#:		47				
DXCT		TXPV	13	-10182.23180	-0.014	-0.422
				0.033	0.033	0.48
DYCT		TXPV	13	-12002.87720	0.004	0.113
				0.033	0.033	0.13
DZCT		TXPV	13	-24140.12230	-0.035	-1.083
				0.033	0.033	1.23
GROUP: C020811.ASC ,obs#:		48				
DXCT		TXVA	15	7954.41520	-0.019	-0.256
				0.075	0.074	0.29
DYCT		TXVA	15	-32057.79090	-0.020	-0.268
				0.075	0.074	0.30
DZCT		TXVA	15	-56848.78490	-0.005	-0.062
				0.075	0.074	0.07
GROUP: C020811.ASC ,obs#:		49				
DXCT		TXPV	15	-19048.95350	-0.016	-0.307
				0.053	0.051	0.34
DYCT		TXPV	15	-18320.63950	0.008	0.155
				0.053	0.051	0.17
DZCT		TXPV	15	-37715.26160	-0.027	-0.521
				0.053	0.051	0.58
GROUP: C020811.ASC ,obs#:		50				
DXCT		13	69	3965.73650	0.008	0.507
				0.022	0.017	0.44
DYCT		13	69	-9292.94060	0.027	1.561
				0.022	0.017	1.39
DZCT		13	69	-16278.60730	0.000	0.011
				0.022	0.017	0.01
GROUP: C020811.ASC ,obs#:		51				
DXCT		15	69	12832.47270	-0.004	-0.504
				0.015	0.008	0.30
DYCT		15	69	-2975.14330	-0.013	-1.560
				0.016	0.008	0.95
DZCT		15	69	-2703.47620	-0.000	-0.023
				0.015	0.008	0.01
GROUP: C020811.ASC ,obs#:		52				
DXCT		13	70	2609.04670	0.004	0.197
				0.024	0.019	0.18
DYCT		13	70	-10133.17440	-0.019	-0.991
				0.024	0.019	0.92
DZCT		13	70	-18128.89030	0.016	0.817
				0.024	0.019	0.74

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: C020811.ASC ,obs#:		53				
DXCT		15	70	11475.77560	-0.001	-0.201
				0.015	0.007	0.11
DYCT		15	70	-3815.44270	0.007	0.986
				0.015	0.007	0.55
DZCT		15	70	-4553.73820	-0.006	-0.810
				0.015	0.007	0.45
GROUP: C020811.ASC ,obs#:		54				
DXCT		13	71	546.60480	0.009	0.499
				0.023	0.019	0.46
DYCT		13	71	-9791.29430	0.006	0.339
				0.023	0.019	0.32
DZCT		13	71	-17944.74800	0.007	0.346
				0.023	0.019	0.32
GROUP: C020811.ASC ,obs#:		55				
DXCT		15	71	9413.34070	-0.003	-0.499
				0.013	0.005	0.25
DYCT		15	71	-3473.52800	-0.002	-0.339
				0.013	0.005	0.17
DZCT		15	71	-4369.60880	-0.002	-0.346
				0.013	0.005	0.17
GROUP: C020811.ASC ,obs#:		56				
DXCT		13	72	-4113.19190	0.006	0.220
				0.029	0.025	0.22
DYCT		13	72	-11666.90470	0.028	1.091
				0.029	0.025	1.08
DZCT		13	72	-22435.67910	-0.018	-0.711
				0.029	0.025	0.71
GROUP: C020811.ASC ,obs#:		57				
DXCT		15	72	4753.53850	-0.001	-0.222
				0.013	0.005	0.10
DYCT		15	72	-5349.11340	-0.006	-1.094
				0.013	0.005	0.49
DZCT		15	72	-8860.57010	0.004	0.715
				0.013	0.005	0.32
GROUP: C020811.ASC ,obs#:		58				
DXCT		13	73	-6000.30290	-0.002	-0.096
				0.028	0.025	0.10
DYCT		13	73	-10843.96370	0.005	0.197
				0.028	0.025	0.20
DZCT		13	73	-21324.72150	-0.003	-0.103
				0.028	0.025	0.10
GROUP: C020811.ASC ,obs#:		59				
DXCT		15	73	2866.41810	0.000	0.096
				0.011	0.004	0.04
DYCT		15	73	-4526.20010	-0.001	-0.197
				0.011	0.004	0.08
DZCT		15	73	-7749.59370	0.000	0.103
				0.011	0.004	0.04
GROUP: C020811.ASC ,obs#:		60				
DXCT		13	74	-10823.30200	0.002	0.050
				0.036	0.031	0.05

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		13	74	-12856.43960	-0.021	-0.687
				0.036	0.031	0.69
DZCT		13	74	-26122.46890	0.017	0.545
				0.036	0.031	0.55
GROUP: C020811.ASC ,obs#:		61				
DXCT		15	74	-1956.57640	-0.000	-0.049
				0.016	0.007	0.02
DYCT		15	74	-6538.70760	0.005	0.688
				0.016	0.007	0.32
DZCT		15	74	-12547.31760	-0.004	-0.546
				0.016	0.007	0.25
GROUP: C020811.ASC ,obs#:		62				
DXCT		13	75	-11831.00680	0.007	0.225
				0.037	0.032	0.23
DYCT		13	75	-13018.70230	-0.013	-0.418
				0.037	0.032	0.42
DZCT		13	75	-26646.98410	0.007	0.214
				0.037	0.032	0.21
GROUP: C020811.ASC ,obs#:		63				
DXCT		15	75	-2964.27430	-0.002	-0.225
				0.017	0.007	0.11
DYCT		15	75	-6700.96060	0.003	0.418
				0.017	0.007	0.20
DZCT		15	75	-13071.84500	-0.002	-0.215
				0.017	0.007	0.10
GROUP: C020911.ASC ,obs#:		64				
DXCT		TXPV	76	-3913.30660	0.005	1.068
				0.005	0.005	1.10
DYCT		TXPV	76	1370.25230	-0.013	-2.805
				0.005	0.005	2.95
DZCT		TXPV	76	1652.55760	-0.012	-2.668
				0.005	0.005	2.77
GROUP: C020911.ASC ,obs#:		65				
DXCT		LAVAPORT	76	2138.72530	-0.001	-1.077
				0.003	0.001	0.56
DYCT		LAVAPORT	76	-110.64500	0.003	2.586
				0.003	0.001	1.59
DZCT		LAVAPORT	76	250.67520	0.003	2.433
				0.003	0.001	1.34
GROUP: C020911.ASC ,obs#:		66				
DXCT		TXPV	77	-3496.31200	0.006	2.048
				0.005	0.003	1.53
DYCT		TXPV	77	-837.45610	-0.011	-2.985
				0.006	0.004	2.56
DZCT		TXPV	77	-2276.87700	-0.003	-0.987
				0.005	0.003	0.74
GROUP: C020911.ASC ,obs#:		67				
DXCT		LAVAPORT	77	2555.72940	-0.009	-2.051
				0.006	0.004	1.81
DYCT		LAVAPORT	77	-2318.36290	0.015	2.990
				0.007	0.005	3.01
DZCT		LAVAPORT	77	-3678.75180	0.004	0.997

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.006	0.005	0.89
GROUP: C020911.ASC ,obs#:		68				
DXCT		TXPV	78	-8339.90530	0.010	1.094
				0.012	0.009	0.97
DYCT		TXPV	78	-2330.66140	-0.027	-2.850
				0.012	0.009	2.56
DZCT		TXPV	78	-6031.92620	-0.001	-0.137
				0.012	0.009	0.12
GROUP: C020911.ASC ,obs#:		69				
DXCT		LAVAPORT	78	-2287.86240	-0.007	-1.096
				0.010	0.006	0.80
DYCT		LAVAPORT	78	-3811.58730	0.018	2.851
				0.010	0.006	2.09
DZCT		LAVAPORT	78	-7433.79550	0.001	0.140
				0.010	0.006	0.10
GROUP: C020911.ASC ,obs#:		70				
DXCT		TXPV	79	-4582.96550	0.006	0.836
				0.011	0.008	0.65
DYCT		TXPV	79	-3876.52620	-0.006	-0.759
				0.012	0.008	0.59
DZCT		TXPV	79	-8046.60680	-0.009	-1.095
				0.012	0.008	0.85
GROUP: C020911.ASC ,obs#:		71				
DXCT		LAVAPORT	79	1469.07450	-0.008	-0.836
				0.013	0.009	0.71
DYCT		LAVAPORT	79	-5357.41990	0.007	0.760
				0.013	0.009	0.64
DZCT		LAVAPORT	79	-9448.49260	0.010	1.095
				0.013	0.009	0.93
GROUP: C020911.ASC ,obs#:		72				
DXCT		TXPV	80	-87.73490	0.009	1.050
				0.014	0.009	0.75
DYCT		TXPV	80	-5996.70130	-0.009	-0.977
				0.014	0.009	0.70
DZCT		TXPV	80	-10968.71500	0.002	0.256
				0.014	0.009	0.18
GROUP: C020911.ASC ,obs#:		73				
DXCT		LAVAPORT	80	5964.31490	-0.015	-1.047
				0.018	0.014	0.94
DYCT		LAVAPORT	80	-7477.60460	0.014	0.978
				0.018	0.014	0.89
DZCT		LAVAPORT	80	-12370.57610	-0.004	-0.265
				0.018	0.014	0.24
GROUP: C020911.ASC ,obs#:		74				
DXCT		TXPV	81	-1935.86830	0.005	0.691
				0.011	0.007	0.49
DYCT		TXPV	81	-4477.55100	-0.006	-0.868
				0.011	0.007	0.63
DZCT		TXPV	81	-8584.00250	0.002	0.298
				0.011	0.007	0.22
GROUP: C020911.ASC ,obs#:		75				
DXCT		LAVAPORT	81	4116.17000	-0.008	-0.693

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.014	0.011	0.62
DYCT		LAVAPORT	81	-5958.44760	0.010	0.866
				0.014	0.011	0.78
DZCT		LAVAPORT	81	-9985.86430	-0.003	-0.289
				0.014	0.011	0.26
GROUP: C020911.ASC ,obs#:		76				
DXCT		TXPV	82	-3209.78870	0.004	0.390
				0.016	0.010	0.30
DYCT		TXPV	82	-6154.72430	-0.005	-0.452
				0.016	0.010	0.34
DZCT		TXPV	82	-11918.43040	-0.001	-0.051
				0.016	0.010	0.04
GROUP: C020911.ASC ,obs#:		77				
DXCT		LAVAPORT	82	2842.24640	-0.005	-0.390
				0.018	0.013	0.34
DYCT		LAVAPORT	82	-7635.61600	0.006	0.451
				0.018	0.014	0.40
DZCT		LAVAPORT	82	-13320.29870	0.001	0.047
				0.018	0.014	0.04
GROUP: C020911.ASC ,obs#:		78				
DXCT		TXPV	83	-16145.65270	0.002	0.127
				0.024	0.018	0.11
DYCT		TXPV	83	-5236.28220	-0.015	-0.800
				0.025	0.018	0.69
DZCT		TXPV	83	-13014.12350	-0.009	-0.465
				0.024	0.018	0.40
GROUP: C020911.ASC ,obs#:		79				
DXCT		LAVAPORT	83	-10093.62280	-0.002	-0.126
				0.022	0.014	0.10
DYCT		LAVAPORT	83	-6717.18920	0.012	0.799
				0.022	0.014	0.61
DZCT		LAVAPORT	83	-14416.00580	0.007	0.464
				0.022	0.014	0.35
GROUP: C020911.ASC ,obs#:		80				
DXCT		TXPV	84	-15234.21090	0.007	0.437
				0.022	0.016	0.38
DYCT		TXPV	84	-3899.39330	-0.008	-0.493
				0.022	0.017	0.43
DZCT		TXPV	84	-10372.80190	-0.010	-0.621
				0.022	0.017	0.54
GROUP: C020911.ASC ,obs#:		81				
DXCT		LAVAPORT	84	-9182.17280	-0.005	-0.437
				0.018	0.012	0.32
DYCT		LAVAPORT	84	-5380.28800	0.006	0.489
				0.018	0.012	0.37
DZCT		LAVAPORT	84	-11774.68660	0.007	0.619
				0.018	0.012	0.46
GROUP: C020911.ASC ,obs#:		82				
DXCT		TXPV	85	-13875.30610	-0.008	-0.562
				0.020	0.015	0.49
DYCT		TXPV	85	-3587.80130	-0.041	-2.717
				0.020	0.015	2.40

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		TXPV	85	-9509.33810	0.004	0.231
				0.020	0.015	0.20
GROUP: C020911.ASC ,obs#:		83				
DXCT		LAVAPORT	85	-7823.29470	0.006	0.560
				0.016	0.011	0.41
DYCT		LAVAPORT	85	-5068.75200	0.029	2.715
				0.016	0.011	1.99
DZCT		LAVAPORT	85	-10911.19940	-0.002	-0.222
				0.016	0.011	0.16
GROUP: C020911.ASC ,obs#:		84				
DXCT		TXPV	86	-2564.45780	0.008	4.153
				0.004	0.002	2.52
DYCT		TXPV	86	-694.84630	-0.007	-3.245
				0.004	0.002	2.11
DZCT		TXPV	86	-1818.95660	-0.002	-1.036
				0.004	0.002	0.64
GROUP: C020911.ASC ,obs#:		85				
DXCT		LAVAPORT	86	3487.59730	-0.021	-4.165
				0.006	0.005	4.06
DYCT		LAVAPORT	86	-2175.75080	0.017	3.299
				0.006	0.005	3.25
DZCT		LAVAPORT	86	-3220.83150	0.006	1.112
				0.006	0.005	1.09
GROUP: C020911.ASC ,obs#:		86				
DXCT		TXPV	LAVAPORT	-6052.04720	0.021	2.933
				0.007	0.007	3.35
DYCT		TXPV	LAVAPORT	1480.90880	-0.028	-3.839
				0.007	0.007	4.40
DZCT		TXPV	LAVAPORT	1401.87600	-0.009	-1.213
				0.007	0.007	1.39
GROUP: C120910.ASC ,obs#:		87				
DXCT		LAVAPORT	1	-4055.79450	-0.005	-0.168
				0.030	0.027	0.17
DYCT		LAVAPORT	1	-12183.28350	0.009	0.323
				0.030	0.027	0.33
DZCT		LAVAPORT	1	-23135.78390	-0.022	-0.804
				0.030	0.027	0.81
GROUP: C120910.ASC ,obs#:		88				
DXCT		100C	1	6816.09610	0.001	0.168
				0.016	0.007	0.09
DYCT		100C	1	-6261.89510	-0.002	-0.324
				0.016	0.007	0.17
DZCT		100C	1	-10006.51650	0.006	0.804
				0.016	0.007	0.42
GROUP: C120910.ASC ,obs#:		89				
DXCT		LAVAPORT	100C	-10871.88840	-0.008	-0.387
				0.021	0.020	0.44
DYCT		LAVAPORT	100C	-5921.38510	0.008	0.377
				0.021	0.020	0.43
DZCT		LAVAPORT	100C	-13129.29150	-0.003	-0.156
				0.021	0.020	0.18
GROUP: C120910.ASC ,obs#:		90				

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		LAVAPORT	2	-5004.31680	-0.004	-0.138
				0.030	0.027	0.14
DYCT		LAVAPORT	2	-11720.64780	0.019	0.723
				0.030	0.027	0.74
DZCT		LAVAPORT	2	-22487.16190	-0.013	-0.500
				0.030	0.027	0.51
GROUP: C120910.ASC ,obs#:		91				
DXCT		100C	2	5867.57500	0.001	0.138
				0.014	0.006	0.07
DYCT		100C	2	-5799.24670	-0.004	-0.723
				0.014	0.006	0.36
DZCT		100C	2	-9357.88360	0.003	0.499
				0.014	0.006	0.25
GROUP: C120910.ASC ,obs#:		92				
DXCT		LAVAPORT	3	-6238.03640	0.006	0.227
				0.027	0.025	0.24
DYCT		LAVAPORT	3	-10389.84430	0.012	0.464
				0.027	0.025	0.49
DZCT		LAVAPORT	3	-20312.21190	-0.038	-1.496
				0.027	0.025	1.59
GROUP: C120910.ASC ,obs#:		93				
DXCT		100C	3	4633.86650	-0.001	-0.229
				0.011	0.004	0.10
DYCT		100C	3	-4468.45330	-0.002	-0.472
				0.011	0.004	0.20
DZCT		100C	3	-7182.96110	0.006	1.498
				0.011	0.004	0.65
GROUP: C120910.ASC ,obs#:		94				
DXCT		LAVAPORT	4	-7696.28700	0.002	0.076
				0.025	0.023	0.08
DYCT		LAVAPORT	4	-9004.88190	0.003	0.128
				0.025	0.023	0.14
DZCT		LAVAPORT	4	-18086.52840	-0.034	-1.448
				0.025	0.023	1.56
GROUP: C120910.ASC ,obs#:		95				
DXCT		100C	4	3175.61140	-0.000	-0.135
				0.008	0.002	0.05
DYCT		100C	4	-3083.50070	-0.001	-0.292
				0.009	0.003	0.12
DZCT		100C	4	-4957.27140	0.004	1.456
				0.008	0.003	0.59
GROUP: C120910.ASC ,obs#:		96				
DXCT		LAVAPORT	5	-9019.16370	-0.010	-0.464
				0.023	0.022	0.52
DYCT		LAVAPORT	5	-7723.65040	-0.018	-0.818
				0.023	0.023	0.93
DZCT		LAVAPORT	5	-16026.07010	-0.005	-0.207
				0.023	0.022	0.23
GROUP: C120910.ASC ,obs#:		97				
DXCT		100C	5	1852.72190	0.000	0.468
				0.004	0.001	0.10
DYCT		100C	5	-1802.29220	0.001	0.817

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.005	0.001	0.19
DZCT		100C	5	-2896.78020	0.000	0.195
				0.004	0.001	0.04
GROUP: C120910.ASC ,obs#: 98						
DXCT		LAVAPORT	6	-10876.27520	-0.010	-0.499
				0.021	0.020	0.57
DYCT		LAVAPORT	6	-5926.25010	0.028	1.336
				0.021	0.021	1.53
DZCT		LAVAPORT	6	-13138.89330	-0.010	-0.496
				0.021	0.020	0.56
GROUP: C120910.ASC ,obs#: 99						
DXCT		100C	6	-4.38910	-0.000	0.000*
				0.000	0.000	0.84
DYCT		100C	6	-4.84500	-0.000	0.000*
				0.001	0.000	5.23
DZCT		100C	6	-9.60880	0.000	0.000*
				0.000	0.000	1.94
GROUP: C120910.ASC ,obs#: 100						
DXCT		LAVAPORT	TXPV	6052.02320	0.003	0.353
				0.007	0.007	0.40
DYCT		LAVAPORT	TXPV	-1480.89960	0.019	2.571
				0.007	0.007	2.96
DZCT		LAVAPORT	TXPV	-1401.88830	0.021	2.892
				0.007	0.007	3.31
GROUP: C120910.ASC ,obs#: 101						
DXCT		100C	TXPV	16923.91340	0.009	0.363
				0.024	0.024	0.41
DYCT		100C	TXPV	4440.49280	0.004	0.161
				0.024	0.024	0.18
DZCT		100C	TXPV	11727.40020	0.027	1.142
				0.024	0.024	1.30
GROUP: C120910.ASC ,obs#: 102						
DXCT		LAVAPORT	TXVA	-20951.34490	0.005	0.152
				0.034	0.034	0.17
DYCT		LAVAPORT	TXVA	12256.26680	0.032	0.924
				0.034	0.034	1.06
DZCT		LAVAPORT	TXVA	17731.62850	0.005	0.159
				0.034	0.034	0.18
GROUP: C120910.ASC ,obs#: 103						
DXCT		100C	TXVA	-10079.45520	0.012	0.279
				0.043	0.042	0.32
DYCT		100C	TXVA	18177.65210	0.024	0.562
				0.043	0.042	0.64
DZCT		100C	TXVA	30860.92180	0.007	0.161
				0.043	0.042	0.18
GROUP: C121010.ASC ,obs#: 104						
DXCT		LAVAPORT	10	8021.69370	-0.003	-0.081
				0.037	0.033	0.08
DYCT		LAVAPORT	10	-15931.07650	0.002	0.054
				0.037	0.033	0.05
DZCT		LAVAPORT	10	-27438.55960	0.014	0.425
				0.037	0.033	0.42

