Enclosure 3

(Ref. Technical Letter F500-L15-032)

MITRE

Center for Advanced
Aviation System Development

Photogrammetric, Satellite-Based Survey of Toluca Airport and Its Surroundings

Site Assessment Report

MITRE is responsible for the procurement of a satellite-based survey of Toluca Airport and its surroundings. In the late August/early September timeframe, a team of survey experts from MDA Geospatial Services Inc. (MDA), the company performing the survey, visited Toluca for a two-week period to perform a site assessment. The purpose of the site assessment was to gather data, specifically Ground Control Points (GCPs) to assist in the development of the survey. This enclosure describes that work.

Prepared for

Aeropuertos y Servicios Auxiliares

September 2015

Photogrammetric, Satellite-Based Survey of Toluca Airport and its Surroundings:

Site Assessment Report

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Acronyms

3D	Three (3) Dimensional
AGL	Above Ground Level
ARP	Antenna Reference Point
ASA	Aeropuertos y Servicios Auxiliares
CARNET	International customs and temporary export-import document
CORS	Continuously Operating Reference Stations
GCPs	Ground Control Points
GE-1	GeoEye-1
GIS	Geographic Information System
GPS	Global Positioning System
EGM96	Earth Gravitational Model 1996
INEGI	Instituto Nacional de Estadística y Geografía / National Institute of Statistics and Geography
Ing.	Engineer in Spanish
km	kilometre
m	metre
mm	millimetre
MDA	MacDONALD, DETTWILER AND ASSOCIATES LTD.
MITRE	The MITRE Corporation
MSL	Mean Sea Level
PCT	Psuedocolour Table
PSA	Photogrammetric Survey Area
QC	Quality Control
SCT	Secretaría de Comunicaciones y Transportes
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales
SRTM	Shuttle RADAR Topography Mission
sq km	Square Kilometres
WGS84	World Geodetic System 1984
WV-2	WorldView-2
WV-3	WorldView-3

1 INTRODUCTION

The Site Assessment Report provides an initial understanding of the project areas and collection of Ground Control Points to ensure the accuracy of the resulting satellite analysis.

The project titled the Photogrammetric, Satellite-Based Survey of Toluca Airport and Its Surroundings (hereafter referred to as the "Project") began on 23 July 2015. The survey will be used to support The MITRE Corporation (hereafter referred to as "MITRE") in conducting aeronautical analyses in support of Aeropuertos y Servicios Auxiliares (hereafter referred to as "ASA"). The first component of the Project was to perform a Site Assessment. The purpose of the Site Assessment was to gather data, specifically Ground Control Points (GCPs) to assist in the development of the survey. These points, coupled with field checks, will improve detection of features in the satellite imagery and facilitate planning of the ground surveys to follow.

The Project started with a Kick-Off meeting held on Monday, 24 August 2015 at the ASA offices in Mexico City. The objective of the meeting was to review the plan for the Site Assessment visit and for MDA Geospatial Services Inc. (hereafter referred to as "MDA"), to provide a presentation on the preparation of the Three Dimensional (3D) survey using high-resolution imagery. The meeting was attended by Mrs. Suzanne Brunke, Project Manager of MDA, Mr. Gyan Verma, Lead Photogrammetrist of MDA, Mr. Shane McConachie, Lead Geographic Information System (GIS) Analyst of MDA, Ing. Jorge Nevárez, Coordinator of Subcontractors, and Ing. J. Gustavo Caballero Mejía, Assistant to Ing. Jorge Nevárez.

The Site Assessment took place from 24 August through 4 September 2015. Ms. Brunke participated for the first two days of the trip and Mr. McConachie and Mr. Verma participated for the full Site Assessment. Ing. Nevárez facilitated and coordinated the visit and assigned Ing. Caballero as the driver, translator and main point of contact for MDA during the Site Assessment. Ing. Caballero was very capable and helpful as he ensured that MDA had everything required to successfully fulfil the Site Assessment segment of the Project.

2 COORDINATION AND PLANNING

Coordination and planning are critical to the objective of this Project.

2.1 Planning

On 3 August 2015, Mrs. Brunke provided MITRE and ASA with a map of prospective GCP locations. These locations could be modified in the field, but the main criterion was that the GCPs be well distributed throughout the Project Area and that they be recognizable in the satellite imagery. Ing. Nevárez assigned Ing. Caballero to prepare a driving plan to determine the best way to navigate to the GCPs.

Mrs. Brunke requested that ASA prepare an official letter on company letterhead, in Spanish, to state the purpose of the survey and description of the equipment that was being brought into Mexico by Mr. Verma for the Site Assessment. This letter was kept by Mr. Verma in case there was difficulty bringing the equipment into Mexico with the CARNET.[1] Thankfully, the CARNET eased the temporary importation with customs and Mr. Verma was able to easily bring the equipment into Mexico to carry out the Site Assessment.

ASA arranged for the use of a fifteen-passenger Toyota van for the Site Assessment. Ing. Caballero was the driver and accompanied the team and provided invaluable coordination, translation and logistics support.

2.2 Survey Equipment

In preparation of the Site Assessment, MDA brought the following survey equipment from Canada to Mexico (Table 1).

Table 1 – MDA Equipment used during the Site Assessment

Quantity	Equipment
2	Trimble GeoXT Explorer 6000 Global Positioning System (GPS)
2	Trimble Tornado Antenna
2	GPS digital cameras
1	Nikon DSLR with Telephoto Lens
2	Car GPS Navigation Systems
2	Dell E6430 Laptops

The Trimble GeoXT Explorer 6000 is a high performance GPS receiver with an on-board computer loaded with ArcGIS Mobile GIS support software (Figure 1). An external antenna, resistant to signal interference and multipath was used to obtain a higher yield of GPS

[1] A CARNET is an international customs and temporary export-import document, used to clear customs without paying duties and import taxes on merchandise that will be re-exported within 12 months.

satellite positions and to improve performance and accuracy. The antenna was connected to the GPS on top of a mounting pole to improve satellite visibility. The GPS collects GCPs in X, Y, Z, latitude, longitude and height above Ellipsoid.

Figure 1 – A Trimble GeoXT Explorer 6000 GPS Was Used to Collect GCPs during the Site Assessment

Also included in the equipment were two Canon GPS equipped digital cameras for taking detailed and overview photographs of the GCP and Obstruction locations, two Car Navigational GPSs outfitted with Mexico street maps for navigating throughout the Project Areas, and a DELL E6430 Laptop for recording and processing data points. Further, one laptop had a copy of ArcGIS Mobile installed that allowed for the post-processing of the daily data collection. This ensured that the collected GCPs met the high accuracy thresholds required for this survey. As a result, if there were any accuracy issues, a problem GCP could be revisited while the team was still in Mexico.

3 LOCATION OVERVIEW

Knowledge of the environmental conditions provides valuable information to support a thorough survey.

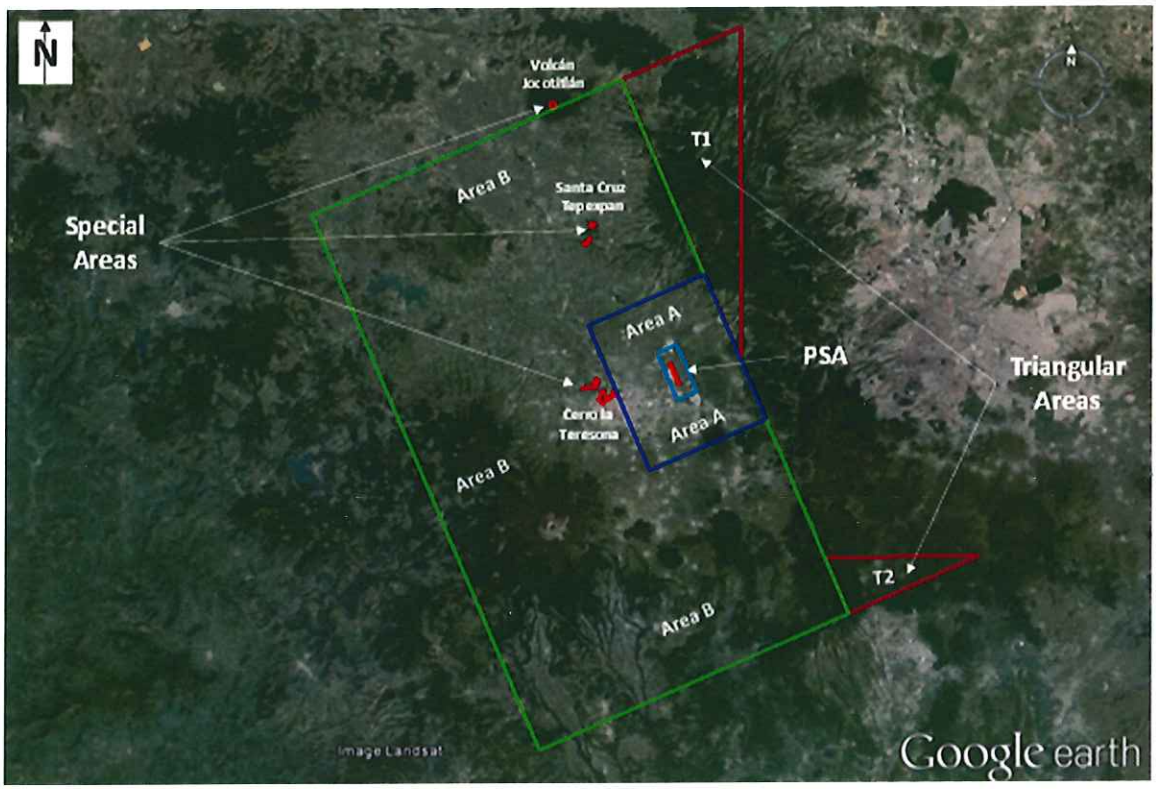
3.1 Location

The Project Area is centered around the City of Toluca and the existing Licenciado Adolfo López Mateos International Airport (hereafter referred to as "Toluca Airport") located 63 km west, southwest of Mexico City. The greater Toluca area, which includes the city of Toluca and twelve other municipalities make up the fifth most populous metropolitan area in Mexico. According to the 2010 census complied by the Mexican Institute of Statistics and Geography - Instituto Nacional de Estadística y Geografía (INEGI), there are 1,775,337 people in the greater Toluca area. The Project boundary is encompassed almost entirely within the State of Mexico, and a small portion in the southeast of the State of Morelos (Figure 2).

Source: GoogleEarth

Figure 2 – Extent of Project Areas

The survey site is composed of the following areas, shown in Figure 3: the Photogrammetric Survey Area (PSA), Area A, Area B, two Triangular Areas northeast ("T1") and southeast ("T2") of the site, and three Special Areas.

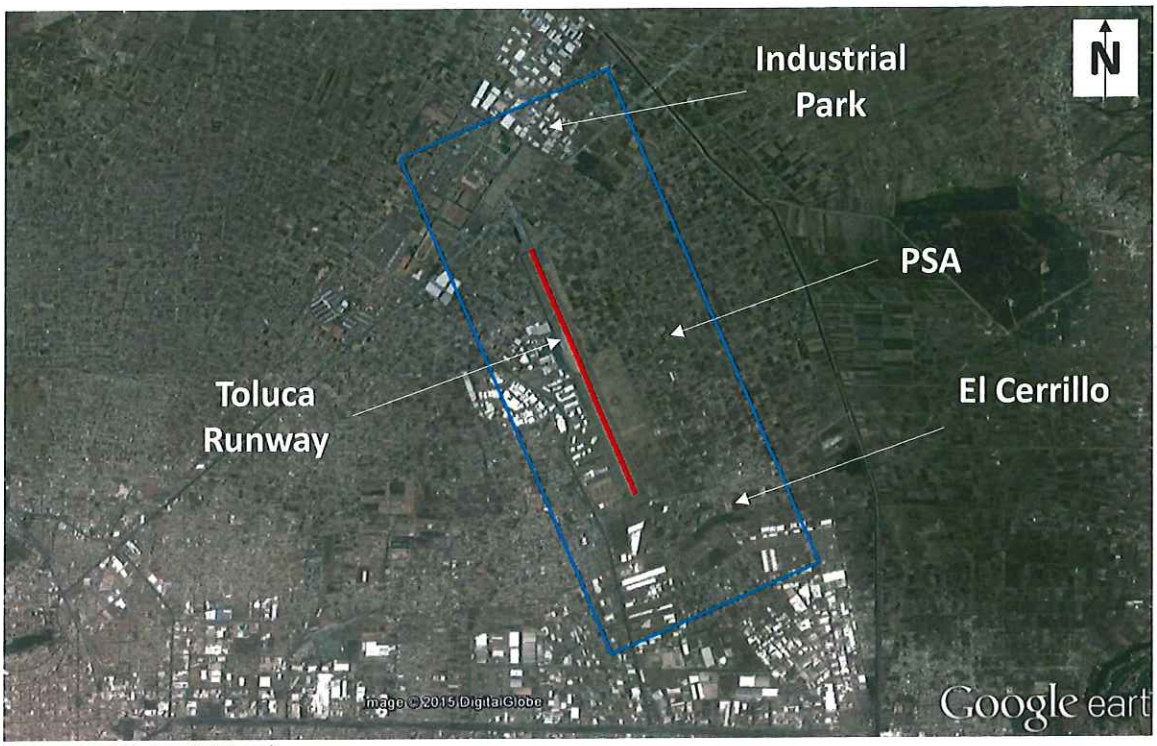


Source: GoogleEarth

Figure 3 – The Project Survey Site: PSA (Cyan), Area A (Blue), Area B (Green), T1 and T2 (Burgundy), and three Special Areas (Red)

3.1.1 PSA

The PSA is located to the east, northeast of the city of Toluca and includes Toluca Airport, which is the main alternate for the Mexico City International Airport. The PSA requires a complete survey of all natural and man-made features, terrain, and objects. The PSA is 30.6 Square Kilometres (sq km) in area. In the north of the PSA there is an industrial business park. To the south is the small town of El Cerrillo (Figure 4).



