



NOAA Technical Memorandum NOS NGS 79

Mexico A10 Absolute Gravity Survey

October-November 2018

Jeff Kanney

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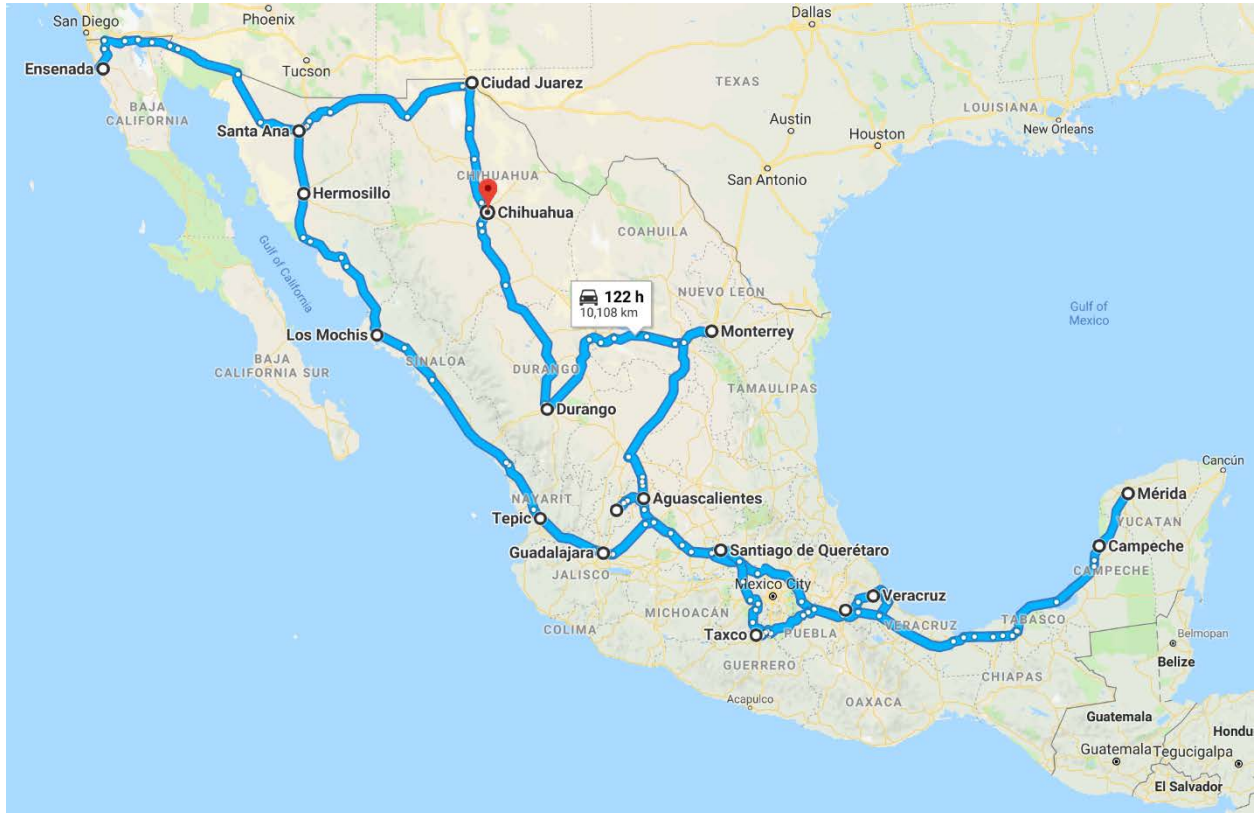


Mexico A10 Absolute Gravity Survey

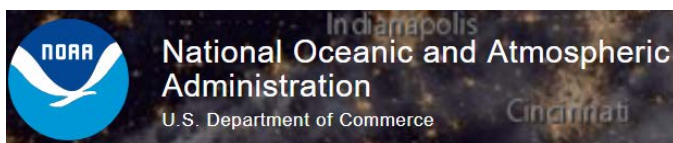
October- November 2018

NOAA/National Geodetic Survey

Instituto Nacional de Estadística y Geografía



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EXECUTIVE SUMMARY

Site Name	Latitude (dd)	Longitude (dd)	Elevation (m)	Gradient ($\mu\text{Gal}/\text{cm}$)	Gravity at 25 cm (μGal)
Aguascalientes AA	21.85713	-102.28429	1880	-2.930	978 175 299
Campeche AA	19.82367	-90.56068	25	-3.433	978 626 417
Chihuahua AA	28.70333	-106.13872	1525	-3.171	978 732 553
Chipinque AA	25.60756	-100.35555	1300	-3.125	978 615 156
Durango AA	24.06745	-104.60708	1880	-3.128	978 317 039
Ensenada AA	31.86761	-116.66423	40	-2.911	979 446 791
GTM AA	18.98659	-97.31414	4577	-4.455	977 438 005
Guadalajara AA	20.77931	-103.60461	1575	-2.984	978 223 084
Hermosillo AA	29.01963	-110.94975	260	-3.452	979 157 768
Jalpa AA	21.61708	-102.99838	1396	-2.973	978 251 515
Jalpa FAA	21.6065	-102.84792	2545	-4.031	978 033 349
Merida AA	20.98004	-89.62032	25	-3.057	978 689 876
Mochis AA	25.81536	-108.97992	12	-3.028	979 007 034
Monterrey AA	25.71561	-100.31292	530	-2.853	978 801 893
Queretaro AA	20.53833	-100.26027	1940	-2.713	978 081 697
San Pedro Martir AA	31.044	-115.46393	2805	-4.756	978 740 337
Taxco AA	18.47581	-99.58056	1220	-2.786	978 147 353
Tepic AA	21.48453	-104.84881	920	-3.075	978 460 942
Veracruz AA	19.16542	-96.11494	12	-3.127	978 564 667

Note: the coordinates listed here were provided by INEGI. The gravity values were transferred from the measured A10 height down to 25 cm which, is roughly where the CG5 sensor height would be on its tripod on a typical setup, and are listed here for a quick reference.

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Introduction

A joint National Geodetic Survey (NGS) and Instituto Nacional de Estadística y Geografía (INEGI) project to measure 19 absolute gravity sites throughout Mexico was performed from October through November 2018. NGS provided one Micro-G LaCoste A10 absolute gravimeter and an experienced operator for the mission and INEGI provided one Scintrex CG5 relative gravimeter, an experienced CG5 operator, ground transportation, driver, and project manager in addition to handling all field logistics, site access, and coordination throughout the campaign. The NGS based crew member departed Boulder, Colorado, on Oct 15th, met with the team from INEGI in El Paso Texas on Oct 17th, and crossed the international border into Ciudad Juarez, Mexico, to begin the joint campaign which concluded at Ciudad Juarez on Nov 18th. All sites visited were either previously existing gravity stations or new sites chosen by INEGI staff. During the campaign, a presentation of the equipment and procedure was performed for the INEGI staff at the headquarters in Aguascalientes, Mexico.

Site Procedures

The typical measurement procedure for each site would be to set up the A10 absolute gravimeter at the predetermined site (most of which had INEGI markers already installed) and begin the absolute measurement after checking meter operational characteristics such as laser beam verticality (checked by reflecting the laser beam off of an alcohol pool), vacuum integrity, and meter temperatures. A three-level vertical gravity gradient measurement conducted by INEGI personnel with the CG5 relative gravimeter was then started adjacent to the absolute gravimeter. A minimum of three loops were collected (e.g. A-B-C-A-B-C-A-B-C) on the gradient measurement while the absolute measurements were ongoing. The first A10 measurement was continued until the calculated statistical uncertainty value exceeded the manufacturer's precision specification for the instrument ($\leq 10 \mu\text{Gal}$), which usually occurred with six total sets of 120 drops each set. For noisy sites, the statistical uncertainty target was achieved by measuring additional sets. When the first measurement was completed, the gravimeter was rotated about 90 degrees and a second measurement was conducted. This procedure checks for setup errors and site stability. If the results of the second measurement agreed with the first measurement to within $10 \mu\text{Gal}$, the absolute gravity portion was concluded. If any two measurement results had fallen outside this value, additional measurements would have been performed. However, this did not occur at any of the sites during the Mexico campaign. Following the completion of the gradient measurement, an ex-center site was established by INEGI staff using a relative gravity tie (the details of the ex-center measurements are not included in this report).

Processing Methods

Micro-G Lacoste's 'g' software version 9.12.04.23 was used for real time processing of the A10 absolute gravity data, correcting for tidal, ocean loading, polar motion, and barometric pressure effects using an

initial standard Earth gravity gradient of $-3.086 \mu\text{Gal}/\text{cm}$. After processing of the relative gradient data was completed, the absolute measurements were reprocessed with the measured linear vertical gravity gradient value.

The three-level vertical gravity gradient data was provided from the INEGI gravimeter operator. The data file was edited to contain only the gradient data lines, and one additional line was added at the top to include the measured tripod height (Note: Incorrect sensor heights were used throughout the survey; the gradient measurements were reprocessed with the correct sensor heights, 18.9, 69.1, and 119.2 cm above the tripod base, after completion of the field work. The incorrect height was due to using the sensor height value from the CG6; the correct CG5 sensor height was obtained from the Scintrex CG5 user manual). The output files were then imported into the MATLAB based gravity gradient software 'Apogee' developed by NGS, which generates both linear and quadratic gradient values in a weighted least squares method. The linear output of Apogee was then used to reprocess the absolute gravity measurement to generate the final absolute gravity values. The transfer of the absolute gravity measurement from the instrument height of 72.2 cm to ground level, and to 25 cm (roughly the height of the CG5 or CG6 sensor when placed on the factory tripod), was accomplished with the quadratic gravity gradient outputs. The transfer uncertainties calculated from the gradient measurements are added into the final gravity uncertainties reported herein.

Tidal corrections, including ocean loading effects (Schwiderski model) were calculated in real time with the ETGTAB routine (adapted from Wenzel 1996) using geographic coordinates provided by INEGI.

Polar motion values were updated about once per week and were calculated according to the formula specified in the IAGBN: Absolute Observations Data Processing Standards (1992).

The barometric pressure correction was calculated with the following formula:

$$C(p) = A * (P(o) - P(n))$$

Where $P(o)$ is the observed barometric pressure (mBar), $P(n)$ is the nominal barometric pressure in accordance with DIN Standard #5450, A is the barometric admittance factor ($\mu\text{Gal}/\text{mBar}$), and $C(p)$ is the barometric pressure correction (μGal) applied to the absolute gravity data. The value of A is usually between 0.30 and 0.42, and the recommended value (per IAG, 1983) is 0.30.

The final absolute gravity value was calculated using a weighted average of the absolute gravity measurements, and the output $(1/\text{Measurement Precision})^2$ as the normalized weighting function. This biases the final value toward the result obtained by the statistically quieter or longer set of measurements. For ease of use of this document, the stations are presented here in alphabetical order rather than chronological. In the following section, only final results are listed. All raw observation values and supporting documentation will be listed in Appendix I.

Gravimeter Verification

Prior to departing Colorado and again upon returning after completion of the project, the A10 was run on a well-established pier at the Table Mountain Geophysical Observatory in order to verify proper functioning of the instrument. Pier AO had recently been observed by FG5-102 occupation and was chosen to run the A10 gravimeter on.

10/05/2018 A10 occupation: 979 622 745 μGal

11/20/2018 A10 occupation: 979 622 743 μGal

07/18/2018 FG5 occupation: 979 622 743.5 μGal

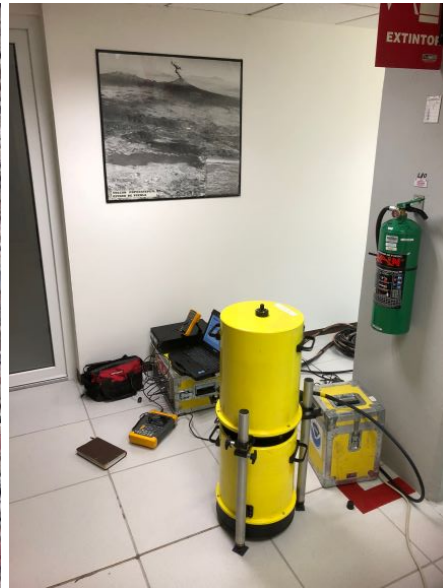
11/02/2018 FG5 occupation: 979 622 743.4 μGal

Absolute Gravity Site Summary

Aguascalientes

Station ID	Aguascalientes AA	Latitude	21.85713	Longitude	-102.28429	Elev (m)	1880
Date	10/24/2018						
Gravity at 25 cm		978175299	\pm	8.5	μGal		
Gravity at 0 cm		978175377	\pm	9.1	μ Gal		
Measured gravity (72.2 cm)		978175157	\pm	7.7	μ Gal average of total σ		
<u>Linear Gravity Gradient</u>		-2.930	\pm	0.011	μGal/cm		
<u>Quadratic Gravity Gradient</u>							
First Order Term		-3.119	\pm	0.011	μ Gal/cm		
Second Order Term		0.001135357	\pm	0.000106751	μ Gal/cm ²		

Aguascalientes AA is located in the basement of the INEGI headquarters facility in Aguascalientes, Mexico. The site is adjacent to a structural support column in the temperature-controlled room between a reception area and a film storage room.



Commentary: Likely due to the location of the site in the excavated basement of a large facility, the vertical gravity gradient exhibited significant second order characteristics and it would be advisable to use the second order function for gravity transfers here. Significant noise due to the vibration of the ceramic floor tiles was visible in the A10 drop residuals, but it did not appear to affect the absolute gravity reading, as good agreement between the two measurements was observed. Comparing the observed results to previous FG5 measurements, the most recent measurement from Ludger Timmen (Hannover) in 2016 was 978 174 962 μGal at 125 cm. Transferring the A10 measurement to 125 cm, the value 978 174 927 μGal is considerably lower than the FG5 occupation. It is unclear if this difference is due to measurement error either in the A10 or the FG5 (or both). All other reoccupied sites showed very good agreement (see Queretaro, Guadalajara, or Taxco, for example) with previous FG5 occupations, and the closeout value at the end of the survey was excellent, which suggests good gravimeter performance throughout the campaign. However, due to known subsidence of the region, this site might not be the best choice for a long term gravity reference station without frequent absolute gravity reoccupation.

Campeche

Station ID	Campeche AA	Latitude	19.82367	Longitude	-90.56068	Elev (m)	25
Date	10/30/2018						
	Gravity at 25 cm	978626417	\pm	8.2	μ Gal		
	Gravity at 0 cm	978626502	\pm	8.7	μ Gal		
	Measured gravity (72.2 cm)	978626256	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-3.433	\pm	0.008	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.378	\pm	0.008	μ Gal/cm		
	Second Order Term	0.000351826	\pm	7.67302E-05	μ Gal/cm ²		

Campeche AA is located in the NW corner of the engineering building at the Universidad Autónoma de Campeche, Campeche, Mexico, and is marked with a brass disk.



Commentary: This is an exceptionally quiet site, likely due to the construction of this particular building and its location.