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: C121010.ASC ,obs#: 105						
DXCT		100C	10	18893.57420	0.013	0.577
				0.029	0.023	0.51
DYCT		100C	10	-10009.69680	-0.001	-0.024
				0.030	0.023	0.02
DZCT		100C	10	-14309.25190	0.001	0.035
				0.029	0.023	0.03
GROUP: C121010.ASC ,obs#: 106						
DXCT		TXPV	10	1969.67860	-0.013	-0.461
				0.034	0.029	0.45
DYCT		TXPV	10	-14450.19740	0.003	0.114
				0.035	0.030	0.11
DZCT		TXPV	10	-26036.66530	-0.013	-0.458
				0.035	0.029	0.45
GROUP: C121010.ASC ,obs#: 107						
DXCT		TXVA	10	28973.04030	-0.010	-0.143
				0.069	0.067	0.16
DYCT		TXVA	10	-28187.35810	-0.015	-0.227
				0.070	0.067	0.25
DZCT		TXVA	10	-45170.18140	0.002	0.025
				0.069	0.067	0.03
GROUP: C121010.ASC ,obs#: 108						
DXCT		TXPV	100C	-16923.90160	-0.020	-0.857
				0.024	0.024	0.97
DYCT		TXPV	100C	-4440.49540	-0.001	-0.053
				0.024	0.024	0.06
DZCT		TXPV	100C	-11727.40910	-0.018	-0.771
				0.024	0.024	0.88
GROUP: C121010.ASC ,obs#: 109						
DXCT		TXVA	100C	10079.46540	-0.022	-0.519
				0.043	0.042	0.59
DYCT		TXVA	100C	-18177.66290	-0.013	-0.308
				0.043	0.042	0.35
DZCT		TXVA	100C	-30860.92410	-0.005	-0.107
				0.043	0.042	0.12
GROUP: C121010.ASC ,obs#: 110						
DXCT		LAVAPORT	11	5538.81980	-0.004	-0.151
				0.031	0.027	0.15
DYCT		LAVAPORT	11	-13059.80470	0.001	0.037
				0.031	0.027	0.04
DZCT		LAVAPORT	11	-22685.13230	0.016	0.590
				0.031	0.027	0.59
GROUP: C121010.ASC ,obs#: 111						
DXCT		100C	11	16410.70060	0.011	0.649
				0.023	0.018	0.57
DYCT		100C	11	-7138.44020	0.014	0.781
				0.023	0.018	0.68
DZCT		100C	11	-9555.80860	-0.013	-0.741
				0.024	0.018	0.65
GROUP: C121010.ASC ,obs#: 112						
DXCT		TXPV	11	-513.19900	-0.011	-0.469
				0.028	0.023	0.45

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		TXPV	11	-11578.90860	-0.014	-0.589
				0.029	0.024	0.59
DZCT		TXPV	11	-21283.25090	0.002	0.063
				0.029	0.025	0.06
GROUP: C121010.ASC ,obs#: 113						
DXCT		TXVA	11	26490.16670	-0.011	-0.186
				0.062	0.061	0.21
DYCT		TXVA	11	-25316.06730	-0.035	-0.574
				0.063	0.061	0.64
DZCT		TXVA	11	-40416.77570	0.025	0.413
				0.063	0.061	0.46
GROUP: C121010.ASC ,obs#: 114						
DXCT		LAVAPORT	12	59.77430	-0.005	-0.172
				0.030	0.027	0.18
DYCT		LAVAPORT	12	-12649.54810	0.006	0.210
				0.030	0.027	0.21
DZCT		LAVAPORT	12	-23102.39100	0.013	0.501
				0.030	0.027	0.51
GROUP: C121010.ASC ,obs#: 115						
DXCT		100C	12	10931.65930	0.007	0.525
				0.019	0.013	0.41
DYCT		100C	12	-6728.16300	-0.002	-0.160
				0.019	0.013	0.13
DZCT		100C	12	-9973.08370	0.001	0.066
				0.019	0.013	0.05
GROUP: C121010.ASC ,obs#: 116						
DXCT		TXPV	12	-5992.24810	-0.008	-0.315
				0.029	0.025	0.32
DYCT		TXPV	12	-11168.66620	0.004	0.173
				0.029	0.026	0.18
DZCT		TXPV	12	-21700.49460	-0.016	-0.614
				0.029	0.026	0.63
GROUP: C121010.ASC ,obs#: 117						
DXCT		TXVA	12	21011.12530	-0.016	-0.274
				0.060	0.058	0.31
DYCT		TXVA	12	-24905.82210	-0.019	-0.324
				0.060	0.058	0.36
DZCT		TXVA	12	-40834.01650	0.005	0.086
				0.060	0.058	0.10
GROUP: C121010.ASC ,obs#: 118						
DXCT		LAVAPORT	13	-4130.21510	-0.005	-0.142
				0.033	0.033	0.16
DYCT		LAVAPORT	13	-13483.75480	0.001	0.017
				0.033	0.033	0.02
DZCT		LAVAPORT	13	-25542.03710	0.012	0.371
				0.033	0.033	0.42
GROUP: C121010.ASC ,obs#: 119						
DXCT		100C	13	6741.66510	0.011	0.634
				0.018	0.018	0.71
DYCT		100C	13	-7562.37840	0.002	0.086
				0.019	0.018	0.10
DZCT		100C	13	-12412.73450	0.004	0.242

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.018	0.018	0.27
GROUP: C121010.ASC ,obs#: 120						
DXCT		TXPV	13	-10182.23040	-0.015	-0.463
				0.033	0.033	0.53
DYCT		TXPV	13	-12002.84750	-0.026	-0.766
				0.034	0.034	0.90
DZCT		TXPV	13	-24140.14880	-0.009	-0.270
				0.033	0.033	0.31
GROUP: C121010.ASC ,obs#: 121						
DXCT		TXVA	13	16821.13270	-0.013	-0.212
				0.061	0.061	0.24
DYCT		TXVA	13	-25740.01910	-0.034	-0.554
				0.061	0.061	0.64
DZCT		TXVA	13	-43273.66520	0.006	0.106
				0.061	0.061	0.12
GROUP: C121010.ASC ,obs#: 122						
DXCT		TXPV	14	-10782.67910	0.005	0.214
				0.023	0.022	0.23
DYCT		TXPV	14	-7199.11420	-0.002	-0.101
				0.024	0.023	0.11
DZCT		TXPV	14	-15451.98630	-0.016	-0.695
				0.024	0.022	0.78
GROUP: C121010.ASC ,obs#: 123						
DXCT		TXVA	14	16220.69450	-0.003	-0.070
				0.050	0.049	0.08
DYCT		TXVA	14	-20936.26950	-0.026	-0.530
				0.050	0.050	0.60
DZCT		TXVA	14	-34585.49980	-0.003	-0.066
				0.050	0.049	0.07
GROUP: C121010.ASC ,obs#: 124						
DXCT		LAVAPORT	14	-4730.65120	0.003	0.123
				0.022	0.021	0.13
DYCT		LAVAPORT	14	-8679.98920	-0.008	-0.382
				0.023	0.021	0.41
DZCT		LAVAPORT	14	-16853.87460	0.006	0.264
				0.022	0.021	0.28
GROUP: C121010.ASC ,obs#: 125						
DXCT		100C	14	6141.24860	-0.001	-0.217
				0.009	0.004	0.12
DYCT		100C	14	-2758.62230	0.002	0.575
				0.009	0.004	0.32
DZCT		100C	14	-3724.57580	0.001	0.325
				0.009	0.004	0.18
GROUP: C121010.ASC ,obs#: 126						
DXCT		TXPV	7	19777.95970	-0.006	-0.205
				0.035	0.027	0.18
DYCT		TXPV	7	-12606.64560	-0.001	-0.048
				0.035	0.028	0.04
DZCT		TXPV	7	-18927.72560	-0.017	-0.618
				0.035	0.027	0.56
GROUP: C121010.ASC ,obs#: 127						
DXCT		TXVA	7	46781.32910	-0.009	-0.131

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.075	0.072	0.14
DYCT		TXVA	7	-26343.80900	-0.017	-0.239
				0.075	0.072	0.26
DZCT		TXVA	7	-38061.24660	0.003	0.044
				0.075	0.072	0.05
GROUP: C121010.ASC ,obs#: 128						
DXCT		LAVAPORT	7	25829.98020	-0.000	-0.007
				0.041	0.035	0.01
DYCT		LAVAPORT	7	-14087.54250	0.015	0.428
				0.041	0.035	0.42
DZCT		LAVAPORT	7	-20329.62280	0.013	0.384
				0.041	0.035	0.37
GROUP: C121010.ASC ,obs#: 129						
DXCT		100C	7	36701.86380	0.012	0.328
				0.044	0.038	0.33
DYCT		100C	7	-8166.14150	-0.009	-0.231
				0.044	0.038	0.23
DZCT		100C	7	-7200.32520	0.010	0.274
				0.044	0.038	0.27
GROUP: C121010.ASC ,obs#: 130						
DXCT		LAVAPORT	8	25544.86240	-0.003	-0.075
				0.040	0.034	0.07
DYCT		LAVAPORT	8	-13473.60100	0.018	0.526
				0.040	0.034	0.51
DZCT		LAVAPORT	8	-19260.13210	0.011	0.327
				0.040	0.034	0.32
GROUP: C121010.ASC ,obs#: 131						
DXCT		100C	8	36416.74450	0.012	0.311
				0.043	0.038	0.31
DYCT		100C	8	-7552.19090	-0.015	-0.400
				0.043	0.038	0.40
DZCT		100C	8	-6130.84030	0.014	0.369
				0.043	0.038	0.37
GROUP: C121010.ASC ,obs#: 132						
DXCT		TXPV	8	19492.83830	-0.004	-0.163
				0.033	0.026	0.14
DYCT		TXPV	8	-11992.69980	-0.003	-0.106
				0.034	0.026	0.10
DZCT		TXPV	8	-17858.23960	-0.014	-0.554
				0.033	0.026	0.50
GROUP: C121010.ASC ,obs#: 133						
DXCT		TXVA	8	46496.20440	-0.005	-0.068
				0.074	0.071	0.07
DYCT		TXVA	8	-25729.87890	-0.003	-0.042
				0.074	0.071	0.05
DZCT		TXVA	8	-36991.74670	-0.008	-0.118
				0.074	0.071	0.13
GROUP: C121010.ASC ,obs#: 134						
DXCT		TXPV	9	13642.21230	-0.006	-0.254
				0.032	0.025	0.23
DYCT		TXPV	9	-12616.01920	-0.003	-0.126
				0.032	0.025	0.12

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		TXPV	9	-20211.59700	-0.013	-0.504
				0.032	0.025	0.46
GROUP: C121010.ASC ,obs#: 135						
DXCT		TXVA	9	40645.58230	-0.011	-0.158
				0.071	0.069	0.17
DYCT		TXVA	9	-26353.18850	-0.013	-0.192
				0.072	0.069	0.21
DZCT		TXVA	9	-39345.10530	-0.005	-0.078
				0.071	0.069	0.09
GROUP: C121010.ASC ,obs#: 136						
DXCT		LAVAPORT	9	19694.23600	-0.004	-0.133
				0.037	0.032	0.13
DYCT		LAVAPORT	9	-14096.91050	0.007	0.233
				0.037	0.032	0.23
DZCT		LAVAPORT	9	-21613.48860	0.012	0.378
				0.037	0.032	0.37
GROUP: C121010.ASC ,obs#: 137						
DXCT		100C	9	30566.11190	0.016	0.507
				0.037	0.032	0.49
DYCT		100C	9	-8175.52640	0.001	0.021
				0.038	0.032	0.02
DZCT		100C	9	-8484.18900	0.007	0.219
				0.037	0.032	0.21
GROUP: C121010.ASC ,obs#: 138						
DXCT		TXVA	LAVAPORT	20951.34490	-0.005	-0.152
				0.034	0.034	0.17
DYCT		TXVA	LAVAPORT	-12256.27640	-0.022	-0.645
				0.034	0.034	0.74
DZCT		TXVA	LAVAPORT	-17731.62160	-0.012	-0.360
				0.034	0.034	0.41
GROUP: C121010.ASC ,obs#: 139						
DXCT		TXPV	LAVAPORT	-6052.03390	0.008	1.111
				0.007	0.007	1.27
DYCT		TXPV	LAVAPORT	1480.90940	-0.029	-3.901
				0.007	0.007	4.49
DZCT		TXPV	LAVAPORT	1401.88630	-0.019	-2.617
				0.007	0.007	3.00
GROUP: C121110.ASC ,obs#: 140						
DXCT		LAVAPORT	100C	-10871.89270	-0.004	-0.177
				0.021	0.020	0.20
DYCT		LAVAPORT	100C	-5921.37390	-0.003	-0.171
				0.021	0.020	0.19
DZCT		LAVAPORT	100C	-13129.28780	-0.007	-0.337
				0.021	0.020	0.38
GROUP: C121110.ASC ,obs#: 141						
DXCT		LAVAPORT	15	-12996.91050	-0.033	-0.646
				0.052	0.051	0.72
DYCT		LAVAPORT	15	-19801.48210	-0.030	-0.589
				0.052	0.051	0.66
DZCT		LAVAPORT	15	-39117.13140	-0.024	-0.472
				0.052	0.051	0.53
GROUP: C121110.ASC ,obs#: 142						

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		100C	15	-2125.01280	-0.034	-1.076
				0.034	0.032	1.17
DYCT		100C	15	-13880.09840	-0.036	-1.137
				0.034	0.032	1.23
DZCT		100C	15	-25987.84360	-0.017	-0.540
				0.034	0.032	0.58
GROUP: C121110.ASC ,obs#: 143						
DXCT		LAVAPORT	16	-18680.87510	-0.005	-0.194
				0.030	0.028	0.21
DYCT		LAVAPORT	16	-7075.78050	0.025	0.887
				0.030	0.028	0.96
DZCT		LAVAPORT	16	-16960.52990	-0.026	-0.920
				0.030	0.028	0.99
GROUP: C121110.ASC ,obs#: 144						
DXCT		100C	16	-7808.98490	0.001	0.194
				0.010	0.003	0.07
DYCT		100C	16	-1154.37510	-0.003	-0.888
				0.010	0.003	0.32
DZCT		100C	16	-3831.26420	0.003	0.921
				0.010	0.003	0.33
GROUP: C121110.ASC ,obs#: 145						
DXCT		LAVAPORT	17	13123.39340	0.023	1.198
				0.020	0.019	1.36
DYCT		LAVAPORT	17	-6379.27250	-0.018	-0.905
				0.020	0.020	1.04
DZCT		LAVAPORT	17	-8859.51980	0.014	0.721
				0.020	0.020	0.83
GROUP: C121110.ASC ,obs#: 146						
DXCT		100C	17	23995.29370	0.019	0.696
				0.028	0.028	0.79
DYCT		100C	17	-457.92910	0.016	0.582
				0.028	0.028	0.67
DZCT		100C	17	4269.78870	0.000	0.010
				0.028	0.028	0.01
GROUP: C121110.ASC ,obs#: 147						
DXCT		LAVAPORT	18	10433.97120	-0.002	-0.272
				0.015	0.008	0.16
DYCT		LAVAPORT	18	-4918.77020	-0.008	-0.977
				0.016	0.008	0.59
DZCT		LAVAPORT	18	-6756.47080	0.003	0.410
				0.016	0.008	0.25
GROUP: C121110.ASC ,obs#: 148						
DXCT		100C	18	21305.85960	0.006	0.265
				0.026	0.022	0.26
DYCT		100C	18	1002.57810	0.021	0.969
				0.026	0.022	0.95
DZCT		100C	18	6372.83580	-0.009	-0.390
				0.026	0.022	0.39
GROUP: C121110.ASC ,obs#: 149						
DXCT		LAVAPORT	19	4170.53060	0.003	0.500
				0.012	0.007	0.32
DYCT		LAVAPORT	19	-5053.34920	-0.004	-0.540

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.012	0.007	0.35
DZCT		LAVAPORT	19	-8322.72500	0.003	0.454
				0.012	0.007	0.29
GROUP: C121110.ASC ,obs#: 150						
DXCT		100C	19	15042.43770	-0.007	-0.500
				0.018	0.015	0.47
DYCT		100C	19	868.01640	0.008	0.539
				0.018	0.015	0.51
DZCT		100C	19	4806.57950	-0.007	-0.453
				0.018	0.015	0.43
GROUP: C121110.ASC ,obs#: 151						
DXCT		LAVAPORT	20	2696.57300	-0.000	-0.205
				0.007	0.002	0.08
DYCT		LAVAPORT	20	-2733.19260	0.002	0.984
				0.007	0.002	0.42
DZCT		LAVAPORT	20	-4404.28400	0.003	1.444
				0.007	0.002	0.56
GROUP: C121110.ASC ,obs#: 152						
DXCT		100C	20	13568.46510	0.004	0.214
				0.019	0.017	0.23
DYCT		100C	20	3188.20560	-0.018	-1.029
				0.019	0.018	1.12
DZCT		100C	20	8725.03980	-0.026	-1.476
				0.019	0.018	1.57
GROUP: C121110.ASC ,obs#: 153						
DXCT		LAVAPORT	21	39.39710	-0.000	0.000*
				0.000	0.000	0.01
DYCT		LAVAPORT	21	-71.78500	-0.000	0.000*
				0.001	0.000	0.05
DZCT		LAVAPORT	21	-121.25410	0.000	0.000*
				0.001	0.000	0.04
GROUP: C121110.ASC ,obs#: 154						
DXCT		100C	21	10911.29410	-0.001	-0.034
				0.021	0.020	0.04
DYCT		100C	21	5849.59070	0.002	0.082
				0.021	0.021	0.09
DZCT		100C	21	13008.04630	-0.006	-0.281
				0.021	0.020	0.32
GROUP: C121710.ASC ,obs#: 155						
DXCT		LAVAPORT	17	13123.40590	0.011	0.555
				0.020	0.019	0.63
DYCT		LAVAPORT	17	-6379.28860	-0.002	-0.087
				0.020	0.019	0.10
DZCT		LAVAPORT	17	-8859.51690	0.011	0.579
				0.020	0.019	0.66
GROUP: C121710.ASC ,obs#: 156						
DXCT		LAVAPORT	22	-2548.60380	0.000	0.339
				0.003	0.001	0.06
DYCT		LAVAPORT	22	960.80240	-0.000	-0.301
				0.004	0.001	0.06
DZCT		LAVAPORT	22	1204.62090	0.000	0.689
				0.003	0.001	0.12

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: C121710.ASC ,obs#: 157						
DXCT		17	22	-15672.01200	-0.008	-0.367
				0.023	0.023	0.41
DYCT		17	22	7340.08610	0.006	0.281
				0.023	0.023	0.32
DZCT		17	22	10064.14230	-0.015	-0.680
				0.023	0.023	0.77
GROUP: C121710.ASC ,obs#: 158						
DXCT		LAVAPORT	23	2126.26420	-0.001	-0.354
				0.006	0.001	0.10
DYCT		LAVAPORT	23	1962.84150	-0.001	-0.447
				0.007	0.002	0.16
DZCT		LAVAPORT	23	4002.02220	0.002	1.574
				0.006	0.002	0.49
GROUP: C121710.ASC ,obs#: 159						
DXCT		17	23	-10997.15960	0.007	0.320
				0.022	0.021	0.35
DYCT		17	23	8342.12410	0.007	0.316
				0.023	0.022	0.36
DZCT		17	23	12861.56310	-0.033	-1.553
				0.022	0.021	1.74
GROUP: C121710.ASC ,obs#: 160						
DXCT		LAVAPORT	24	25241.18470	0.007	0.289
				0.029	0.024	0.27
DYCT		LAVAPORT	24	-968.15400	0.010	0.435
				0.029	0.024	0.41
DZCT		LAVAPORT	24	3498.67640	0.001	0.048
				0.029	0.024	0.04
GROUP: C121710.ASC ,obs#: 161						
DXCT		17	24	12117.77840	-0.003	-0.290
				0.021	0.012	0.19
DYCT		17	24	5411.15190	-0.005	-0.435
				0.021	0.012	0.29
DZCT		17	24	12358.18380	-0.001	-0.047
				0.021	0.012	0.03
GROUP: C121710.ASC ,obs#: 162						
DXCT		LAVAPORT	25	26192.53020	0.006	0.235
				0.030	0.025	0.23
DYCT		LAVAPORT	25	-2593.96820	-0.015	-0.590
				0.030	0.026	0.57
DZCT		LAVAPORT	25	736.22070	0.008	0.319
				0.030	0.025	0.31
GROUP: C121710.ASC ,obs#: 163						
DXCT		17	25	13069.12190	-0.002	-0.232
				0.019	0.010	0.14
DYCT		17	25	3785.30080	0.006	0.591
				0.019	0.010	0.37
DZCT		17	25	9595.73780	-0.003	-0.322
				0.019	0.010	0.20
GROUP: C121710.ASC ,obs#: 164						
DXCT		LAVAPORT	26	21809.94070	0.006	0.278
				0.025	0.022	0.28

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		LAVAPORT	26	-3368.63220	0.008	0.356
				0.025	0.022	0.36
DZCT		LAVAPORT	26	-1570.11530	-0.005	-0.237
				0.025	0.022	0.24
GROUP: C121710.ASC ,obs#: 165						
DXCT		17	26	8686.53200	-0.002	-0.279
				0.013	0.006	0.15
DYCT		17	26	3010.66830	-0.002	-0.359
				0.014	0.006	0.19
DZCT		17	26	7289.38360	0.002	0.240
				0.013	0.006	0.13
GROUP: C121710.ASC ,obs#: 166						
DXCT		LAVAPORT	27	22416.28170	0.003	0.149
				0.026	0.021	0.14
DYCT		LAVAPORT	27	-1434.85290	0.012	0.549
				0.026	0.021	0.52
DZCT		LAVAPORT	27	2076.23900	0.009	0.407
				0.026	0.021	0.39
GROUP: C121710.ASC ,obs#: 167						
DXCT		17	27	9292.86970	-0.001	-0.150
				0.017	0.010	0.10
DYCT		17	27	4944.45450	-0.005	-0.548
				0.018	0.010	0.35
DZCT		17	27	10935.75740	-0.004	-0.405
				0.018	0.010	0.26
GROUP: C121710.ASC ,obs#: 168						
DXCT		LAVAPORT	28	19091.98920	0.013	0.715
				0.022	0.018	0.65
DYCT		LAVAPORT	28	-322.75470	0.002	0.140
				0.022	0.018	0.13
DZCT		LAVAPORT	28	3408.09160	-0.002	-0.096
				0.022	0.018	0.09
GROUP: C121710.ASC ,obs#: 169						
DXCT		17	28	5968.59250	-0.007	-0.715
				0.017	0.010	0.50
DYCT		17	28	6056.53950	-0.001	-0.141
				0.017	0.010	0.10
DZCT		17	28	12267.59460	0.001	0.097
				0.017	0.010	0.07
GROUP: C121710.ASC ,obs#: 170						
DXCT		LAVAPORT	29	16213.00160	0.013	0.900
				0.019	0.014	0.77
DYCT		LAVAPORT	29	336.64540	0.013	0.917
				0.020	0.015	0.80
DZCT		LAVAPORT	29	4016.94700	0.023	1.597
				0.019	0.014	1.36
GROUP: C121710.ASC ,obs#: 171						
DXCT		17	29	3089.60790	-0.010	-0.900
				0.017	0.011	0.68
DYCT		17	29	6715.95950	-0.010	-0.919
				0.017	0.011	0.71
DZCT		17	29	12876.49350	-0.018	-1.599