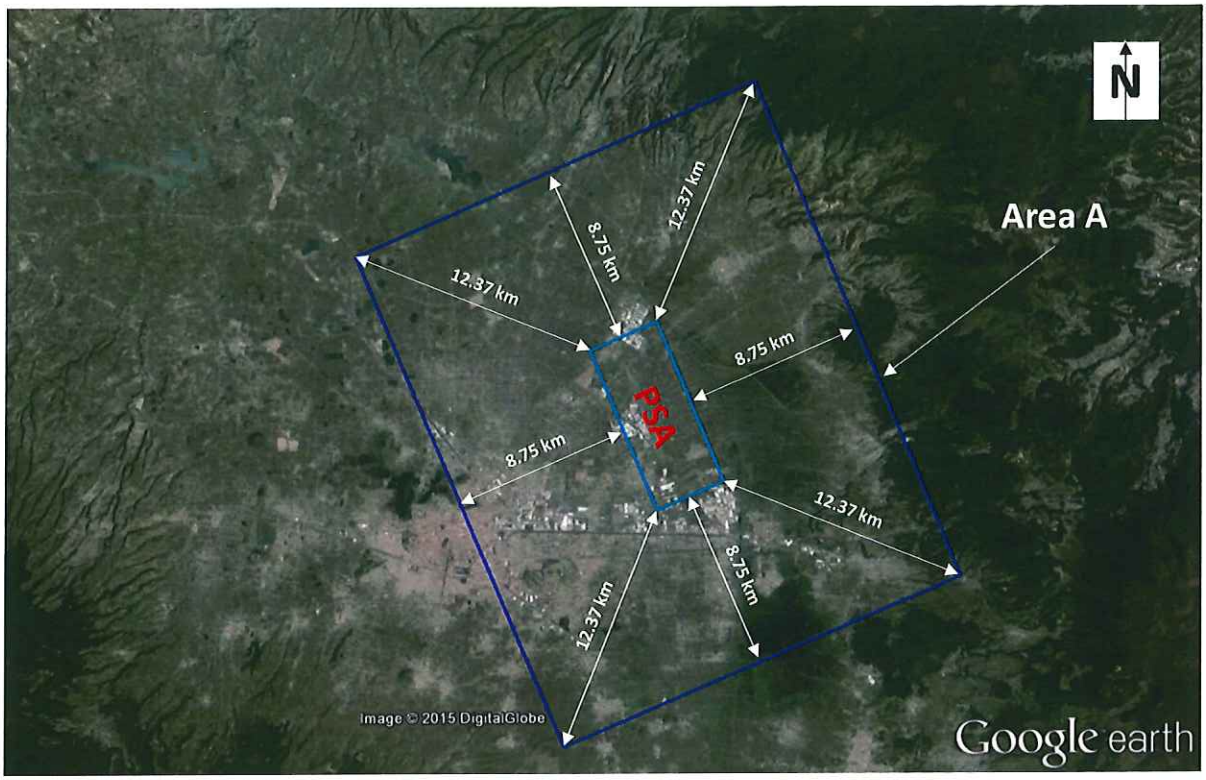
Source: GoogleEarth

Figure 4 – Overview of the PSA

3.1.2 Area A

Area A is the area located directly outside of the PSA. Area A begins at the outer boundary of the PSA and extends in all directions until reaching the inner boundary of Area B (See Figure 5). Area A measures 517.9 sq km in area and includes the populous areas of Toluca.

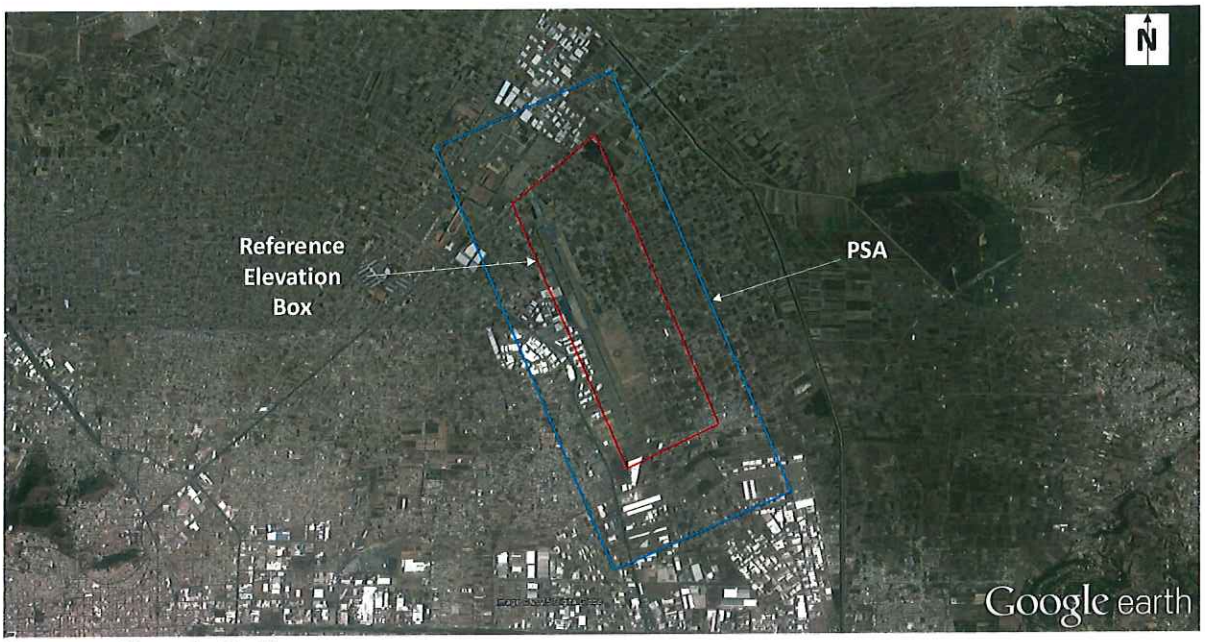
The sides of Area A are formed by expanding the sides of the PSA boundary outward by 8.75 km. The Area A sides are then extended and joined at 90-degree angles to form a large rectangle. As a result, the distance from a PSA side to the corresponding Area A side is 8.75 km, while the distance from a PSA vertex to that of the corresponding Area A vertex is about 12.4 km.



Source: GoogleEarth

Figure 5 – Overview of Area A

Area A requires a survey of all terrain. Additionally, all obstructions penetrating a 1.2% sloping surface starting 15 m above the lowest elevation within the reference elevation box (shown in red in Figure 56) will be surveyed.



Source: GoogleEarth

Figure 6 – Reference Elevation Box (Red)

3.1.3 Area B and Triangular Areas

Area B is an area outside of Area A extending 35 km to the northwest, southwest and southeast and is 4,836.5 sq km in area. Area B requires the survey of obstructions that are 60 m Above Ground Level (AGL) and taller. The City of Toluca is located in the central part of Area B, bordering on Area A. Mountains are located to the northeast and southeast creating a ridge between Toluca and Mexico City. In the southwestern portion of Area B, located in the Nevada de Toluca National Park is Mexico's 4th highest volcano, Nevada de Toluca.

In addition to Area B, there are two triangular areas denoted as T1 and T2 to be surveyed. These two areas are located adjacent to the northeast (T1) and southeast (T2) of the Area B boundary. These areas can be treated as "extensions" of Area B, and shall be surveyed using specifications outlined in the paragraph above. The overview of Area B and the Triangular Areas are in Figure 7.

Source: GoogleEarth

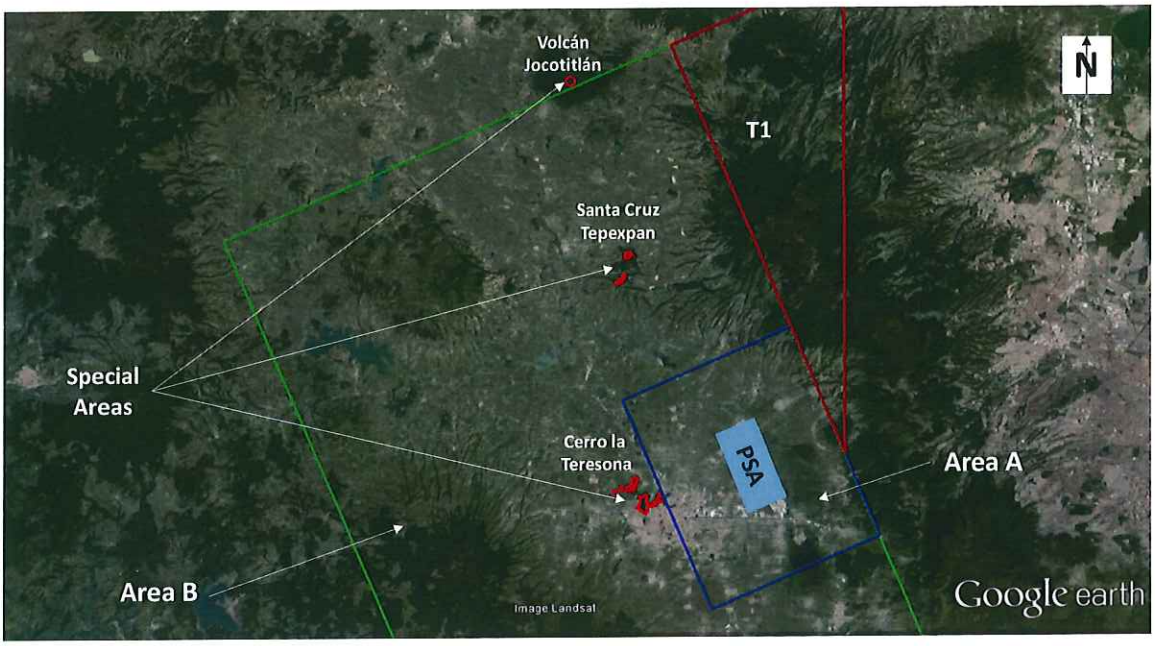
Figure 7 – Overview of Area B and Triangular Areas

3.1.4 Special Areas

There are three special areas to be surveyed: Cerro la Teresona, Santa Cruz Tepexpan, and Volcán Jocotitlán, shown in Figure 8. Cerro la Teresona and Santa Cruz Tepexpan are located within Area B, while Volcán Jocotitlán is located just outside of Area B.

All terrain should be surveyed within the special areas, as well as non-terrain obstructions 15 m AGL and taller.

The MDA Team visited two out of three areas on the Site Assessment Trip; Volcán Jocotitlán and Santa Cruz Tepexpan. The Team was not able to access Cerro la Teresona on this trip due to lack of road access. The Team will attempt to access (by foot) this special area, and all Obstructions that meet the 15 m AGL and taller specification will be measured on the Field Validation/Verification/Ground Truth trip. Figure 9 shows an example of Obstructions to be surveyed in the Special Areas: some prominent antennas are located on top of Volcán Jocotitlán.



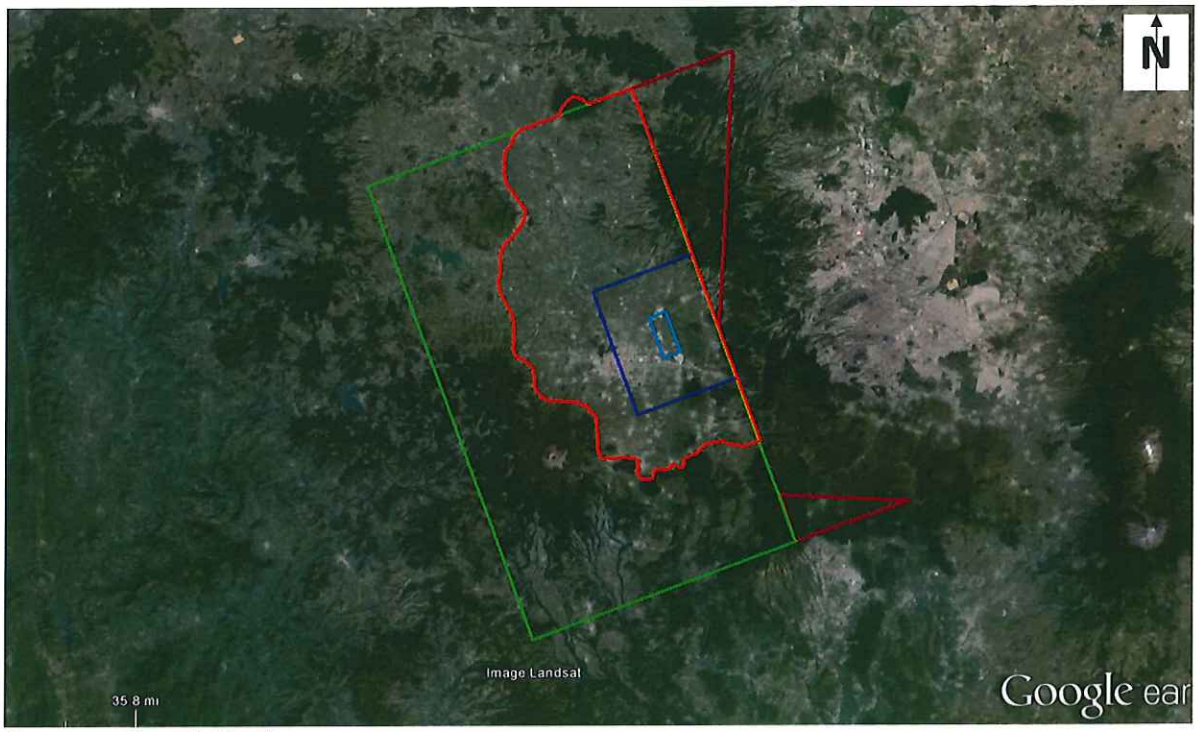
Source: GoogleEarth

Figure 8 – Overview of the Special Areas (Red)

Figure 9 – Prominent Antennas Located on top of Volcán Jocotitlán

3.2 Land Use

Knowledge of the Project Area land use is invaluable to the planning and verification of the survey. There are three main land uses in the Project Area: urban, forest, and agricultural areas. MDA used archive satellite imagery to determine the areas with the most urban development, which past experience has shown to contain the majority of the Obstructions. This area is outlined in orange in Figure 10 as it represents the area that will be imaged with satellite stereopairs for photogrammetric data collection.