Chihuahua

Station ID	Chihuahua AA	Latitude	28.70333	Longitude	-106.13872	Elev (m)	1525
Date	10/18/2018						
	Gravity at 25 cm	978732553	\pm	8.8	μ Gal		
	Gravity at 0 cm	978732630	\pm	9.6	μ Gal		
	Measured gravity (72.2 cm)	978732404	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-3.171	\pm	0.015	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.108	\pm	0.015	μ Gal/cm		
	Second Order Term	0.000397263	\pm	0.000150574	μ Gal/cm ²		

Chihuahua AA is located just inside the north entrance of the engineering office building at the Universidad Autónoma de Chihuahua, Chihuahua, Mexico.



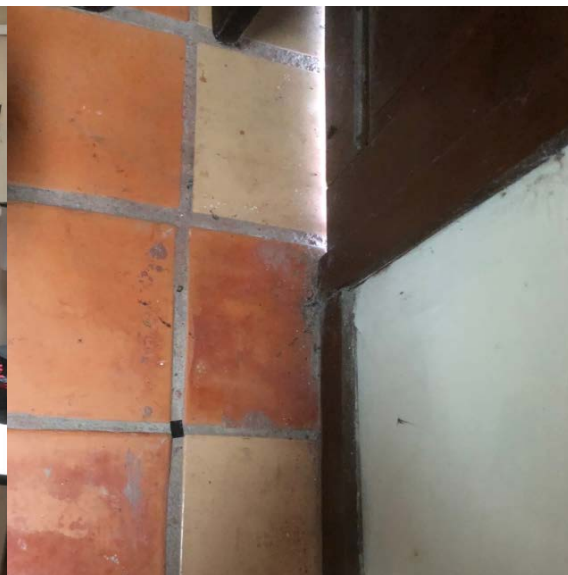
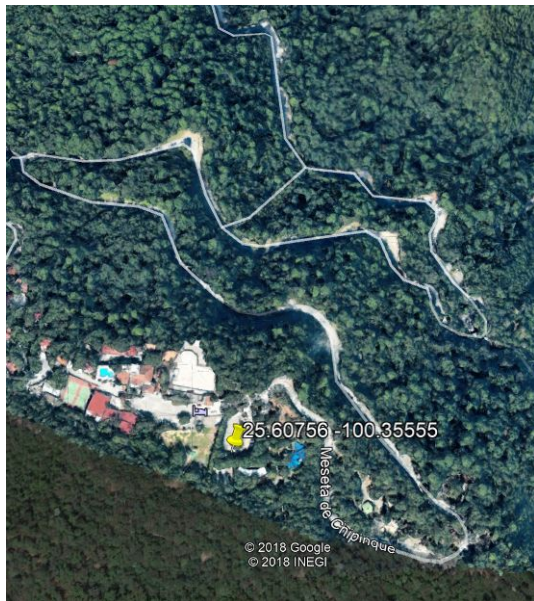


Commentary: This site showed significant tile vibration noise (high frequency signals in the drop fit residuals) in the absolute gravity measurement. This was remediated by measuring several extra sets in the first absolute measurement. Good agreement between the two independent measurements was observed, indicating that a reliable value was likely obtained. Tile noise is only an issue for active gravity measurements (absolute) and will not present a problem for passive instruments such as the CG5 or other relative gravimeters.

Chipinque

Station ID	Chipinque AA	Latitude	25.60756	Longitude	-100.35555	Elev (m)	1300
Date	10/21/2018						
	Gravity at 25 cm	978615156	\pm	8.3	μ Gal		
	Gravity at 0 cm	978615234	\pm	8.8	μ Gal		
	Measured gravity (72.2 cm)	978615009	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-3.125	\pm	0.009	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.114	\pm	0.009	μ Gal/cm		
	Second Order Term	-7.66221E-05	\pm	8.51935E-05	μ Gal/cm ²		

This site is located in the first aid hut at the Parque Ecologico Chipinque, just inside the doorway. The site was temporarily marked on the flooring with a piece of tape.



Durango

Station ID	Durango AA	Latitude	24.06745	Longitude	-104.60708	Elev (m)	1880
Date	10/19/2018						
	Gravity at 25 cm	978317039	\pm	8.1	μ Gal		
	Gravity at 0 cm	978317111	\pm	8.4	μ Gal		
	Measured gravity (72.2 cm)	978316896	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-3.128	\pm	0.005	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.844	\pm	0.005	μ Gal/cm		
	Second Order Term	-0.00186231	\pm	5.10763E-05	μ Gal/cm ²		

Durango AA is located on a gravity pier installed in a dedicated room within the INEGI facility in Durango Mexico.

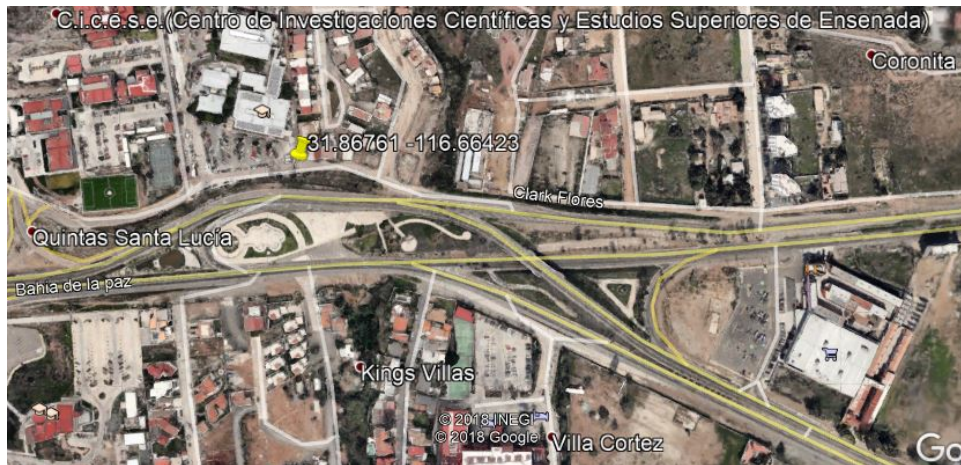


Commentary: Although this was a stable site, an overnight measurement was conducted due to convenient survey logistics.

Ensenada

Station ID	Ensenada AA	Latitude	31.86761	Longitude	-116.66423	Elev (m)	40
Date	11/13/2018						
	Gravity at 25 cm	979446791	\pm	8.4	μ Gal		
	Gravity at 0 cm	979446867	\pm	9.0	μ Gal		
	Measured gravity (72.2 cm)	979446652	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-2.911	\pm	0.010	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.035	\pm	0.010	μ Gal/cm		
	Second Order Term	0.000791496	\pm	0.000104477	μ Gal/cm ²		

Ensenada AA is located on an isolated seismic pier 116 cm W of E edge of the pier and 82 cm N of the S edge of the pier in the basement of the geophysics building at the Universidad Autónoma de Baja California.





GTM

Station ID	GTM AA	Latitude	18.98659	Longitude	-97.31414	Elev (m)	4577
Date	10/27/2018						
	Gravity at 25 cm	977438005	\pm	9.2	μ Gal		
	Gravity at 0 cm	977438098	\pm	10.3	μ Gal		
	Measured gravity (72.2 cm)	977437810	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-4.455	\pm	0.021	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.588	\pm	0.021	μ Gal/cm		
	Second Order Term	-0.005565418	\pm	0.00021181	μ Gal/cm ²		

GTM AA is located in the control facility for the Gran Telescopio Millimetrico VLB site on Sierra Negra.



Commentary: The CG5 gradient measurement had an extremely high and non-linear drift rate, suggesting that the meter might have come off of power on the drive up to the site. The fit is still likely good, but this does increase the calculated uncertainty parameters which show up in the transferred gravity values. Note the large vertical gravity gradient value – this is due to the site's location at the summit of the mountain.

Guadalajara

Station ID	Guadalajara AA	Latitude	20.77931	Longitude	-103.60461	Elev (m)	1575
Date	11/6/2018						
	Gravity at 25 cm	978223084	\pm	8.3	μ Gal		
	Gravity at 0 cm	978223160	\pm	8.8	μ Gal		
	Measured gravity (72.2 cm)	978222945	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-2.984	\pm	0.009	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.894	\pm	0.009	μ Gal/cm		
	Second Order Term	0.000575581	\pm	8.51838E-05	μ Gal/cm ²		

Guadalajara AA is a site reoccupied from a previous FG5 measurement in 1996 located in the bathroom of the Club Deportivo Universidad, where a plug is installed in the NNE corner of the building.



Commentary: The repeat gravity value transferred to ground level came in 15 μ Gal lower than the 1996 value. This difference could be attributed to uplift and/or to differing gravity gradient functions to get to ground level.

Hermosillo

Station ID	Hermosillo AA	Latitude	29.01963	Longitude	-110.94975	Elev (m)	260
Date	11/11/2018						
	Gravity at 25 cm	979157768	\pm	8.2	μ Gal		
	Gravity at 0 cm	979157859	\pm	8.6	μ Gal		
	Measured gravity (72.2 cm)	979157602	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-3.452	\pm	0.007	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.676	\pm	0.007	μ Gal/cm		
	Second Order Term	0.001495226	\pm	7.01847E-05	μ Gal/cm ²		

Hermosillo AA is in a small building located between two reptile displays in the Centro Ecológico de Sonora, Hermosillo, Sonora, Mexico.



Jalpa AA

Station ID	Jalpa AA	Latitude	21.61708	Longitude	-102.99838	Elev (m)	1396
Date	10/25/2018						
	Gravity at 25 cm	978251515	\pm	8.0	μ Gal		
	Gravity at 0 cm	978251589	\pm	8.3	μ Gal		
	Measured gravity (72.2 cm)	978251376	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-2.973	\pm	0.005	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.951	\pm	0.005	μ Gal/cm		
	Second Order Term	0.00013904	\pm	4.56055E-05	μ Gal/cm ²		

Jalpa AA is located in a storage room at the back of the Universidad Autónoma de Zacatecas Campus Jalpa.



Jalpa FAA

Station ID	Jalpa FAA	Latitude	21.6065	Longitude	-102.84792	Elev (m)	2545
Date	10/25/2018						
	Gravity at 25 cm	978033349	\pm	8.3	μ Gal		
	Gravity at 0 cm	978033448	\pm	8.8	μ Gal		
	Measured gravity (72.2 cm)	978033159	\pm	7.7	μ Gal	average of total σ	
	<u>Linear Gravity Gradient</u>	-4.031	\pm	0.009	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.978	\pm	0.009	μ Gal/cm		
	Second Order Term	0.000343119	\pm	8.90924E-05	μ Gal/cm ²		

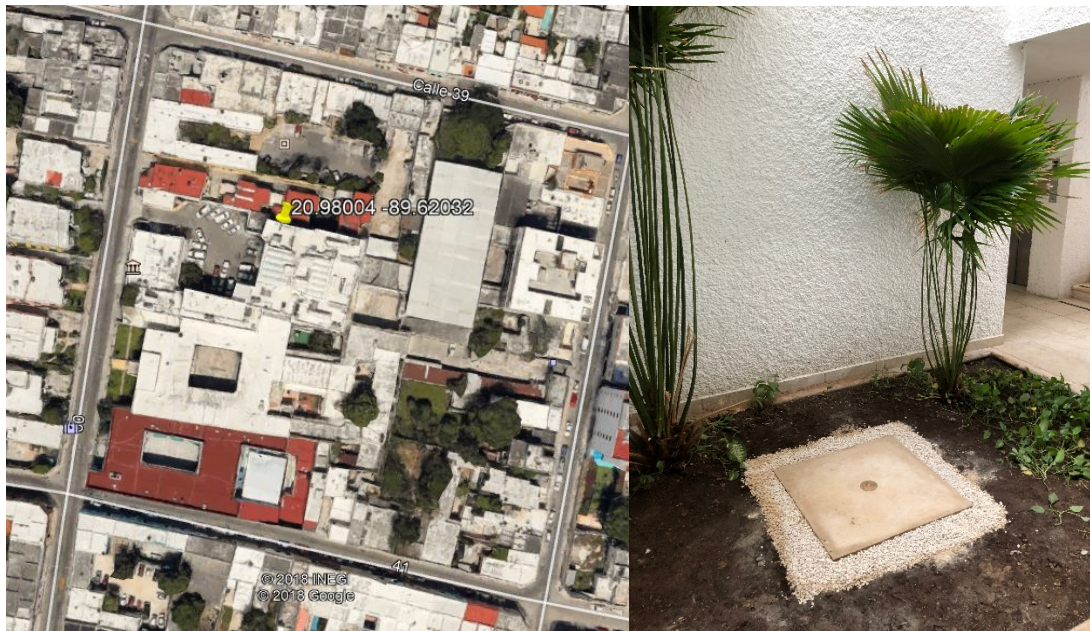
Jalpa FAA is on an excavated pier on top of a ridge above Jalpa, Mexico, off the north side of a dirt road from highway 131.



Merida

Station ID	Merida AA	Latitude	20.98004	Longitude	-89.62032	Elev (m)	25
Date	10/31/2018						
	Gravity at 25 cm	978689876	±	8.2	μGal		
	Gravity at 0 cm	978689959	±	8.6	μGal		
	Measured gravity (72.2 cm)	978689726	±	7.7	μGal	average of total σ	
	<u>Linear Gravity Gradient</u>	-3.057	±	0.007	μGal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.368	±	0.007	μGal/cm		
	Second Order Term	0.002000769	±	7.06615E-05	μGal/cm ²		

Merida AA is on an excavated concrete pier in an inside garden area at the Merida, Mexico, INEGI facility.



Mochis

Station ID	Mochis AA	Latitude	25.81536	Longitude	-108.97992	Elev (m)	12
Date	11/9/2018						
	Gravity at 25 cm	979007034	\pm	9.1	μ Gal		
	Gravity at 0 cm	979007111	\pm	10.1	μ Gal		
	Measured gravity (72.2 cm)	979006889	\pm	7.9	μ Gal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-3.028	\pm	0.018	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.111	\pm	0.018	μ Gal/cm		
	Second Order Term	0.000530021	\pm	0.000175914	μ Gal/cm ²		

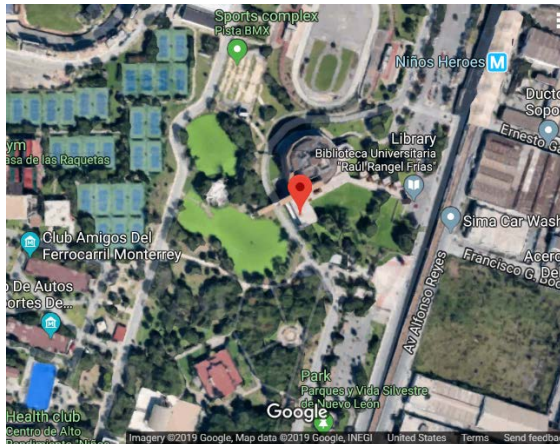
Mochis AA is located on a concrete pier in Edificio B-4 at the Universidad Autónoma de Sinaloa in Los Mochis, Mexico.