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.017	0.011	1.21
GROUP: C121710.ASC ,obs#: 172						
DXCT		LAVAPORT	30	12451.29040	0.008	0.728
				0.014	0.011	0.66
DYCT		LAVAPORT	30	-1755.93530	0.011	0.958
				0.015	0.011	0.87
DZCT		LAVAPORT	30	-571.46990	0.024	2.108
				0.014	0.011	1.91
GROUP: C121710.ASC ,obs#: 173						
DXCT		17	30	-672.11320	-0.005	-0.729
				0.011	0.007	0.50
DYCT		17	30	4623.37230	-0.006	-0.945
				0.011	0.007	0.67
DZCT		17	30	8288.07350	-0.014	-2.100
				0.011	0.007	1.44
GROUP: C121710.ASC ,obs#: 174						
DXCT		LAVAPORT	31	31723.55320	0.009	0.294
				0.037	0.031	0.28
DYCT		LAVAPORT	31	-3939.09380	-0.003	-0.099
				0.037	0.031	0.09
DZCT		LAVAPORT	31	-583.54400	0.000	0.014
				0.037	0.031	0.01
GROUP: C121710.ASC ,obs#: 175						
DXCT		17	31	18600.14930	-0.004	-0.294
				0.023	0.013	0.18
DYCT		17	31	2440.19220	0.001	0.098
				0.024	0.013	0.06
DZCT		17	31	8275.96230	-0.000	-0.014
				0.024	0.013	0.01
GROUP: C121710.ASC ,obs#: 176						
DXCT		17	TXPV	-7071.39130	0.000	0.035
				0.013	0.013	0.04
DYCT		17	TXPV	4898.39770	0.012	0.925
				0.013	0.013	1.04
DZCT		17	TXPV	7457.63280	0.006	0.450
				0.013	0.013	0.51
GROUP: C121710.ASC ,obs#: 177						
DXCT		LAVAPORT	TXPV	6052.02900	-0.003	-0.441
				0.007	0.007	0.50
DYCT		LAVAPORT	TXPV	-1480.90650	0.026	3.505
				0.007	0.007	4.04
DZCT		LAVAPORT	TXPV	-1401.88170	0.015	1.988
				0.007	0.007	2.28
GROUP: C121710.ASC ,obs#: 178						
DXCT		17	TXVA	-34074.76270	0.006	0.119
				0.054	0.054	0.14
DYCT		17	TXVA	18635.55790	0.031	0.576
				0.054	0.054	0.66
DZCT		17	TXVA	26591.15010	-0.010	-0.194
				0.054	0.054	0.22
GROUP: C121710.ASC ,obs#: 179						
DXCT		LAVAPORT	TXVA	-20951.35620	0.017	0.481

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.034	0.034	0.55
DYCT		LAVAPORT	TXVA	12256.26860	0.030	0.871
				0.034	0.034	1.00
DZCT		LAVAPORT	TXVA	17731.63360	0.000	0.011
				0.034	0.034	0.01
GROUP: C121810.ASC ,obs#: 180						
DXCT		LAVAPORT	17	13123.39490	0.022	1.123
				0.020	0.019	1.27
DYCT		LAVAPORT	17	-6379.29220	0.002	0.099
				0.020	0.019	0.11
DZCT		LAVAPORT	17	-8859.50850	0.003	0.145
				0.020	0.019	0.16
GROUP: C121810.ASC ,obs#: 181						
DXCT		LAVAPORT	32	18012.27340	0.015	0.556
				0.028	0.027	0.61
DYCT		LAVAPORT	32	-9539.60380	-0.038	-1.401
				0.028	0.027	1.53
DZCT		LAVAPORT	32	-13617.41730	0.022	0.827
				0.028	0.027	0.90
GROUP: C121810.ASC ,obs#: 182						
DXCT		17	32	4888.87300	-0.001	-0.554
				0.009	0.003	0.19
DYCT		17	32	-3160.35460	0.004	1.404
				0.009	0.003	0.48
DZCT		17	32	-4757.88740	-0.002	-0.833
				0.009	0.003	0.28
GROUP: C121810.ASC ,obs#: 183						
DXCT		LAVAPORT	33	15601.90610	0.020	0.870
				0.024	0.024	0.97
DYCT		LAVAPORT	33	-8137.11940	-0.008	-0.354
				0.024	0.024	0.40
DZCT		LAVAPORT	33	-11553.36630	-0.002	-0.078
				0.024	0.024	0.09
GROUP: C121810.ASC ,obs#: 184						
DXCT		17	33	2478.51070	-0.001	-0.868
				0.005	0.001	0.19
DYCT		17	33	-1757.83780	0.000	0.347
				0.005	0.001	0.08
DZCT		17	33	-2693.86250	0.000	0.074
				0.005	0.001	0.02
GROUP: C121810.ASC ,obs#: 185						
DXCT		LAVAPORT	34	3890.25190	0.000	0.034
				0.008	0.005	0.02
DYCT		LAVAPORT	34	-3333.07220	-0.003	-0.686
				0.009	0.005	0.47
DZCT		LAVAPORT	34	-5245.70900	0.002	0.354
				0.008	0.005	0.23
GROUP: C121810.ASC ,obs#: 186						
DXCT		17	34	-9233.16420	-0.000	-0.039
				0.012	0.010	0.04
DYCT		17	34	3046.20810	0.007	0.683
				0.012	0.010	0.63

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DZCT		17	34	3613.80170	-0.003	-0.346
				0.012	0.010	0.32
GROUP: C121810.ASC ,obs#: 187						
DXCT		LAVAPORT	35	6210.56140	0.002	0.560
				0.008	0.004	0.32
DYCT		LAVAPORT	35	-1552.57280	-0.000	-0.033
				0.008	0.004	0.02
DZCT		LAVAPORT	35	-1513.89140	0.004	1.141
				0.008	0.004	0.67
GROUP: C121810.ASC ,obs#: 188						
DXCT		17	35	-6912.84700	-0.006	-0.562
				0.013	0.011	0.55
DYCT		17	35	4826.71720	0.000	0.014
				0.013	0.011	0.01
DZCT		17	35	7345.63120	-0.013	-1.142
				0.013	0.011	1.12
GROUP: C121810.ASC ,obs#: 189						
DXCT		LAVAPORT	36	12721.49010	0.012	1.214
				0.015	0.010	0.95
DYCT		LAVAPORT	36	375.71480	0.017	1.633
				0.015	0.010	1.28
DZCT		LAVAPORT	36	3361.13820	-0.016	-1.520
				0.015	0.010	1.20
GROUP: C121810.ASC ,obs#: 190						
DXCT		17	36	-401.90000	-0.014	-1.217
				0.016	0.012	1.01
DYCT		17	36	6755.04110	-0.019	-1.638
				0.016	0.012	1.37
DZCT		17	36	12220.61030	0.018	1.525
				0.016	0.012	1.28
GROUP: C121810.ASC ,obs#: 191						
DXCT		LAVAPORT	37	4025.22100	0.000	0.375
				0.005	0.001	0.11
DYCT		LAVAPORT	37	153.79570	-0.000	-0.144
				0.005	0.001	0.04
DZCT		LAVAPORT	37	1130.36490	-0.000	-0.056
				0.005	0.001	0.02
GROUP: C121810.ASC ,obs#: 192						
DXCT		17	37	-9098.18900	-0.006	-0.375
				0.017	0.016	0.41
DYCT		17	37	6533.08340	0.002	0.144
				0.017	0.017	0.16
DZCT		17	37	9989.86960	0.001	0.056
				0.017	0.017	0.06
GROUP: C121810.ASC ,obs#: 193						
DXCT		LAVAPORT	38	-5832.09660	0.003	1.512
				0.007	0.002	0.47
DYCT		LAVAPORT	38	-215.81160	0.001	0.545
				0.007	0.002	0.18
DZCT		LAVAPORT	38	-1636.38970	-0.000	-0.230
				0.007	0.002	0.07
GROUP: C121810.ASC ,obs#: 194						

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		17	38	-18955.47530	-0.035	-1.511
				0.024	0.023	1.65
DYCT		17	38	6163.49240	-0.013	-0.541
				0.024	0.023	0.60
DZCT		17	38	7223.11040	0.005	0.222
				0.024	0.023	0.24
GROUP: C121810.ASC ,obs#: 195						
DXCT		LAVAPORT	39	-2650.15720	0.003	1.638
				0.006	0.002	0.52
DYCT		LAVAPORT	39	-1792.41060	0.001	0.338
				0.006	0.002	0.11
DZCT		LAVAPORT	39	-3825.96810	0.002	1.062
				0.006	0.002	0.34
GROUP: C121810.ASC ,obs#: 196						
DXCT		17	39	-15773.54050	-0.031	-1.638
				0.020	0.019	1.79
DYCT		17	39	4586.88680	-0.007	-0.342
				0.020	0.019	0.38
DZCT		17	39	5033.55940	-0.020	-1.070
				0.020	0.019	1.17
GROUP: C121910.ASC ,obs#: 197						
DXCT		LAVAPORT	100C	-10871.89740	0.001	0.054
				0.021	0.020	0.06
DYCT		LAVAPORT	100C	-5921.39150	0.014	0.691
				0.021	0.020	0.78
DZCT		LAVAPORT	100C	-13129.29030	-0.004	-0.214
				0.021	0.020	0.24
GROUP: C121910.ASC ,obs#: 198						
DXCT		LAVAPORT	40	-16690.61850	-0.003	-0.105
				0.027	0.026	0.12
DYCT		LAVAPORT	40	-6336.37210	0.017	0.675
				0.027	0.026	0.75
DZCT		LAVAPORT	40	-15175.89510	-0.005	-0.194
				0.027	0.026	0.21
GROUP: C121910.ASC ,obs#: 199						
DXCT		100C	40	-5818.72510	0.000	0.103
				0.007	0.002	0.03
DYCT		100C	40	-414.97600	-0.001	-0.676
				0.007	0.002	0.20
DZCT		100C	40	-2046.60580	0.000	0.199
				0.007	0.002	0.06
GROUP: C121910.ASC ,obs#: 200						
DXCT		LAVAPORT	41	-13549.29520	0.010	0.460
				0.023	0.022	0.52
DYCT		LAVAPORT	41	-5775.07580	0.018	0.791
				0.023	0.022	0.89
DZCT		LAVAPORT	41	-13447.86660	-0.014	-0.607
				0.023	0.022	0.68
GROUP: C121910.ASC ,obs#: 201						
DXCT		100C	41	-2677.38840	-0.000	-0.466
				0.003	0.000	0.07
DYCT		100C	41	146.31970	-0.000	-0.807

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.003	0.000	0.13
DZCT		100C	41	-318.58580	0.000	0.627
				0.003	0.000	0.10
GROUP: C121910.ASC ,obs#: 202						
DXCT		LAVAPORT	42	-8651.45840	-0.005	-0.418
				0.014	0.012	0.41
DYCT		LAVAPORT	42	-3242.88880	0.006	0.490
				0.014	0.012	0.49
DZCT		LAVAPORT	42	-7754.25780	0.016	1.333
				0.014	0.012	1.32
GROUP: C121910.ASC ,obs#: 203						
DXCT		100C	42	2220.43150	0.001	0.418
				0.007	0.003	0.22
DYCT		100C	42	2678.49610	-0.002	-0.481
				0.007	0.003	0.26
DZCT		100C	42	5375.05730	-0.005	-1.330
				0.007	0.003	0.71
GROUP: C121910.ASC ,obs#: 204						
DXCT		LAVAPORT	43	-12697.93690	0.001	0.056
				0.019	0.019	0.06
DYCT		LAVAPORT	43	-4146.23750	0.019	1.021
				0.020	0.019	1.14
DZCT		LAVAPORT	43	-10280.35830	-0.004	-0.223
				0.019	0.019	0.25
GROUP: C121910.ASC ,obs#: 205						
DXCT		100C	43	-1826.03950	-0.000	-0.066
				0.004	0.001	0.02
DYCT		100C	43	1775.16010	-0.001	-1.024
				0.005	0.001	0.27
DZCT		100C	43	2848.93200	0.000	0.238
				0.004	0.001	0.06
GROUP: C121910.ASC ,obs#: 206						
DXCT		LAVAPORT	44	-14391.52830	0.006	0.371
				0.019	0.017	0.38
DYCT		LAVAPORT	44	-2526.27620	0.010	0.559
				0.019	0.017	0.59
DZCT		LAVAPORT	44	-7690.65830	-0.006	-0.335
				0.019	0.017	0.35
GROUP: C121910.ASC ,obs#: 207						
DXCT		100C	44	-3519.62440	-0.001	-0.373
				0.008	0.003	0.17
DYCT		100C	44	3395.11280	-0.002	-0.561
				0.009	0.003	0.27
DZCT		100C	44	5438.62950	0.001	0.338
				0.008	0.003	0.16
GROUP: C121910.ASC ,obs#: 208						
DXCT		LAVAPORT	45	-15864.66740	0.004	0.214
				0.019	0.017	0.21
DYCT		LAVAPORT	45	-1405.15030	0.028	1.660
				0.020	0.017	1.64
DZCT		LAVAPORT	45	-5966.36690	-0.008	-0.453
				0.020	0.017	0.45

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: C121910.ASC ,obs#: 209						
DXCT		100C	45	-4992.76630	-0.001	-0.218
				0.011	0.006	0.12
DYCT		100C	45	4516.26450	-0.009	-1.663
				0.011	0.006	0.97
DZCT		100C	45	7162.91760	0.003	0.462
				0.011	0.006	0.26
GROUP: C121910.ASC ,obs#: 210						
DXCT		LAVAPORT	46	-18394.15950	-0.001	-0.083
				0.021	0.017	0.08
DYCT		LAVAPORT	46	363.94930	0.017	0.987
				0.022	0.017	0.91
DZCT		LAVAPORT	46	-3295.13520	0.006	0.323
				0.022	0.017	0.30
GROUP: C121910.ASC ,obs#: 211						
DXCT		100C	46	-7522.26540	0.001	0.083
				0.016	0.009	0.06
DYCT		100C	46	6285.35320	-0.009	-0.985
				0.016	0.010	0.68
DZCT		100C	46	9834.16810	-0.003	-0.317
				0.016	0.010	0.22
GROUP: C121910.ASC ,obs#: 212						
DXCT		LAVAPORT	47	-8534.75920	0.003	0.693
				0.010	0.005	0.39
DYCT		LAVAPORT	47	1025.54790	0.003	0.581
				0.010	0.005	0.33
DZCT		LAVAPORT	47	42.06810	-0.001	-0.128
				0.010	0.005	0.07
GROUP: C121910.ASC ,obs#: 213						
DXCT		100C	47	2337.15070	-0.010	-0.693
				0.017	0.015	0.68
DYCT		100C	47	6946.93680	-0.009	-0.582
				0.017	0.015	0.58
DZCT		100C	47	13171.36020	0.002	0.131
				0.017	0.015	0.13
GROUP: C121910.ASC ,obs#: 214						
DXCT		LAVAPORT	48	-2452.10190	0.001	0.286
				0.008	0.004	0.17
DYCT		LAVAPORT	48	-3031.67790	0.005	1.070
				0.008	0.004	0.66
DZCT		LAVAPORT	48	-6042.25950	-0.001	-0.256
				0.008	0.004	0.15
GROUP: C121910.ASC ,obs#: 215						
DXCT		100C	48	8419.79870	-0.003	-0.285
				0.013	0.011	0.27
DYCT		100C	48	2889.71580	-0.012	-1.068
				0.013	0.011	1.02
DZCT		100C	48	7087.03140	0.003	0.247
				0.013	0.011	0.23
GROUP: C121910.ASC ,obs#: 216						
DXCT		LAVAPORT	49	611.53720	-0.000	-0.144
				0.005	0.002	0.05

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		LAVAPORT	49	-2293.78400	0.001	0.572
				0.006	0.002	0.20
DZCT		LAVAPORT	49	-4046.61820	0.001	0.504
				0.005	0.002	0.17
GROUP: C121910.ASC ,obs#: 217						
DXCT		100C	49	11483.43090	0.002	0.146
				0.017	0.016	0.16
DYCT		100C	49	3627.60400	-0.010	-0.578
				0.018	0.017	0.64
DZCT		100C	49	9082.68560	-0.008	-0.511
				0.017	0.016	0.55
GROUP: C121910.ASC ,obs#: 218						
DXCT		LAVAPORT	50	-3940.18680	0.019	2.239
				0.011	0.008	1.89
DYCT		LAVAPORT	50	-4053.09390	0.006	0.749
				0.012	0.008	0.64
DZCT		LAVAPORT	50	-8221.14480	0.018	2.111
				0.011	0.008	1.78
GROUP: C121910.ASC ,obs#: 219						
DXCT		100C	50	6931.74270	-0.014	-2.239
				0.010	0.006	1.65
DYCT		100C	50	1868.29470	-0.005	-0.747
				0.010	0.006	0.56
DZCT		100C	50	4908.18120	-0.014	-2.108
				0.010	0.006	1.56
GROUP: C021211.ASC ,obs#: 220						
DXCT		TXPV	100C	-16923.93320	0.011	0.466
				0.024	0.024	0.53
DYCT		TXPV	100C	-4440.50480	0.008	0.340
				0.024	0.024	0.39
DZCT		TXPV	100C	-11727.40080	-0.027	-1.119
				0.024	0.024	1.27
GROUP: C021211.ASC ,obs#: 221						
DXCT		TXVA	100C	10079.43570	0.008	0.181
				0.043	0.042	0.21
DYCT		TXVA	100C	-18177.65030	-0.026	-0.605
				0.043	0.042	0.69
DZCT		TXVA	100C	-30860.92510	-0.004	-0.084
				0.043	0.042	0.10
GROUP: C021211.ASC ,obs#: 222						
DXCT		TXPV	A 1257	-25600.27280	-0.003	-0.119
				0.030	0.027	0.13
DYCT		TXPV	A 1257	3857.92360	-0.001	-0.029
				0.030	0.030	0.03
DZCT		TXPV	A 1257	1514.35230	-0.021	-0.760
				0.030	0.028	0.82
GROUP: C021211.ASC ,obs#: 223						
DXCT		TXVA	A 1257	1403.09430	-0.005	-0.244
				0.023	0.020	0.24
DYCT		TXVA	A 1257	-9879.21950	-0.037	-1.615
				0.024	0.023	1.83
DZCT		TXVA	A 1257	-17619.16990	-0.000	-0.009

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.023	0.021	0.01
GROUP: C021211.ASC ,obs#: 224						
DXCT		100C	A 1257	-8676.34340	-0.011	-0.630
				0.021	0.017	0.59
DYCT		100C	A 1257	8298.41580	0.004	0.181
				0.021	0.020	0.20
DZCT		100C	A 1257	13241.75830	0.000	0.015
				0.021	0.018	0.02
GROUP: C021211.ASC ,obs#: 225						
DXCT		LAVAPORT	A 1257	-19548.26570	0.015	0.797
				0.023	0.019	0.78
DYCT		LAVAPORT	A 1257	2377.04340	-0.001	-0.062
				0.023	0.022	0.07
DZCT		LAVAPORT	A 1257	112.43410	0.030	1.476
				0.023	0.020	1.51
GROUP: C021211.ASC ,obs#: 226						
DXCT		TXPV	E 1258	-29608.27440	0.001	0.037
				0.034	0.032	0.04
DYCT		TXPV	E 1258	3028.42700	-0.016	-0.477
				0.034	0.034	0.54
DZCT		TXPV	E 1258	-893.84950	-0.013	-0.408
				0.034	0.032	0.44
GROUP: C021211.ASC ,obs#: 227						
DXCT		TXVA	E 1258	-2604.90480	-0.003	-0.131
				0.026	0.023	0.13
DYCT		TXVA	E 1258	-10708.72810	-0.040	-1.578
				0.026	0.025	1.76
DZCT		TXVA	E 1258	-20027.36820	0.004	0.188
				0.026	0.024	0.19
GROUP: C021211.ASC ,obs#: 228						
DXCT		100C	E 1258	-12684.34150	-0.010	-0.590
				0.021	0.016	0.53
DYCT		100C	E 1258	7468.91200	-0.004	-0.218
				0.021	0.020	0.24
DZCT		100C	E 1258	10833.56440	0.000	0.028
				0.021	0.018	0.03
GROUP: C021211.ASC ,obs#: 229						
DXCT		LAVAPORT	E 1258	-23556.25850	0.011	0.462
				0.027	0.024	0.47
DYCT		LAVAPORT	E 1258	1547.53210	-0.002	-0.068
				0.027	0.027	0.08
DZCT		LAVAPORT	E 1258	-2295.76750	0.038	1.514
				0.027	0.025	1.59
GROUP: C021211.ASC ,obs#: 230						
DXCT		TXPV	LAVAPORT	-6052.01150	-0.014	-1.954
				0.007	0.007	2.24
DYCT		TXPV	LAVAPORT	1480.90880	-0.028	-3.835
				0.007	0.007	4.40
DZCT		TXPV	LAVAPORT	1401.89890	-0.032	-4.345
				0.007	0.007	4.97
					^^^^^^^^^^^^^^^^^	
GROUP: C021211.ASC ,obs#: 231						