Source: GoogleEarth

Figure 10 – Area to be Acquired with Stereoscopic Images Outlined in Orange

3.3 Climate

Climate is critical to this Project as optical satellites require cloud-free weather to image the earth's features and terrain. Based on average annual rainfall information provided by the Comisión Nacional del Agua of the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), June to September are the rainy months in the Toluca area and are less suitable for obtaining reduced cloud cover imagery (Table 2).

Table 2 – Average Annual Rainfall in Millimeters for the States in the Project Area

State	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Distrito Federal	7.8	4.7	8.9	23	50.7	124	155	142	123	50.4	10.5	6.1
Mexico	14.2	6.8	9.4	25	65.1	164	193	183	167	75.4	21.1	9.4
Morelos	10.4	3.3	4.3	14	53.6	183	174	157	183	66.2	13.7	4.4

Source: SEMARNAT

As seen in Table 2, the average rainfall in the Project Area starts to decrease in October as the full rainy season comes to a close. Unfortunately the rainy season has hampered satellite acquisition since tasking began at the beginning of June. MDA is working with DigitalGlobe, the satellite imagery provider, to ensure that once skies become clear, tasking over the Toluca Project Area will receive priority.

The following are weather observations made by MDA in their field notes during the Site Assessment:

- Monday, 24 August – sunny with cloudy periods; warm temperatures; afternoon rain
- Tuesday, 25 August – cloudy with sunny periods; warm temperatures; mid-day rain with thunder and lightening
- Wednesday, 26 August – Friday, 28 August. Cloudy with sunny periods; warm to cool temperatures; rain in the afternoon
- Monday, 31 August – Thursday, 3 September. Some clouds with sunny breaks during the morning; warm temperatures; scattered rain showers in the afternoon and evening

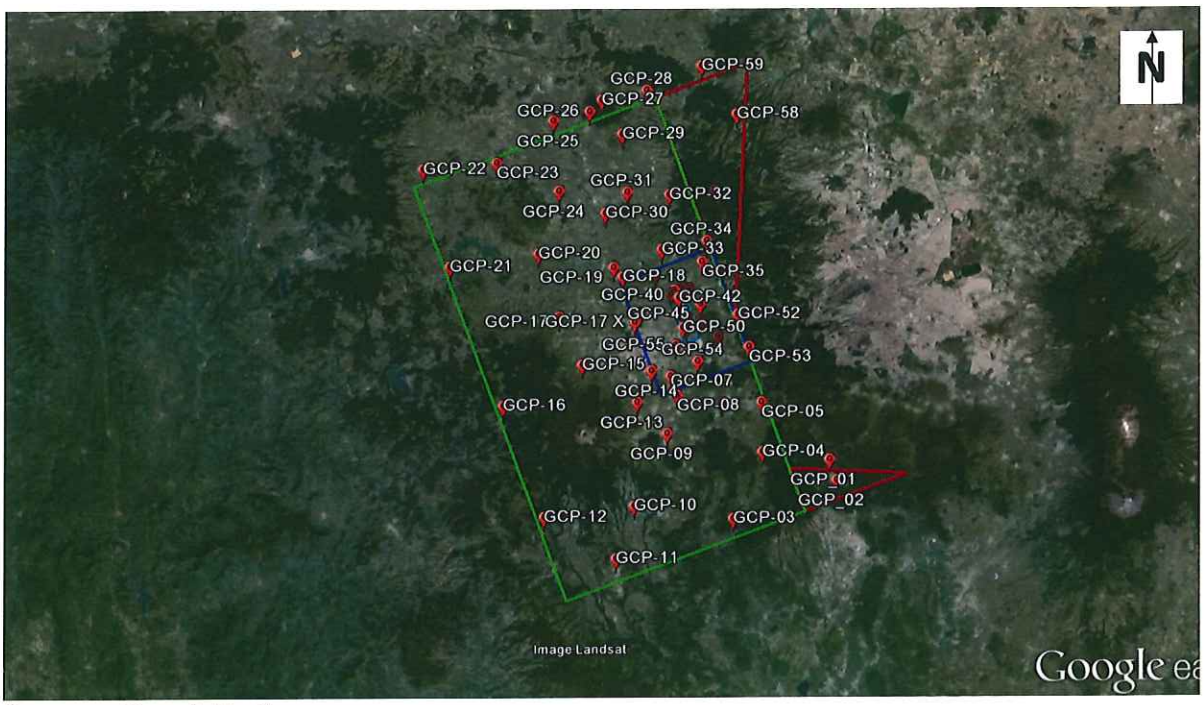
4 DATA INVENTORY

A well-organized data inventory is essential to the success of the survey.

Building a data inventory is a key component and contributor to the success of the survey. It provides vital information relevant to the measure of terrain and obstructions and assists with evaluation, planning, execution, and quality assurance of the survey. Data to be integrated into the Project inventory are: MDA collected GCPs and Control Points; INEGI benchmarks, data collected in the field, and newly acquired satellite imagery and information that MDA will derive from the satellite imagery.

4.1 GCPs

Sixty (60) new GCPs were collected during the Site Assessment. GCPs were obtained in all Project Areas for the geocorrection and triangulation of the stereoscopic and monoscopic satellite imagery. Concentrations of GCPs were collected on and around the PSA; with an additional point by each of the three Special Areas. The GCPs are well distributed over the entire Project Area and in locations that can be clearly recognized in the satellite imagery (Figure 11).



Source: GoogleEarth

Note that some GCP labels cannot be seen on the Figure due to label overlap.

Figure 11 – Location of GCPs Collected During the Site Assessment

The GCP locations were measured using a high-precision GPS with an antenna, as described in Section 2.2. Photographs were taken of each location for reference (Figure 12).

Figure 12 – Reference Photographs Were Taken of GCP Locations

The GCPs were differentially post-processed at the MDA office in Vancouver using Continuously Operating Reference Stations (CORS) to calculate the difference between the positions transmitted by the satellite systems and the known fixed locations. The CORS system enables positioning accuracies that approach a few centimetres relative to the National Spatial Reference System, both horizontally and vertically. The faster the sampling rate, the more accurate the reference station as a rule of thumb. For example, the 1 second stations are the most accurate survey grade, decreasing in accuracy to the 30 second stations.

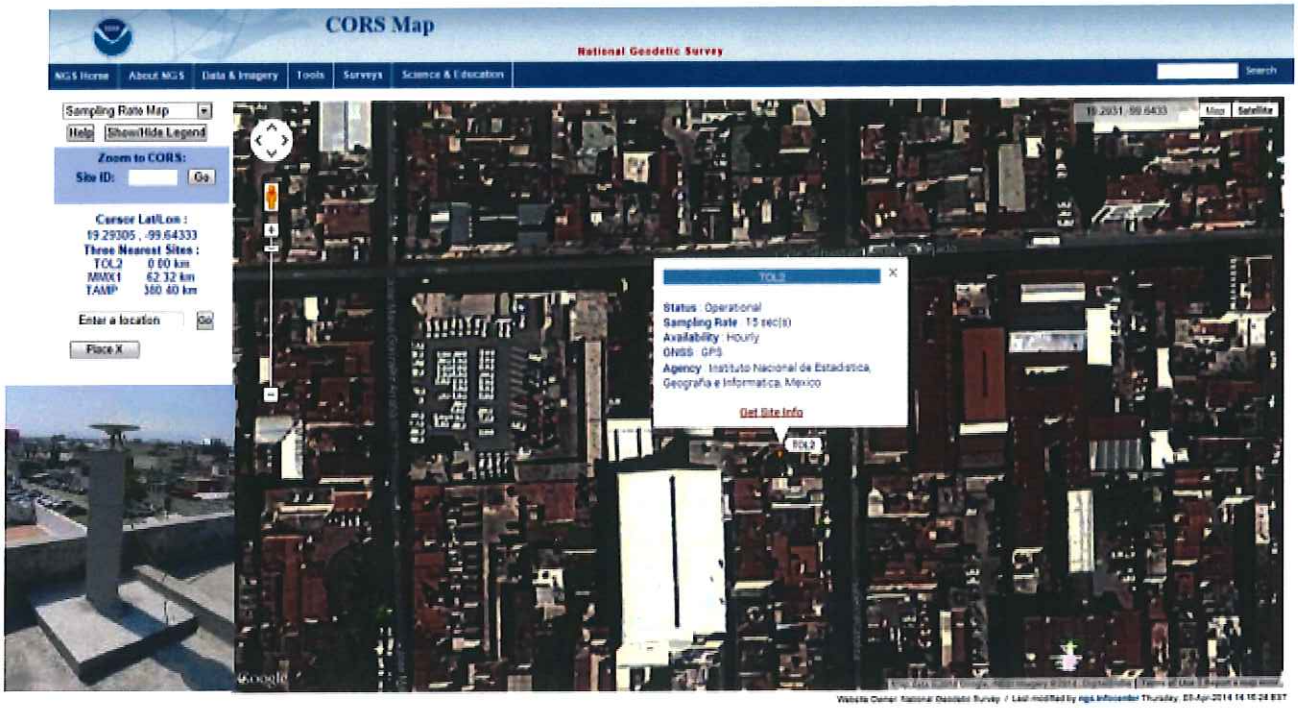
The closest base station to the Project Area was located in the City of Toluca. The Toluca CORS site location, which transmits at a 1 second interval, is provided below in Table 3 and Figure 13. The Toluca station was operational during the field assessment visit, as shown in the data availability profile in Figure 14 for the Julian days 236 through 247, which were the days the MDA Team was in the field, with zero failures reported.

Table 3 – Antenna Reference Point Data Used to Process GCPs

Antenna Reference Point (ARP): TOLUCA CORS ARP

PID = DH8722
Latitude and Longitude = 19° 17 35.64360 N, 99° 38 36.49913 W

The PID is the Permanent Identifier which is assigned to each CORS station as a unique code.



Source: GoogleEarth and NOAA

Figure 13 – Location of CORS Site Used to Post Process GCPs

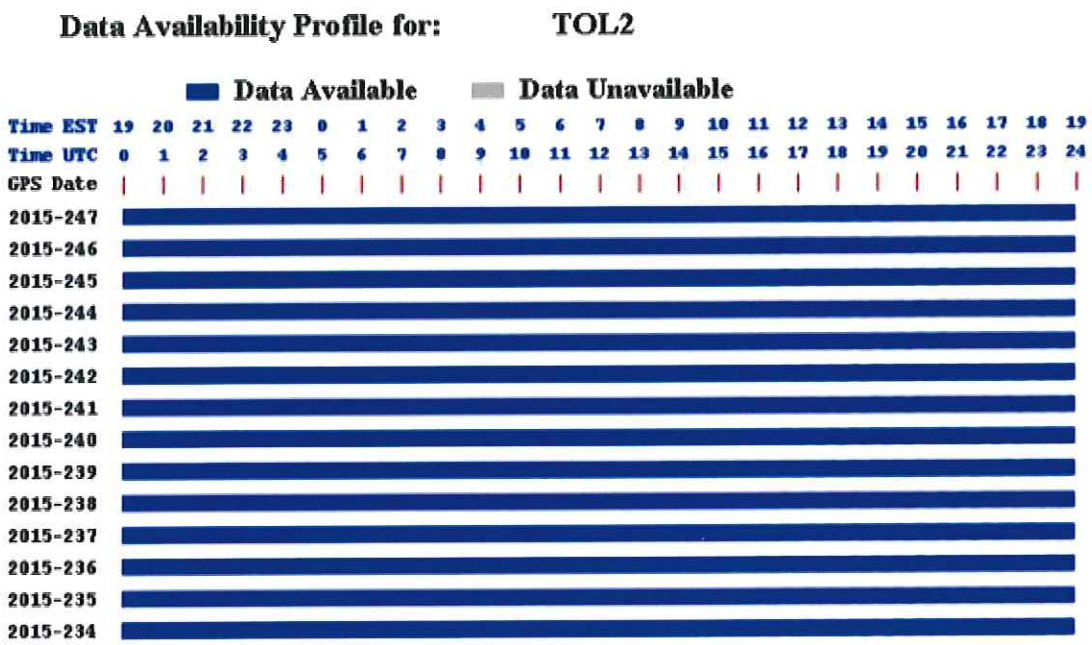


Figure 14 – Data Availability Profile for 1 Second Toluca Base Station

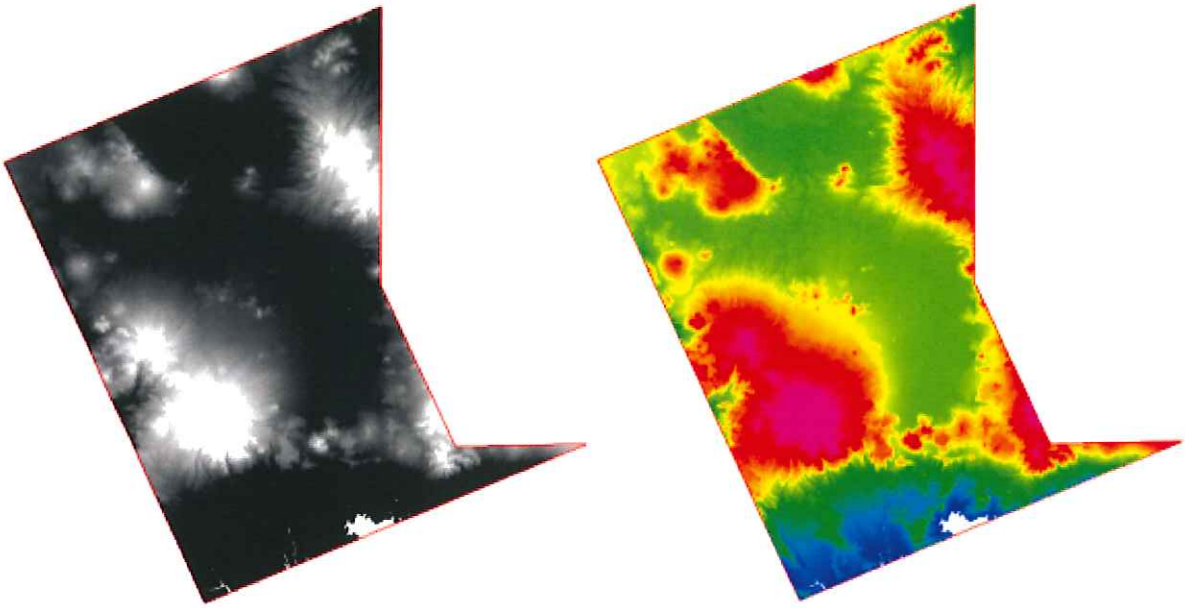
Post-processing improved the accuracies of all the GCPs collected. The final aggregate accuracies of the GCPs processed with the Toluca Base station increased overall GCP accuracy as can be seen in Table 4.