Monterrey

Station ID	Monterrey_AA	Latitude	25.71561	Longitude	-100.31292	Elev (m)	530
Date	10/20/2018						
	Gravity at 25 cm	978801893	\pm	8.0	μ Gal		
	Gravity at 0 cm	978801966	\pm	8.2	μ Gal		
	Measured gravity (72.2 cm)	978801757	\pm	7.7	μ Gal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-2.853	\pm	0.004	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.917	\pm	0.004	μ Gal/cm		
	Second Order Term	0.000396794	\pm	3.84185E-05	μ Gal/cm ²		

Monterrey AA is located in the basement of the library at the Universidad Autónoma de Nuevo León in a concrete depression which was formerly a water feature. The site was chosen upon arrival and temporarily marked 120 cm N of the S wall, 33 cm W of the E wall, and 90 cm from the hall corner.



(Site location looking at the East wall)

Querétaro

Station ID	Queretaro AA	Latitude	20.53833	Longitude	-100.26027	Elev (m)	1940
Date	11/5/2018						
	Gravity at 25 cm	978081697	\pm	8.2	μ Gal		
	Gravity at 0 cm	978081765	\pm	8.6	μ Gal		
	Measured gravity (72.2 cm)	978081570	\pm	7.7	μ Gal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-2.713	\pm	0.008	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.702	\pm	0.008	μ Gal/cm		
	Second Order Term	-6.91182E-05	\pm	7.53474E-05	μ Gal/cm ²		

Queretaro AA was measured on the large concrete pier at the Centro Nacional de Metrología (CENAM) facility in Querétaro, Mexico. The site was on the center of the pier closest to the doorway.

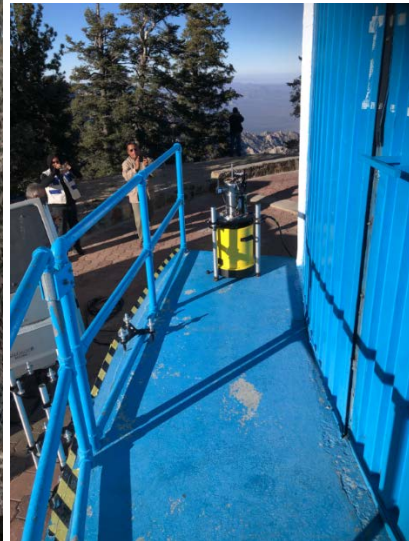
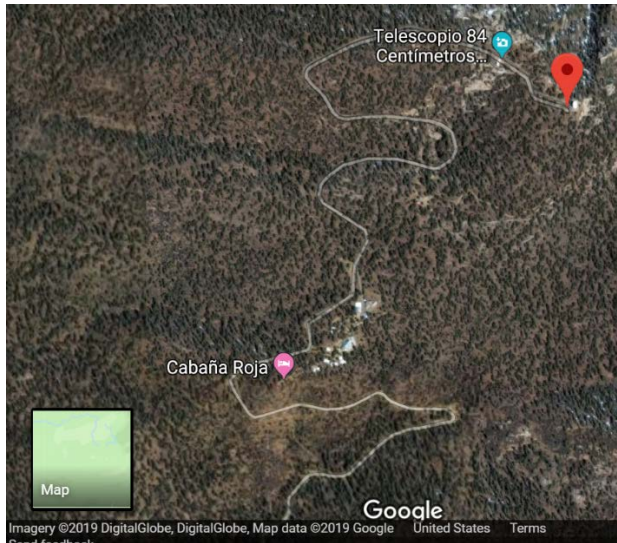


Commentary: This was a reoccupation of the CENAM site that agreed extremely well with Ludger's 2016 measurement (A10 value was 3 μ Gal higher than FG5X-220 measurement in 2016).

San Pedro Martir

Station ID	SanPedroMartir AA	Latitude	31.044	Longitude	-115.46393	Elev (m)	2805
Date	11/14/2018						
	Gravity at 25 cm	978740337	\pm	8.4	μ Gal		
	Gravity at 0 cm	978740461	\pm	9.0	μ Gal		
	Measured gravity (72.2 cm)	978740109	\pm	7.8	μ Gal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-4.756	\pm	0.010	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-4.999	\pm	0.010	μ Gal/cm		
	Second Order Term	0.001228504	\pm	9.55948E-05	μ Gal/cm ²		

San Pedro Martir AA was placed on the outside landing at the top of the concrete steps on the east side of the telescope building Observatorio Astronómico in the Parque Nacional Sierra de San Pedro Mártir, Baja California, Mexico. Permission to measure inside the building was not obtained. The site is on the north end of the landing, 44 cm from the top step, 71 cm from the outside edge. Note the large value of the gradient due to the mountaintop location and the location of the site on the edge of the landing.



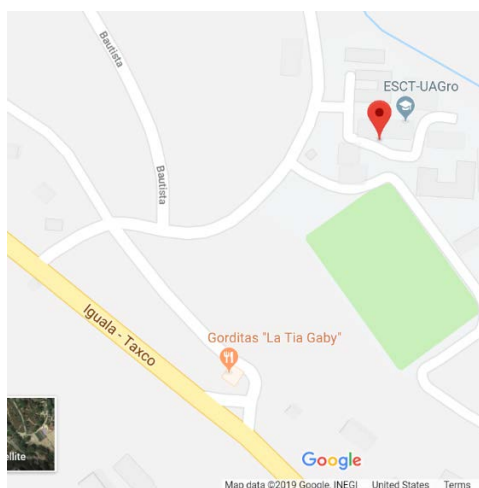


Commentary: Due to a file write error, only one absolute measurement was recorded digitally. In the notes for the site, the two measurements performed were within 1 μGal from each other, indicating a stable site and a good measurement.

Taxco

Station ID	Taxco AA	Latitude	18.47581	Longitude	-99.58056	Elev (m)	1220
Date	11/4/2018						
	Gravity at 25 cm	978147353	±	8.2	μGal		
	Gravity at 0 cm	978147420	±	8.7	μGal		
	Measured gravity (72.2 cm)	978147223	±	7.7	μGal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-2.786	±	0.008	μGal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.681	±	0.008	μGal/cm		
	Second Order Term	-0.000667048	±	7.57761E-05	μGal/cm ²		

Taxco AA is located at ECLT (Geology Campus) at the Universidad Autónoma de Guerrero in Taxco, Mexico. The site is located in a storage room that is the 2nd door from the east end of a 2-story building on the east side of campus. The site is 4.8 m N of the door and 0.6 m E of the W wall. The marker is a brass plug recessed 3mm into the concrete floor.



Commentary: This was a reoccupation of an FG5 site measured in 1996, and it agreed with the FG5 value extremely well (the 2018 A10 measurement came in 6 μGal lower than the 1996 measurement). This would indicate that the area is likely to be very stable over time and is an excellent gravity base. Three measurements were made, all with good agreement (within 5 μGal) of each other.

Tepic

Station ID	Tepic AA	Latitude	21.48453	Longitude	-104.84881	Elev (m)	920
Date	11/7/2018						
	Gravity at 25 cm	978460942	\pm	8.3	μ Gal		
	Gravity at 0 cm	978461014	\pm	8.5	μ Gal		
	Measured gravity (72.2 cm)	978460801	\pm	7.9	μ Gal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-3.075	\pm	0.005	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-2.844	\pm	0.005	μ Gal/cm		
	Second Order Term	0.001439553	\pm	4.87239E-05	μ Gal/cm ²		

Tepic AA is at the CICESE-UT3 facility in Tepic, Mexico, in a glass walled section of a laboratory room, and marked with a screw installed in the tile flooring.





Veracruz

Station ID	Veracruz AA	Latitude	19.16542	Longitude	-96.11494	Elev (m)	12
Date	10/29/2018						
	Gravity at 25 cm	978564667	\pm	8.2	μ Gal		
	Gravity at 0 cm	978564746	\pm	8.5	μ Gal		
	Measured gravity (72.2 cm)	978564520	\pm	7.9	μ Gal	simple average of total σ	
	<u>Linear Gravity Gradient</u>	-3.127	\pm	0.005	μ Gal/cm		
	<u>Quadratic Gravity Gradient</u>						
	First Order Term	-3.125	\pm	0.005	μ Gal/cm		
		-1.71599E-					
	Second Order Term	05	\pm	5.06757E-05	μ Gal/cm ²		

Veracruz AA is inside a geological laboratory at the Universidad Veracruzana about 1 meter away from the W wall.



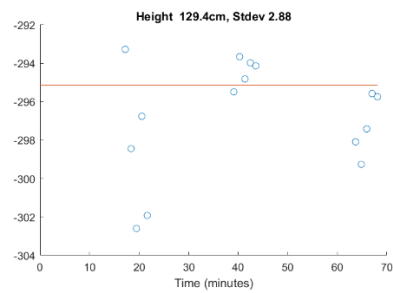
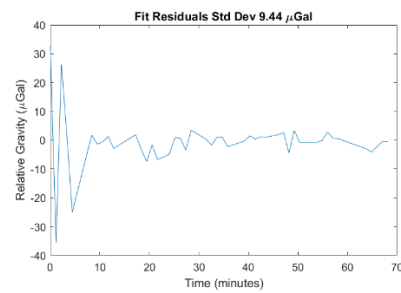
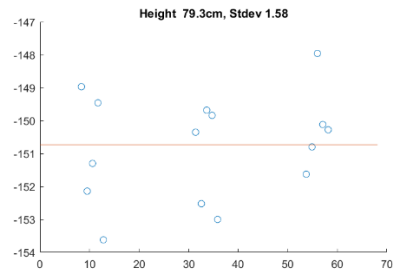
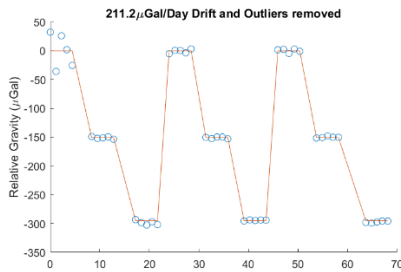
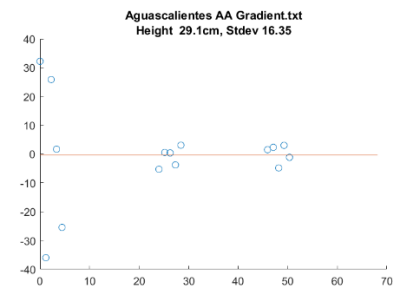
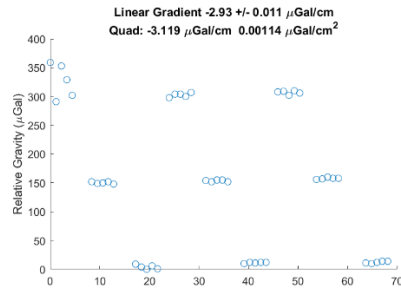
Commentary: The site had significant amount of background noise that is likely due to the noise characteristics of the area. Several different sites were tested by looking at the standard deviation of the CG5 while set on the ground. All of the sites displayed large SD values even on the other side of the parking lot and in separate buildings, indicating that the noise was present throughout the entire area, perhaps due to wave action on the nearby ocean. This was mitigated by running one long (48 set) measurement overnight and comparing with a second short measurement with good agreement (5 μ Gal).

Appendix I

Aguascalientes

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Aguascalientes AA	10/24/2018	21.85713	-102.28429	1880
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978175157	7.72	0.57	10
2	978175158.1	7.73	0.7	10
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.1	0.0	16.3	
2	79.3	-150.4	1.6	
3	129.4	-294.8	2.9	



Stn Heights: 10.2
 / CG-5 SOFTWARE VER.: 4.2
 / CG-5 SURVEY
 / Survey name: INEGI AA
 / Instrument S/N: 41384
 / Client: INEGI
 / Operator: APOLO
 / Date: 2018/10/24
 / Time: 14:25:56
 / LONG: 104.0000000 W
 / LAT: 24.0000000 N
 / ZONE: 13
 / GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
 / Gref: 0.000
 / Gcall: 8583.375
 / TiltxS: 616.068
 / TiltyS: 492.577
 / TiltxO: -4.536
 / TiltyO: 18.236
 / Tempco: -0.132
 / Drift: 0.707
 / DriftTime Start: 14:26:12
 / DriftDate Start: 2018/10/24

/ CG-5 OPTIONS
 / Tide Correction: YES
 / Cont. Tilt: YES
 / Auto Rejection: YES
 / Terrain Corr.: NO
 / Seismic Filter: YES
 / Raw Data: NO

/ CG-5 SETUP PARAMETERS
 / Gref: 0.000
 / Gcall: 8583.375
 / TiltxS: 616.068
 / TiltyS: 492.577
 / TiltxO: -4.536
 / TiltyO: 18.236
 / Tempco: -0.132
 / Drift: 0.707
 / DriftTime Start: 14:26:12
 / DriftDate Start: 2018/10/24

/ CG-5 OPTIONS
 / Tide Correction: YES
 / Cont. Tilt: YES
 / Auto Rejection: YES
 / Terrain Corr.: NO
 / Seismic Filter: YES
 / Raw Data: NO

Line	1.000N													
		-LAT-	-LONG-	-ALT.	-GRAV.	-SD.	-TILTX-	-TILTY-	-TEMP-	-TIDE-	-DUR-	-REJ-	-TIME-	
		-DEC.	-TIME+	-TERRAIN-	-DATE									
21.8571663	43366.60422	-102.2843323	1880.0000	2556.520	0.027	0.0	-2.1	-2.31	-0.047	60	8	14:31:28		
21.8571663	43366.60503	-102.2843323	1880.0000	2556.452	0.026	0.5	-2.6	-2.33	-0.046	60	0	14:32:38		
21.8571663	43366.60578	-102.2843323	1880.0000	2556.514	0.033	0.5	-3.3	-2.34	-0.045	60	0	14:33:43		
21.8571663	43366.60653	-102.2843323	1880.0000	2556.490	0.032	0.7	-3.5	-2.37	-0.044	60	0	14:34:48		
21.8571663	43366.60729	-102.2843323	1880.0000	2556.463	0.032	1.0	-3.9	-2.39	-0.044	60	0	14:35:54		
Line	2.000N													
		-LAT-	-LONG-	-ALT.	-GRAV.	-SD.	-TILTX-	-TILTY-	-TEMP-	-TIDE-	-DUR-	-REJ-	-TIME-	
		-DEC.	-TIME+	-TERRAIN-	-DATE									
21.8571663	43366.61001	-102.2843323	1880.0000	2556.313	0.033	-1.3	-0.9	-2.47	-0.040	60	0	14:39:49		

21.8571663 -102.2843323 1880.0000 2556.467 0.029 -1.2 0.1 -2.65 -0.004 60 4 15:21:49
43366.63913 0.0000 2018/10/24

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

21.8571663 -102.2843323 1880.0000 2556.317 0.026 -0.8 -0.3 -2.65 -0.002 60 1 15:25:12

43366.64147 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.318 0.040 -0.4 -0.7 -2.65 -0.001 60 3 15:26:22

43366.64228 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.321 0.031 -0.4 -1.2 -2.65 0.000 60 0 15:27:27

43366.64303 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.319 0.030 -0.4 -1.5 -2.65 0.001 60 0 15:28:32