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		TXVA	LAVAPORT	20951.35450	-0.015	-0.431
				0.034	0.034	0.49
DYCT		TXVA	LAVAPORT	-12256.25630	-0.042	-1.229
				0.034	0.034	1.41
DZCT		TXVA	LAVAPORT	-17731.61180	-0.022	-0.645
				0.034	0.034	0.74
GROUP: 051911.ASC ,obs#: 232						
DXCT		TXPV	87	16466.46050	-0.001	-0.033
				0.020	0.019	0.04
DYCT		TXPV	87	1029.91820	-0.012	-0.666
				0.020	0.019	0.71
DZCT		TXPV	87	5284.73570	0.015	0.803
				0.020	0.019	0.86
GROUP: 051911.ASC ,obs#: 233						
DXCT		TXVA	87	43469.83270	-0.007	-0.137
				0.054	0.054	0.16
DYCT		TXVA	87	-12707.23300	-0.040	-0.754
				0.054	0.054	0.85
DZCT		TXVA	87	-13848.79310	0.043	0.793
				0.054	0.054	0.90
GROUP: 051911.ASC ,obs#: 234						
DXCT		87	88	-77.98590	0.000	0.000*
				0.001	0.000	0.04
DYCT		87	88	-543.39600	0.000	1.086
				0.002	0.000	0.14
DZCT		87	88	-1002.35810	-0.000	-1.429
				0.002	0.000	0.14
GROUP: 051911.ASC ,obs#: 235						
DXCT		TXPV	88	16388.48120	-0.007	-0.388
				0.020	0.018	0.42
DYCT		TXPV	88	486.52790	-0.018	-0.903
				0.021	0.020	1.06
DZCT		TXPV	88	4282.36830	0.024	1.282
				0.020	0.019	1.42
GROUP: 051911.ASC ,obs#: 236						
DXCT		87	89	-1102.57320	-0.000	-0.020
				0.002	0.000	0.00
DYCT		87	89	-431.18130	0.000	0.098
				0.002	0.000	0.01
DZCT		87	89	-1012.51580	-0.000	-0.327
				0.002	0.000	0.04
GROUP: 051911.ASC ,obs#: 237						
DXCT		TXPV	89	15363.88630	0.000	0.023
				0.018	0.017	0.02
DYCT		TXPV	89	598.72560	-0.001	-0.060
				0.019	0.018	0.07
DZCT		TXPV	89	4272.22910	0.006	0.325
				0.019	0.017	0.36
GROUP: 051911.ASC ,obs#: 238						
DXCT		87	90	-715.58770	-0.000	-0.642
				0.003	0.001	0.12
DYCT		87	90	-1309.43000	-0.001	-1.543

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.004	0.001	0.31
DZCT		87	90	-2525.95380	0.000	0.367
				0.003	0.001	0.07
GROUP: 051911.ASC ,obs#: 239						
DXCT		TXPV	90	15750.86100	0.011	0.634
				0.019	0.017	0.68
DYCT		TXPV	90	-279.55280	0.028	1.546
				0.020	0.018	1.73
DZCT		TXPV	90	2758.80410	-0.007	-0.396
				0.019	0.018	0.44
GROUP: 051911.ASC ,obs#: 240						
DXCT		87	91	-166.20190	-0.002	-1.275
				0.006	0.001	0.39
DYCT		87	91	-2328.90040	0.001	0.461
				0.006	0.001	0.14
DZCT		87	91	-4269.02570	-0.000	-0.322
				0.006	0.001	0.10
GROUP: 051911.ASC ,obs#: 241						
DXCT		TXPV	91	16300.23430	0.022	1.277
				0.019	0.017	1.33
DYCT		TXPV	91	-1298.98560	-0.008	-0.469
				0.020	0.018	0.51
DZCT		TXPV	91	1015.71870	0.006	0.335
				0.019	0.017	0.35
GROUP: 051911.ASC ,obs#: 242						
DXCT		87	92	-777.79730	-0.003	-1.078
				0.007	0.002	0.42
DYCT		87	92	-2900.80500	-0.001	-0.299
				0.007	0.002	0.11
DZCT		87	92	-5436.43220	0.001	0.441
				0.007	0.002	0.17
GROUP: 051911.ASC ,obs#: 243						
DXCT		TXPV	92	15688.64260	0.017	1.085
				0.018	0.016	1.10
DYCT		TXPV	92	-1870.90580	0.006	0.335
				0.020	0.018	0.37
DZCT		TXPV	92	-151.67310	-0.007	-0.458
				0.018	0.016	0.47
GROUP: 051911.ASC ,obs#: 244						
DXCT		87	93	3914.82360	-0.000	-0.317
				0.006	0.001	0.09
DYCT		87	93	-1977.18070	0.001	0.973
				0.006	0.001	0.27
DZCT		87	93	-2793.28140	-0.000	-0.152
				0.006	0.001	0.04
GROUP: 051911.ASC ,obs#: 245						
DXCT		TXPV	93	20381.27620	0.007	0.311
				0.024	0.022	0.33
DYCT		TXPV	93	-947.25120	-0.022	-0.973
				0.025	0.023	1.08
DZCT		TXPV	93	2491.46550	0.004	0.160
				0.024	0.022	0.17

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 051911.ASC	,obs#:	246				
DXCT		87	94	-2978.51130	0.002	2.525
				0.003	0.001	0.55
DYCT		87	94	92.49290	-0.001	-1.119
				0.004	0.001	0.26
DZCT		87	94	-451.82200	0.001	2.119
				0.004	0.001	0.47
GROUP: 051911.ASC	,obs#:	247				
DXCT		TXPV	94	13487.98780	-0.038	-2.531
				0.017	0.015	2.61
DYCT		TXPV	94	1122.38130	0.017	1.093
				0.017	0.015	1.16
DZCT		TXPV	94	4832.96140	-0.031	-2.100
				0.017	0.015	2.18
GROUP: 052011.ASC	,obs#:	248				
DXCT		17	100	-7719.90270	0.007	1.149
				0.009	0.006	0.85
DYCT		17	100	694.81700	-0.004	-0.749
				0.009	0.006	0.55
DZCT		17	100	-354.34100	0.006	1.041
				0.009	0.006	0.77
GROUP: 052011.ASC	,obs#:	249				
DXCT		TXPV	100	-648.49630	-0.009	-1.153
				0.010	0.008	1.01
DYCT		TXPV	100	-4203.60370	0.007	0.803
				0.011	0.009	0.77
DZCT		TXPV	100	-7811.96490	-0.009	-1.085
				0.011	0.008	0.98
GROUP: 052011.ASC	,obs#:	250				
DXCT		17	101	-8975.65760	0.005	0.631
				0.010	0.008	0.53
DYCT		17	101	1292.35110	-0.002	-0.224
				0.011	0.008	0.19
DZCT		17	101	469.97640	0.006	0.853
				0.011	0.008	0.71
GROUP: 052011.ASC	,obs#:	251				
DXCT		TXPV	101	-1904.25800	-0.004	-0.632
				0.009	0.006	0.49
DYCT		TXPV	101	-3606.06200	0.002	0.275
				0.010	0.007	0.23
DZCT		TXPV	101	-6987.64990	-0.006	-0.869
				0.010	0.007	0.72
GROUP: 052011.ASC	,obs#:	252				
DXCT		17	102	-10750.39490	0.005	0.507
				0.013	0.011	0.48
DYCT		17	102	2359.14400	0.007	0.619
				0.013	0.011	0.59
DZCT		17	102	2040.65540	-0.008	-0.762
				0.013	0.011	0.73
GROUP: 052011.ASC	,obs#:	253				
DXCT		TXPV	102	-3678.99640	-0.002	-0.514
				0.008	0.004	0.32

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		TXPV	102	-2539.25580	-0.003	-0.670
				0.009	0.005	0.44
DZCT		TXPV	102	-5416.99510	0.004	0.795
				0.009	0.005	0.54
GROUP: 052011.ASC ,obs#: 254						
DXCT		17	103	-9125.14320	0.011	1.092
				0.012	0.010	1.10
DYCT		17	103	2914.64980	-0.003	-0.342
				0.012	0.010	0.34
DZCT		17	103	3395.49380	0.003	0.304
				0.012	0.010	0.30
GROUP: 052011.ASC ,obs#: 255						
DXCT		TXPV	103	-2053.73840	-0.003	-1.073
				0.006	0.003	0.56
DYCT		TXPV	103	-1983.76430	0.001	0.334
				0.007	0.003	0.22
DZCT		TXPV	103	-4062.14060	-0.001	-0.344
				0.007	0.003	0.22
GROUP: 052011.ASC ,obs#: 256						
DXCT		17	104	-7496.56990	0.013	1.323
				0.011	0.010	1.37
DYCT		17	104	3246.99450	-0.017	-1.822
				0.011	0.009	1.86
DZCT		17	104	4347.09900	-0.005	-0.482
				0.011	0.010	0.50
GROUP: 052011.ASC ,obs#: 257						
DXCT		TXPV	104	-425.16450	-0.002	-1.165
				0.004	0.002	0.52
DYCT		TXPV	104	-1651.43640	0.004	1.693
				0.005	0.002	1.15
DZCT		TXPV	104	-3110.54460	0.000	0.248
				0.004	0.002	0.12
GROUP: 052011.ASC ,obs#: 258						
DXCT		17	105	-7793.17940	0.036	2.804
				0.013	0.013	3.13
DYCT		17	105	4715.95340	0.022	1.765
				0.013	0.013	1.96
DZCT		17	105	6960.22720	-0.024	-1.898
				0.013	0.013	2.12
GROUP: 052011.ASC ,obs#: 259						
DXCT		TXPV	105	-721.75180	-0.001	-3.459
				0.002	0.000	0.97
DYCT		TXPV	105	-182.43130	-0.002	-2.465
				0.004	0.001	2.72
DZCT		TXPV	105	-497.43660	0.001	2.768
				0.002	0.000	1.09
GROUP: 052011.ASC ,obs#: 260						
DXCT		17	106	-6524.40150	0.011	0.870
				0.013	0.012	0.97
DYCT		17	106	4883.79890	0.032	2.531
				0.013	0.012	2.85
DZCT		17	106	7525.03480	-0.018	-1.440

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.013	0.012	1.61
GROUP: 052011.ASC ,obs#: 261						
DXCT		TXPV	106	547.00050	-0.000	-1.966
				0.001	0.000	0.60
DYCT		TXPV	106	-14.57720	-0.002	-2.963
				0.003	0.001	3.40
DZCT		TXPV	106	67.37730	0.001	2.809
				0.002	0.000	1.88
GROUP: 052011.ASC ,obs#: 262						
DXCT		17	107	-2083.95180	0.000	0.544
				0.003	0.001	0.15
DYCT		17	107	549.91710	0.002	3.731
				0.003	0.001	1.11
DZCT		17	107	566.35550	-0.002	-3.419
				0.003	0.001	0.99
GROUP: 052011.ASC ,obs#: 263						
DXCT		TXPV	107	4987.44580	-0.006	-0.607
				0.011	0.011	0.67
DYCT		TXPV	107	-4348.45020	-0.040	-3.593
				0.012	0.011	4.16
DZCT		TXPV	107	-6891.32100	0.036	3.264
				0.012	0.011	3.74
GROUP: 052011.ASC ,obs#: 264						
DXCT		17	108	4129.36270	-0.004	-1.570
				0.007	0.002	0.58
DYCT		17	108	-2745.37210	0.003	1.108
				0.008	0.002	0.39
DZCT		17	108	-4157.30570	0.004	1.844
				0.007	0.002	0.68
GROUP: 052011.ASC ,obs#: 265						
DXCT		TXPV	108	11200.71570	0.034	1.638
				0.022	0.021	1.91
DYCT		TXPV	108	-7643.76700	-0.012	-0.525
				0.024	0.023	0.68
DZCT		TXPV	108	-11614.90060	-0.039	-1.867
				0.022	0.021	2.20
GROUP: 052011.ASC ,obs#: 266						
DXCT		TXPV	17	7071.38990	0.001	0.075
				0.013	0.013	0.08
DYCT		TXPV	17	-4898.39290	-0.017	-1.302
				0.013	0.013	1.46
DZCT		TXPV	17	-7457.63390	-0.005	-0.364
				0.013	0.013	0.41
GROUP: 052011.ASC ,obs#: 267						
DXCT		17	95	1354.38830	0.000	0.307
				0.002	0.000	0.04
DYCT		17	95	-415.88220	0.000	1.495
				0.002	0.000	0.24
DZCT		17	95	-480.13980	0.000	1.327
				0.002	0.000	0.20
GROUP: 052011.ASC ,obs#: 268						
DXCT		TXPV	95	8425.78360	-0.004	-0.305

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.015	0.014	0.34
DYCT		TXPV	95	-5314.26740	-0.024	-1.611
				0.015	0.015	1.88
DZCT		TXPV	95	-7937.75630	-0.022	-1.470
				0.015	0.015	1.71
GROUP: 052011.ASC ,obs#: 269						
DXCT		17	96	-560.45210	-0.000	-0.736
				0.002	0.000	0.10
DYCT		17	96	-508.90780	0.000	1.486
				0.002	0.000	0.30
DZCT		17	96	-1050.23660	0.000	0.725
				0.002	0.000	0.12
GROUP: 052011.ASC ,obs#: 270						
DXCT		TXPV	96	6510.92810	0.011	0.783
				0.014	0.013	0.88
DYCT		TXPV	96	-5407.29320	-0.024	-1.745
				0.014	0.014	1.98
DZCT		TXPV	96	-8507.86020	-0.015	-1.094
				0.014	0.014	1.23
GROUP: 052011.ASC ,obs#: 271						
DXCT		17	97	-64.39240	-0.000	-0.575
				0.003	0.001	0.12
DYCT		17	97	-1203.41160	-0.001	-1.199
				0.003	0.001	0.30
DZCT		17	97	-2212.43690	0.001	2.110
				0.003	0.001	0.47
GROUP: 052011.ASC ,obs#: 272						
DXCT		TXPV	97	7006.98990	0.008	0.553
				0.015	0.015	0.61
DYCT		TXPV	97	-6101.83860	0.017	1.104
				0.016	0.015	1.24
DZCT		TXPV	97	-9670.04360	-0.031	-2.054
				0.015	0.015	2.29
GROUP: 052011.ASC ,obs#: 273						
DXCT		17	98	-2662.09340	-0.000	-0.416
				0.003	0.001	0.12
DYCT		17	98	-417.16040	-0.002	-1.875
				0.004	0.001	0.63
DZCT		17	98	-1318.02570	0.002	2.247
				0.003	0.001	0.67
GROUP: 052011.ASC ,obs#: 274						
DXCT		TXPV	98	4409.29210	0.005	0.410
				0.013	0.012	0.45
DYCT		TXPV	98	-5315.59510	0.023	1.841
				0.013	0.013	2.08
DZCT		TXPV	98	-8775.63530	-0.027	-2.215
				0.013	0.012	2.41
GROUP: 052011.ASC ,obs#: 275						
DXCT		17	99	-5522.67970	-0.001	-0.380
				0.007	0.003	0.20
DYCT		17	99	-247.14230	-0.004	-1.388
				0.007	0.003	0.76

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION STD DEV	RESIDUAL STD DEV	STD RES PPM
DZCT		17	99	-1609.44550	0.002	0.605
				0.007	0.003	0.33
GROUP: 052011.ASC ,obs#: 276						
DXCT		TXPV	99	1548.70590	0.004	0.385
				0.012	0.011	0.39
DYCT		TXPV	99	-5145.57260	0.016	1.401
				0.013	0.012	1.55
DZCT		TXPV	99	-9067.07540	-0.007	-0.637
				0.012	0.011	0.64
GROUP: 052111.ASC ,obs#: 277						
DXCT		17	109	-16934.09320	0.007	0.246
				0.029	0.028	0.28
DYCT		17	109	-7271.14290	-0.013	-0.460
				0.029	0.028	0.52
DZCT		17	109	-16919.63100	-0.008	-0.294
				0.029	0.028	0.33
GROUP: 052111.ASC ,obs#: 278						
DXCT		13	109	319.55020	-0.000	0.000*
				0.001	0.000	0.01
DYCT		13	109	-166.69200	0.000	0.000*
				0.001	0.000	0.03
DZCT		13	109	-237.12020	0.000	0.000*
				0.001	0.000	0.00
GROUP: 052111.ASC ,obs#: 279						
DXCT		17	110	-18097.58420	-0.008	-0.318
				0.027	0.026	0.35
DYCT		17	110	-5259.34830	-0.028	-1.074
				0.027	0.026	1.22
DZCT		17	110	-13473.47850	-0.001	-0.020
				0.027	0.026	0.02
GROUP: 052111.ASC ,obs#: 280						
DXCT		13	110	-843.95620	0.000	0.318
				0.004	0.001	0.06
DYCT		13	110	1845.08660	0.001	1.073
				0.005	0.001	0.22
DZCT		13	110	3209.04010	-0.000	-0.003
				0.004	0.001	0.00
GROUP: 052111.ASC ,obs#: 281						
DXCT		17	111	-18362.58070	0.004	0.176
				0.025	0.024	0.19
DYCT		17	111	-4197.24580	0.003	0.121
				0.025	0.024	0.13
DZCT		17	111	-11580.46540	-0.002	-0.074
				0.025	0.024	0.08
GROUP: 052111.ASC ,obs#: 282						
DXCT		13	111	-1108.93970	-0.000	-0.176
				0.007	0.002	0.05
DYCT		13	111	2907.22130	-0.000	-0.121
				0.007	0.002	0.04
DZCT		13	111	5102.05180	0.000	0.075
				0.007	0.002	0.02
GROUP: 052111.ASC ,obs#: 283						

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DXCT		17	112	-15388.22190	-0.005	-0.275
				0.021	0.019	0.28
DYCT		17	112	-3545.22940	-0.009	-0.449
				0.021	0.019	0.47
DZCT		17	112	-9745.26770	-0.002	-0.084
				0.021	0.019	0.09
GROUP: 052111.ASC ,obs#: 284						
DXCT		13	112	1865.40830	0.001	0.274
				0.009	0.004	0.12
DYCT		13	112	3559.22430	0.002	0.449
				0.009	0.004	0.20
DZCT		13	112	6937.24950	0.000	0.085
				0.009	0.004	0.04
GROUP: 052111.ASC ,obs#: 285						
DXCT		17	113	-12725.52840	0.005	0.371
				0.017	0.014	0.34
DYCT		17	113	-2808.83360	0.013	0.925
				0.018	0.014	0.86
DZCT		17	113	-7825.89210	0.011	0.785
				0.018	0.014	0.73
GROUP: 052111.ASC ,obs#: 286						
DXCT		13	113	4528.11580	-0.003	-0.369
				0.012	0.007	0.24
DYCT		13	113	4295.64990	-0.007	-0.932
				0.012	0.007	0.60
DZCT		13	113	8856.64370	-0.006	-0.796
				0.012	0.007	0.52
GROUP: 052111.ASC ,obs#: 287						
DXCT		17	114	-10673.95500	0.006	0.633
				0.014	0.009	0.48
DYCT		17	114	-1984.35790	-0.020	-2.156
				0.014	0.009	1.63
DZCT		17	114	-5878.93230	0.022	2.360
				0.014	0.009	1.78
GROUP: 052111.ASC ,obs#: 288						
DXCT		13	114	6579.69450	-0.007	-0.635
				0.016	0.011	0.53
DYCT		13	114	5120.06150	0.024	2.151
				0.016	0.011	1.79
DZCT		13	114	10803.63550	-0.027	-2.355
				0.016	0.011	1.96
GROUP: 052111.ASC ,obs#: 289						
DXCT		17	115	-9716.82630	0.002	0.313
				0.011	0.006	0.17
DYCT		17	115	-176.35910	-0.011	-1.886
				0.012	0.006	1.06
DZCT		17	115	-2367.09440	0.010	1.824
				0.011	0.006	1.02
GROUP: 052111.ASC ,obs#: 290						
DXCT		13	115	7536.81730	-0.005	-0.315
				0.020	0.017	0.31
DYCT		13	115	6928.06160	0.033	1.883