Table 4 – Accuracy Results for Post-Processed GCPs

Toluca "TOL2" Base Station Accuracies
A total of 3988 (99.7%) of 4000 positions were differentially corrected
Estimated accuracies (68%) for 4000 positions are as follows:
0 - 15cm - 0%
15 - 30cm - 18.6%
30 - 50cm 79.2%
0.5 - 1m - 1.1%
1 - 2m - 0.5%
2 - 5m - 0.2%
> 5m - 0.3%

4.1.1 Shuttle RADAR Topography Mission Data

The Shuttle RADAR Topography Mission (SRTM) acquired elevation data of the earth's topography and is available from the National Aeronautics and Space Administration (NASA). The SRTM data over all Project Areas at 30 m postings was obtained and will be utilized in the survey to orthorectify the satellite colour monoscopic imagery (Figure 15).



Note: a Psuedocolour Table ("PCT") was applied to the right image

Source: SRTM DEM © NASA, 2015. Data available from the United States Geological Survey; PCT Image MDA, All Rights Reserved 2015

Figure 15 – SRTM Data Obtained for the Project Areas

4.1.2 MDA Collected Ground Data

MDA-collected ground data includes the field checks made during the Site Assessment. Additional field checks will be undertaken in the ground surveys to follow.

4.1.3 Field Checks

At each GCP, a GPS reading was acquired for latitude, longitude, and elevation. At every location, multiple reference photographs attributed with the camera's GPS coordinates were taken including: (1) a detail photograph of the ground position of the GPS instrument, and (2) several perspective and overview photographs of the GPS location from each direction. Notes were taken on the location and surrounding features, along with a sketch map. The GPS data was exported into Excel format to be incorporated into the survey database. See Appendix A for details on the GCPs.

4.1.4 Ground Survey

Two additional ground surveys are planned for the Project: Field Validation/Verification/ Ground Truth trip and a Final Quality Control (QC) trip. The Field Validation/Verification/ Ground Truth survey is to obtain AGL height information of features that are mapped utilizing the monoscopic satellite imagery as well as to verify and validate findings from the stereoscopic satellite imagery photogrammetric data collection. During this trip, the team will hike to the top of Cerro la Teresona and measure the antennas present with a Laser Range Finder. The Final QC trip will provide final quality and completeness check before the deliverables are finalized.

The ground survey process is similar to the Site Assessment, except that the measurement equipment also includes a Laser Range Finder to obtain height information for Obstructions found in the field. The GPS data is exported into Excel format to be incorporated into the survey database and ESRI shapefile format to be ingested into a GIS database. The ground survey also includes photographic data and field notes to assist in the identification and validation of features in the acquired imagery.

5 GCP COLLECTION

GCPs provide the necessary orientation of data to support a comprehensive survey.

GCP collection was performed for nine days from 24 August to 3 September 2015. The collection was conducted by Mrs. Brunke, Mr. Verma and Mr. McConachie. ASA provided a vehicle and driver, Ing. Caballero, who acted as our liaison / translator. The objective of the Site Assessment was to observe as much of the overall terrain and features as possible during the nine days, and to collect GCPs in the extents of the Project Areas for the geo-correction and triangulation of the stereoscopic satellite imagery (Table 5).

Table 5 – GCP Collection Plan for the Site Assessment

Date	Field Check Area
Day 1: Monday, 24 August	Southeastern part of Area B, including Triangular Area "T2"
Day 2: Tuesday, 25 August	Southwestern part of Area B
Day 3: Wednesday, 26 August	Central western part of Area B
Day 4: Thursday, 27 August	Northwestern part of Area B
Day 5: Friday, 28 August	The summits of Volcán Jocotitlán and Santa Cruz Tepexpan and the North central part of Area B
Day 6: Monday, 31 August	Northeastern part of Area B, including Triangular Area "T1"
Day 7: Tuesday, 1 September	Northern part of Area A and part of Area B between Santa Cruz Tepexpan and Area A
Day 8: Wednesday, 2 September	Northern part of Area A and the northern part of the PSA
Day 9: Thursday, 3 September	Southern part of Area A and the southern part of the PSA

Additional information on work performed during the nine days of the Site Assessment is provided farther below.

5.1 Monday, 24 August

On Monday, 24 August Mrs. Brunke, Mr. Verma and Mr. McConachie met Ing. Caballero in the lobby of the Airport Hilton Hotel. Ing. Caballero drove the MDA personnel in the ASA supplied van to ASA Headquarters in Mexico City for the Kick-Off Meeting described in Section 1. The MDA Team and Ing. Caballero then went over the Field Check Plan for the nine days of the Site Assessment. The approach was to collect GCPs in each of the Project Areas and to make observations that would aid in the development of the survey.

The team then left around noon local time and proceeded in the ASA van south to Cuernavaca with the intention to start collecting GCPs in the southeastern part of Area B while transiting to Toluca. The team made several stops to collect GCPs. Some areas were difficult to access due to local markets that block streets on certain days, see Figure 16. Six GCPs were collected on 24 August (refer to Appendix A for details).

Figure 16 – Ing. Caballero Monitoring the Collection of GCP# 01

5.2 Tuesday, 25 August

On Tuesday, 25 August the team left the Toluca hotel (base operation for the duration of the survey) and headed southwest around Volcano Nevada de Toluca to collect GCPs in Area B. There are thousands of greenhouses in this region, which produces a significant amount of Mexico's flower and vegetable exports.

Five of the GCPs points (numbers 09, 10, 11, 12, and 13) were located a considerable distance away from the Toluca base, and eight GCPs were collected in total on 25 August. Figure 17 shows the location of GCP# 09 (refer to Appendix A for details).

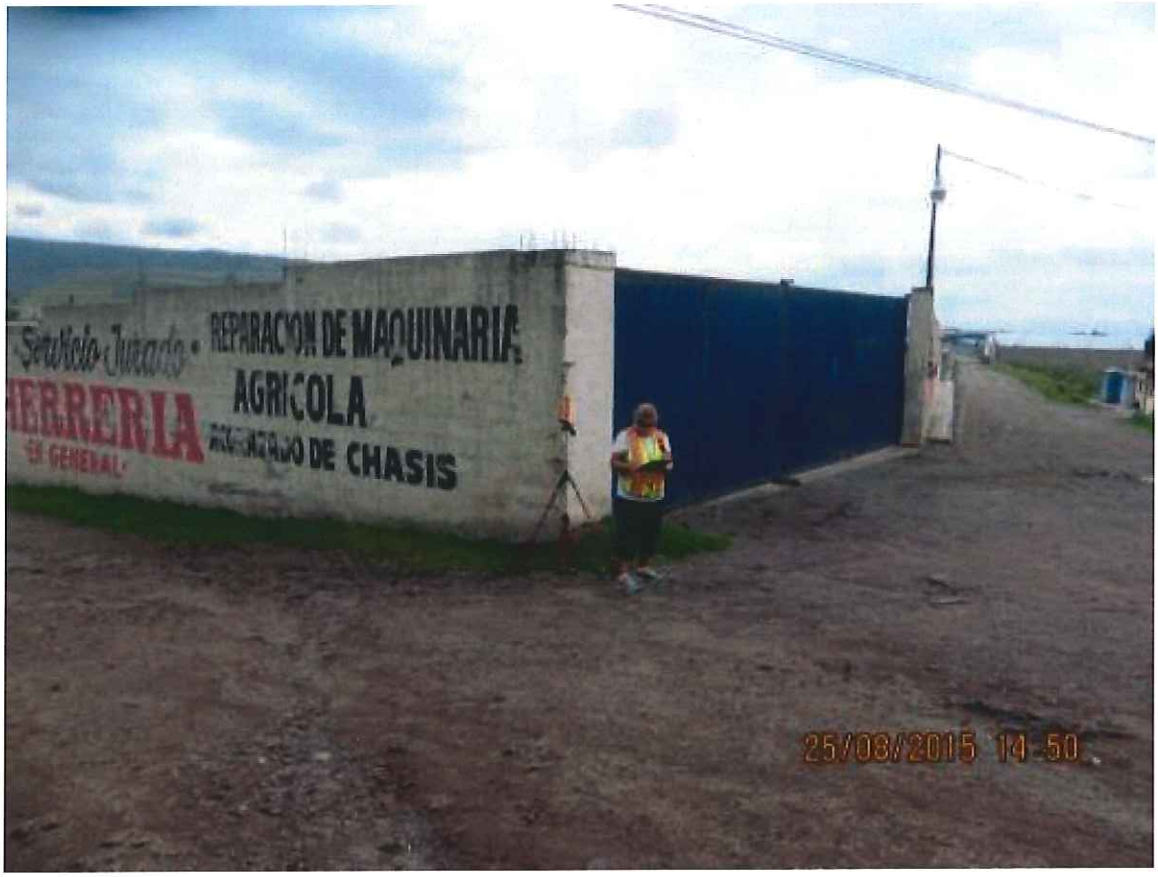


Figure 17 – Collecting GCP# 09 near Tenango de Arista, State of Mexico

5.3 Wednesday and Thursday, 26-27 August

On Wednesday, 26 August the team headed west of Toluca and collected points in the central western part of Area B. Figure 18 shows the collection of GCP# 15 near a sports field in the town of Ojo de Agua. Figure 19 shows the collection of GCP# 22 in the far northwestern edge of Area B near the town of Minita Cedro. In total, seven GCPs were collected on 26 August and eight on 27 August (refer to Appendix A for details).

Figure 18 – Collecting GCP# 15 Located in the town of Ojo de Agua

Figure 19 – Collecting GCP# 22 Located in a Rural Area by Minita Cedro

5.4 Friday, 28 August

On Friday, 28 August the team rented a four-wheel drive truck from Oxus Servicios de Logística. The team covered the summits of Volcán Jocotitlán (Figure 20) and Santa Cruz Tepexpan (Figure 21). Twenty-two antennas of various heights were measured on Volcán Jocotitlán. Four GCPs were collected on 28 August (refer to Appendix A for details).

Figure 20 – Antennas at the Summit of Volcán Jocotitlán

Figure 21 – Point near the Iglesia de El Señor del Cerrito on Santa Cruz Tepexpan

5.5 Monday, 31 August

On Monday, 31 August the team headed to the furthest northwest corner of Area B. Most of the points were located a considerable distance away and this was one of the longest driving days. Road conditions were poor in some areas, with thunderstorms and very heavy rain at times.

Altogether nine GCPs were collected on 31 August (refer to Appendix A for details). Figure 22 shows the location of GCP# 57 near to a central road intersection with a monument.

Figure 22 – GCP# 57 Near the Center of a Road Intersection in the Los Tachos Area

5.6 Tuesday, 1 September

On Tuesday, 1 September the team headed north out of Toluca to collect GCPs in the PSA and Area A regions. Most of the points were located at a reasonable distance, so the

driving time was cut down from previous days. Seven GCPs were collected on 1 September (refer to Appendix A for details). Figure 23 shows the location of GCP# 43.

Figure 23 – GCP# 43 Near the Corner of a Sidewalk, Industrial Park, San Miguel Totoltepec Area

5.7 Wednesday, 2 September

On Wednesday, 2 September the team headed east of Toluca to collect GCPs in Area B, and then headed back west to the PSA Area.

Eight GCPs were collected on 2 September (refer to Appendix A for details). Figure 24 shows GCP# 47 being collected in El Cerrillo.

Figure 24 – Mr. Verma Collecting GCP# 47 in El Cerrillo

5.8 Thursday, 3 September

On Thursday, 3 September the MDA Team had only three points left to collect: GCP numbers 52, 53, and 55 in Area A. With the collection of these three GCPs, the ground survey was complete. The MDA Team returned to Mexico City which took several hours in heavy traffic. Ing. Caballero assisted in depositing the MDA equipment that is to remain in Mexico until the next visit at the ASA building. He then drove the MDA Team to the Airport

Hilton Hotel. Three GCPs were collected on 3 September (refer to Appendix A for details). Figure 25 shows the collection of GCP# 55 in the San Salvador Tizatiali area.