43366.64378 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.319 0.037 -0.4 -2.5 -2.65 0.002 60 0 15:29:38

43366.64455 0.0000 2018/10/24

Line 3.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

21.8571663 -102.2843323 1880.0000 2556.172 0.031 -2.5 -3.1 -2.64 0.006 60 0 15:35:09

43366.64837 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.171 0.033 -2.3 -3.7 -2.64 0.007 60 0 15:36:19

43366.64918 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.173 0.032 -2.0 -4.2 -2.64 0.008 60 0 15:37:24

43366.64993 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.175 0.028 -1.9 -4.7 -2.64 0.010 60 0 15:38:29

43366.65068 0.0000 2018/10/24

21.8571663 -102.2843323 1880.0000 2556.175 0.033 -1.8 -5.0 -2.65 0.011 60 0 15:39:35

43366.65144 0.0000 2018/10/24

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 15:21:30

Project Name: Aguescalientes_20181024a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Aguascalientes AA
Site Code:
Lat: 21.85713 Long: -102.28429 Elev: 1880.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.930 μ Gal/cm
Nominal Air Pressure: 806.87 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Aguascalientes AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Aguascalientes AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	0.267	0.656	1.186	0.793	0.220	0.354	0.198	0.180	0.000	0.000	0.000
Phase (deg):	278.1	311.8	77.7	93.8	262.8	83.2	303.6	103.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/24/18
Time: 14:31:35
DOY: 297
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978175157.04 μ Gal
Set Scatter: 1.81 μ Gal
Measurement Precision: 0.57 μ Gal
Total Uncertainty: 7.72 μ Gal
Red/Blue Separation: 5.75 μ Gal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1192

Total Drops Rejected: 8
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings
Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections
Earth Tide (ETGTAB): -52.12 µGal
Ocean Load: -1.82 µGal
Polar Motion: -3.43 µGal
Barometric Pressure: 2.75 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.05 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.18 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 15:23:03

Project Name: Aguescalientes_20181024b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Aguascalientes AA
Site Code:
Lat: 21.85713 Long: -102.28429 Elev: 1880.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.930 µGal/cm
Nominal Air Pressure: 806.87 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Aguascalientes AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1

0.999853 1.216397 1.134890 0.0000 K1
1.719381 1.906462 1.161720 0.0000 N2
1.923766 1.976926 1.161720 0.0000 M2
1.991787 2.002885 1.161720 0.0000 S2
2.003032 2.182843 1.161720 0.0000 K2
2.753244 3.081254 1.07338 0.0000 M3
3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Aguascalientes AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.267	0.656	1.186	0.793	0.220	0.354	0.198	0.180	0.000	0.000	0.000
Phase (deg):	278.1	311.8	77.7	93.8	262.8	83.2	303.6	103.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/24/18
Time: 15:09:30
DOY: 297
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978175158.07 µGal
Set Scatter: 2.23 µGal
Measurement Precision: 0.70 µGal
Total Uncertainty: 7.73 µGal
Red/Blue Separation: 7.30 µGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1192
Total Drops Rejected: 8
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -20.83 µGal
Ocean Load: -1.62 µGal
Polar Motion: -3.43 µGal
Barometric Pressure: 2.81 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

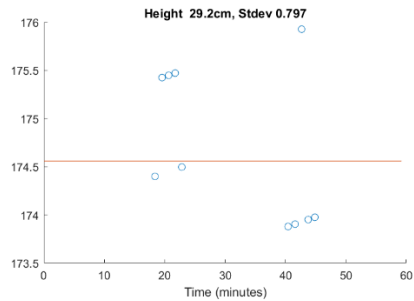
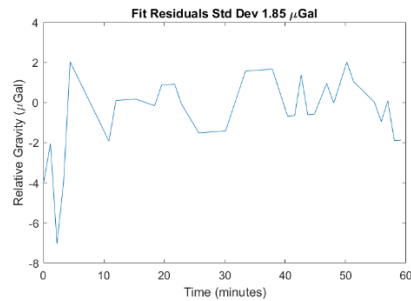
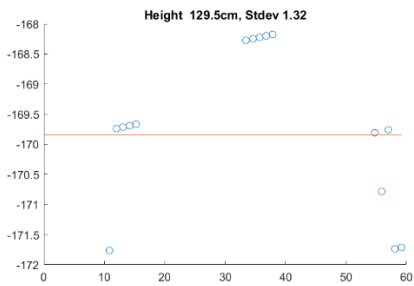
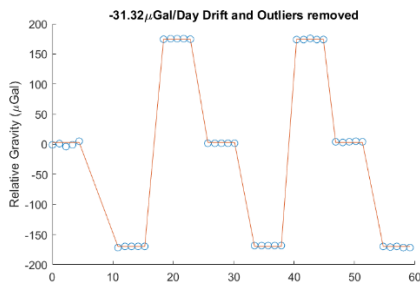
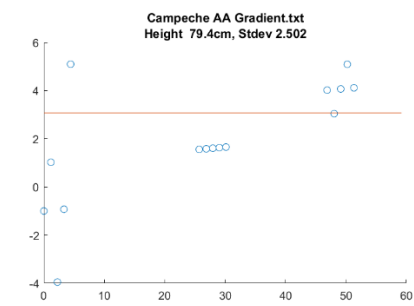
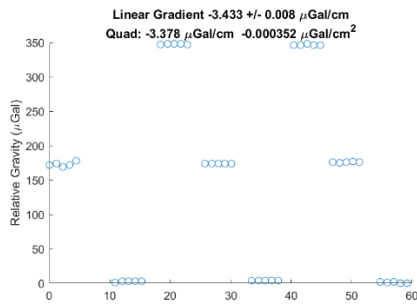
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.02 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.16 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal

Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Campeche

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Campeche AA	10/30/2018	19.82367	-90.56068	25
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978626257.1	7.7	0.21	6
2	978626253.8	7.7	0.28	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	79.4	0.0	2.5	
2	129.5	-172.9	1.3	
3	29.2	171.5	0.8	



Stn Heights: 10.3

/ CG-5 SURVEY
/ Survey name: UAC AA
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/10/30
/ Time: 21:45:27
/ LONG: 104.0000000 W
/ LAT: 24.0000000 N
/ ZONE: 13
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 14:26:12
/ DriftDate Start: 2018/10/24

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

19.8473892	-90.4764709	45.0000	3008.395	0.021	-0.4	2.9	-2.94	0.014	60	23	21:50:03
43372.90830	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.394	0.037	-0.8	3.9	-2.94	0.015	60	22	21:51:13
43372.90911	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.395	0.014	-0.7	3.1	-2.95	0.015	60	0	21:52:18
43372.90986	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.394	0.015	-0.7	2.6	-2.95	0.015	60	0	21:53:23
43372.91061	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.394	0.013	-0.7	2.3	-2.95	0.015	60	0	21:54:29
43372.91138	0.0000	2018/10/30									

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

19.8473892	-90.4764709	45.0000	3008.222	0.018	-2.9	1.1	-2.97	0.016	60	13	21:58:20
43372.91404	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.224	0.025	-2.6	0.9	-2.97	0.016	60	11	21:59:30
43372.91485	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.219	0.015	-2.3	0.0	-2.97	0.017	60	19	22:00:35
43372.91560	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.222	0.015	-2.4	-0.4	-2.98	0.017	60	2	22:01:40
43372.91636	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.228	0.018	-2.4	-0.9	-2.98	0.017	60	22	22:02:46
43372.91712	0.0000	2018/10/30									

Line 3.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

19.8473892	-90.4764709	45.0000	3008.051	0.015	-10.5	-5.2	-3.00	0.018	60	0	22:09:11
43372.92157	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.053	0.014	-10.5	-5.4	-3.00	0.018	60	0	22:10:21
43372.92238	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.053	0.015	-10.5	-5.6	-3.00	0.018	60	0	22:11:26
43372.92313	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.053	0.015	-10.6	-5.7	-3.00	0.019	60	0	22:12:31
43372.92388	0.0000	2018/10/30									
19.8473892	-90.4764709	45.0000	3008.053	0.015	-10.6	-5.8	-3.00	0.019	60	0	22:13:37
43372.92464	0.0000	2018/10/30									

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

19.8473892 -90.4764709 45.0000 3008.050 0.013 -8.2 3.7 -3.02 0.023 60 0 22:56:25
 43372.95432 0.0000 2018/10/30
 19.8473892 -90.4764709 45.0000 3008.050 0.015 -8.3 3.5 -3.02 0.023 60 0 22:57:31
 43372.95508 0.0000 2018/10/30

Micro-g LaCoste g Processing Report
 File Created: 12/13/18, 15:34:48

Project Name: Campeche_AA_20181029a
 g Acquisition Version: 4.041600
 g Processing Version: 9.120423

Company/Institution:
 Operator: Jeff Kanney

Station Data

Name: Campeche AA
 Site Code:
 Lat: 19.82367 Long: -90.56068 Elev: 25.00 m
 Setup Height: 0.00 cm
 Transfer Height: 72.20 cm
 Actual Height: 72.20 cm
 Gradient: -3.433 μ Gal/cm
 Nominal Air Pressure: 1010.25 mBar
 Barometric Admittance Factor: 0.30
 Polar Motion Coord: 0.1881 " 0.3004 "
 Earth Tide (ETGTAB) Selected
 Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
 Delta Factor Filename: C:\gData\OceanLoad-Campeche AA.dff
 Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Campeche AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	1.752	0.472	0.145	0.263	0.342	0.075	0.112	0.037	0.000	0.000	0.000
Phase (deg):	94.3	13.5	225.1	240.4	136.1	218.9	10.3	256.8	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 μ Gal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 10/30/18
 Time: 21:48:08
 DOY: 303
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978626257.11 μ Gal
 Set Scatter: 0.50 μ Gal
 Measurement Precision: 0.21 μ Gal
 Total Uncertainty: 7.70 μ Gal
 Red/Blue Separation: 16.93 μ Gal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6

Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 715
Total Drops Rejected: 5
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings
Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections
Earth Tide (ETGTAB): 11.21 µGal
Ocean Load: 0.91 µGal
Polar Motion: -3.65 µGal
Barometric Pressure: -1.21 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.01 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.09 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 15:29:31

Project Name: Campeche_AA_20181029b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Campeche AA
Site Code:
Lat: 19.82367 Long: -90.56068 Elev: 25.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.433 µGal/cm
Nominal Air Pressure: 1010.25 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1881 " 0.3004 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Campeche AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC

0.000002 0.249951 1.160000 0.0000 Long
 0.721500 0.906315 1.154250 0.0000 Q1
 0.921941 0.974188 1.154240 0.0000 O1
 0.989049 0.998028 1.149150 0.0000 P1
 0.999853 1.216397 1.134890 0.0000 K1
 1.719381 1.906462 1.161720 0.0000 N2
 1.923766 1.976926 1.161720 0.0000 M2
 1.991787 2.002885 1.161720 0.0000 S2
 2.003032 2.182843 1.161720 0.0000 K2
 2.753244 3.081254 1.07338 0.0000 M3
 3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Campeche AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.752	0.472	0.145	0.263	0.342	0.075	0.112	0.037	0.000	0.000	0.000
Phase (deg):	94.3	13.5	225.1	240.4	136.1	218.9	10.3	256.8	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 10/30/18
 Time: 22:11:20
 DOY: 303
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978626253.76 µGal
 Set Scatter: 0.67 µGal
 Measurement Precision: 0.28 µGal
 Total Uncertainty: 7.70 µGal
 Red/Blue Separation: 19.24 µGal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 716
 Total Drops Rejected: 4
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 12
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 15.39 µGal
 Ocean Load: 0.48 µGal
 Polar Motion: -3.65 µGal
 Barometric Pressure: -1.18 µGal
 Transfer Height: 0.00 µGal
 Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
 Earth Tide Factor: 0.001
 Average Earth Tide Uncertainty: 0.02 µGal
 Ocean Load Factor: 0.10

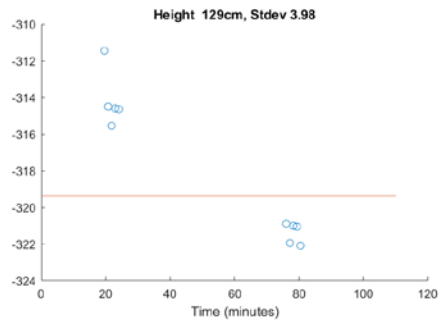
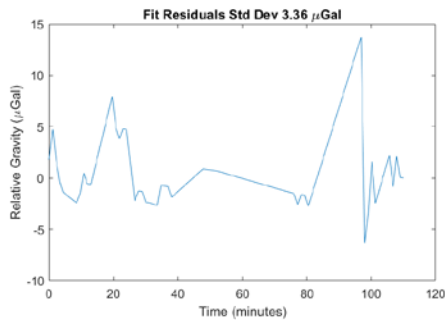
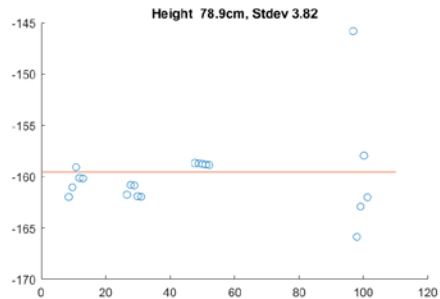
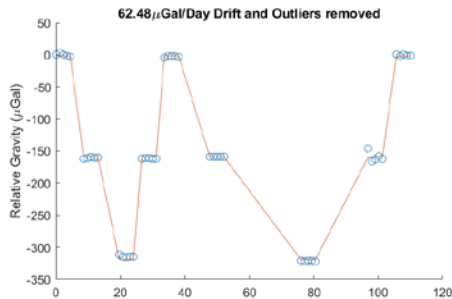
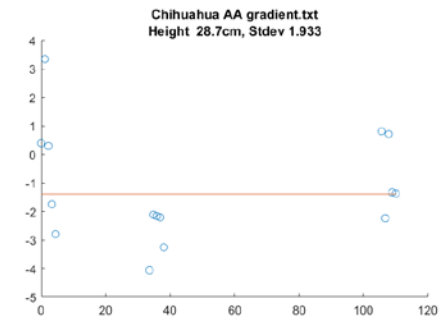
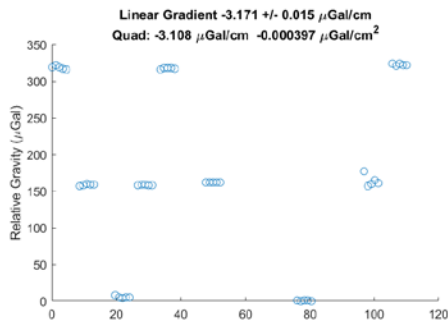
Average Ocean Load Uncertainty: 0.05 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Comments

Chihuahua

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Chihuahua AA	10/18/2018	28.70333	-106.13872	1525
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978732403.7	7.7	0.2	10
2	978732405.5	7.71	0.46	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	28.7	0.0	1.9	
2	78.9	-158.2	3.8	
3	129.0	-318.0	4.0	