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.020	0.017	1.85
DZCT		13	115	14315.46620	-0.031	-1.821
				0.020	0.017	1.78
GROUP: 052111.ASC ,obs#: 291						
DXCT		17	116	-6320.56080	0.001	0.140
				0.009	0.004	0.07
DYCT		17	116	-1798.42290	-0.004	-1.106
				0.009	0.004	0.55
DZCT		17	116	-4614.40100	0.007	1.898
				0.009	0.004	0.91
GROUP: 052111.ASC ,obs#: 292						
DXCT		13	116	10933.07870	-0.003	-0.145
				0.020	0.017	0.15
DYCT		13	116	5306.01750	0.019	1.089
				0.020	0.018	1.12
DZCT		13	116	12068.15830	-0.033	-1.888
				0.020	0.017	1.92
GROUP: 052111.ASC ,obs#: 293						
DXCT		17	117	-3441.86600	0.002	0.407
				0.011	0.005	0.23
DYCT		17	117	-3994.05740	-0.005	-0.920
				0.011	0.005	0.52
DZCT		17	117	-8026.15350	0.008	1.496
				0.011	0.005	0.84
GROUP: 052111.ASC ,obs#: 294						
DXCT		13	117	13811.77920	-0.007	-0.407
				0.019	0.016	0.40
DYCT		13	117	3110.38660	0.015	0.922
				0.019	0.016	0.90
DZCT		13	117	8656.39790	-0.024	-1.497
				0.019	0.016	1.46
GROUP: 052111.ASC ,obs#: 295						
DXCT		17	118	160.56820	0.001	0.064
				0.017	0.011	0.05
DYCT		17	118	-7217.32400	0.024	1.799
				0.020	0.013	1.60
DZCT		17	118	-13173.79350	-0.027	-1.848
				0.021	0.014	1.77
GROUP: 052111.ASC ,obs#: 296						
DXCT		13	118	17414.20640	-0.001	-0.069
				0.020	0.015	0.06
DYCT		13	118	-112.81370	-0.022	-1.481
				0.021	0.015	1.26
DZCT		13	118	3508.67570	0.023	1.567
				0.021	0.015	1.31
GROUP: 052111.ASC ,obs#: 297						
DXCT		17	119	-7518.58690	0.010	0.609
				0.020	0.017	0.59
DYCT		17	119	-6744.31690	-0.012	-0.728
				0.020	0.017	0.71
DZCT		17	119	-13928.64540	0.013	0.777
				0.020	0.017	0.76

Residuals (critical value = 4.174):

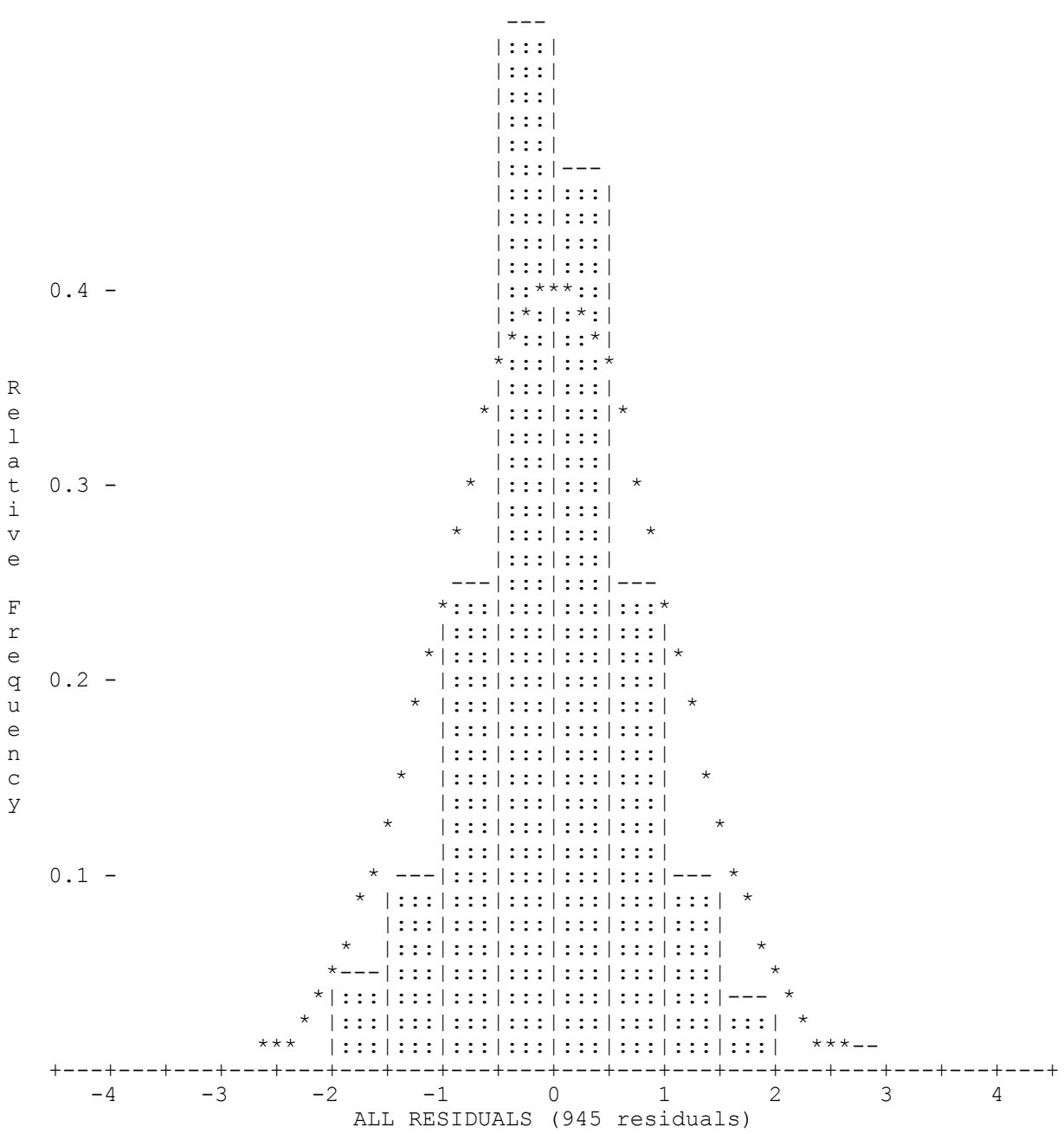
TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
GROUP: 052111.ASC	,obs#:	298				
DXCT		13	119	9735.06320	-0.004	-0.608
				0.012	0.006	0.35
DYCT		13	119	360.13060	0.004	0.726
				0.012	0.006	0.41
DZCT		13	119	2753.89120	-0.004	-0.775
				0.012	0.006	0.44
GROUP: 052111.ASC	,obs#:	299				
DXCT		17	13	-17253.63690	0.000	0.016
				0.029	0.028	0.02
DYCT		17	13	-7104.45750	-0.006	-0.228
				0.029	0.028	0.26
DZCT		17	13	-16682.52470	0.006	0.197
				0.029	0.028	0.22
GROUP: 052211.ASC	,obs#:	300				
DXCT		TXPV	100C	-16923.91400	-0.008	-0.338
				0.024	0.024	0.38
DYCT		TXPV	100C	-4440.48990	-0.007	-0.283
				0.024	0.024	0.32
DZCT		TXPV	100C	-11727.39820	-0.029	-1.227
				0.024	0.024	1.39
GROUP: 052211.ASC	,obs#:	301				
DXCT		TXVA	100C	10079.45990	-0.017	-0.390
				0.043	0.042	0.44
DYCT		TXVA	100C	-18177.60740	-0.069	-1.615
				0.043	0.042	1.84
DZCT		TXVA	100C	-30860.94360	0.015	0.352
				0.043	0.042	0.40
GROUP: 052211.ASC	,obs#:	302				
DXCT		TXPV	120	-16809.08250	0.003	0.141
				0.024	0.024	0.16
DYCT		TXPV	120	-4592.58170	0.030	1.215
				0.025	0.025	1.44
DZCT		TXPV	120	-11981.46690	-0.047	-1.903
				0.025	0.025	2.21
GROUP: 052211.ASC	,obs#:	303				
DXCT		100C	120	114.84300	-0.000	0.000*
				0.001	0.000	0.09
DYCT		100C	120	-152.05450	-0.000	0.000*
				0.001	0.000	0.52
DZCT		100C	120	-254.08630	0.000	0.000*
				0.001	0.000	0.45
GROUP: 052211.ASC	,obs#:	304				
DXCT		100C	121	4025.59560	-0.001	-0.326
				0.010	0.002	0.07
DYCT		100C	121	-3909.10240	0.001	0.287
				0.010	0.002	0.06
DZCT		100C	121	-6289.33340	-0.000	-0.051
				0.010	0.002	0.01
GROUP: 052211.ASC	,obs#:	305				
DXCT		TXVA	121	14105.02170	0.017	0.327
				0.052	0.051	0.37

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
DYCT		TXVA	121	-22086.76310	-0.015	-0.288
				0.052	0.051	0.32
DZCT		TXVA	121	-37150.26460	0.002	0.048
				0.052	0.051	0.05
GROUP: 052211.ASC ,obs#: 306						
DXCT		100C	122	1691.48390	0.000	0.146
				0.004	0.000	0.02
DYCT		100C	122	-1661.25760	0.001	1.675
				0.005	0.000	0.23
DZCT		100C	122	-2673.72960	-0.000	-0.398
				0.004	0.000	0.04
GROUP: 052211.ASC ,obs#: 307						
DXCT		TXVA	122	11770.93400	-0.007	-0.144
				0.047	0.046	0.16
DYCT		TXVA	122	-19838.85440	-0.078	-1.664
				0.047	0.047	1.93
DZCT		TXVA	122	-33534.67190	0.013	0.291
				0.047	0.046	0.33
GROUP: 052211.ASC ,obs#: 308						
DXCT		100C	123	800.06220	0.000	0.482
				0.004	0.000	0.06
DYCT		100C	123	1445.99620	0.002	3.083
				0.005	0.001	0.48
DZCT		100C	123	2814.89360	-0.000	-1.244
				0.004	0.000	0.15
GROUP: 052211.ASC ,obs#: 309						
DXCT		TXVA	123	10879.52500	-0.019	-0.491
				0.040	0.039	0.56
DYCT		TXVA	123	-16731.55370	-0.125	-3.024
				0.042	0.041	3.62
DZCT		TXVA	123	-28046.07150	0.036	0.914
				0.040	0.039	1.04
GROUP: 052211.ASC ,obs#: 310						
DXCT		100C	124	-3912.92970	0.001	0.298
				0.009	0.002	0.09
DYCT		100C	124	3727.01770	0.002	0.797
				0.009	0.002	0.24
DZCT		100C	124	5956.63230	-0.001	-0.212
				0.009	0.002	0.07
GROUP: 052211.ASC ,obs#: 311						
DXCT		TXVA	124	6166.52400	-0.010	-0.297
				0.034	0.032	0.33
DYCT		TXVA	124	-14450.63050	-0.026	-0.794
				0.034	0.033	0.88
DZCT		TXVA	124	-24904.30350	0.007	0.204
				0.034	0.033	0.22
GROUP: 052211.ASC ,obs#: 312						
DXCT		100C	125	-7777.61060	0.010	1.222
				0.016	0.008	0.71
DYCT		100C	125	6448.97610	0.007	0.808
				0.016	0.008	0.47
DZCT		100C	125	10073.87030	0.001	0.167

Residuals (critical value = 4.174):

TYPE	AT	FROM	TO	OBSERVATION / STD DEV	RESIDUAL / STD DEV	STD RES / PPM
				0.016	0.008	0.10
GROUP: 052211.ASC ,obs#: 313						
DXCT		TXVA	125	2301.87170	-0.029	-1.224
				0.027	0.024	1.20
DYCT		TXVA	125	-11728.67390	-0.019	-0.809
				0.028	0.024	0.80
DZCT		TXVA	125	-20787.05320	-0.004	-0.158
				0.028	0.024	0.16
GROUP: 052211.ASC ,obs#: 314						
DXCT		100C	126	2346.29290	0.000	0.381
				0.004	0.000	0.04
DYCT		100C	126	1058.59460	0.000	0.929
				0.004	0.000	0.12
DZCT		100C	126	2442.81010	-0.000	-0.248
				0.004	0.000	0.03
GROUP: 052211.ASC ,obs#: 315						
DXCT		TXVA	126	12425.75100	-0.015	-0.362
				0.041	0.040	0.41
DYCT		TXVA	126	-17119.04360	-0.037	-0.917
				0.041	0.041	1.05
DZCT		TXVA	126	-28418.12740	0.009	0.217
				0.041	0.040	0.25


Relative Frequency
0.4
0.3
0.2
0.1
-4
-3
-2
-1
0
1
2
3
4
ALL RESIDUALS (945 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	4.1745
Number of Flagged Residuals	1
Convergence Criterion	0.0010
Final Iteration Counter Value	2
Confidence Level Used	95.0000
Estimated Variance Factor	1.0000
Number of Degrees of Freedom	557

Chi-Square Test on the Variance Factor:

8.9222e-01 < 1.0000 < 1.1287e+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	0.040	(0, 90)	0.039	(0, 0)	0.039	(90, 0)
10	0.052	(0, 90)	0.052	(90, 0)	0.052	(0, 0)
100	0.021	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
100C	0.009	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
101	0.021	(0, 77)	0.020	(180, 13)	0.020	(90, 0)
102	0.021	(0, 70)	0.020	(180, 20)	0.019	(90, 0)
103	0.017	(0, 79)	0.015	(180, 11)	0.015	(90, 0)
104	0.014	(180, 77)	0.011	(0, 13)	0.011	(90, 0)
105	0.010	(180, 78)	0.005	(0, 12)	0.005	(90, 0)
106	0.009	(0, 90)	0.004	(90, 0)	0.004	(0, 0)
107	0.011	(0, 90)	0.010	(0, 0)	0.010	(90, 0)
108	0.021	(0, 90)	0.021	(90, 0)	0.021	(0, 0)
109	0.012	(0, 90)	0.012	(0, 0)	0.012	(90, 0)
11	0.044	(347, 68)	0.042	(180, 21)	0.042	(88, 4)
110	0.017	(0, 90)	0.017	(0, 0)	0.017	(90, 0)
111	0.022	(0, 90)	0.022	(0, 0)	0.022	(90, 0)
112	0.026	(0, 90)	0.026	(0, 0)	0.026	(90, 0)
113	0.030	(0, 90)	0.030	(0, 0)	0.030	(90, 0)
114	0.030	(0, 90)	0.030	(0, 0)	0.030	(90, 0)
115	0.029	(0, 90)	0.029	(0, 0)	0.029	(90, 0)
116	0.025	(0, 90)	0.024	(0, 0)	0.024	(90, 0)
117	0.028	(0, 90)	0.027	(0, 0)	0.027	(90, 0)
118	0.044	(13, 67)	0.037	(272, 5)	0.037	(180, 22)
119	0.030	(0, 90)	0.029	(90, 0)	0.029	(0, 0)
12	0.039	(0, 90)	0.038	(0, 0)	0.038	(90, 0)
120	0.010	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
121	0.028	(0, 90)	0.028	(0, 0)	0.028	(90, 0)
122	0.016	(180, 73)	0.015	(90, 0)	0.014	(0, 17)
123	0.016	(135, 78)	0.014	(269, 8)	0.014	(0, 8)
124	0.027	(0, 90)	0.026	(0, 0)	0.026	(90, 0)
125	0.040	(0, 90)	0.040	(0, 0)	0.040	(90, 0)
126	0.015	(0, 90)	0.014	(0, 0)	0.014	(90, 0)
13	0.012	(0, 90)	0.012	(0, 0)	0.012	(90, 0)
14	0.023	(0, 90)	0.022	(0, 0)	0.022	(90, 0)
15	0.031	(0, 90)	0.031	(0, 0)	0.031	(90, 0)
16	0.028	(0, 90)	0.028	(0, 0)	0.028	(90, 0)
17	0.007	(0, 90)	0.007	(0, 0)	0.007	(90, 0)
18	0.038	(344, 67)	0.037	(180, 23)	0.037	(88, 6)
19	0.029	(0, 90)	0.028	(0, 0)	0.028	(90, 0)
2	0.037	(0, 90)	0.037	(0, 0)	0.037	(90, 0)
20	0.019	(180, 79)	0.018	(90, 0)	0.018	(0, 11)
21	0.003	(0, 90)	0.001	(0, 0)	0.001	(90, 0)
22	0.010	(0, 90)	0.010	(90, 0)	0.010	(0, 0)
23	0.018	(0, 90)	0.015	(0, 0)	0.015	(90, 0)
24	0.048	(0, 90)	0.048	(0, 0)	0.048	(90, 0)
25	0.046	(180, 74)	0.045	(90, 0)	0.045	(0, 16)
26	0.034	(0, 90)	0.034	(90, 0)	0.034	(0, 0)
27	0.041	(336, 70)	0.041	(180, 19)	0.041	(87, 8)
28	0.038	(0, 90)	0.038	(0, 0)	0.038	(90, 0)
29	0.037	(180, 81)	0.036	(90, 0)	0.036	(0, 9)
3	0.030	(0, 68)	0.030	(180, 22)	0.030	(90, 0)
30	0.025	(0, 90)	0.025	(0, 0)	0.025	(90, 0)
31	0.056	(0, 90)	0.055	(0, 0)	0.055	(90, 0)

3D Station Confidence Regions (95.000 percent):

STATION	MAJ-SEMI	(AZ,VANG)	MED-SEMI	(AZ,VANG)	MIN-SEMI	(AZ,VANG)
32	0.024	(0, 90)	0.024	(0, 0)	0.024	(90, 0)
33	0.015	(0, 90)	0.015	(0, 0)	0.015	(90, 0)
34	0.020	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
35	0.019	(0, 90)	0.018	(90, 0)	0.018	(0, 0)
36	0.031	(0, 72)	0.031	(180, 18)	0.031	(90, 0)
37	0.013	(0, 90)	0.013	(0, 0)	0.013	(90, 0)
38	0.019	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
39	0.016	(0, 90)	0.015	(0, 0)	0.015	(90, 0)
4	0.025	(0, 79)	0.023	(158, 10)	0.022	(249, 4)
40	0.021	(0, 90)	0.021	(90, 0)	0.021	(0, 0)
41	0.012	(0, 90)	0.012	(0, 0)	0.012	(90, 0)
42	0.020	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
43	0.015	(0, 90)	0.015	(0, 0)	0.015	(90, 0)
44	0.023	(0, 90)	0.023	(0, 0)	0.023	(90, 0)
45	0.029	(0, 90)	0.028	(90, 0)	0.028	(0, 0)
46	0.037	(0, 74)	0.036	(180, 16)	0.036	(90, 0)
47	0.024	(0, 90)	0.024	(0, 0)	0.024	(90, 0)
48	0.020	(0, 90)	0.020	(0, 0)	0.020	(90, 0)
49	0.015	(0, 90)	0.014	(0, 0)	0.014	(90, 0)
5	0.015	(0, 90)	0.015	(0, 0)	0.015	(90, 0)
50	0.022	(0, 90)	0.022	(0, 0)	0.022	(90, 0)
51	0.020	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
52	0.021	(0, 90)	0.021	(0, 0)	0.021	(90, 0)
53	0.024	(0, 69)	0.024	(180, 21)	0.023	(90, 0)
54	0.023	(0, 90)	0.023	(0, 0)	0.023	(90, 0)
55	0.026	(0, 90)	0.026	(0, 0)	0.026	(90, 0)
56	0.028	(0, 90)	0.027	(0, 0)	0.027	(90, 0)
57	0.031	(0, 90)	0.031	(0, 0)	0.031	(90, 0)
58	0.031	(0, 90)	0.031	(0, 0)	0.031	(90, 0)
59	0.021	(0, 90)	0.020	(0, 0)	0.020	(90, 0)
6	0.009	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
60	0.018	(0, 90)	0.017	(0, 0)	0.017	(90, 0)
61	0.027	(0, 90)	0.027	(0, 0)	0.027	(90, 0)
62	0.023	(0, 90)	0.022	(0, 0)	0.022	(90, 0)
63	0.019	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
64	0.019	(0, 90)	0.019	(0, 0)	0.019	(90, 0)
65	0.043	(0, 90)	0.043	(0, 0)	0.043	(90, 0)
66	0.035	(0, 90)	0.035	(0, 0)	0.035	(90, 0)
67	0.029	(0, 90)	0.029	(0, 0)	0.029	(90, 0)
68	0.027	(0, 74)	0.026	(180, 16)	0.026	(90, 0)
69	0.042	(180, 80)	0.042	(0, 10)	0.042	(90, 0)
7	0.061	(270, 81)	0.061	(90, 9)	0.061	(0, 0)
70	0.043	(0, 90)	0.042	(0, 0)	0.042	(90, 0)
71	0.040	(0, 90)	0.040	(0, 0)	0.040	(90, 0)
72	0.043	(0, 78)	0.043	(180, 12)	0.043	(90, 0)
73	0.040	(0, 90)	0.039	(0, 0)	0.039	(90, 0)
74	0.049	(0, 90)	0.049	(0, 0)	0.049	(90, 0)
75	0.051	(0, 90)	0.051	(0, 0)	0.051	(90, 0)
76	0.007	(0, 90)	0.006	(0, 0)	0.006	(90, 0)
77	0.012	(180, 78)	0.010	(0, 12)	0.010	(90, 0)
78	0.022	(0, 90)	0.021	(0, 0)	0.021	(90, 0)
79	0.024	(0, 90)	0.024	(0, 0)	0.024	(90, 0)
8	0.059	(0, 90)	0.059	(0, 0)	0.059	(90, 0)

3D Station Confidence Regions (95.000 percent):