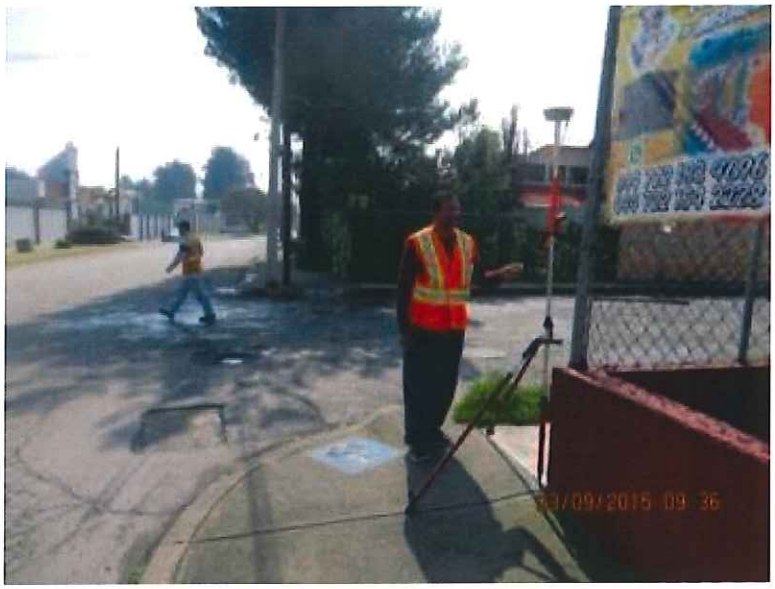


Figure 25 – GCP# 55 at the Corner of a Soccer Field, San Salvador Tizatiali area

Throughout the field visit, questions arose from on-lookers and/or security personnel. Due to the confidential nature of the Project, the questions were addressed by Ing. Caballero. Ing. Caballero is explaining the GCP collection process to the local authorities in Figure 26.

Figure 26 – Ing. Caballero Describing Site Assessment Work Local Authorities

6 CONCLUSION

The next steps towards completion of the survey.

MDA will utilize the Site Assessment data in conjunction with the satellite imagery once it is acquired. The MDA Team will then triangulate the stereopairs and begin extracting the terrain and Obstructions according to the specification of each Project Area.

6.1 Colour Stereoscopic Imagery

WorldView-2 (WV-2), WorldView-3 (WV-3) and Geo-Eye-1 (GE-1) satellites are being tasked to acquire the colour stereo imagery over the PSA and Area A and parts of Area B. The image resolution is 0.30 m for Area A and will be pan-sharpened for delivery. Area B, the Triangular Areas and the three Special Areas will have an image resolution of 0.5 m. DigitalGlobe will provide the data with the following concessions:

- Preview images: allowance for MDA and MITRE to review images before final acceptance and cease of tasking.
- Cloud-free: 0-15% cloud cover with up to 10 – 4 X 4 sq km areas that must be cloud-free. The 10 – 4 X 4 sq km cloud-free areas are shown in Figure 27.

Source: GoogleEarth

Figure 27 – Requested Cloud-free Areas for Satellite Imagery (Yellow)

6.2 Colour Monoscopic Imagery

Natural colour monoscopic imagery was ordered to cover all of Area B, including the PSA and Area A, the Triangular Areas and the three Special Areas. The data resolution is 0.30 m pan-sharpened colour resolution for the PSA and Area A, and 0.50 m for the rest of the Project Areas. DigitalGlobe will provide the data with the following concessions:

- Preview images: A low resolution image sample with be provided for scenes that have clouds exceeding 15% cloud coverage for possible acceptance.

- Cloud-free: 0-15% with up to 10 – 4 X 4 sq km areas that must be cloud-free. The 10 – 4 X 4 sq km cloud-free areas are shown above in Figure 27.

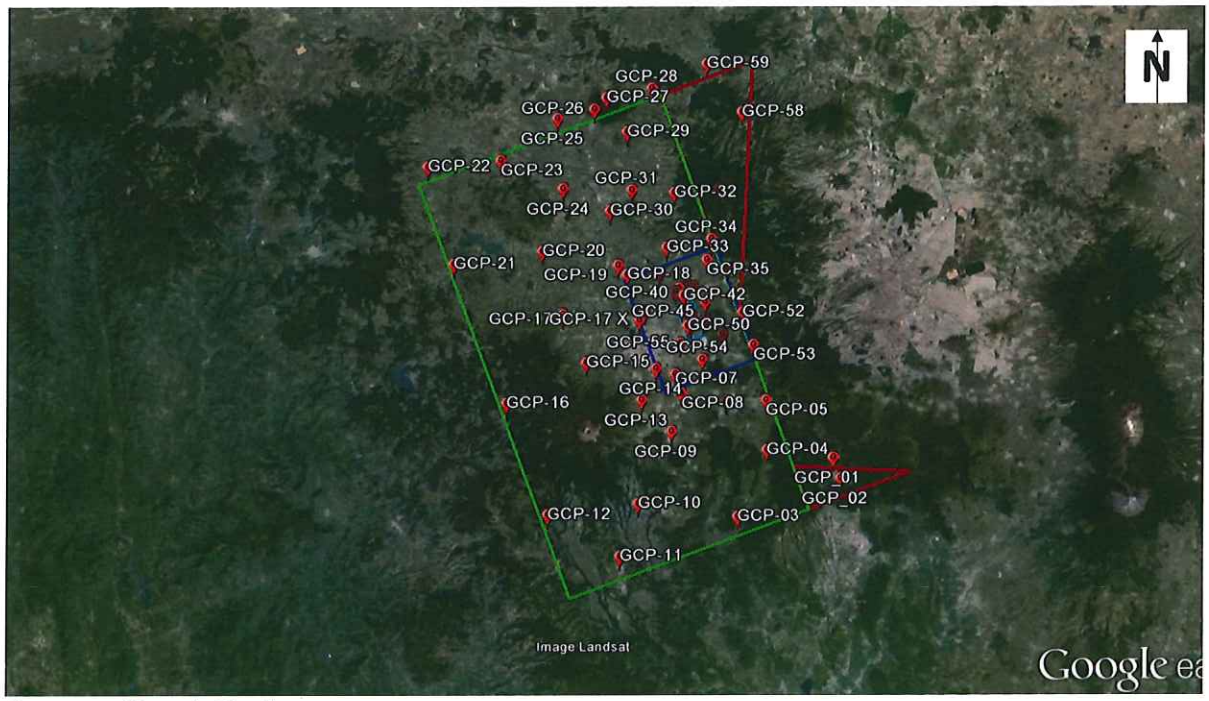
As mentioned in Section 4.1.4, the Field Validation/Verification/Ground Truth survey will be after the photogrammetric data collection is completed. After the Field Validation/ Verification/Ground Truth survey, MDA will post-process and tabulate the data collected in the field for inclusion in the Field Validation/Verification/Ground Truth Survey Report and the final deliverables. The data from the stereoscopic data collection will be complete approximately four months after the deemed completion date (when satellite image acquisition is deemed complete), and MDA will be performing QA and populating the GIS database to prepare for the Final QC trip, expected to take place approximately one month before final delivery.

APPENDIX A

Ground Control Points

24 August - 3 September 2015

This Appendix contains information on all sixty (60) collected GCPs shown in Figure 28 below. Each GCP is described on a whole page, with the coordinates, collection date and field photographs.

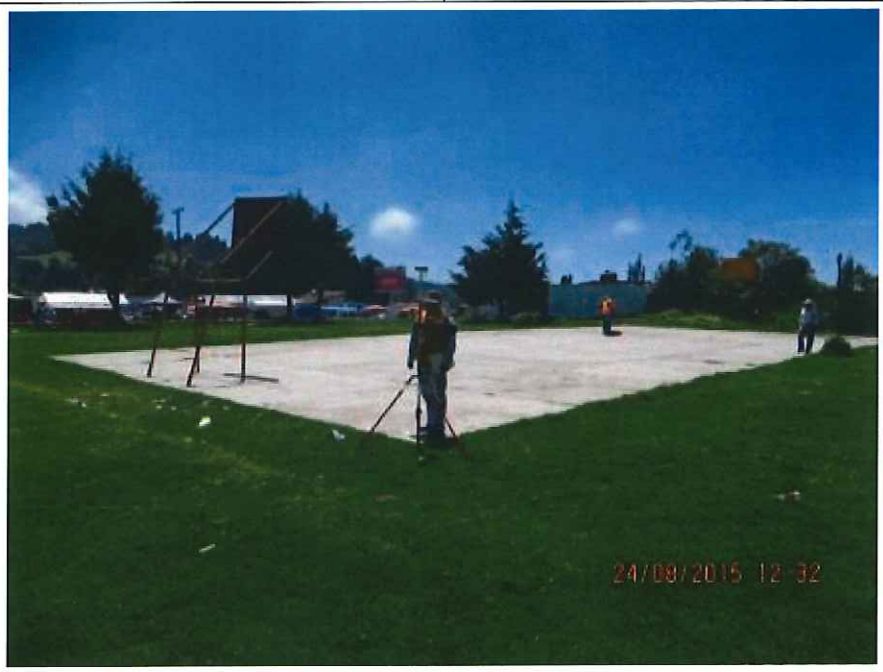


Source: GoogleEarth

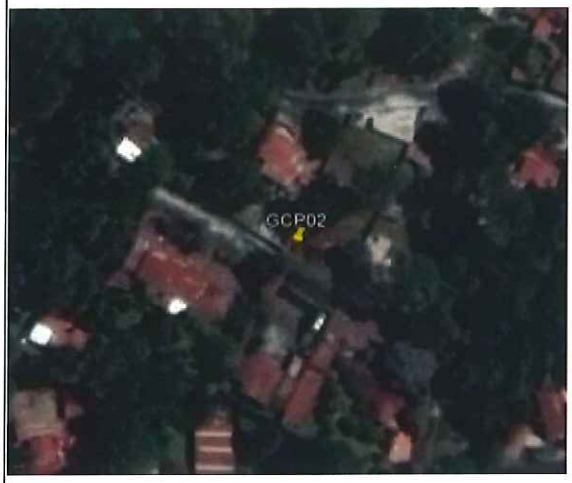
Note that some GCP labels cannot be seen on the Figure due to label overlap.

Figure 28 – Final GCPs Collected during Site Assessment

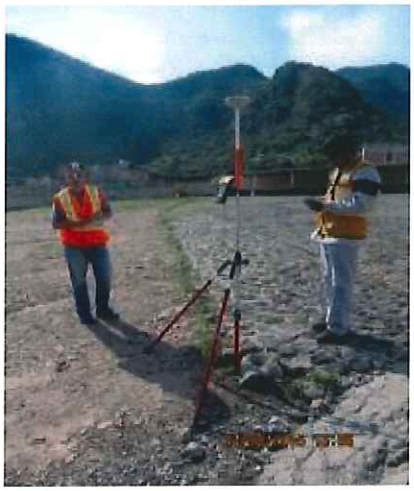
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP01	Collection Date: 24 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 03' 09.99"N	Longitude: 099° 14' 35.57" W	Elevation (above sea level): 2801.445 m
Project Area: Area B		Datum: World Geodetic System 1984 (WGS84)/ Earth Gravitational Model 1996(EGM96)

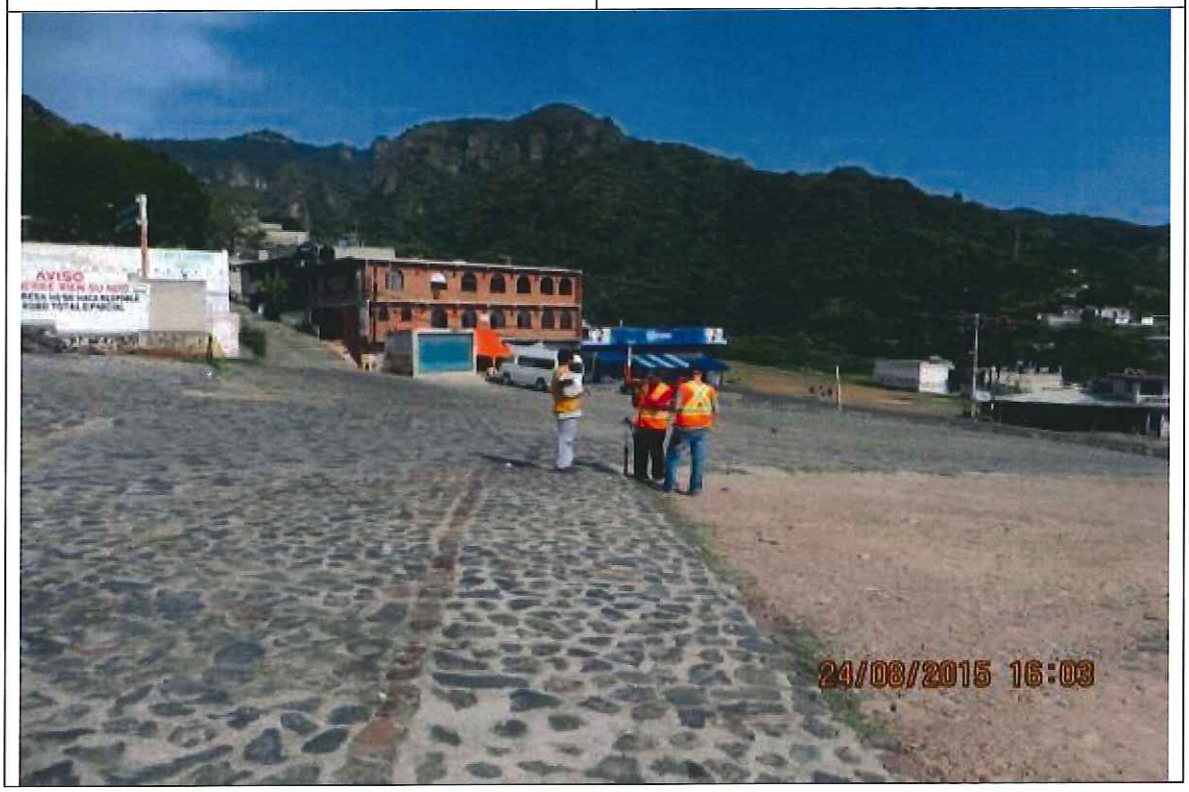


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP02	Collection Date: 24 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 00' 49.54" N	Longitude: 099° 14' 34.09" W	Elevation (above sea level): 2331.474 m
Project Area: Area B		Datum: WGS84/EGM96