Stn Heights: 9.8

/ CG-5 SOFTWARE VER.: 4.2
/ CG-5 SURVEY
/ Survey name: OFC
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/10/12
/ Time: 19:49:22
/ LONG: 102.0000000 W
/ LAT: 21.0000000 N
/ ZONE: 0
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 19:49:25
/ DriftDate Start: 2018/10/12

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: NO
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 19:49:25
/ DriftDate Start: 2018/10/12

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: NO
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

/ CG-5 SURVEY
/ Survey name: G.UACH
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/10/18
/ Time: 19:07:35
/ LONG: 102.0000000 W
/ LAT: 21.0000000 N
/ ZONE: 0
/ GMT DIFF.: 0.0

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN--DATE
28.7028561 -106.1395798 1542.7000 3105.466 0.023 -0.7 -0.8 -2.58 -0.009 5 0 19:35:13
43360.81482 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.462 0.015 -0.8 -0.8 -2.58 -0.009 5 0 19:35:26
43360.81497 0.0000 2018/10/18


```

28.7028561 -106.1395798 1542.7000 3105.309 0.015 0.0 0.4 -2.61 -0.034 60 0 20:26:35
43360.85043 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.309 0.010 0.0 0.0 -2.60 -0.034 60 0 20:27:40
43360.85118 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.309 0.013 0.0 -0.2 -2.60 -0.034 60 0 20:28:46
43360.85194 0.0000 2018/10/18

```

Line 3.000N

```

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

```

28.7028561 -106.1395798 1542.7000 3105.148 0.013 -7.4 -1.9 -2.61 -0.044 60 0 20:52:37
43360.86848 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.147 0.019 -6.7 -1.6 -2.60 -0.044 60 4 20:53:47
43360.86929 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.148 0.017 -7.4 -2.2 -2.60 -0.044 60 3 20:54:52
43360.87004 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.148 0.018 -7.6 -2.2 -2.60 -0.045 60 0 20:55:57
43360.87079 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.147 0.013 -8.1 -2.2 -2.60 -0.045 60 14 20:57:03
43360.87155 0.0000 2018/10/18

```

Line 2.000N

```

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

```

28.7028561 -106.1395798 1542.7000 3105.324 0.069 -5.6 2.1 -2.58 -0.050 60 25 21:13:26
43360.88291 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.304 0.047 -5.7 0.8 -2.58 -0.050 60 6 21:14:36
43360.88372 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.307 0.021 -5.9 0.5 -2.58 -0.051 60 14 21:15:41
43360.88447 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.312 0.040 -5.5 0.6 -2.58 -0.051 60 24 21:16:46
43360.88522 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.308 0.048 -5.6 0.7 -2.58 -0.051 60 22 21:17:52
43360.88599 0.0000 2018/10/18

```

Line 1.000N

```

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

```

28.7028561 -106.1395798 1542.7000 3105.471 0.024 -0.4 3.5 -2.59 -0.052 60 4 21:22:12
43360.88899 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.468 0.022 -0.3 2.7 -2.59 -0.053 60 3 21:23:22
43360.88980 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.471 0.036 -0.2 2.4 -2.59 -0.053 60 22 21:24:27
43360.89055 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.469 0.026 -0.1 2.0 -2.59 -0.053 60 12 21:25:32
43360.89130 0.0000 2018/10/18
28.7028561 -106.1395798 1542.7000 3105.469 0.017 -0.1 1.8 -2.59 -0.053 60 0 21:26:38
43360.89207 0.0000 2018/10/18

```

Micro-g LaCoste g Processing Report

File Created: 12/13/18, 15:41:43

Project Name: Chihuahua_aa_20181018a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Chihuahua AA
Site Code:
Lat: 28.70333 Long: -106.13872 Elev: 1525.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.171 µGal/cm
Nominal Air Pressure: 842.97 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.2044 " 0.3194 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Chihuahua AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
-------	------	-----------	------------

0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Chihuahua AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.459	0.539	1.490	0.926	0.201	0.450	0.178	0.192	0.000	0.000	0.000
Phase (deg):	294.4	312.9	69.3	85.1	290.8	72.1	304.7	96.0	0.0	0.0	0.0

Instrument Data
 Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99091480 nm
 Red Lock: 632.99193360 nm

Processing Results
 Date: 10/18/18
 Time: 19:56:22
 DOY: 291
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978732405.49 µGal
 Set Scatter: 1.12 µGal
 Measurement Precision: 0.46 µGal
 Total Uncertainty: 7.71 µGal
 Red/Blue Separation: 16.26 µGal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 718
 Total Drops Rejected: 2
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings
 Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 10
 Number of Drops: 120

Gravity Corrections
 Earth Tide (ETGTAB): -21.29 µGal
 Ocean Load: -0.78 µGal
 Polar Motion: -4.03 µGal
 Barometric Pressure: 2.57 µGal
 Transfer Height: 0.00 µGal
 Reference Xo: -0.00 µGal

Uncertainties
 Sigma Reject: 3.00
 Earth Tide Factor: 0.001
 Average Earth Tide Uncertainty: 0.02 µGal

Ocean Load Factor: 0.10
 Average Ocean Load Uncertainty: 0.08 μ Gal
 Barometric: 1.00 μ Gal
 Polar Motion: 0.05 μ Gal
 Laser: 0.05 μ Gal
 Clock: 0.50 μ Gal
 System Type: 7.00 μ Gal
 Tidal Swell: 0.00 μ Gal
 Water Table: 0.00 μ Gal
 Unmodeled: 0.00 μ Gal
 System Setup: 3.00 μ Gal
 Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Comments

 Micro-g LaCoste g Processing Report
 File Created: 12/13/18, 15:43:20

Project Name: Chihuahua_aa_20181018B
 g Acquisition Version: 4.041600
 g Processing Version: 9.120423

Company/Institution:
 Operator: Jeff Kanney

Station Data

Name: Chihuahua AA
 Site Code:
 Lat: 28.70333 Long: -106.13872 Elev: 1525.00 m
 Setup Height: 0.00 cm
 Transfer Height: 72.20 cm
 Actual Height: 72.20 cm
 Gradient: -3.171 μ Gal/cm
 Nominal Air Pressure: 842.97 mBar
 Barometric Admittance Factor: 0.30
 Polar Motion Coord: 0.2044 " 0.3194 "
 Earth Tide (ETGTAB) Selected
 Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
 Delta Factor Filename: C:\gData\OceanLoad-Chihuahua AA.dff
 Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Chihuahua AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	0.459	0.539	1.490	0.926	0.201	0.450	0.178	0.192	0.000	0.000	0.000
Phase (deg):	294.4	312.9	69.3	85.1	290.8	72.1	304.7	96.0	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 μ Gal
 Laser: L-Series (025)
 Blue Lock: 632.99091480 nm
 Red Lock: 632.99193360 nm

Processing Results

Date: 10/18/18

Time: 20:26:20
DOY: 291
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978732403.72 μGal
Set Scatter: 0.64 μGal
Measurement Precision: 0.20 μGal
Total Uncertainty: 7.70 μGal
Red/Blue Separation: 16.10 μGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1179
Total Drops Rejected: 21
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 10
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -34.93 μGal
Ocean Load: -0.82 μGal
Polar Motion: -4.03 μGal
Barometric Pressure: 2.47 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

Uncertainties

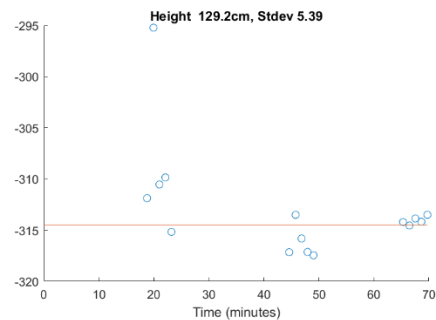
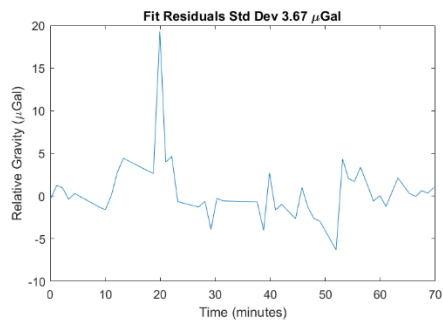
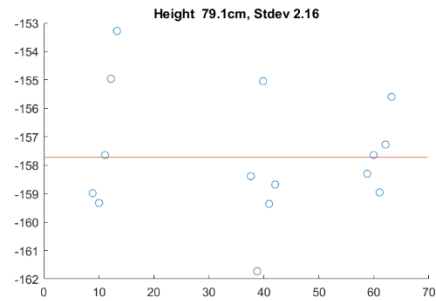
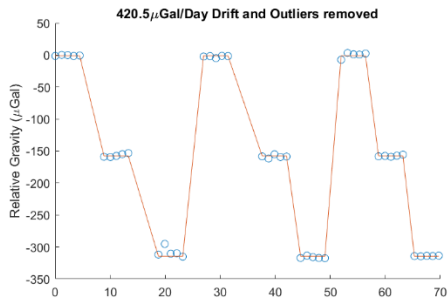
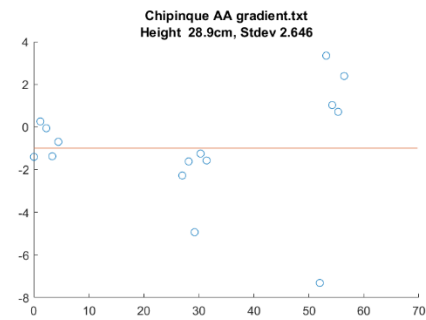
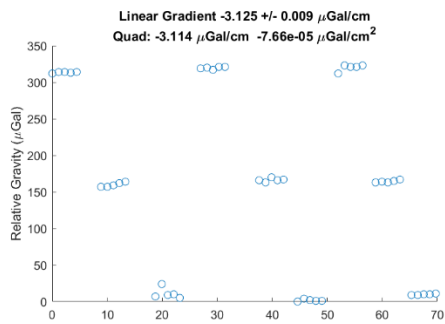
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.03 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.08 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

Chipinque

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Chipinque AA	10/21/2018	25.60756	-100.35555	1300
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978615010.8	7.71	0.4	8
2	978615007.6	7.7	0.26	8
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	28.9	0.0	2.6	
2	79.1	-156.7	2.2	
3	129.2	-313.5	5.4	




```

Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.6076164 -100.3555527 1291.2000 2993.938 0.026 -1.4 2.7 -2.67 0.106 60 13 16:19:41
43363.67925 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.939 0.017 -1.0 3.6 -2.67 0.106 60 1 16:20:51
43363.68006 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.936 0.014 -1.2 2.9 -2.67 0.107 60 0 16:21:56
43363.68081 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.940 0.017 -1.0 2.3 -2.67 0.107 60 0 16:23:01
43363.68156 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.940 0.048 -0.6 1.7 -2.67 0.107 60 33 16:24:07
43363.68232 0.0000 2018/10/21
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.6076164 -100.3555527 1291.2000 2993.785 0.016 -3.8 0.2 -2.67 0.108 60 0 16:30:20
43363.68663 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.782 0.015 -3.7 -0.4 -2.67 0.108 60 0 16:31:30
43363.68744 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.789 0.014 -3.6 -1.0 -2.66 0.109 60 0 16:32:35
43363.68819 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.785 0.013 -3.8 -1.0 -2.66 0.109 60 0 16:33:40
43363.68894 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.786 0.013 -3.8 -1.2 -2.65 0.109 60 1 16:34:46
43363.68970 0.0000 2018/10/21
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.6076164 -100.3555527 1291.2000 2993.619 0.021 0.2 4.7 -2.66 0.109 60 9 16:37:19
43363.69147 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.623 0.016 0.2 4.6 -2.66 0.109 60 0 16:38:29
43363.69228 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.621 0.014 0.1 4.3 -2.66 0.110 60 31 16:39:34
43363.69303 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.620 0.026 0.2 4.1 -2.66 0.110 60 27 16:40:39
43363.69378 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.620 0.013 0.0 3.9 -2.67 0.110 60 0 16:41:45
43363.69455 0.0000 2018/10/21
Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.6076164 -100.3555527 1291.2000 2993.931 0.080 0.9 4.7 -2.67 0.110 60 32 16:44:42
43363.69659 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.942 0.024 1.3 5.3 -2.67 0.110 60 16 16:45:52
43363.69740 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.940 0.014 1.6 4.8 -2.67 0.110 60 0 16:46:57
43363.69815 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.940 0.026 2.0 4.2 -2.67 0.110 60 9 16:48:02
43363.69890 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.942 0.017 1.9 3.7 -2.67 0.110 60 0 16:49:08
43363.69967 0.0000 2018/10/21
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.6076164 -100.3555527 1291.2000 2993.782 0.021 -2.8 -3.2 -2.66 0.110 60 21 16:51:30
43363.70131 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.783 0.022 -2.6 -3.1 -2.66 0.110 60 23 16:52:40
43363.70212 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.782 0.016 -2.6 -3.3 -2.67 0.110 60 0 16:53:45
43363.70287 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.784 0.016 -2.8 -3.4 -2.67 0.110 60 2 16:54:50
43363.70362 0.0000 2018/10/21
25.6076164 -100.3555527 1291.2000 2993.786 0.015 -4.5 -3.5 -2.67 0.110 60 8 16:55:56
43363.70438 0.0000 2018/10/21
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.6076164 -100.3555527 1291.2000 2993.628 0.018 -0.7 -4.9 -2.67 0.110 60 4 16:58:01
43363.70582 0.0000 2018/10/21

```

25.6076164	-100.3555527	1291.2000	2993.628	0.012	0.4	-5.0	-2.68	0.110	60	0	16:59:11
43363.70663	0.0000	2018/10/21									
25.6076164	-100.3555527	1291.2000	2993.629	0.015	0.6	-5.3	-2.68	0.110	60	0	17:00:16
43363.70738	0.0000	2018/10/21									
25.6076164	-100.3555527	1291.2000	2993.629	0.011	0.7	-5.7	-2.68	0.110	60	0	17:01:21
43363.70814	0.0000	2018/10/21									
25.6076164	-100.3555527	1291.2000	2993.630	0.014	0.8	-5.6	-2.68	0.110	60	0	17:02:27
43363.70890	0.0000	2018/10/21									

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 15:58:01

Project Name: Chipinque_AA_20181021a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Chipinque AA
Site Code:
Lat: 25.60756 Long: -100.35555 Elev: 1300.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.125 μ Gal/cm
Nominal Air Pressure: 866.52 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Chipinque AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Chipinque AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	0.156	0.410	0.847	0.493	0.093	0.248	0.123	0.110	0.000	0.000	0.000
Phase (deg):	82.3	322.8	67.1	84.4	239.9	72.0	310.8	93.9	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/21/18
Time: 15:46:03
DOY: 294
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978615010.83 μ Gal
Set Scatter: 1.12 μ Gal
Measurement Precision: 0.40 μ Gal
Total Uncertainty: 7.71 μ Gal

Red/Blue Separation: 5.21 μ Gal
Number of Sets Collected: 8
Number of Sets Processed: 8
Set #s Processed: 1,2,3,4,5,6,7,8
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 935
Total Drops Rejected: 25
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 10
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 93.68 μ Gal
Ocean Load: -0.31 μ Gal
Polar Motion: -4.00 μ Gal
Barometric Pressure: 3.68 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.03 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Comments

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 15:59:23

Project Name: Chipinque_AA_20181021b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Chipinque AA
Site Code:
Lat: 25.60756 Long: -100.35555 Elev: 1300.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.125 μ Gal/cm
Nominal Air Pressure: 866.52 mBar
Barometric Admittance Factor: 0.30

Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Chipinque AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Chipinque AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.156	0.410	0.847	0.493	0.093	0.248	0.123	0.110	0.000	0.000	0.000
Phase (deg):	82.3	322.8	67.1	84.4	239.9	72.0	310.8	93.9	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/21/18
Time: 16:24:13
DOY: 294
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978615007.61 µGal
Set Scatter: 0.75 µGal
Measurement Precision: 0.26 µGal
Total Uncertainty: 7.70 µGal
Red/Blue Separation: 3.10 µGal
Number of Sets Collected: 10
Number of Sets Processed: 8
Set #s Processed: 2,3,4,5,6,7,8,9
Number of Sets NOT Processed: 2
Set #s NOT Processed: 1,10
Number of Drops/Set: 120
Total Drops Accepted: 950
Total Drops Rejected: 10
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 10
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 106.08 µGal
Ocean Load: -0.24 µGal
Polar Motion: -4.00 µGal
Barometric Pressure: 3.65 µGal
Transfer Height: 0.00 µGal

Reference Xo: -0.00 μGal

Uncertainties

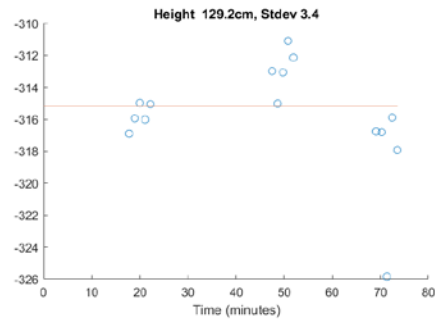
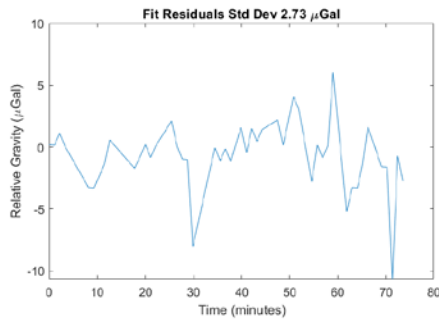
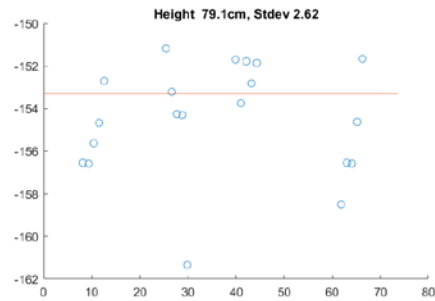
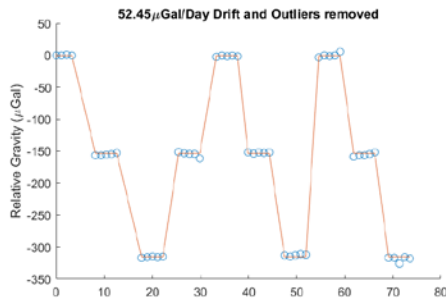
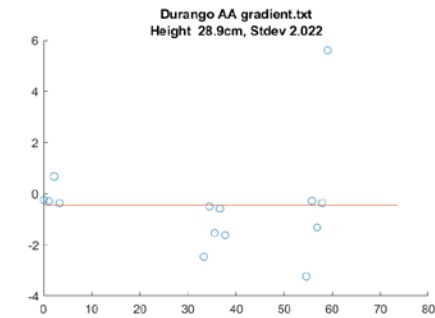
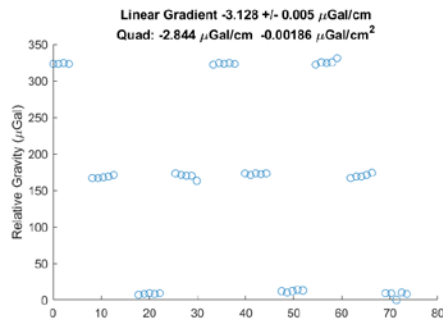
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.11 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.02 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

Durango

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Durango AA	10/19/2018	24.06745	-104.60708	1880
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978316895.5	7.76	1	6
2	978316896.5	7.72	0.58	24
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	28.9	0.0	2.0	
2	79.1	-152.8	2.6	
3	129.2	-314.7	3.4	