STATION	MAJ-SEMI	(AZ,VANG)	MED-SEMI	(AZ,VANG)	MIN-SEMI	(AZ,VANG)
80	0.032	(0, 90)	0.031	(0, 0)	0.031	(90, 0)
81	0.025	(0, 90)	0.025	(0, 0)	0.025	(90, 0)
82	0.034	(0, 90)	0.033	(0, 0)	0.033	(90, 0)
83	0.046	(180, 74)	0.045	(0, 16)	0.045	(90, 0)
84	0.039	(0, 90)	0.039	(0, 0)	0.039	(90, 0)
85	0.035	(0, 90)	0.035	(0, 0)	0.035	(90, 0)
86	0.009	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
87	0.020	(0, 90)	0.019	(90, 0)	0.019	(0, 0)
88	0.021	(0, 90)	0.019	(90, 0)	0.019	(0, 0)
89	0.021	(0, 90)	0.020	(0, 0)	0.020	(90, 0)
9	0.055	(180, 79)	0.054	(0, 11)	0.054	(90, 0)
90	0.022	(0, 90)	0.021	(0, 0)	0.021	(90, 0)
91	0.024	(0, 90)	0.023	(90, 0)	0.023	(0, 0)
92	0.026	(0, 90)	0.025	(90, 0)	0.025	(0, 0)
93	0.025	(0, 90)	0.024	(0, 0)	0.024	(90, 0)
94	0.022	(0, 90)	0.021	(0, 0)	0.021	(90, 0)
95	0.009	(0, 90)	0.009	(0, 0)	0.009	(90, 0)
96	0.009	(0, 90)	0.008	(0, 0)	0.008	(90, 0)
97	0.011	(0, 90)	0.011	(0, 0)	0.011	(90, 0)
98	0.012	(0, 90)	0.012	(0, 0)	0.011	(90, 0)
99	0.018	(180, 76)	0.017	(90, 0)	0.017	(0, 14)
A 1257	0.033	(0, 0)	0.033	(90, 0)	0.000	(0, 90)
B 595	0.037	(0, 90)	0.037	(0, 0)	0.037	(90, 0)
E 1258	0.036	(0, 0)	0.036	(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	100C	0.039 (0, 90)	0.039 (90, 0)	0.039 (0, 0)	13630.877	2.86
1	LAVAPORT	0.040 (0, 90)	0.039 (0, 0)	0.039 (90, 0)	26460.294	1.50
10	100C	0.052 (0, 90)	0.052 (90, 0)	0.052 (0, 0)	25727.735	2.04
10	LAVAPORT	0.052 (0, 90)	0.052 (90, 0)	0.052 (0, 0)	32726.449	1.60
10	TXPV	0.052 (0, 90)	0.052 (90, 0)	0.052 (0, 0)	29842.860	1.75
10	TXVA	0.052 (0, 90)	0.052 (90, 0)	0.052 (0, 0)	60616.084	0.86
100	17	0.020 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	7759.195	2.61
100	TXPV	0.021 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	8894.814	2.31
100C	11	0.044 (347, 68)	0.042 (180, 21)	0.042 (88, 4)	20287.492	2.15
100C	12	0.038 (0, 90)	0.038 (0, 0)	0.038 (90, 0)	16255.212	2.37
100C	120	0.005 (0, 90)	0.002 (0, 0)	0.002 (90, 0)	317.599	14.50
100C	121	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	8428.654	3.22
100C	122	0.014 (180, 73)	0.012 (90, 0)	0.012 (0, 17)	3573.475	3.78
100C	123	0.013 (135, 78)	0.011 (269, 8)	0.011 (0, 9)	3264.143	4.00
100C	124	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	8042.584	3.15
100C	125	0.040 (0, 90)	0.039 (0, 0)	0.039 (90, 0)	14267.562	2.78
100C	126	0.012 (0, 90)	0.012 (0, 0)	0.011 (90, 0)	3548.667	3.47
100C	13	0.011 (0, 90)	0.010 (0, 0)	0.010 (90, 0)	16022.347	0.66
100C	14	0.022 (0, 90)	0.022 (0, 0)	0.021 (90, 0)	7693.982	2.83
100C	15	0.031 (0, 90)	0.030 (0, 0)	0.030 (90, 0)	29538.837	1.04
100C	16	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	8774.474	3.05
100C	17	0.011 (0, 90)	0.011 (0, 0)	0.011 (90, 0)	24376.543	0.44
100C	18	0.039 (344, 67)	0.037 (180, 22)	0.037 (88, 6)	22261.133	1.74
100C	19	0.029 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	15815.540	1.86
100C	2	0.036 (0, 90)	0.036 (0, 0)	0.036 (90, 0)	12475.163	2.90
100C	20	0.021 (180, 79)	0.019 (0, 11)	0.019 (90, 0)	16443.654	1.25

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
100C	21	0.009	0.009	0.009	17957.817	0.52
		(0, 90)	(0, 0)	(90, 0)		
100C	3	0.029	0.029	0.029	9645.447	3.02
		(0, 67)	(180, 23)	(90, 0)		
100C	4	0.024	0.021	0.021	6645.825	3.57
		(0, 79)	(158, 10)	(248, 4)		
100C	40	0.019	0.019	0.019	6182.100	3.14
		(0, 90)	(90, 0)	(0, 0)		
100C	41	0.009	0.009	0.009	2700.244	3.28
		(0, 90)	(0, 0)	(90, 0)		
100C	42	0.018	0.018	0.018	6402.800	2.88
		(0, 90)	(0, 0)	(90, 0)		
100C	43	0.012	0.012	0.012	3821.260	3.26
		(0, 90)	(0, 0)	(90, 0)		
100C	44	0.022	0.022	0.021	7313.908	3.00
		(0, 90)	(0, 0)	(90, 0)		
100C	45	0.028	0.027	0.027	9830.143	2.83
		(0, 90)	(90, 0)	(0, 0)		
100C	46	0.037	0.036	0.036	13885.273	2.66
		(0, 74)	(180, 16)	(90, 0)		
100C	47	0.025	0.025	0.025	15073.381	1.66
		(0, 90)	(0, 0)	(90, 0)		
100C	48	0.021	0.020	0.020	11378.462	1.83
		(0, 90)	(0, 0)	(90, 0)		
100C	49	0.017	0.017	0.016	15083.889	1.13
		(0, 90)	(0, 0)	(90, 0)		
100C	5	0.013	0.012	0.012	3882.289	3.28
		(0, 90)	(0, 0)	(90, 0)		
100C	50	0.022	0.021	0.021	8696.521	2.48
		(0, 90)	(0, 0)	(90, 0)		
100C	51	0.018	0.018	0.018	10338.335	1.78
		(0, 90)	(0, 0)	(90, 0)		
100C	52	0.020	0.020	0.020	10479.695	1.90
		(0, 90)	(0, 0)	(90, 0)		
100C	53	0.023	0.022	0.022	11151.776	2.06
		(0, 68)	(180, 22)	(90, 0)		
100C	54	0.021	0.021	0.021	7623.763	2.81
		(0, 90)	(0, 0)	(90, 0)		
100C	55	0.025	0.025	0.025	9999.541	2.47
		(0, 90)	(0, 0)	(90, 0)		
100C	56	0.027	0.026	0.026	12205.344	2.19
		(0, 90)	(0, 0)	(90, 0)		
100C	57	0.030	0.030	0.030	13145.094	2.29
		(0, 90)	(0, 0)	(90, 0)		
100C	58	0.030	0.030	0.030	13671.669	2.18
		(0, 90)	(0, 0)	(90, 0)		
100C	59	0.020	0.019	0.019	12848.567	1.53
		(0, 90)	(0, 0)	(90, 0)		
100C	6	0.003	0.001	0.001	11.622	245.91
		(0, 90)	(0, 0)	(90, 0)		
100C	60	0.017	0.016	0.016	14692.494	1.15
		(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
100C	61	0.026 (0, 90)	0.026 (0, 0)	0.026 (90, 0)	8952.167	2.92
100C	62	0.021 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	6953.440	3.01
100C	63	0.017 (0, 90)	0.017 (0, 0)	0.016 (90, 0)	5527.284	3.07
100C	7	0.062 (270, 81)	0.061 (90, 9)	0.061 (0, 0)	38282.610	1.61
100C	8	0.060 (0, 90)	0.059 (0, 0)	0.059 (90, 0)	37693.540	1.58
100C	9	0.055 (180, 79)	0.055 (0, 11)	0.055 (90, 0)	32758.339	1.69
100C	A 1257	0.033 (0, 0)	0.033 (90, 0)	0.009 (0, 90)	17874.201	1.86
100C	B 595	0.036 (0, 90)	0.036 (0, 0)	0.036 (90, 0)	13297.267	2.71
100C	E 1258	0.037 (0, 0)	0.037 (90, 0)	0.009 (0, 90)	18276.856	2.01
100C	LAVAPORT	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	18045.476	0.49
100C	TXPV	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	21063.469	0.42
100C	TXVA	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	37207.795	0.24
101	17	0.021 (0, 77)	0.020 (180, 13)	0.020 (90, 0)	9080.385	2.32
101	TXPV	0.021 (0, 77)	0.020 (180, 13)	0.020 (90, 0)	8090.563	2.60
102	17	0.021 (0, 70)	0.020 (180, 20)	0.020 (90, 0)	11193.780	1.90
102	TXPV	0.021 (0, 70)	0.020 (180, 20)	0.019 (90, 0)	7023.294	2.97
103	17	0.018 (0, 80)	0.016 (180, 10)	0.016 (90, 0)	10163.297	1.76
103	TXPV	0.017 (0, 79)	0.015 (180, 11)	0.015 (90, 0)	4965.296	3.45
104	17	0.015 (180, 77)	0.013 (0, 13)	0.013 (90, 0)	9254.105	1.62
104	TXPV	0.014 (180, 77)	0.011 (0, 13)	0.011 (90, 0)	3547.320	3.93
105	17	0.012 (180, 78)	0.008 (0, 12)	0.008 (90, 0)	11463.766	1.08
105	TXPV	0.010 (180, 78)	0.005 (0, 12)	0.005 (90, 0)	895.350	11.54
106	17	0.011 (0, 90)	0.008 (90, 0)	0.008 (0, 0)	11092.581	1.00
106	TXPV	0.009 (0, 90)	0.004 (90, 0)	0.004 (0, 0)	551.327	15.57
107	17	0.008 (0, 90)	0.007 (0, 0)	0.007 (90, 0)	2228.457	3.64
107	TXPV	0.011 (0, 90)	0.010 (0, 0)	0.010 (90, 0)	9553.729	1.12

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
108	17	0.020 (0, 90)	0.020 (90, 0)	0.020 (0, 0)	6470.843	3.15
108	TXPV	0.021 (0, 90)	0.021 (90, 0)	0.021 (0, 0)	17854.719	1.20
109	13	0.003 (0, 90)	0.002 (0, 0)	0.002 (90, 0)	431.422	6.14
109	17	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	25018.137	0.51
11	LAVAPORT	0.044 (347, 68)	0.042 (180, 21)	0.042 (88, 4)	26755.401	1.63
11	TXPV	0.044 (347, 68)	0.042 (180, 21)	0.042 (88, 4)	24234.511	1.80
11	TXVA	0.044 (347, 68)	0.042 (180, 21)	0.042 (88, 4)	54554.075	0.80
110	13	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	3796.650	3.38
110	17	0.018 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	23167.186	0.76
111	13	0.019 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	5976.003	3.14
111	17	0.022 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	22111.270	1.00
112	13	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	8017.062	2.97
112	17	0.026 (0, 90)	0.026 (0, 0)	0.026 (90, 0)	18556.307	1.40
113	13	0.029 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	10834.962	2.66
113	17	0.030 (0, 90)	0.030 (0, 0)	0.029 (90, 0)	15201.080	1.96
114	13	0.030 (0, 90)	0.030 (0, 0)	0.030 (90, 0)	13646.447	2.22
114	17	0.030 (0, 90)	0.030 (0, 0)	0.030 (90, 0)	12346.357	2.43
115	13	0.030 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	17599.253	1.69
115	17	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	10002.543	2.83
116	13	0.026 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	17126.758	1.52
116	17	0.024 (0, 90)	0.023 (0, 0)	0.023 (90, 0)	8029.723	3.00
117	13	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	16594.350	1.71
117	17	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	9603.019	2.82
118	13	0.044 (13, 67)	0.037 (272, 5)	0.037 (180, 22)	17764.522	2.48
118	17	0.044 (13, 67)	0.037 (272, 5)	0.037 (180, 22)	15022.142	2.94
119	13	0.028 (0, 90)	0.028 (90, 0)	0.028 (0, 0)	10123.486	2.80

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
119	17	0.030 (0, 90)	0.029 (90, 0)	0.029 (0, 0)	17205.283	1.72
12	LAVAPORT	0.039 (0, 90)	0.038 (0, 0)	0.038 (90, 0)	26338.837	1.46
12	TXPV	0.039 (0, 90)	0.038 (0, 0)	0.038 (90, 0)	25130.823	1.53
12	TXVA	0.039 (0, 90)	0.038 (0, 0)	0.038 (90, 0)	52241.594	0.74
120	TXPV	0.010 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	21146.946	0.47
121	TXVA	0.028 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	45463.390	0.63
122	TXVA	0.016 (180, 73)	0.015 (90, 0)	0.014 (0, 17)	40702.719	0.40
123	TXVA	0.016 (135, 78)	0.014 (269, 8)	0.014 (0, 8)	34422.272	0.46
124	TXVA	0.027 (0, 90)	0.026 (0, 0)	0.026 (90, 0)	29446.076	0.91
125	TXVA	0.040 (0, 90)	0.040 (0, 0)	0.040 (90, 0)	23978.375	1.68
126	TXVA	0.015 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	35426.704	0.43
13	17	0.013 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	25029.339	0.50
13	51	0.017 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	5765.993	2.91
13	52	0.019 (0, 90)	0.018 (0, 0)	0.018 (90, 0)	6744.537	2.77
13	53	0.022 (0, 68)	0.022 (180, 22)	0.022 (90, 0)	8372.684	2.66
13	54	0.023 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	12817.753	1.76
13	55	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	11451.674	2.19
13	56	0.026 (0, 90)	0.026 (0, 0)	0.026 (90, 0)	10723.741	2.47
13	57	0.030 (0, 90)	0.030 (0, 0)	0.030 (90, 0)	12945.897	2.33
13	58	0.030 (0, 90)	0.030 (0, 0)	0.030 (90, 0)	12221.643	2.43
13	59	0.018 (0, 90)	0.017 (0, 0)	0.017 (90, 0)	5875.766	3.03
13	60	0.014 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	4281.733	3.24
13	61	0.027 (0, 90)	0.027 (0, 0)	0.027 (90, 0)	18648.358	1.47
13	62	0.023 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	16043.662	1.41
13	63	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	13705.875	1.40
13	69	0.041 (180, 80)	0.040 (0, 10)	0.040 (90, 0)	19159.291	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
13	70	0.042	0.041	0.041	20931.910	1.99
		(0, 90)	(0, 0)	(90, 0)		
13	71	0.039	0.038	0.038	20449.495	1.89
		(0, 90)	(0, 0)	(90, 0)		
13	72	0.042	0.041	0.041	25620.204	1.63
		(0, 78)	(180, 12)	(90, 0)		
13	73	0.038	0.038	0.038	24664.528	1.55
		(0, 90)	(0, 0)	(90, 0)		
13	74	0.048	0.048	0.048	31061.470	1.56
		(0, 90)	(0, 0)	(90, 0)		
13	75	0.050	0.050	0.050	31929.937	1.56
		(0, 90)	(0, 0)	(90, 0)		
13	B 595	0.037	0.036	0.036	20571.605	1.78
		(0, 90)	(0, 0)	(90, 0)		
13	LAVAPORT	0.012	0.012	0.012	29176.452	0.41
		(0, 90)	(0, 0)	(90, 0)		
13	TXPV	0.012	0.012	0.012	28818.298	0.41
		(0, 90)	(0, 0)	(90, 0)		
13	TXVA	0.012	0.012	0.012	53085.873	0.22
		(0, 90)	(0, 0)	(90, 0)		
14	LAVAPORT	0.023	0.022	0.022	19539.045	1.16
		(0, 90)	(0, 0)	(90, 0)		
14	TXPV	0.023	0.022	0.022	20170.714	1.13
		(0, 90)	(0, 0)	(90, 0)		
14	TXVA	0.023	0.022	0.022	43561.409	0.52
		(0, 90)	(0, 0)	(90, 0)		
15	69	0.037	0.037	0.037	13447.401	2.75
		(0, 90)	(0, 0)	(90, 0)		
15	70	0.036	0.036	0.036	12922.365	2.82
		(0, 90)	(0, 0)	(90, 0)		
15	71	0.032	0.032	0.032	10943.941	2.90
		(0, 90)	(0, 0)	(90, 0)		
15	72	0.034	0.034	0.034	11389.417	3.00
		(0, 74)	(180, 16)	(90, 0)		
15	73	0.029	0.028	0.028	9421.202	3.03
		(0, 90)	(0, 0)	(90, 0)		
15	74	0.042	0.042	0.042	14283.490	2.95
		(0, 90)	(0, 0)	(90, 0)		
15	75	0.044	0.044	0.044	14985.424	2.92
		(0, 90)	(0, 0)	(90, 0)		
15	LAVAPORT	0.031	0.031	0.031	45729.337	0.68
		(0, 90)	(0, 0)	(90, 0)		
15	TXPV	0.031	0.031	0.031	46053.792	0.68
		(0, 90)	(0, 0)	(90, 0)		
15	TXVA	0.031	0.031	0.031	65747.704	0.47
		(0, 90)	(0, 0)	(90, 0)		
16	LAVAPORT	0.028	0.028	0.028	26205.001	1.07
		(0, 90)	(0, 0)	(90, 0)		
17	22	0.013	0.012	0.012	20019.386	0.63
		(0, 90)	(0, 0)	(90, 0)		
17	23	0.019	0.017	0.017	18866.571	1.03
		(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
17	24	0.048	0.047	0.047	18134.102	2.63
		(0, 90)	(0, 0)	(90, 0)		
17	25	0.046	0.045	0.045	16649.581	2.76
		(180, 74)	(90, 0)	(0, 16)		
17	26	0.034	0.033	0.033	11732.649	2.86
		(0, 90)	(90, 0)	(0, 0)		
17	27	0.041	0.040	0.040	15178.791	2.71
		(336, 69)	(180, 19)	(87, 8)		
17	28	0.038	0.038	0.038	14926.472	2.55
		(0, 90)	(0, 0)	(90, 0)		
17	29	0.036	0.036	0.036	14847.667	2.45
		(180, 81)	(90, 0)	(0, 9)		
17	30	0.025	0.024	0.024	9514.157	2.62
		(0, 90)	(0, 0)	(90, 0)		
17	31	0.056	0.055	0.055	20503.939	2.71
		(0, 90)	(0, 0)	(90, 0)		
17	32	0.023	0.023	0.023	7518.404	3.09
		(0, 90)	(0, 0)	(90, 0)		
17	33	0.013	0.013	0.013	4060.776	3.25
		(0, 90)	(0, 0)	(90, 0)		
17	34	0.020	0.020	0.020	10372.574	1.95
		(0, 90)	(0, 0)	(90, 0)		
17	35	0.020	0.019	0.019	11182.256	1.76
		(0, 90)	(90, 0)	(0, 0)		
17	36	0.032	0.031	0.031	13969.095	2.26
		(0, 72)	(180, 18)	(90, 0)		
17	37	0.015	0.015	0.015	15008.527	0.99
		(0, 90)	(0, 0)	(90, 0)		
17	38	0.020	0.020	0.020	21200.784	0.96
		(0, 90)	(0, 0)	(90, 0)		
17	39	0.017	0.017	0.017	17180.848	1.01
		(0, 90)	(0, 0)	(90, 0)		
17	64	0.018	0.018	0.018	6016.906	3.03
		(0, 90)	(0, 0)	(90, 0)		
17	65	0.043	0.043	0.043	14990.602	2.86
		(0, 90)	(0, 0)	(90, 0)		
17	66	0.035	0.034	0.034	11837.606	2.92
		(0, 90)	(0, 0)	(90, 0)		
17	67	0.029	0.028	0.028	9625.995	2.96
		(0, 90)	(0, 0)	(90, 0)		
17	68	0.026	0.025	0.025	8586.531	3.02
		(0, 73)	(180, 17)	(90, 0)		
17	95	0.006	0.005	0.005	1495.948	3.75
		(0, 90)	(0, 0)	(90, 0)		
17	96	0.006	0.004	0.004	1294.639	4.36
		(0, 90)	(0, 0)	(90, 0)		
17	97	0.009	0.008	0.008	2519.369	3.50
		(0, 90)	(0, 0)	(90, 0)		
17	98	0.010	0.009	0.009	2999.659	3.37
		(0, 90)	(0, 0)	(90, 0)		
17	99	0.017	0.016	0.016	5757.725	3.01
		(180, 76)	(90, 0)	(0, 14)		