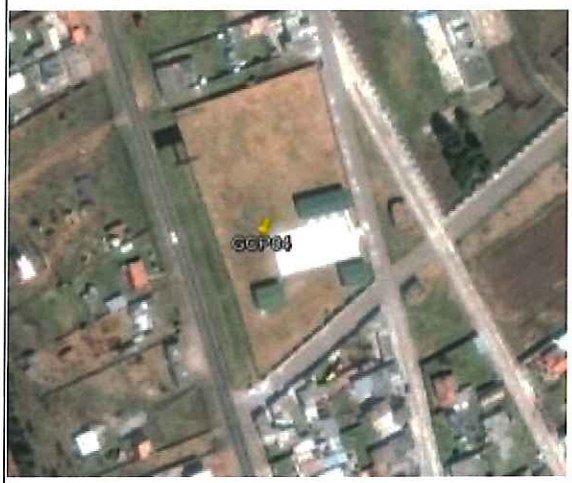


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP03	Collection Date: 24 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 18° 55' 43.21" N	Longitude: 099° 26' 13.50" W	Elevation (above sea level): 1650.364 m
Project Area: Area B		Datum: WGS84/EGM96



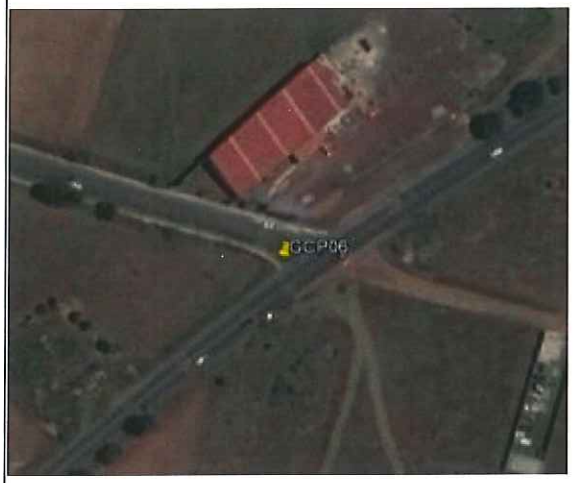


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP04	Collection Date: 24 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 03' 46.25" N	Longitude: 099° 23' 01.96" W	Elevation (above sea level): 2815.518 m
Project Area: Area B		Datum: WGS84/EGM96

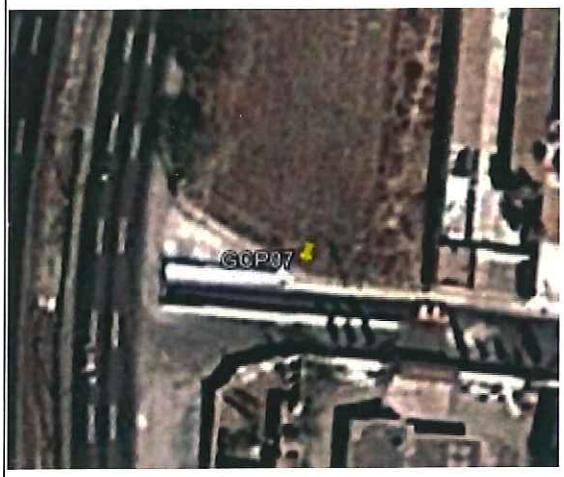


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP05	Collection Date: 24 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 09' 44.00" N	Longitude: 099° 23' 23.22" W	Elevation (above sea level): 2956.049 m
Project Area: Area B		Datum: WGS84/EGM96

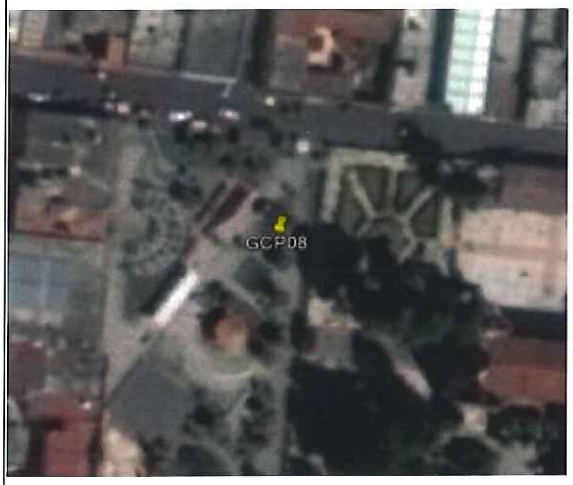
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP06	Collection Date: 24 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 09' 20.89" N	Longitude: 099° 28' 28.41" W	Elevation (above sea level): 2630.430 m
Project Area: Area B		Datum: WGS84/EGM96



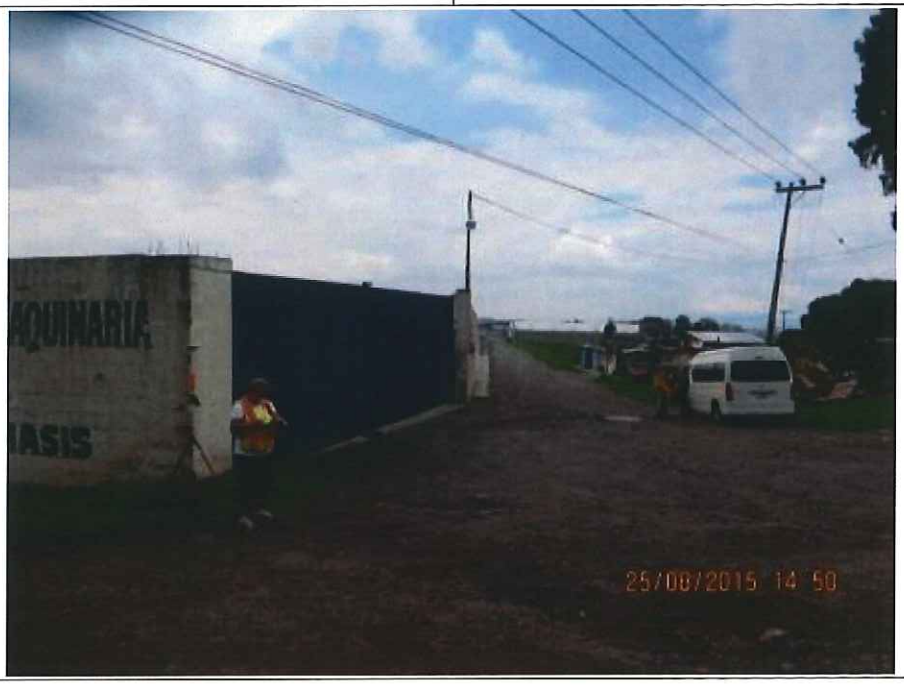
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP07	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 12' 43.67" N	Longitude: 099° 35' 29.99" W	Elevation (above sea level): 2606.828 m
Project Area: Area A		Datum: WGS84/EGM96



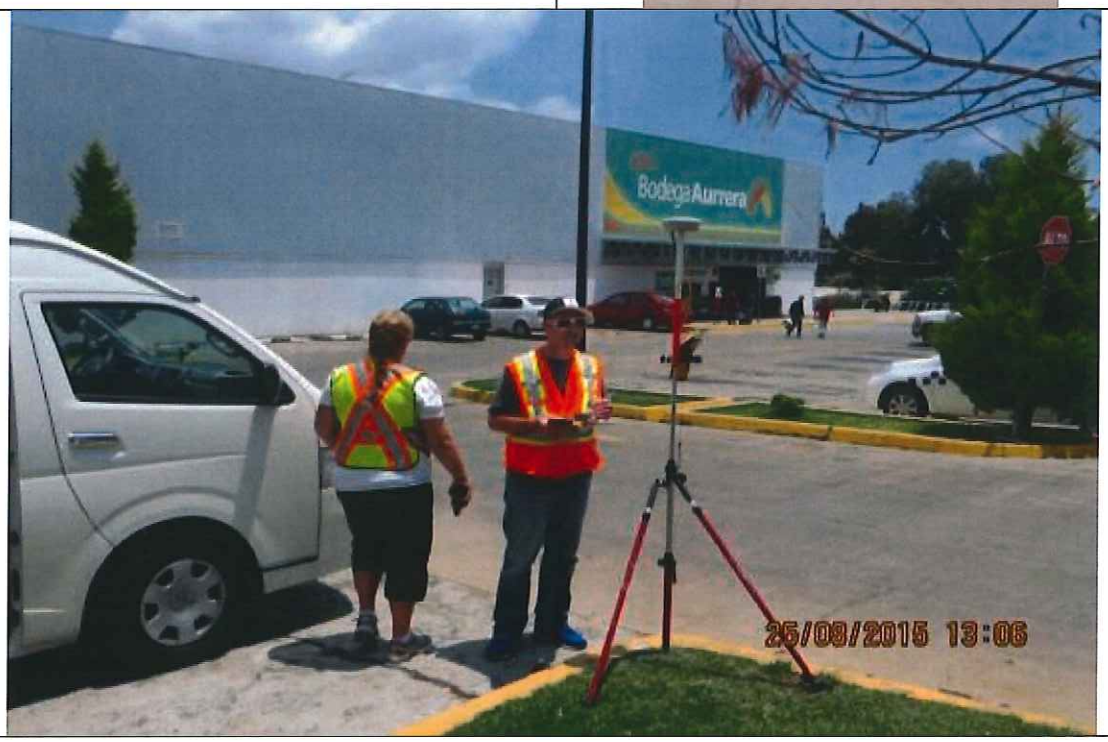
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP08	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 09' 54.11" N	Longitude: 099° 34' 09.09" W	Elevation (above sea level): 2590.322 m
Project Area: Area B		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP09	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 05' 20.63" N	Longitude: 099° 35' 11.17" W	Elevation (above sea level): 2616.091 m
Project Area: Area B		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP10	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 18° 57' 23.81" N	Longitude: 099° 38' 34.21" W	Elevation (above sea level): 2116.260 m
Project Area: Area A		Datum: WGS84/EGM96



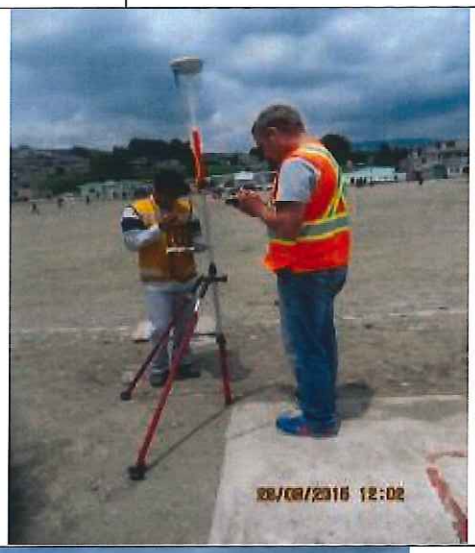
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP11	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 18° 50' 08.51" N	Longitude: 099° 40' 30.53" W	Elevation (above sea level): 1831.402 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP12	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 18° 54' 49.64" N	Longitude: 099° 50' 03.23" W	Elevation (above sea level): 2389.633 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP13	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 08' 39.37" N	Longitude: 099° 39' 21.98" W	Elevation (above sea level): 2924.573 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP14	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 12' 40.48" N	Longitude: 099° 37' 32.06" W	Elevation (above sea level): 2682.207 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP15	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 12' 55.69" N	Longitude: 099° 46' 15.45" W	Elevation (above sea level): 3015.915 m
Project Area: Area B		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP16	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 07' 40.25" N	Longitude: 099° 55' 54.06" W	Elevation (above sea level): 2470.492 m
Project Area: Area B		Datum: WGS84/EGM96

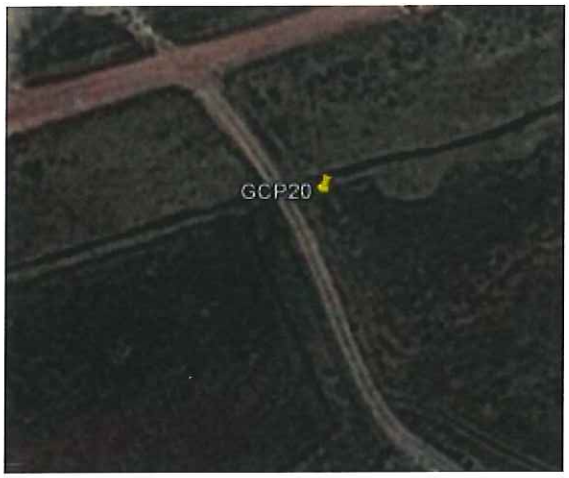
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP17	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 18' 27.47" N	Longitude: 099° 49' 32.51" W	Elevation (above sea level): 2837.695 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP17X	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 18' 17.78" N	Longitude: 099° 40' 00.47" W	Elevation (above sea level): 2807.802 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP18	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 23' 32.65" N	Longitude: 099° 41' 46.97" W	Elevation (above sea level): 2612.525 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP19	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 24' 34.26" N	Longitude: 099° 42' 58.71" W	Elevation (above sea level): 2607.524 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP20	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 25' 58.84" N	Longitude: 099° 52' 29.47" W	Elevation (above sea level): 2570.718 m
Project Area: Area B		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP21	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 23' 41.15" N	Longitude: 100° 03' 28.33" W	Elevation (above sea level): 2583.991 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP22	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 34' 57.17" N	Longitude: 100° 07' 24.28" W	Elevation (above sea level): 2682.003 m
Project Area: Area B		Datum: WGS84/EGM96