```

Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
24.0674171 -104.6071930 1863.1000 2689.664 0.027 0.0 3.3 -2.61 -0.061 60 16 23:20:19
43361.97089 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.667 0.016 0.5 3.4 -2.61 -0.061 60 0 23:21:29
43361.97170 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.666 0.016 0.8 3.2 -2.61 -0.060 60 0 23:22:34
43361.97245 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.667 0.018 1.0 2.9 -2.61 -0.060 60 4 23:23:39
43361.97320 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.673 0.031 1.1 2.6 -2.61 -0.060 60 17 23:24:45
43361.97396 0.0000 2018/10/19
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
24.0674171 -104.6071930 1863.1000 2689.509 0.027 -0.7 4.6 -2.61 -0.059 60 6 23:27:34
43361.97591 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.511 0.016 -0.6 4.8 -2.61 -0.059 60 0 23:28:44
43361.97672 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.511 0.016 -0.6 4.3 -2.61 -0.059 60 0 23:29:49
43361.97747 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.513 0.018 -0.6 3.6 -2.61 -0.058 60 15 23:30:54
43361.97822 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.516 0.019 -0.3 2.8 -2.61 -0.058 60 10 23:32:00
43361.97899 0.0000 2018/10/19
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
24.0674171 -104.6071930 1863.1000 2689.351 0.032 -8.8 3.6 -2.62 -0.057 60 2 23:34:50
43361.98095 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.351 0.026 -8.5 4.0 -2.62 -0.057 60 0 23:36:00
43361.98176 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.342 0.036 -8.5 4.0 -2.61 -0.057 60 23 23:37:05
43361.98251 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.352 0.023 -8.6 3.7 -2.62 -0.056 60 0 23:38:10
43361.98326 0.0000 2018/10/19
24.0674171 -104.6071930 1863.1000 2689.350 0.016 -8.7 3.5 -2.62 -0.056 60 0 23:39:16
43361.98402 0.0000 2018/10/19

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:03:47

Project Name: Duragno_AA_20181019B
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Durango AA
Site Code:
Lat: 24.06745 Long: -104.60708 Elev: 1880.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.128 µGal/cm
Nominal Air Pressure: 806.87 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.2044 " 0.3194 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Durango AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1

0.999853 1.216397 1.134890 0.0000 K1
1.719381 1.906462 1.161720 0.0000 N2
1.923766 1.976926 1.161720 0.0000 M2
1.991787 2.002885 1.161720 0.0000 S2
2.003032 2.182843 1.161720 0.0000 K2
2.753244 3.081254 1.07338 0.0000 M3
3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Durango AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.785	0.799	1.506	0.978	0.296	0.454	0.250	0.213	0.000	0.000	0.000
Phase (deg):	292.7	305.0	76.5	92.6	285.5	81.0	299.5	103.1	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/19/18
Time: 21:52:28
DOY: 292
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978316895.46 µGal
Set Scatter: 2.45 µGal
Measurement Precision: 1.00 µGal
Total Uncertainty: 7.76 µGal
Red/Blue Separation: 14.44 µGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 716
Total Drops Rejected: 4
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 6
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -61.79 µGal
Ocean Load: -0.70 µGal
Polar Motion: -3.67 µGal
Barometric Pressure: 2.19 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.06 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.07 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal

Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:06:07

Project Name: Duragno_AA_20181019C_OVERNIGHT
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Durango AA
Site Code:
Lat: 24.06745 Long: -104.60708 Elev: 1880.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.128 µGal/cm
Nominal Air Pressure: 806.87 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.2044 " 0.3194 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Durango AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Durango AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.785	0.799	1.506	0.978	0.296	0.454	0.250	0.213	0.000	0.000	0.000
Phase (deg):	292.7	305.0	76.5	92.6	285.5	81.0	299.5	103.1	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/20/18
Time: 03:43:06
DOY: 293
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978316896.49 µGal
Set Scatter: 2.83 µGal
Measurement Precision: 0.58 µGal

Total Uncertainty: 7.72 μ Gal
Red/Blue Separation: 16.84 μ Gal
Number of Sets Collected: 24
Number of Sets Processed: 24
Set #s Processed: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 2801
Total Drops Rejected: 79
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 60 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 24
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 5.88 μ Gal
Ocean Load: 0.37 μ Gal
Polar Motion: -3.67 μ Gal
Barometric Pressure: 2.76 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

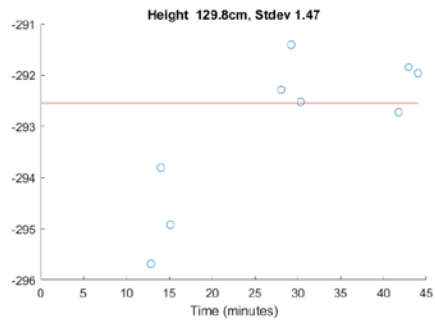
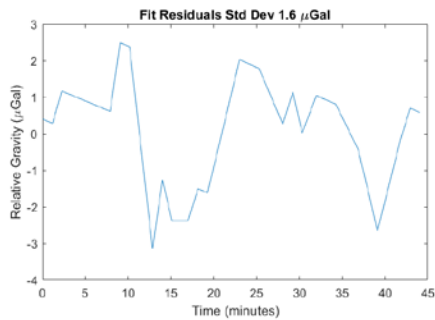
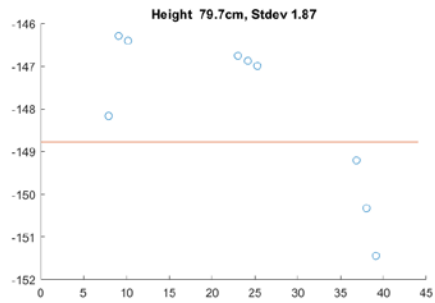
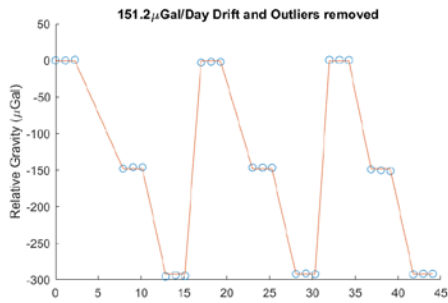
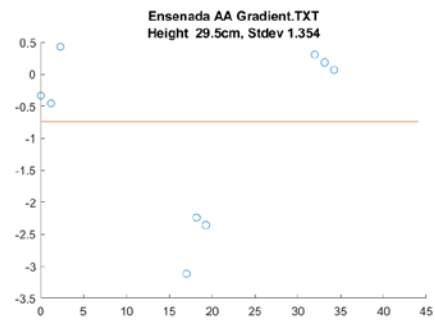
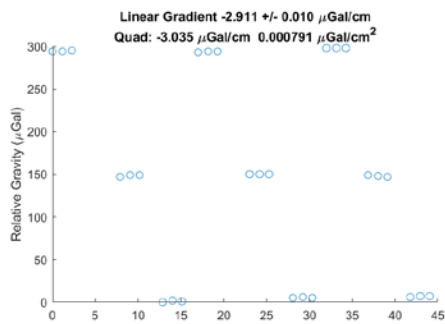
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.01 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.04 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Ensenada

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Ensenada AA	11/13/2018	31.86761	-116.66423	40
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	979446650.5	7.71	0.28	8
2	979446654.4	7.72	0.43	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.5	0.0	1.4	
2	79.7	-148.0	1.9	
3	129.8	-291.8	1.5	



Stn Heights: 10.6

/ CG-5 SURVEY
/ Survey name: ENSENADA AA
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/11/13
/ Time: 20:45:30
/ LONG: 116.6643219 W
/ LAT: 31.8677540 N
/ ZONE: 0
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 22:46:07
/ DriftDate Start: 2018/11/06

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.526 0.029 1.2 -0.7 -2.95 -0.034 60 0 21:48:52
43385.90748 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.526 0.014 2.1 0.2 -2.96 -0.034 60 0 21:50:02
43385.90829 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.527 0.027 2.7 0.0 -2.98 -0.034 60 0 21:51:08
43385.90905 0.0000 2018/11/13

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.379 0.029 0.2 -1.3 -3.07 -0.033 60 2 21:56:46
43385.91296 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.381 0.018 0.5 -1.2 -3.08 -0.033 60 0 21:57:56
43385.91377 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.381 0.017 0.7 -1.8 -3.09 -0.033 60 0 21:59:02
43385.91453 0.0000 2018/11/13

Line 3.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.232 0.024 -2.7 -0.1 -3.12 -0.033 60 2 22:01:43
43385.91639 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.234 0.017 -2.3 -0.1 -3.13 -0.033 60 0 22:02:53
43385.91720 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.233 0.023 -2.2 -0.7 -3.14 -0.032 60 0 22:03:59
43385.91796 0.0000 2018/11/13

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.525 0.023 -2.0 1.9 -3.16 -0.032 60 0 22:05:52
43385.91927 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.526 0.024 -1.5 3.0 -3.16 -0.032 60 0 22:07:02
43385.92008 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.526 0.023 -1.3 2.8 -3.17 -0.032 60 0 22:08:08
43385.92084 0.0000 2018/11/13

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

31.8677540 -116.6643524 50.2000 3839.382 0.029 2.6 2.3 -3.19 -0.031 60 0 22:11:53
43385.92344 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.382 0.026 2.8 1.8 -3.19 -0.031 60 0 22:13:03
43385.92425 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.382 0.023 2.7 1.4 -3.20 -0.031 60 0 22:14:09
43385.92501 0.0000 2018/11/13
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.237 0.023 3.9 3.5 -3.20 -0.031 60 0 22:16:56
43385.92694 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.238 0.016 4.2 3.6 -3.20 -0.031 60 0 22:18:06
43385.92775 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.237 0.023 4.0 3.1 -3.21 -0.031 60 0 22:19:12
43385.92851 0.0000 2018/11/13
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.530 0.019 -0.9 0.0 -3.21 -0.030 60 0 22:20:51
43385.92966 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.530 0.016 -0.3 0.9 -3.21 -0.030 60 0 22:22:01
43385.93046 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.530 0.017 -0.1 0.5 -3.21 -0.030 60 0 22:23:07
43385.93123 0.0000 2018/11/13
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.381 0.020 0.7 4.7 -3.21 -0.030 60 0 22:25:43
43385.93303 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.380 0.026 0.7 4.5 -3.21 -0.030 60 0 22:26:53
43385.93384 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.379 0.022 0.7 4.2 -3.22 -0.030 60 0 22:27:59
43385.93460 0.0000 2018/11/13
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.8677540 -116.6643524 50.2000 3839.238 0.023 -7.1 -6.5 -3.22 -0.029 60 0 22:30:39
43385.93645 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.239 0.020 -6.8 -6.6 -3.22 -0.029 60 0 22:31:49
43385.93726 0.0000 2018/11/13
31.8677540 -116.6643524 50.2000 3839.239 0.022 -6.8 -6.8 -3.22 -0.029 60 0 22:32:55
43385.93802 0.0000 2018/11/13