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
17	LAVAPORT	0.007 (0, 90)	0.007 (0, 0)	0.007 (90, 0)	17070.743	0.43
17	TXPV	0.007 (0, 90)	0.007 (0, 0)	0.007 (90, 0)	11384.874	0.65
17	TXVA	0.007 (0, 90)	0.007 (0, 0)	0.007 (90, 0)	47068.704	0.16
18	LAVAPORT	0.038 (344, 67)	0.037 (180, 23)	0.037 (88, 6)	13368.319	2.87
19	LAVAPORT	0.029 (0, 90)	0.028 (0, 0)	0.028 (90, 0)	10592.329	2.72
2	LAVAPORT	0.037 (0, 90)	0.037 (0, 0)	0.037 (90, 0)	25847.426	1.42
20	LAVAPORT	0.019 (180, 79)	0.018 (90, 0)	0.018 (0, 11)	5842.903	3.25
21	LAVAPORT	0.003 (0, 90)	0.001 (0, 0)	0.001 (90, 0)	146.314	20.32
22	LAVAPORT	0.010 (0, 90)	0.010 (90, 0)	0.010 (0, 0)	2978.193	3.52
23	LAVAPORT	0.018 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	4938.617	3.70
24	LAVAPORT	0.048 (0, 90)	0.048 (0, 0)	0.048 (90, 0)	25500.898	1.88
25	LAVAPORT	0.046 (180, 74)	0.045 (90, 0)	0.045 (0, 16)	26330.965	1.75
26	LAVAPORT	0.034 (0, 90)	0.034 (90, 0)	0.034 (0, 0)	22124.346	1.54
27	LAVAPORT	0.041 (336, 70)	0.041 (180, 19)	0.041 (87, 8)	22557.912	1.83
28	LAVAPORT	0.038 (0, 90)	0.038 (0, 0)	0.038 (90, 0)	19396.489	1.97
29	LAVAPORT	0.037 (180, 81)	0.036 (90, 0)	0.036 (0, 9)	16706.622	2.19
3	LAVAPORT	0.030 (0, 68)	0.030 (180, 22)	0.030 (90, 0)	23652.677	1.27
30	LAVAPORT	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	12587.480	2.00
31	LAVAPORT	0.056 (0, 90)	0.055 (0, 0)	0.055 (90, 0)	31972.510	1.74
32	LAVAPORT	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	24512.869	0.99
33	LAVAPORT	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	21050.256	0.71
34	LAVAPORT	0.020 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	7332.182	2.71
35	LAVAPORT	0.019 (0, 90)	0.018 (90, 0)	0.018 (0, 0)	6578.255	2.89
36	LAVAPORT	0.031 (0, 72)	0.031 (180, 18)	0.031 (90, 0)	13163.394	2.39
37	LAVAPORT	0.013 (0, 90)	0.013 (0, 0)	0.013 (90, 0)	4183.753	3.16
38	LAVAPORT	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	6061.160	3.16

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
39	LAVAPORT	0.016 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	4987.391	3.22
4	LAVAPORT	0.025 (0, 79)	0.023 (158, 10)	0.022 (249, 4)	21620.462	1.16
40	LAVAPORT	0.021 (0, 90)	0.021 (90, 0)	0.021 (0, 0)	23431.478	0.90
41	LAVAPORT	0.012 (0, 90)	0.012 (0, 0)	0.012 (90, 0)	19944.420	0.62
42	LAVAPORT	0.020 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	12062.022	1.62
43	LAVAPORT	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	16855.698	0.89
44	LAVAPORT	0.023 (0, 90)	0.023 (0, 0)	0.023 (90, 0)	16511.942	1.40
45	LAVAPORT	0.029 (0, 90)	0.028 (90, 0)	0.028 (0, 0)	17007.632	1.68
46	LAVAPORT	0.037 (0, 74)	0.036 (180, 16)	0.036 (90, 0)	18690.519	1.99
47	LAVAPORT	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	8596.254	2.82
48	LAVAPORT	0.020 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	7191.158	2.78
49	LAVAPORT	0.015 (0, 90)	0.014 (0, 0)	0.014 (90, 0)	4691.538	3.21
5	LAVAPORT	0.015 (0, 90)	0.015 (0, 0)	0.015 (90, 0)	19945.817	0.77
50	LAVAPORT	0.022 (0, 90)	0.022 (0, 0)	0.022 (90, 0)	9976.942	2.19
6	LAVAPORT	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	18056.702	0.52
64	LAVAPORT	0.019 (0, 90)	0.019 (0, 0)	0.019 (90, 0)	14330.695	1.34
65	LAVAPORT	0.043 (0, 90)	0.043 (0, 0)	0.043 (90, 0)	29074.157	1.49
66	LAVAPORT	0.035 (0, 90)	0.035 (0, 0)	0.035 (90, 0)	25550.321	1.37
67	LAVAPORT	0.029 (0, 90)	0.029 (0, 0)	0.029 (90, 0)	22507.516	1.30
68	LAVAPORT	0.027 (0, 74)	0.026 (180, 16)	0.026 (90, 0)	19657.098	1.35
7	LAVAPORT	0.061 (270, 81)	0.061 (90, 9)	0.061 (0, 0)	35762.261	1.71
7	TXPV	0.061 (270, 81)	0.061 (90, 9)	0.061 (0, 0)	30138.919	2.03
7	TXVA	0.061 (270, 81)	0.061 (90, 9)	0.061 (0, 0)	65811.453	0.93
76	LAVAPORT	0.007 (0, 90)	0.006 (0, 0)	0.006 (90, 0)	2156.205	3.31
76	TXPV	0.007 (0, 90)	0.006 (0, 0)	0.006 (90, 0)	4463.451	1.60
77	LAVAPORT	0.012 (180, 78)	0.010 (0, 12)	0.010 (90, 0)	5043.771	2.41

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
77	TXPV	0.012 (180, 78)	0.010 (0, 12)	0.010 (90, 0)	4255.548	2.86
78	LAVAPORT	0.022 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	8661.623	2.51
78	TXPV	0.022 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	10553.204	2.06
79	LAVAPORT	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	10960.559	2.17
79	TXPV	0.024 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	10038.876	2.37
8	LAVAPORT	0.059 (0, 90)	0.059 (0, 0)	0.059 (90, 0)	34713.536	1.71
8	TXPV	0.059 (0, 90)	0.059 (0, 0)	0.059 (90, 0)	29029.515	2.04
8	TXVA	0.059 (0, 90)	0.059 (0, 0)	0.059 (90, 0)	64748.076	0.92
80	LAVAPORT	0.032 (0, 90)	0.031 (0, 0)	0.031 (90, 0)	15637.087	2.02
80	TXPV	0.032 (0, 90)	0.031 (0, 0)	0.031 (90, 0)	12501.235	2.53
81	LAVAPORT	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	12335.450	2.05
81	TXPV	0.025 (0, 90)	0.025 (0, 0)	0.025 (90, 0)	9873.254	2.56
82	LAVAPORT	0.034 (0, 90)	0.033 (0, 0)	0.033 (90, 0)	15614.455	2.16
82	TXPV	0.034 (0, 90)	0.033 (0, 0)	0.033 (90, 0)	13792.476	2.44
83	LAVAPORT	0.046 (180, 74)	0.045 (0, 16)	0.045 (90, 0)	18836.740	2.42
83	TXPV	0.046 (180, 74)	0.045 (0, 16)	0.045 (90, 0)	21388.512	2.13
84	LAVAPORT	0.039 (0, 90)	0.039 (0, 0)	0.039 (90, 0)	15871.449	2.48
84	TXPV	0.039 (0, 90)	0.039 (0, 0)	0.039 (90, 0)	18838.299	2.09
85	LAVAPORT	0.035 (0, 90)	0.035 (0, 0)	0.035 (90, 0)	14350.963	2.47
85	TXPV	0.035 (0, 90)	0.035 (0, 0)	0.035 (90, 0)	17199.547	2.06
86	LAVAPORT	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	5222.138	1.78
86	TXPV	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	3219.912	2.88
87	88	0.005 (0, 90)	0.004 (90, 0)	0.004 (0, 0)	1142.840	4.72
87	89	0.006 (0, 90)	0.005 (0, 0)	0.005 (90, 0)	1557.810	3.90
87	90	0.010 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	2933.789	3.39
87	91	0.015 (0, 90)	0.015 (90, 0)	0.015 (0, 0)	4865.797	3.18

3D Relative Confidence Regions (95.000 percent):

FROM	TO	MAJ-SEMI (AZ,VANG)	MED-SEMI (AZ,VANG)	MIN-SEMI (AZ,VANG)	DISTANCE	PPM
87	92	0.019 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	6210.832	3.12
87	93	0.017 (0, 90)	0.016 (0, 0)	0.016 (90, 0)	5199.760	3.21
87	94	0.010 (0, 90)	0.010 (0, 0)	0.010 (90, 0)	3014.003	3.37
87	TXPV	0.020 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	17324.364	1.16
87	TXVA	0.020 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	47359.143	0.42
88	TXPV	0.021 (0, 90)	0.019 (90, 0)	0.019 (0, 0)	16945.727	1.22
89	TXPV	0.021 (0, 90)	0.020 (0, 0)	0.020 (90, 0)	15958.054	1.30
9	LAVAPORT	0.055 (180, 79)	0.054 (0, 11)	0.054 (90, 0)	32461.174	1.69
9	TXPV	0.055 (180, 79)	0.054 (0, 11)	0.054 (90, 0)	27455.108	2.00
9	TXVA	0.055 (180, 79)	0.054 (0, 11)	0.054 (90, 0)	62406.662	0.88
90	TXPV	0.022 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	15993.094	1.37
91	TXPV	0.024 (0, 90)	0.023 (90, 0)	0.023 (0, 0)	16383.450	1.47
92	TXPV	0.026 (0, 90)	0.025 (90, 0)	0.025 (0, 0)	15800.548	1.66
93	TXPV	0.025 (0, 90)	0.024 (0, 0)	0.024 (90, 0)	20554.840	1.23
94	TXPV	0.022 (0, 90)	0.021 (0, 0)	0.021 (90, 0)	14371.562	1.51
95	TXPV	0.009 (0, 90)	0.009 (0, 0)	0.009 (90, 0)	12737.495	0.72
96	TXPV	0.009 (0, 90)	0.008 (0, 0)	0.008 (90, 0)	12000.639	0.76
97	TXPV	0.011 (0, 90)	0.011 (0, 0)	0.011 (90, 0)	13410.466	0.84
98	TXPV	0.012 (0, 90)	0.012 (0, 0)	0.011 (90, 0)	11167.339	1.09
99	TXPV	0.018 (180, 76)	0.017 (90, 0)	0.017 (0, 14)	10539.793	1.73
A 1257	LAVAPORT	0.033 (0, 0)	0.033 (90, 0)	0.000 (0, 90)	19692.564	1.67
A 1257	TXPV	0.033 (0, 0)	0.033 (90, 0)	0.000 (0, 90)	25933.586	1.27
A 1257	TXVA	0.033 (0, 0)	0.033 (90, 0)	0.000 (0, 90)	20248.544	1.62
E 1258	LAVAPORT	0.036 (0, 0)	0.036 (90, 0)	0.000 (0, 90)	23718.390	1.53
E 1258	TXPV	0.036 (0, 0)	0.036 (90, 0)	0.000 (0, 90)	29776.167	1.22
E 1258	TXVA	0.036 (0, 0)	0.036 (90, 0)	0.000 (0, 90)	22859.540	1.59

06:35:28, Wed May 25, 2011

1101205 USGS-CALHOUN COUNTY *** GROUND SURVEY FILE ***
HORIZONTAL - NAD 83/07 UTM ZONE 14
VERTICAL - NAVD88 METERS

STATION	EASTING	NORTHING	ELEVATION
1	724479.715	3145314.049	2.496
2	723469.576	3146031.513	4.619
3	722041.681	3148478.540	5.042
4	720383.325	3150978.914	6.841
5	718875.074	3153295.238	7.786
6	716757.953	3156541.604	9.567
7	754325.810	3149113.782	1.387
8	753947.666	3150322.218	2.412
9	748259.989	3147522.632	2.853
10	737006.278	3140666.055	1.735
11	734101.905	3146013.011	4.058
12	728621.085	3145430.747	4.156
13	724609.788	3142580.343	1.667
14	723264.030	3152436.998	5.196
15	716834.295	3127008.468	1.721
16	709224.027	3152057.948	4.246
17	740554.494	3161882.560	2.928
18	737666.719	3164218.856	4.181
19	731495.515	3162310.529	4.851
20	729675.049	3166738.587	5.944
21	726631.464	3171559.429	8.718
22	723911.451	3173018.135	9.468
23	728376.146	3176299.105	1.322
24	751688.767	3176204.051	3.134
25	752884.188	3173080.077	1.807
26	748671.854	3170359.460	2.625
27	748968.450	3174522.151	5.221
28	745507.353	3175968.622	3.649
29	742557.366	3176599.370	7.275
30	739165.881	3171297.854	5.641
31	758564.409	3171699.300	2.340
32	745883.279	3156575.186	1.093
33	743280.351	3158870.856	2.134
34	730949.068	3165805.370	4.967
35	732964.157	3170098.617	4.773
36	739099.176	3175780.043	6.995
37	730536.473	3173064.026	6.615
38	720849.914	3169720.759	10.179
39	724242.156	3167290.782	8.549
40	711075.484	3154123.675	1.507
41	714092.275	3156141.665	8.238
42	718536.922	3162705.645	11.417
43	714678.655	3159757.158	11.543
44	712751.041	3162670.466	13.416
45	711119.452	3164604.427	14.768
46	708342.386	3167597.135	16.719
47	717984.017	3171579.201	11.949
48	724631.988	3164773.262	7.825
49	727545.034	3167104.276	6.435
50	723320.886	3162265.343	9.004
51	722489.505	3147943.713	4.920
52	724349.508	3149321.380	4.723
53	726306.451	3150781.293	4.735
54	724298.800	3155397.216	5.411
55	726403.166	3153893.404	5.179
56	728326.254	3152642.202	4.214

57	729743.242	3154468.348	4.552
58	730092.597	3153506.442	4.137
59	726485.365	3148150.158	3.777
60	727074.068	3146083.072	4.209
61	724395.714	3161231.684	8.767
62	723413.436	3158582.928	6.900
63	722270.363	3156088.146	6.413
64	734843.372	3159983.076	4.256
65	741846.296	3146942.877	4.282
66	740163.971	3150047.643	3.124
67	738356.041	3152507.895	2.066
68	736140.197	3154514.556	3.022
69	729985.128	3124185.728	2.073
70	728775.520	3122062.040	1.468
71	726683.177	3122231.443	0.667
72	722370.476	3117052.502	1.590
73	720376.263	3118276.461	0.987
74	715923.994	3112751.408	1.705
75	714953.352	3112138.848	1.911
76	728712.916	3172025.025	6.914
77	729470.850	3167561.387	5.974
78	724916.527	3163194.726	5.380
79	728872.432	3160975.762	6.551
80	733648.472	3157743.443	4.029
81	731583.478	3160417.818	4.914
82	730586.685	3156600.911	5.129
83	717655.418	3155104.676	8.920
84	718347.036	3158124.592	9.073
85	719641.466	3159131.936	9.194
86	730369.727	3168100.802	6.234
87	748915.446	3176581.929	4.617
88	748923.427	3175438.696	4.812
89	747892.806	3175406.024	3.224
90	748412.949	3173690.402	4.460
91	749115.889	3171718.465	3.233
92	748600.727	3170376.791	2.715
93	753096.253	3173486.938	3.108
94	745955.976	3176005.496	1.431
95	741958.797	3161365.615	0.919
96	740080.136	3160677.515	1.076
97	740679.306	3159365.482	2.165
98	737987.800	3160328.333	3.851
99	735133.020	3159938.587	4.290
100	732813.292	3161321.798	4.408
101	731478.276	3162234.273	4.519
102	729556.717	3163985.233	5.542
103	731076.494	3165559.527	4.251
104	732634.451	3166674.412	4.897
105	732111.197	3169641.795	5.713
106	733339.368	3170312.294	1.684
107	738408.001	3162483.961	2.764
108	745067.318	3157242.085	0.975
109	724951.768	3142317.172	1.737
110	723486.588	3146207.933	3.322
111	723058.321	3148352.815	4.340
112	725896.466	3150495.349	3.887
113	728413.393	3152728.481	3.667
114	730312.443	3154981.780	3.688
115	730975.500	3158992.622	5.206
116	734587.141	3156506.139	3.514

117	737777.026	3152686.865	2.357
118	741843.420	3146910.962	3.824
119	734177.169	3145897.292	4.095
120	716898.875	3156266.228	8.916
121	721352.836	3149482.305	5.072
122	718693.617	3153545.738	7.784
123	717325.973	3159768.243	9.540
124	712310.363	3163252.831	12.844
125	708064.441	3167865.873	15.739
126	718915.000	3159374.075	9.528
100C	716761.536	3156552.661	9.472
A 1257	706886.619	3171454.774	16.961
B 595	705327.854	3149759.857	12.016
E 1258	703055.575	3168647.639	8.168
LAVAPORT	726581.293	3171696.909	8.315
TXPV	732795.934	3170219.011	11.996
TXVA	703952.777	3191492.113	38.634

LIDAR FLIGHT LOG

MISSION: Q0107111A | DATE: 1/7/11 | 1

PILOT: Robbie | OPERATOR: Jessica | AIRCRAFT: 7516Q

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1101205	2 test strips						1022	1027		0181	cont. from previous day static/hobbs 75.3
Texas	1 N	160	24.5	19	50	2500	1655	1658	:03		
	2 S	150	23.7				1701	1706	:05		
	3 N	160	24.5				1709	1713	:04		
	4 S	145	23.3				1717	1725	:08		
	5 N	160	24.5				1728	1734	:06		
	6 S	140	22.9				1737	1746	:09		
	7 N	160	24.5				1749	1756	:07		
	8 S	145	23.3				1800	1809	:09		
	9 N	160	24.5				1812	1820	:08		
	10 S	145	23.3				1823	1834	:11		
	11 N	160	24.5				1837	1845	:08		
	12 S	145	23.3				1848	1859	:11		
	13 N	160	24.5				1902 1853	1911	:09		[redacted]
	x-flt W	↓	↓	↓	↓	↓	1917	1921	:04		
	x-flt E	↓	↓	↓	↓	↓	1926	1929	:03		some drops from rain
							1954	1959			static / 78.7 hobbs
											01:46:44 Laser ON time

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:	NOTES:
○ 1101205	199	13	159	3.4			1022		
○						WX			
○									

AERO-METRIC, INC. N.6216 Resource Drive Sheboygan Falls, WI. 53085 PHONE: 920-467-2655 FAX: 920-457-1451 E-Mail: amephoto@aerometric.com

LIDAR FLIGHT LOG

MISSION: Q012211A | DATE: 1/22/11

PILOT: Robbie | OPERATOR: Jessica | AIRCRAFT: N7516Q

ALTM

PROJECT NUMBER	LINE NO. & Hdg		GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME START	TIME STOP	Laser Time	TZPK	REMARKS
1101205	2 test strips							1645	1650		0181	static
Calhoun	14	N	160	24.5	19	50	2500	1714	1724			
Area	15	S						1728	1738			
	16	N						1741	1753			
	17	S						1756	1807			
	18	N						1810	1821			
	19	S						1825	1835			
	20	N						1839	1850			
	21	S						1853	1903			
	22	N						1907	1918			
	23	S						1921	1931			
	24	N						1935	1946			
	25	S						1949	1959			
	26	N						2002	2012			
	27	S						2015	2025			
	28	N						2028	20[illegible]			Lost computer power.
												No restart. Laser was still ON
												guessed for x. flts
								1520	1525			static

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:
● 1101205	199	15		4.5			1645	2125
○						WX clr. + smooth = good lines		
○								

NOTES: Lost ALTM so couldn't retrieve log files

AERO-METRIC, INC. N.6216 Resource Drive Sheboygan Falls, WI. 53085 PHONE: 920-467-2655 **FAX: 920-457-1451** E-Mail: amephoto@aerometric.com

LIDAR FLIGHT LOG

ALTM

1

MISSION: Q0127 11A | DATE: 1/27/11

PILOT: Robbie | OPERATOR: Jessica | AIRCRAFT: 7516Q

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME-Z START	TIME-Z STOP	Laser Time	TZPK	REMARKS
1101205	2 test strips						1011	1016		1111	static
	29 N	155	24	19	50	2500	1043	1048			
	30 S	↓	↓				1052	1059			
	31 N	160	24.5				1102	1108			
	32 S	155	24				1111	1118			
	33 N	160	24.5				1121	1127			
	34 S	155	24				1130	1137			
	35 N	160	24.5				1143	1151			
	36 S	155	24				1155	1205			
	37 N	160	24.5				1208	1217			
	38 S	155	24				1220	1231			
	39 N	160	24.5				1233	1243			
	40 S	155	24				1247	1258			
	41 N	160	24.5				1301	1311			
	42 S	160	24.5				1314	1325			
	43 N						1328	1338			
	x-flt W						1341	1346			
	44 S						1352	1404			
	x-flt						1412	1416			Laser ON time
							1438	1443	static		02:30:56

STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY
◐ 1101205	199	16	891	4.3	
○					
○					

STATIC	START:	STOP:
1011	1443	
WX		

NOTES: ALTM had force shut down. Lost swath data

AERO-METRIC, INC. N.6216 Resource Drive Sheboygan Falls, WI. 53085 PHONE: 920-467-2655 **FAX: 920-457-1451** E-Mail: amephoto@aerometric.com

LIDAR FLIGHT LOG

MISSION: Q012811A DATE: 1/28/11

PILOT: Robbie OPERATOR: Jessica AIRCRAFT: N7516Q

ALTM

PROJECT NUMBER	LINE NO. & Hdg	GND SPEED (KTS)	SCAN FREQ	SCAN ANGLE	PRF	ALT (m)	TIME -6 START	TIME -6 STOP	Laser Time	TZPK	REMARKS
1101205	2 test strips						1101	1106		0181	static
	45 N	160	24.5	19	50	2500	1126	1138			
	46 S						1141	1153			
	47 N						1156	1208			
	48 S						1212	1224			
	49 N						1227	1239			
	50 S						1242	1254			
	51 N						1257	1308			
	x-flt E						1311	1313			
	52 S						1322	1324			
	x-flt W						1326	1329			
							1347	1342			static
											laser ON time 01:30:32