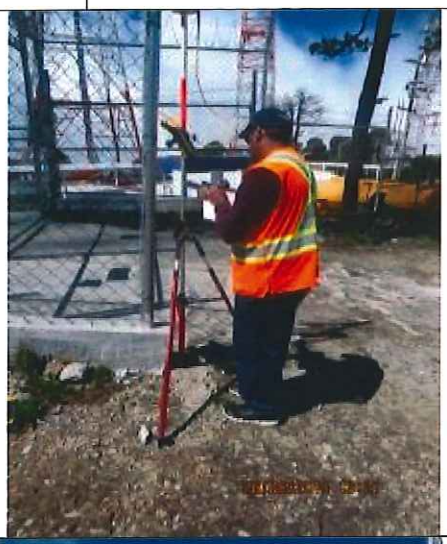
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP23	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 35' 36.83" N	Longitude: 099° 58' 16.98" W	Elevation (above sea level): 2761.345 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP24	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 33' 14.54" N	Longitude: 099° 50' 21.26" W	Elevation (above sea level): 2562.749 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP25	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 41' 36.62" N	Longitude: 099° 51' 32.05" W	Elevation (above sea level): 2547.664 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP26	Collection Date: 28 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 42' 39.32" N	Longitude: 099° 47' 10.74" W	Elevation (above sea level): 2672.826 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP27	Collection Date: 28 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 44' 13.71" N	Longitude: 099° 45' 35.45" W	Elevation (above sea level): 3889.089 m
Project Area: Area B		Datum: WGS84/EGM96

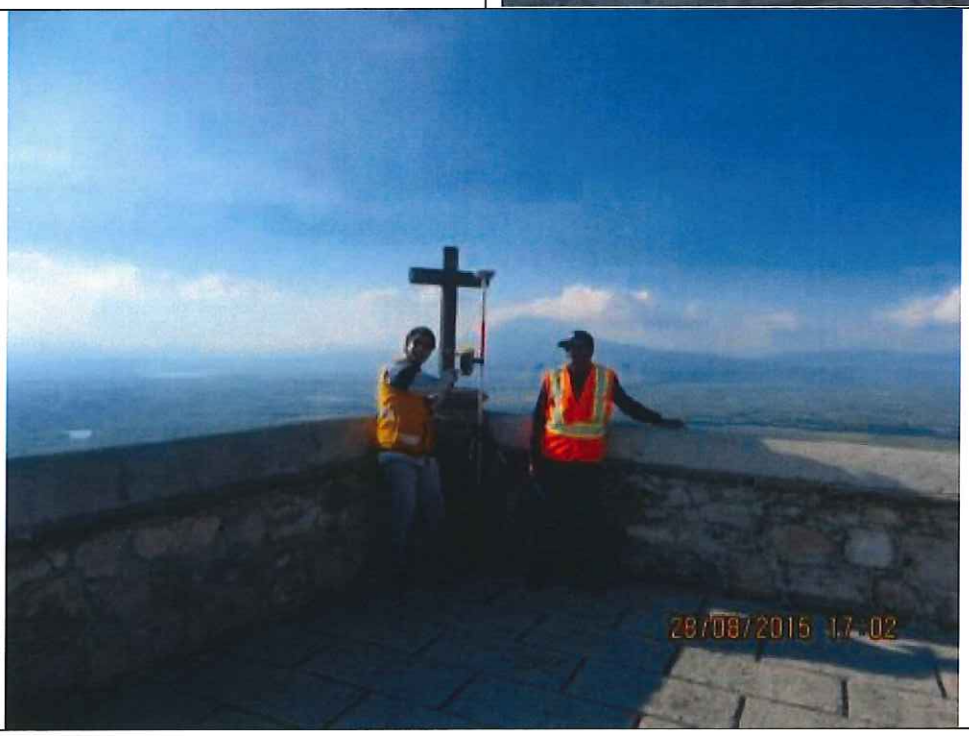


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP28	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 46' 11.65" N	Longitude: 099° 39' 23.04" W	Elevation (above sea level): 2695.061 m
Project Area: Area B		Datum: WGS84/EGM96

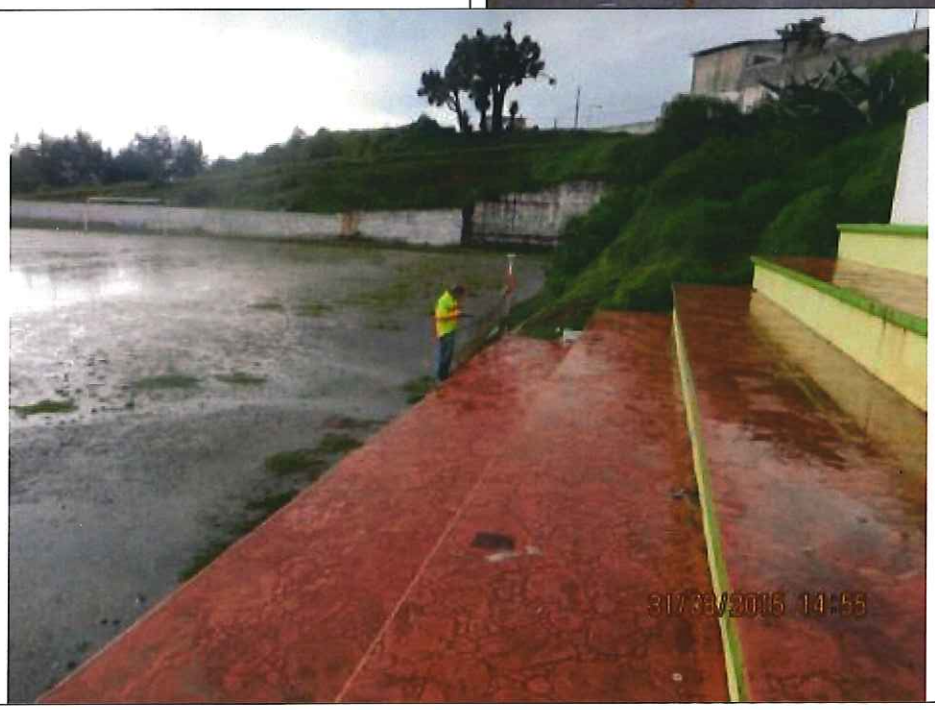
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP29	Collection Date: 28 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 40' 18.78" N	Longitude: 099° 42' 47.08" W	Elevation (above sea level): 2560.877 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP30	Collection Date: 27 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 30' 55.65" N	Longitude: 099° 44' 20.29" W	Elevation (above sea level): 2601.196 m
Project Area: Area B		Datum: WGS84/EGM96

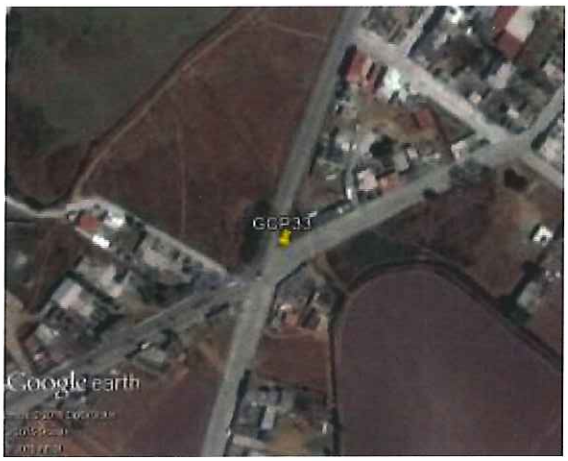
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP31	Collection Date: 28 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 33' 31.15" N	Longitude: 099° 41' 50.98" W	Elevation (above sea level): 3025.833 m
Project Area: Area B		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP32	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 33' 17.26" N	Longitude: 099° 36' 36.94" W	Elevation (above sea level): 2733.280 m
Project Area: Area B		Datum: WGS84/EGM96

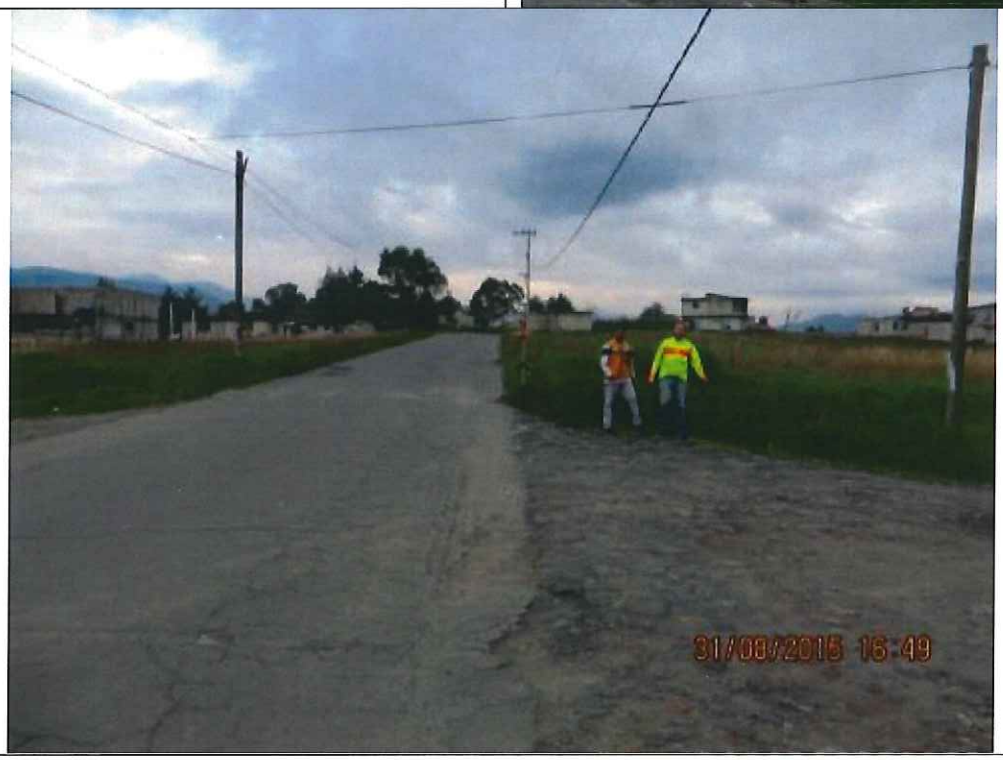


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP33	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 27' 06.28" N	Longitude: 099° 37' 00.10" W	Elevation (above sea level): 2585.925 m
Project Area: Area B		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP34	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 28' 42.14" N	Longitude: 099° 31' 34.09" W	Elevation (above sea level): 2826.676 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP35	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 25' 46.47" N	Longitude: 099° 32' 01.96" W	Elevation (above sea level): 2588.149 m
Project Area: Area A		Datum: WGS84/EGM96

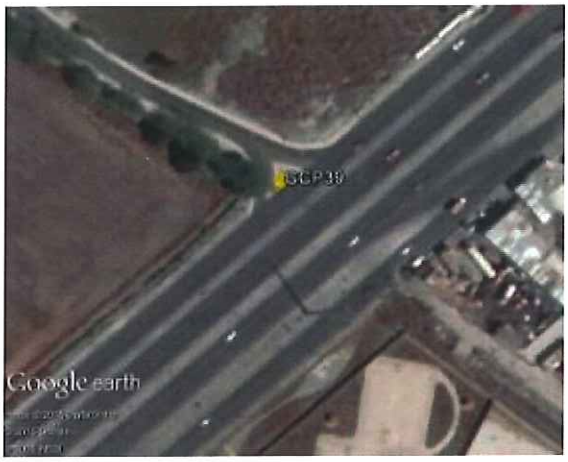


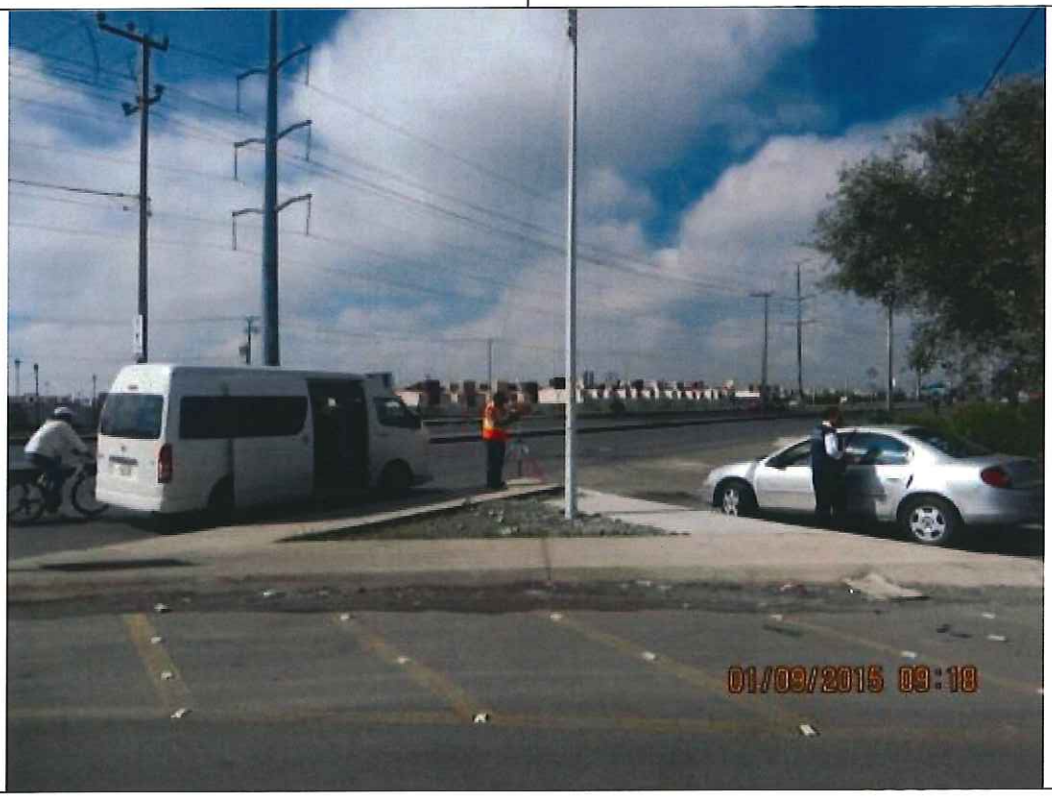
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP36	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 19' 20.77" N	Longitude: 099° 39' 19.24" W	Elevation (above sea level): 2616.120 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP37	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 24' 09.01" N	Longitude: 099° 37' 00.89" W	Elevation (above sea level): 2573.022 m
Project Area: Area A		Datum: WGS84/EGM96