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:11:32

Project Name: Ensenada_AA_20181113a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Ensenada AA
Site Code:
Lat: 31.86761 Long: -116.66423 Elev: 40.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.911 µGal/cm
Nominal Air Pressure: 1008.45 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Ensenada AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC

0.000002 0.249951 1.160000 0.0000 Long
0.721500 0.906315 1.154250 0.0000 Q1
0.921941 0.974188 1.154240 0.0000 O1
0.989049 0.998028 1.149150 0.0000 P1
0.999853 1.216397 1.134890 0.0000 K1
1.719381 1.906462 1.161720 0.0000 N2
1.923766 1.976926 1.161720 0.0000 M2
1.991787 2.002885 1.161720 0.0000 S2
2.003032 2.182843 1.161720 0.0000 K2
2.753244 3.081254 1.07338 0.0000 M3
3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Ensenada AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	2.229	1.035	3.515	2.143	0.643	1.104	0.363	0.422	0.000	0.000	0.000
Phase (deg):	274.0	301.4	77.7	93.2	297.7	78.9	299.0	102.4	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/13/18
Time: 20:58:23
DOY: 317
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 979446650.49 µGal
Set Scatter: 0.80 µGal
Measurement Precision: 0.28 µGal
Total Uncertainty: 7.71 µGal
Red/Blue Separation: 7.27 µGal
Number of Sets Collected: 8
Number of Sets Processed: 8
Set #s Processed: 1,2,3,4,5,6,7,8
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 960
Total Drops Rejected: 0
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -40.97 µGal
Ocean Load: -3.34 µGal
Polar Motion: -3.09 µGal
Barometric Pressure: 2.04 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.04 µGal
Ocean Load Factor: 0.10

Average Ocean Load Uncertainty: 0.33 μ Gal
 Barometric: 1.00 μ Gal
 Polar Motion: 0.05 μ Gal
 Laser: 0.05 μ Gal
 Clock: 0.50 μ Gal
 System Type: 7.00 μ Gal
 Tidal Swell: 0.00 μ Gal
 Water Table: 0.00 μ Gal
 Unmodeled: 0.00 μ Gal
 System Setup: 3.00 μ Gal
 Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Micro-g LaCoste g Processing Report
 File Created: 12/13/18, 16:13:02

Project Name: Ensenada_AA_20181113b
 g Acquisition Version: 4.041600
 g Processing Version: 9.120423

Company/Institution:
 Operator: Jeff Kanney

Station Data

Name: Ensenada AA
 Site Code:
 Lat: 31.86761 Long: -116.66423 Elev: 40.00 m
 Setup Height: 0.00 cm
 Transfer Height: 72.20 cm
 Actual Height: 72.20 cm
 Gradient: -2.911 μ Gal/cm
 Nominal Air Pressure: 1008.45 mBar
 Barometric Admittance Factor: 0.30
 Polar Motion Coord: 0.1777 " 0.2904 "
 Earth Tide (ETGTAB) Selected
 Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
 Delta Factor Filename: C:\gData\OceanLoad-Ensenada AA.dff
 Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Ensenada AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	2.229	1.035	3.515	2.143	0.643	1.104	0.363	0.422	0.000	0.000	0.000
Phase (deg):	274.0	301.4	77.7	93.2	297.7	78.9	299.0	102.4	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 μ Gal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 11/13/18
 Time: 21:28:39
 DOY: 317
 Year: 2018

Time Offset (D h:m:s): 0 0:0:0
Gravity: 979446654.43 μGal
Set Scatter: 1.04 μGal
Measurement Precision: 0.43 μGal
Total Uncertainty: 7.72 μGal
Red/Blue Separation: 4.64 μGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 718
Total Drops Rejected: 2
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -37.17 μGal
Ocean Load: -2.95 μGal
Polar Motion: -3.09 μGal
Barometric Pressure: 1.96 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

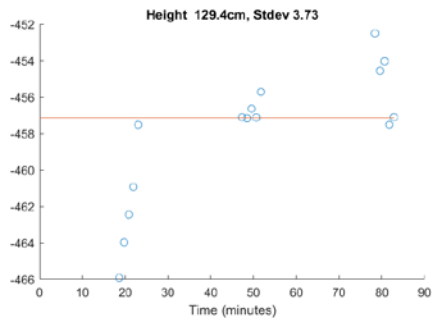
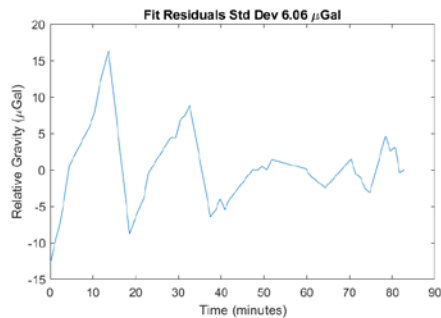
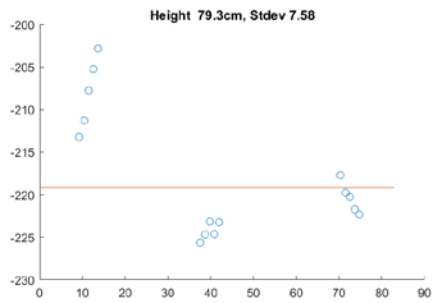
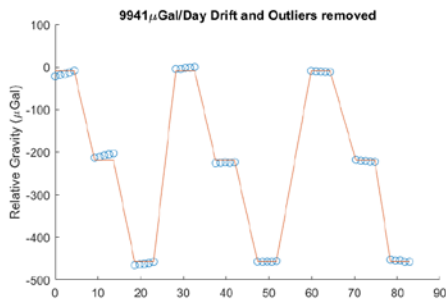
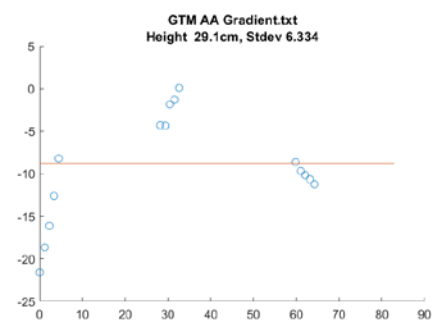
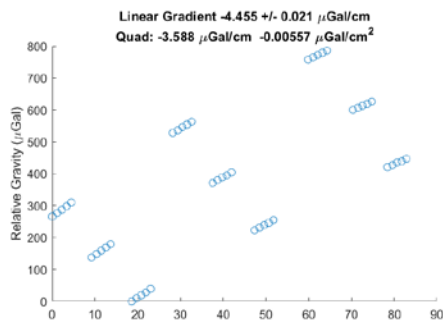
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.04 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.29 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

GTM

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
GTM AA	10/27/2018	18.98659	-97.31414	4577
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	977437809.8	7.7	0.29	6
2	977437809.5	7.7	0.29	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.1	0.0	6.3	
2	79.3	-210.4	7.6	
3	129.4	-448.4	3.7	



Line 1.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 18.9865837 -97.3140869 4560.0000 1817.080 0.020 1.5 -0.1 -2.57 -0.001 60 1 17:10:18
 43369.71434 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.088 0.020 1.8 -0.6 -2.57 0.000 60 0 17:11:28
 43369.71515 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.098 0.019 2.0 -0.9 -2.57 0.000 60 0 17:12:33
 43369.71590 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.106 0.016 2.1 -1.2 -2.57 0.001 60 0 17:13:38
 43369.71665 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.115 0.015 2.1 -1.5 -2.57 0.001 60 0 17:14:44
 43369.71742 0.0000 2018/10/27

Line 2.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 18.9865837 -97.3140869 4560.0000 1816.923 0.019 -4.0 3.1 -2.57 0.005 60 2 17:19:37
 43369.72080 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.932 0.026 -3.8 3.5 -2.57 0.006 60 12 17:20:47
 43369.72161 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.941 0.019 -3.7 3.0 -2.57 0.006 60 0 17:21:52
 43369.72236 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.947 0.018 -3.5 2.4 -2.57 0.007 60 4 17:22:57
 43369.72311 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.956 0.018 -3.3 2.2 -2.57 0.008 60 1 17:24:03
 43369.72387 0.0000 2018/10/27

Line 3.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 18.9865837 -97.3140869 4560.0000 1816.775 0.018 -3.6 -3.9 -2.58 0.012 60 2 17:29:26
 43369.72761 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.783 0.022 -3.5 -4.4 -2.58 0.012 60 3 17:30:36
 43369.72842 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.791 0.022 -3.3 -4.9 -2.58 0.013 60 0 17:31:41
 43369.72917 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.798 0.019 -3.1 -5.3 -2.57 0.014 60 1 17:32:46
 43369.72992 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1816.807 0.018 -3.1 -5.7 -2.57 0.014 60 0 17:33:52
 43369.73068 0.0000 2018/10/27

Line 1.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 18.9865837 -97.3140869 4560.0000 1817.310 0.014 -2.2 -0.7 -2.58 0.020 60 0 17:41:58
 43369.73630 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.317 0.020 -1.8 -1.0 -2.58 0.020 60 0 17:43:08
 43369.73711 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.324 0.019 -1.4 -1.3 -2.57 0.021 60 0 17:44:13
 43369.73786 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.331 0.016 -1.3 -1.7 -2.57 0.022 60 0 17:45:18
 43369.73861 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.338 0.015 -1.3 -1.8 -2.57 0.022 60 0 17:46:24
 43369.73937 0.0000 2018/10/27

Line 2.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 18.9865837 -97.3140869 4560.0000 1817.152 0.017 -3.4 -2.3 -2.58 0.027 60 0 17:52:27
 43369.74357 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.158 0.018 -3.1 -2.3 -2.57 0.028 60 0 17:53:37
 43369.74437 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.165 0.019 -2.7 -2.8 -2.57 0.028 60 0 17:54:42
 43369.74513 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.171 0.021 -2.2 -3.1 -2.57 0.029 60 1 17:55:47
 43369.74588 0.0000 2018/10/27
 18.9865837 -97.3140869 4560.0000 1817.178 0.036 -2.3 -3.7 -2.57 0.029 60 4 17:56:53
 43369.74664 0.0000 2018/10/27

Line 3.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 18.9865837 -97.3140869 4560.0000 1816.973 0.016 -6.2 0.9 -2.57 0.032 60 0 18:00:32
 43369.74917 0.0000 2018/10/27

18.9865837	-97.3140869	4560.0000	1816.979	0.018	-5.9	0.4	-2.58	0.032	60	0	18:01:42
43369.74998	0.0000	2018/10/27									
18.9865837	-97.3140869	4560.0000	1816.987	0.016	-5.7	0.0	-2.58	0.033	60	0	18:02:47
43369.75073	0.0000	2018/10/27									
18.9865837	-97.3140869	4560.0000	1816.991	0.021	-5.5	-0.3	-2.57	0.034	60	0	18:03:52
43369.75148	0.0000	2018/10/27									
18.9865837	-97.3140869	4560.0000	1816.999	0.017	-5.6	-0.6	-2.57	0.034	60	0	18:04:58
43369.75224	0.0000	2018/10/27									

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:23:00

Project Name: GTM_AA_20181027a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: GTM AA
Site Code:
Lat: 18.98658 Long: -97.31408 Elev: 4560.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -4.455 μ Gal/cm
Nominal Air Pressure: 572.73 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-GTM AA.dff

Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-GTM AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	1.287	0.444	0.477	0.319	0.302	0.144	0.107	0.088	0.000	0.000	0.000
Phase (deg):	119.8	352.5	88.8	107.4	179.9	103.7	341.3	107.9	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/27/18
Time: 17:07:38
DOY: 300
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 977437809.37 μ Gal

Set Scatter: 0.71 µGal
Measurement Precision: 0.29 µGal
Total Uncertainty: 7.70 µGal
Red/Blue Separation: 7.56 µGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 719
Total Drops Rejected: 1
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -8.18 µGal
Ocean Load: 1.12 µGal
Polar Motion: -3.31 µGal
Barometric Pressure: 5.40 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.01 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.11 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report

File Created: 12/13/18, 16:24:17

Project Name: GTM_AA_20181027b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: GTM AA
Site Code:
Lat: 18.98658 Long: -97.31408 Elev: 4560.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -4.455 µGal/cm
Nominal Air Pressure: 572.73 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "

Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-GTM AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-GTM AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.287	0.444	0.477	0.319	0.302	0.144	0.107	0.088	0.000	0.000	0.000
Phase (deg):	119.8	352.5	88.8	107.4	179.9	103.7	341.3	107.9	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/27/18
Time: 17:42:08
DOY: 300
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 977437809.11 µGal
Set Scatter: 0.70 µGal
Measurement Precision: 0.29 µGal
Total Uncertainty: 7.70 µGal
Red/Blue Separation: 4.22 µGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 718
Total Drops Rejected: 2
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 15.13 µGal
Ocean Load: 1.11 µGal
Polar Motion: -3.31 µGal
Barometric Pressure: 5.37 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

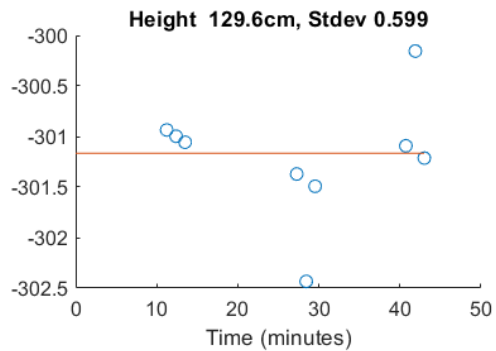
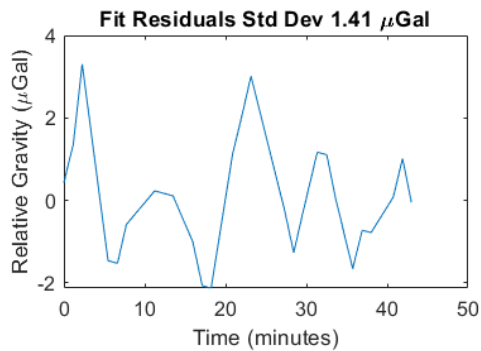
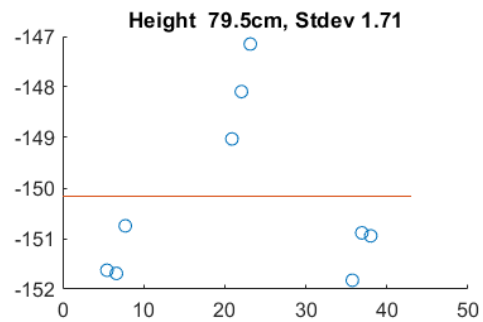
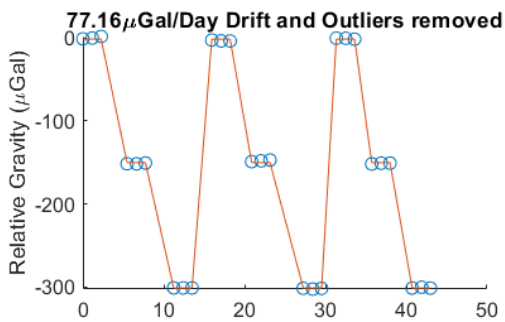
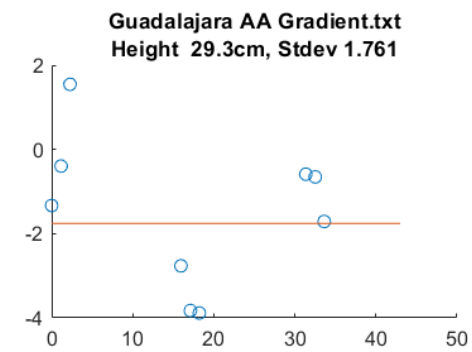
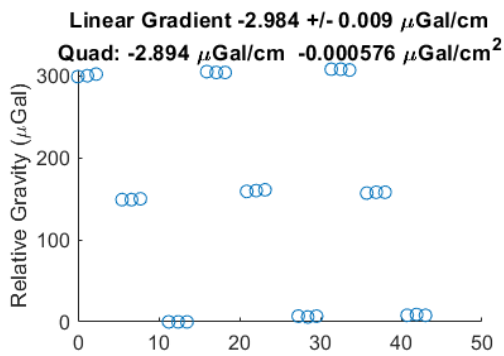
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.02 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.11 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Guadalajara