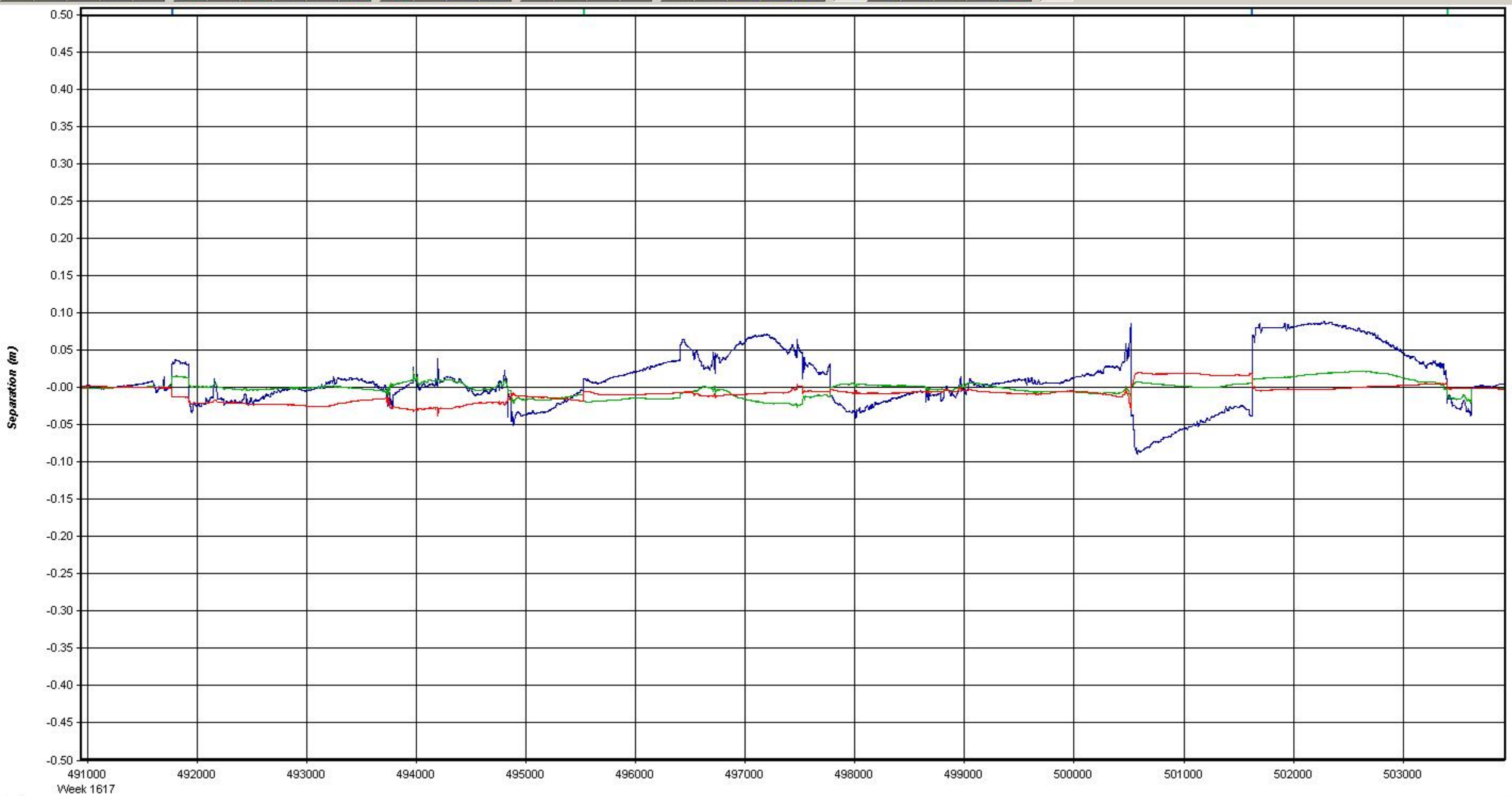
STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT SITE	AIRCRAFT FERRY	STATIC	START:	STOP:
1101205	199	8	81	2.6			1101	1342
						WX		

NOTES: ALTM shut down again inflight, lost swath

AERO-METRIC, INC. N.6216 Resource Drive Sheboygan Falls, WI. 53085 PHONE: 920-467-2655 FAX: 920-457-1451 E-Mail:

M010711A - POSGNSS 4.40 - [M010711A [Combined] - Forward/Reverse or Combined Separation Plot]

File View Process Settings Output Tools Window Help



Run (18)

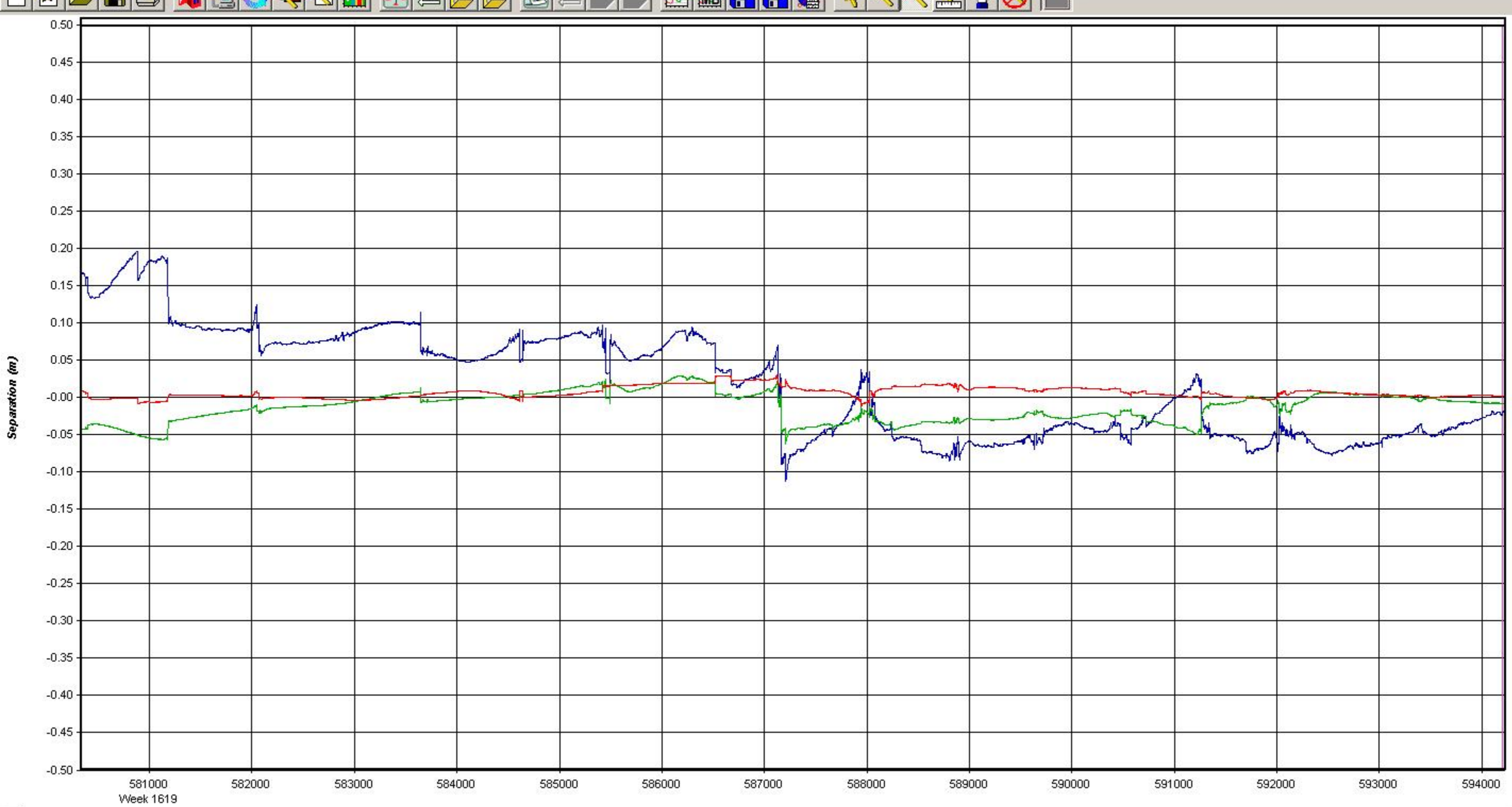
GPS Time (TOW, GMT zone)

14:20:49 on 02/09/2011

X: 500485.7 Y: 0.423 East North Up Right click for more options

M012211A - POSGNSS 4.40 - [M012211A [Combined] - Forward/Reverse or Combined Separation Plot]

File View Process Settings Output Tools Window Help



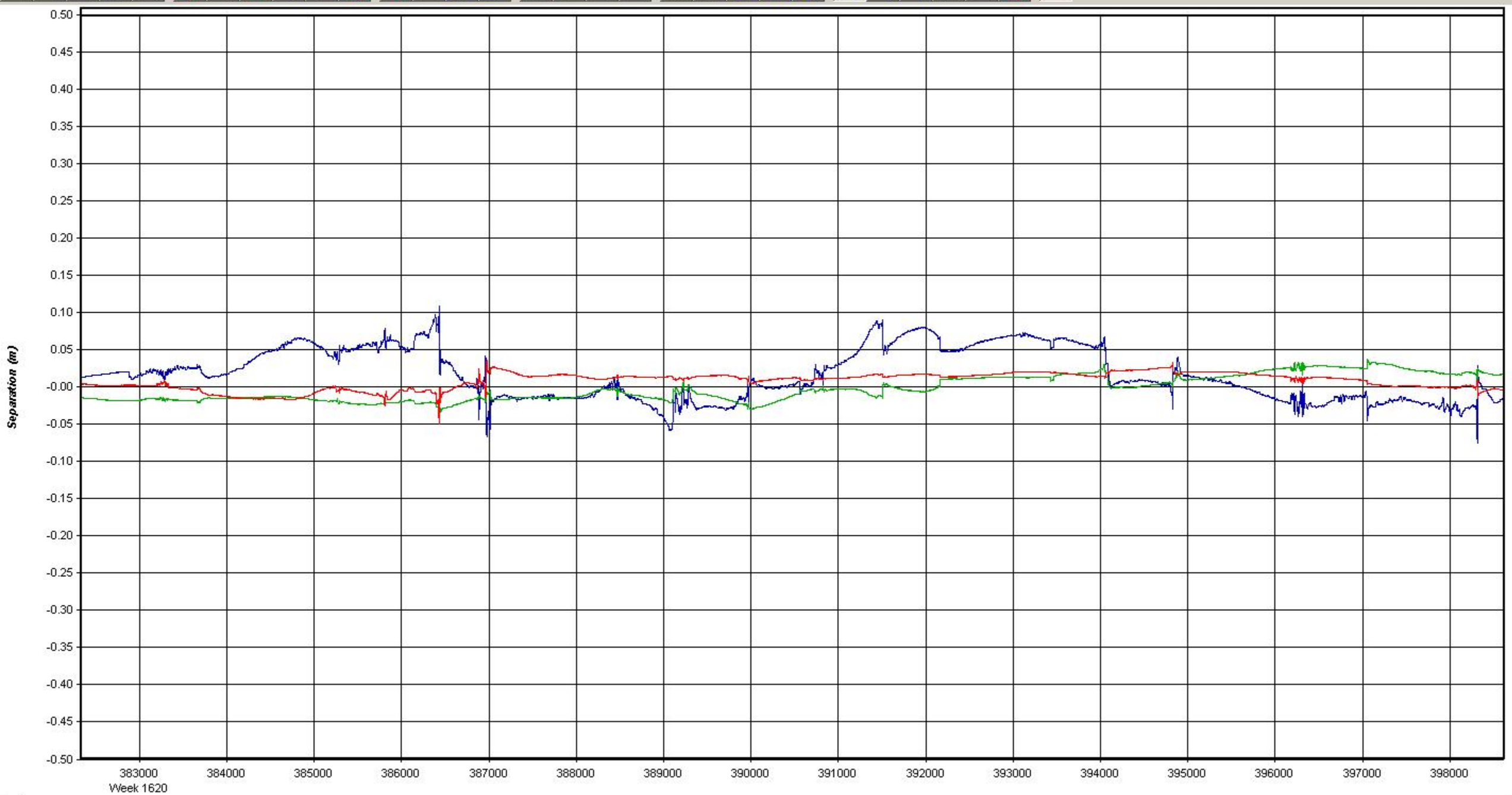
< Run (4)

16:05:37 on 02/08/2011 >

X: 592814.4 | Y: -0.103 | East | North | Up | Mark Time @ 594203.2 seconds

M012711A - POSGNSS 4.40 - [M012711A [Combined] - Forward/Reverse or Combined Separation Plot]

File View Process Settings Output Tools Window Help



Run (4)

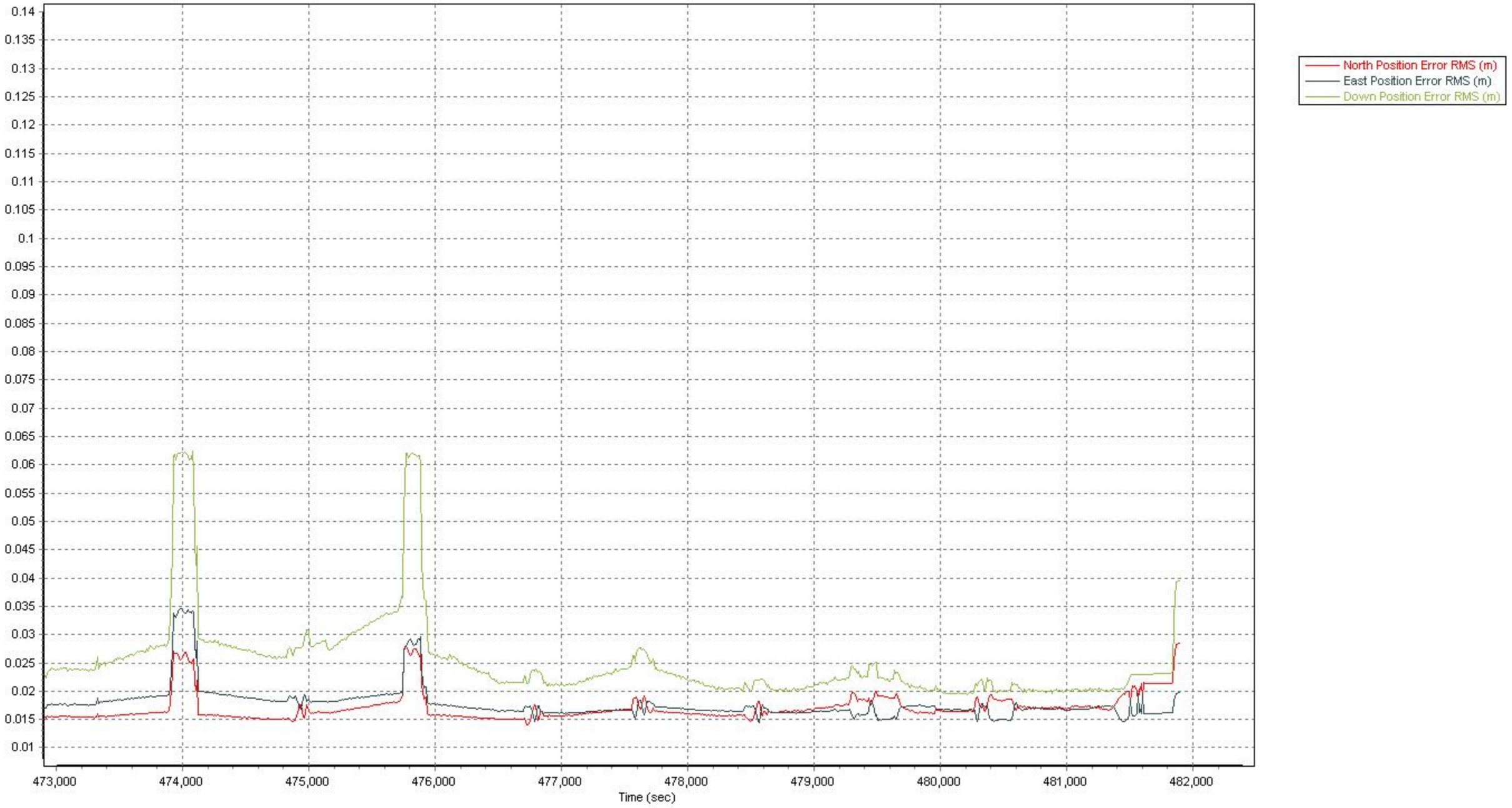
GPS Time (TOW, GMT zone)

14:44:54 on 02/09/2011

X: 396328.9 | Y: 0.376 | East | North | Up | Right click for more options

Display - Mission 1 - Smoothed Performance Metrics, Reference Frame

File Edit Tools View Help



Ready

R:\1101205\Lidar\QAQC\1101205_CALHOUN_UTM14m_gnd.txt

Number	Easting	Northing	Known Z	Laser Z	Dz
1	724479.715	3145314.048	2.501	2.530	+0.029
3	722041.682	3148478.540	5.047	5.080	+0.033
4	720383.325	3150978.914	6.847	6.830	-0.017
5	718875.075	3153295.237	7.792	7.840	+0.048
6	716757.954	3156541.603	9.574	9.630	+0.056
7	754325.810	3149113.781	1.388	1.270	-0.118
9	748259.989	3147522.632	2.855	2.800	-0.055
10	737006.278	3140666.055	1.738	1.690	-0.048
12	728621.085	3145430.747	4.159	4.100	-0.059
13	724609.791	3142580.346	1.680	1.690	+0.010
14	723264.030	3152436.998	5.200	5.200	+0.000
15	716834.297	3127008.470	1.732	1.680	-0.052
17	740554.485	3161882.550	2.928	2.910	-0.018
18	737666.719	3164218.856	4.183	4.130	-0.053
19	731495.515	3162310.529	4.852	4.810	-0.042
20	729675.049	3166738.587	5.945	5.980	+0.035
21	726631.464	3171559.429	8.718	8.740	+0.022
23	728376.145	3176299.105	1.322	1.390	+0.068
24	751688.761	3176204.044	3.134	3.080	-0.054
25	752884.181	3173080.070	1.807	1.740	-0.067
26	748671.847	3170359.452	2.625	2.600	-0.025
27	748968.444	3174522.144	5.221	5.260	+0.039
28	745507.347	3175968.616	3.649	3.670	+0.021
29	742557.361	3176599.365	7.275	7.260	-0.015
30	739165.875	3171297.847	5.640	5.620	-0.020
31	758564.402	3171699.293	2.340	2.310	-0.030
32	745883.271	3156575.177	1.093	1.030	-0.063
34	730949.064	3165805.367	4.967	4.990	+0.023
35	732964.154	3170098.614	4.773	4.780	+0.007
36	739099.172	3175780.039	6.995	7.010	+0.015
37	730536.473	3173064.025	6.615	6.690	+0.075
38	720849.913	3169720.759	10.179	10.170	-0.009
41	714092.275	3156141.664	8.245	8.380	+0.135
42	718536.923	3162705.645	11.422	11.400	-0.022
43	714678.656	3159757.157	11.549	11.670	+0.121
44	712751.042	3162670.466	13.421	13.460	+0.039
46	708342.386	3167597.135	16.723	16.790	+0.067
47	717984.017	3171579.200	11.950	11.990	+0.040
48	724631.988	3164773.262	7.826	7.830	+0.004
49	727545.034	3167104.276	6.436	6.440	+0.004
50	723320.887	3162265.343	9.008	9.160	+0.152
51	722489.508	3147943.715	4.931	4.970	+0.039
52	724349.510	3149321.381	4.734	4.790	+0.056
54	724298.801	3155397.216	5.419	5.370	-0.049
55	726403.167	3153893.405	5.188	5.160	-0.028
56	728326.256	3152642.204	4.224	4.220	-0.004
58	730092.599	3153506.444	4.146	4.120	-0.026
59	726485.367	3148150.160	3.788	3.820	+0.032
61	724395.715	3161231.684	8.774	8.850	+0.076
62	723413.437	3158582.928	6.907	6.960	+0.053
66	740163.963	3150047.635	3.123	3.070	-0.053
67	738356.034	3152507.887	2.066	2.040	-0.026
68	736140.189	3154514.547	3.021	3.020	-0.001
69	729985.131	3124185.731	2.084	2.170	+0.086
71	726683.179	3122231.445	0.679	0.680	+0.001
75	714953.354	3112138.850	1.922	1.930	+0.008
76	728712.916	3172025.025	6.914	7.000	+0.086

78	724916.527	3163194.726	5.380	5.500	+0.120
80	733648.472	3157743.443	4.029	3.950	-0.079
81	731583.478	3160417.818	4.914	5.030	+0.116
82	730586.685	3156600.911	5.129	5.120	-0.009
84	718347.036	3158124.592	9.073	9.100	+0.027
85	719641.466	3159131.936	9.194	9.210	+0.016
86	730369.727	3168100.802	6.234	6.290	+0.056
16	709224.027	3152057.948	4.252	outside	*

Average dz	+0.012
Minimum dz	-0.118
Maximum dz	+0.152
Average magnitude	0.045
Root mean square	0.057
Std deviation	0.056