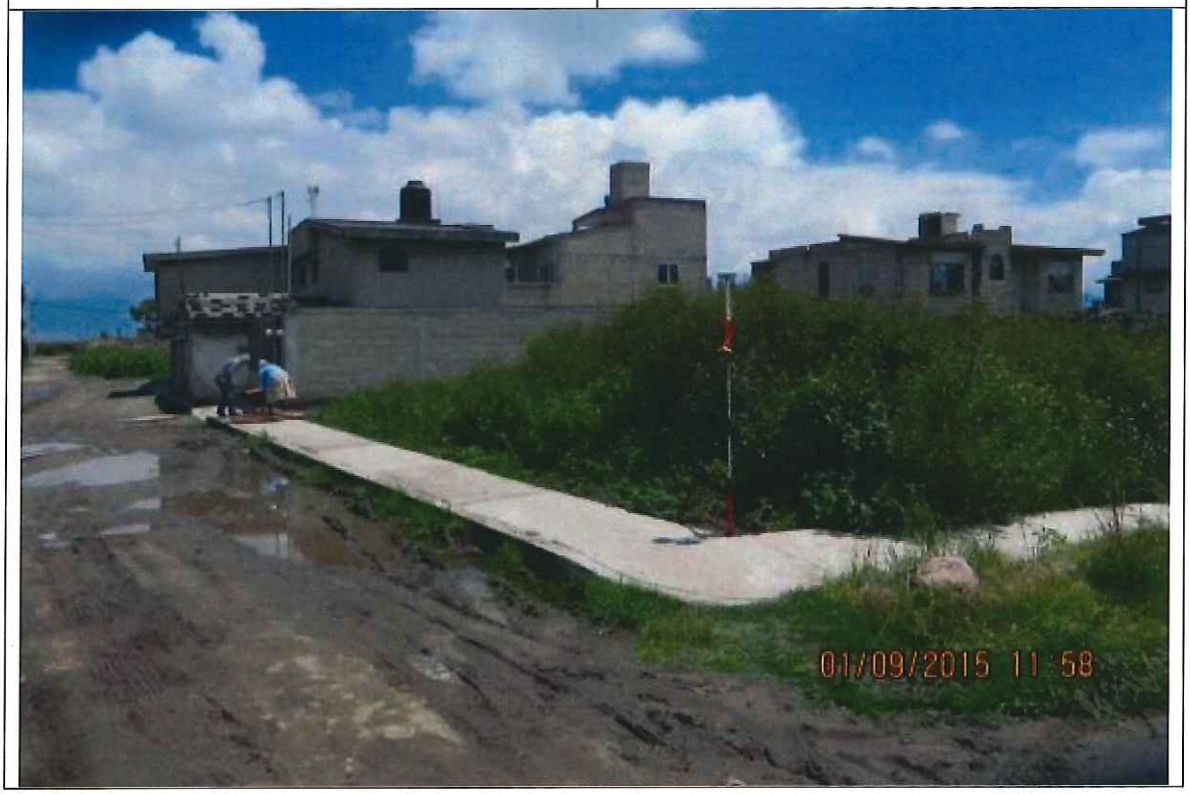
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP38	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 22' 39.20" N	Longitude: 099° 34' 17.68" W	Elevation (above sea level): 2572.656 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP39	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 22' 32.93" N	Longitude: 099° 33' 28.92" W	Elevation (above sea level): 2572.179 m
Project Area: PSA		Datum: WGS84/EGM96

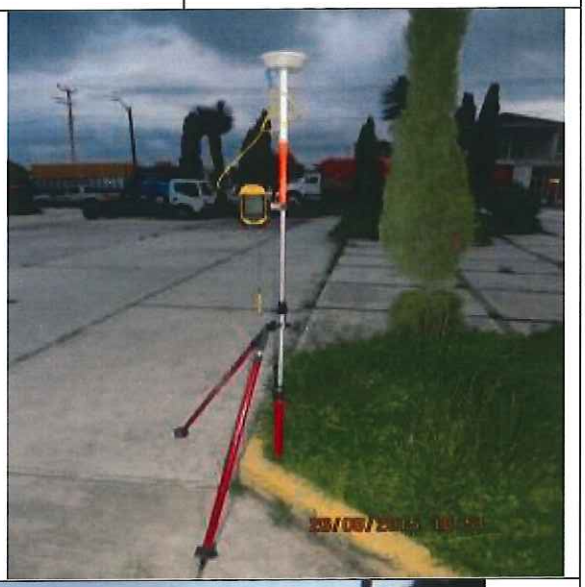




Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP40	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 22' 15.08" N	Longitude: 099° 35' 18.06" W	Elevation (above sea level): 2577.089 m
Project Area: PSA		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP41	Collection Date: 26 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 21' 47.12" N	Longitude: 099° 35' 37.53" W	Elevation (above sea level): 2580.903 m
Project Area: PSA		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP42	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 21' 26.18" N	Longitude: 099° 34' 35.91" W	Elevation (above sea level): 2577.783 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP43	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 19' 56.25" N	Longitude: 099° 34' 42.13" W	Elevation (above sea level): 2582.509 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP44	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 20' 13.92" N	Longitude: 099° 33' 29.27" W	Elevation (above sea level): 2576.026 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP45	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 20' 36.34" N	Longitude: 099° 32' 13.82" W	Elevation (above sea level): 2569.978 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP46	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 19' 08.03" N	Longitude: 099° 33' 22.05" W	Elevation (above sea level): 2576.747 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP47	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 18' 48.15" N	Longitude: 099° 31' 41.14" W	Elevation (above sea level): 2570.630 m
Project Area: PSA		Datum: WGS84/EGM96

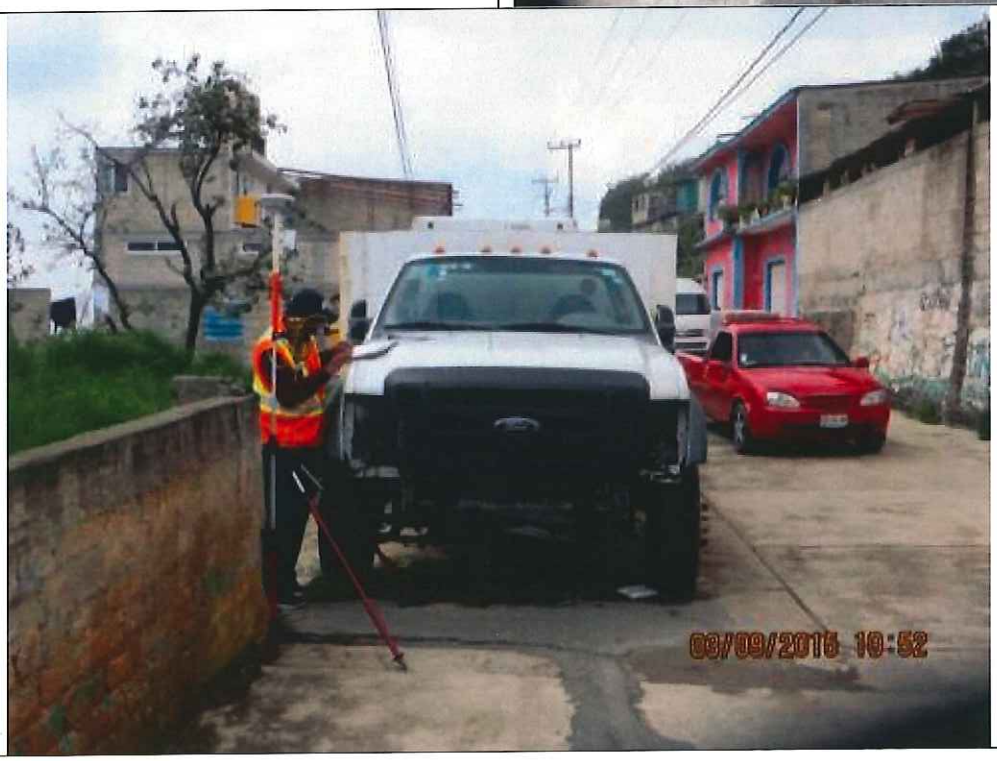
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP48	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 18' 29.98" N	Longitude: 099° 31' 53.19" W	Elevation (above sea level): 2572.016 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP49	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 17' 51.89" N	Longitude: 099° 33' 28.37" W	Elevation (above sea level): 2579.316 m
Project Area: PSA		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP50	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 17' 54.82" N	Longitude: 099° 33' 53.46" W	Elevation (above sea level): 2582.092 m
Project Area: PSA		Datum: WGS84/EGM96

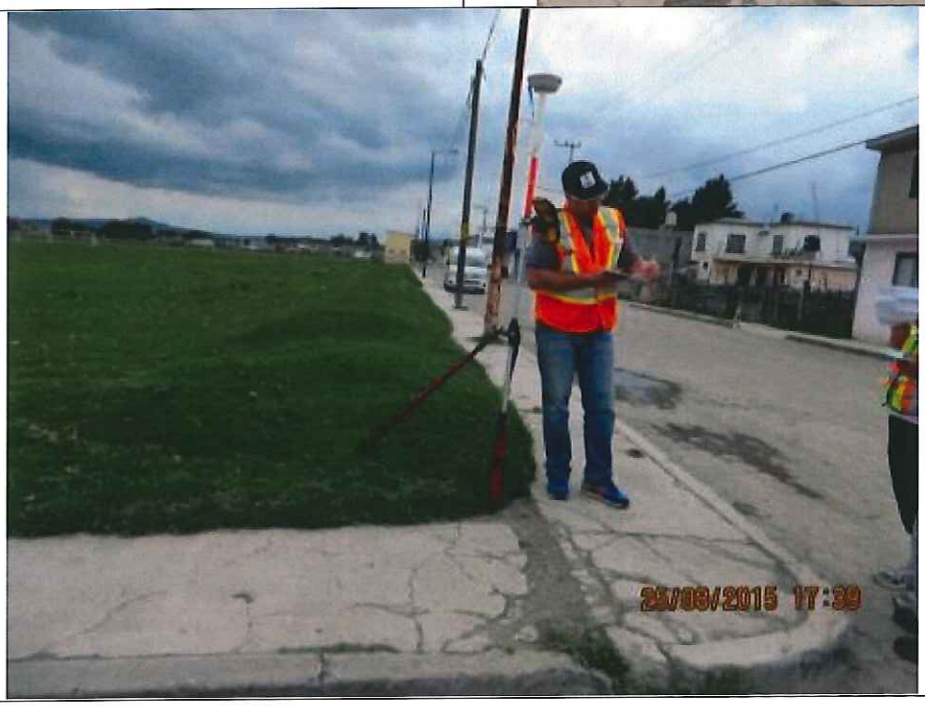
Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP51	Collection Date: 02 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 17' 06.26" N	Longitude: 099° 29' 20.58" W	Elevation (above sea level): 2578.672 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP52	Collection Date: 03 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 19' 49.25" N	Longitude: 099° 27' 16.84" W	Elevation (above sea level): 2695.946 m
Project Area: Area A		Datum: WGS84/EGM96

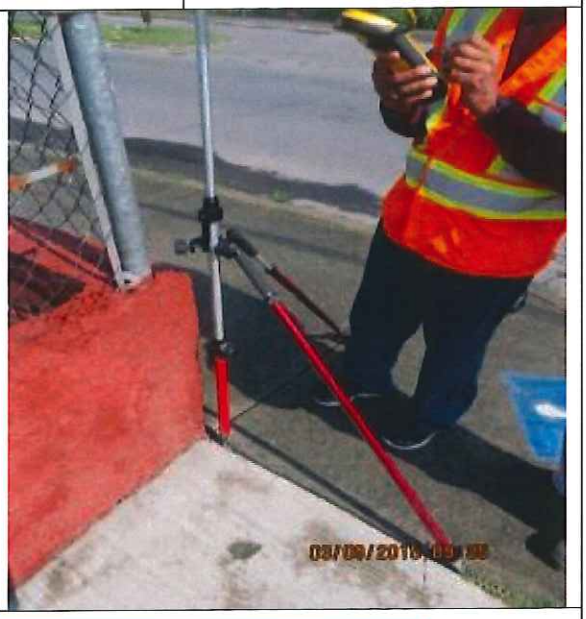


Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP53	Collection Date: 03 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 15' 59.59" N	Longitude: 099° 25' 20.75" W	Elevation (above sea level): 2715.967 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP54	Collection Date: 25 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 14' 03.13" N	Longitude: 099° 31' 48.66" W	Elevation (above sea level): 2570.517 m
Project Area: Area A		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP55	Collection Date: 03 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 16' 08.99" N	Longitude: 099° 34' 30.15" W	Elevation (above sea level): 2589.096 m
Project Area: Area A		Datum: WGS84/EGM96



Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP56	Collection Date: 01 Sept 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 24' 56.13" N	Longitude: 099° 29' 16.50" W	Elevation (above sea level): 2621.075 m
Project Area: Area A		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP57	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 34' 12.70" N	Longitude: 099° 30' 45.10" W	Elevation (above sea level): 3485.078 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP58	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 43' 33.45" N	Longitude: 099° 28' 08.32" W	Elevation (above sea level): 2610.502 m
Project Area: Area B		Datum: WGS84/EGM96

Project: Toluca Area Survey	Country: Mexico	Region: Toluca Area, Mexico
Control Point ID: GCP59	Collection Date: 31 Aug 2015	Instrument: Trimble GeoExplorer
Latitude: 19° 48' 44.39" N	Longitude: 099° 33' 10.47" W	Elevation (above sea level): 2617.139 m
Project Area: Area B		Datum: WGS84/EGM96