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Guadalajara AA	11/6/2018	20.77931	-103.60461	1575
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978222940.6	7.75	0.86	8
2	978222945.5	7.71	0.32	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.3	0.0	1.8	
2	79.5	-148.4	1.7	
3	129.6	-299.4	0.6	



Stn Heights: 10.4
 / CG-5 SOFTWARE VER.: 4.2
 / CG-5 SURVEY
 / Survey name: GUADALAJARA AA
 / Instrument S/N: 41384
 / Client: INEGI
 / Operator: APOLO
 / Date: 2018/11/ 6
 / Time: 22:45:56
 / LONG: 104.0000000 W
 / LAT: 24.0000000 N
 / ZONE: 13
 / GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
 / Gref: 0.000
 / Gcall: 8583.375
 / TiltxS: 616.068
 / TiltyS: 492.577
 / TiltxO: -4.536
 / TiltyO: 18.236
 / Tempco: -0.132
 / Drift: 0.707
 / DriftTime Start: 22:46:07
 / DriftDate Start: 2018/11/06

/ CG-5 OPTIONS
 / Tide Correction: YES
 / Cont. Tilt: YES
 / Auto Rejection: YES
 / Terrain Corr.: NO
 / Seismic Filter: YES
 / Raw Data: NO

Line 1.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN--DATE
 20.7793808 -103.6047211 1587.5000 2614.297 0.009 -6.0 -2.3 -2.74 -0.092 60 0 23:34:22
 43378.98063 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2614.298 0.009 -5.7 -2.9 -2.75 -0.092 60 0 23:35:32
 43378.98144 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2614.300 0.006 -5.6 -3.4 -2.75 -0.092 60 0 23:36:38
 43378.98220 0.0000 2018/11/06

Line 2.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN--DATE
 20.7793808 -103.6047211 1587.5000 2614.147 0.009 -7.3 1.0 -2.77 -0.093 60 0 23:39:50
 43378.98442 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2614.147 0.012 -7.4 1.0 -2.78 -0.093 60 0 23:41:00
 43378.98523 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2614.148 0.009 -7.4 0.6 -2.79 -0.093 60 0 23:42:06
 43378.98599 0.0000 2018/11/06

Line 3.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN--DATE
 20.7793808 -103.6047211 1587.5000 2613.998 0.008 -6.8 2.5 -2.81 -0.094 60 0 23:45:36
 43378.98842 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2613.998 0.011 -6.7 2.1 -2.81 -0.094 60 0 23:46:46
 43378.98922 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2613.998 0.010 -6.6 1.6 -2.82 -0.094 60 0 23:47:52
 43378.98999 0.0000 2018/11/06

Line 1.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN--DATE
 20.7793808 -103.6047211 1587.5000 2614.303 0.010 -3.0 1.5 -2.83 -0.094 60 0 23:50:19
 43378.99169 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2614.302 0.010 -2.6 2.1 -2.83 -0.095 60 0 23:51:29
 43378.99250 0.0000 2018/11/06
 20.7793808 -103.6047211 1587.5000 2614.302 0.008 -2.3 1.8 -2.83 -0.095 60 0 23:52:35
 43378.99326 0.0000 2018/11/06

Line 2.000N

```

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.7793808 -103.6047211 1587.5000 2614.157 0.010 -0.4 -3.6 -2.84 -0.095 60 0 23:55:15
43378.99511 0.0000 2018/11/06
20.7793808 -103.6047211 1587.5000 2614.158 0.010 0.0 -3.4 -2.84 -0.095 60 0 23:56:25
43378.99592 0.0000 2018/11/06
20.7793808 -103.6047211 1587.5000 2614.159 0.011 0.1 -3.7 -2.85 -0.095 60 0 23:57:31
43378.99668 0.0000 2018/11/06
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.7793808 -103.6047211 1587.5000 2614.005 0.010 -0.2 3.9 -2.86 -0.095 60 0 00:01:38
43379.00113 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.004 0.011 0.0 3.6 -2.86 -0.095 60 0 00:02:48
43379.00194 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.005 0.010 0.0 3.4 -2.86 -0.095 60 1 00:03:54
43379.00270 0.0000 2018/11/07
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.7793808 -103.6047211 1587.5000 2614.306 0.007 -7.7 -3.3 -2.86 -0.095 60 0 00:05:43
43379.00396 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.306 0.007 -7.3 -2.1 -2.86 -0.095 60 0 00:06:53
43379.00477 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.305 0.011 -7.1 -2.3 -2.86 -0.095 60 0 00:07:59
43379.00554 0.0000 2018/11/07
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.7793808 -103.6047211 1587.5000 2614.155 0.011 -6.1 -1.3 -2.86 -0.095 60 0 00:10:06
43379.00700 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.156 0.008 -5.9 -1.2 -2.86 -0.095 60 0 00:11:16
43379.00781 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.156 0.008 -5.7 -1.4 -2.86 -0.094 60 0 00:12:22
43379.00857 0.0000 2018/11/07
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.7793808 -103.6047211 1587.5000 2614.006 0.011 -7.8 -1.3 -2.86 -0.094 60 0 00:15:06
43379.01047 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.007 0.009 -7.5 -1.4 -2.86 -0.094 60 0 00:16:16
43379.01128 0.0000 2018/11/07
20.7793808 -103.6047211 1587.5000 2614.006 0.010 -7.4 -1.6 -2.86 -0.094 60 0 00:17:22
43379.01204 0.0000 2018/11/07

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:30:58

Project Name: Guadalajara_AA_20181106a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Guadalajara AA
Site Code:
Lat: 20.77931 Long: -103.60461 Elev: 1575.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.984 μ Gal/cm
Nominal Air Pressure: 837.81 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Guadalajara AA.dff

Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Guadalajara AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.742	0.935	1.507	1.036	0.342	0.455	0.280	0.235	0.000	0.000	0.000
Phase (deg):	285.0	306.3	82.6	98.1	274.2	88.1	300.4	107.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 11/06/18
 Time: 22:46:41
 DOY: 310
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978222940.58 µGal
 Set Scatter: 2.45 µGal
 Measurement Precision: 0.86 µGal
 Total Uncertainty: 7.75 µGal
 Red/Blue Separation: 26.21 µGal
 Number of Sets Collected: 8
 Number of Sets Processed: 8
 Set #s Processed: 1,2,3,4,5,6,7,8
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 947
 Total Drops Rejected: 13
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 12
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -75.33 µGal
 Ocean Load: 2.37 µGal
 Polar Motion: -3.05 µGal
 Barometric Pressure: 1.21 µGal
 Transfer Height: 0.00 µGal
 Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00

Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.08 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.24 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:33:01

Project Name: Guadalajara_AA_20181106b
g Acquisition Version: 4.041600
g Processing Version: 9.120423
Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Guadalajara AA
Site Code:
Lat: 20.77931 Long: -103.60461 Elev: 1575.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.984 µGal/cm
Nominal Air Pressure: 837.81 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Guadalajara AA.dff

Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Guadalajara AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.742	0.935	1.507	1.036	0.342	0.455	0.280	0.235	0.000	0.000	0.000
Phase (deg):	285.0	306.3	82.6	98.1	274.2	88.1	300.4	107.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/06/18
Time: 23:16:19

DOY: 310
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978222945.47 μGal
Set Scatter: 0.78 μGal
Measurement Precision: 0.32 μGal
Total Uncertainty: 7.71 μGal
Red/Blue Separation: 12.38 μGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 717
Total Drops Rejected: 3
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings
Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

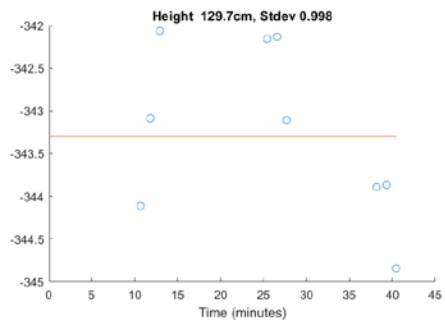
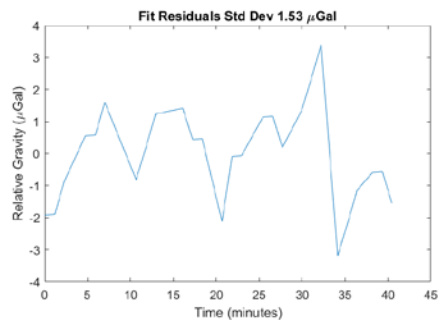
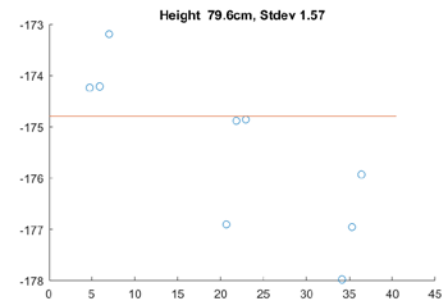
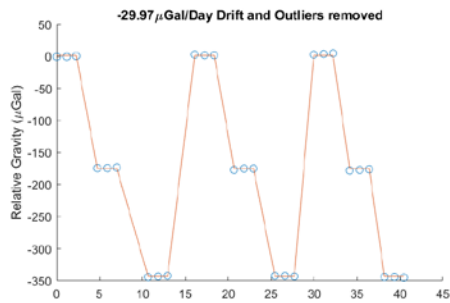
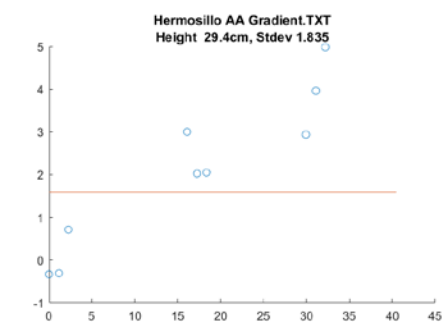
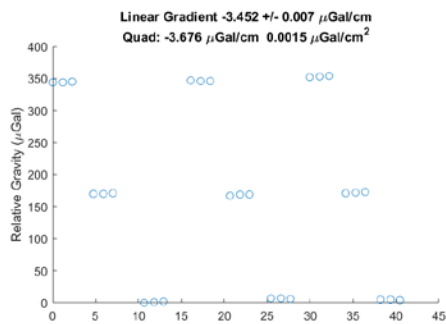
Gravity Corrections
Earth Tide (ETGTAB): -89.74 μGal
Ocean Load: 2.07 μGal
Polar Motion: -3.05 μGal
Barometric Pressure: 1.25 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

Uncertainties
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.21 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Hermosillo

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Hermosillo AA	11/11/2018	29.01963	-110.94975	260
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	979157602.1	7.72	0.53	8
2	979157601.2	7.72	0.42	12
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.4	0.0	1.8	
2	79.6	-176.4	1.6	
3	129.7	-344.9	1.0	



Stn Heights: 10.5

/ CG-5 SURVEY
/ Survey name: HERMOSILLO AA
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/11/11
/ Time: 01:31:12
/ LONG: 108.9802704 W
/ LAT: 25.8143024 N
/ ZONE: 0
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 22:46:07
/ DriftDate Start: 2018/11/06

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3550.069 0.009 -4.8 1.6 -3.06 -0.067 60 0 01:38:58
43383.06862 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3550.069 0.009 -5.0 1.7 -3.06 -0.068 60 0 01:40:08
43383.06943 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3550.070 0.009 -5.0 0.8 -3.06 -0.068 60 4 01:41:14
43383.07019 0.0000 2018/11/11

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3549.895 0.011 -1.7 -0.8 -3.07 -0.068 60 0 01:43:42
43383.07190 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.895 0.013 -1.2 -0.6 -3.08 -0.068 60 5 01:44:52
43383.07271 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.896 0.006 -0.6 -1.3 -3.09 -0.068 60 0 01:45:58
43383.07347 0.0000 2018/11/11

Line 3.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3549.725 0.011 2.9 2.5 -3.12 -0.068 60 18 01:49:37
43383.07600 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.726 0.009 2.9 1.9 -3.13 -0.069 60 0 01:50:47
43383.07681 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.727 0.006 3.0 1.4 -3.14 -0.069 60 0 01:51:53
43383.07757 0.0000 2018/11/11

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3550.072 0.010 -3.7 5.7 -3.16 -0.069 60 1 01:55:03
43383.07977 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3550.071 0.007 -3.4 5.3 -3.17 -0.069 60 0 01:56:13
43383.08058 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3550.071 0.007 -3.3 4.8 -3.18 -0.069 60 0 01:57:19
43383.08134 0.0000 2018/11/11

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

29.0194435 -110.9488907 260.0000 3549.892 0.006 -4.2 4.8 -3.19 -0.069 60 0 01:59:38
43383.08295 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.894 0.008 -3.8 5.4 -3.19 -0.069 60 0 02:00:48
43383.08375 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.894 0.008 -3.6 4.9 -3.19 -0.069 60 0 02:01:54
43383.08452 0.0000 2018/11/11
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3549.732 0.007 6.0 -1.4 -3.20 -0.069 60 2 02:04:24
43383.08625 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.732 0.007 6.1 -1.3 -3.20 -0.069 60 0 02:05:34
43383.08706 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.731 0.007 6.3 -1.9 -3.20 -0.069 60 0 02:06:40
43383.08782 0.0000 2018/11/11
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3550.077 0.009 1.5 1.0 -3.21 -0.069 60 2 02:08:55
43383.08938 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3550.078 0.006 1.9 0.9 -3.21 -0.069 60 0 02:10:05
43383.09019 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3550.079 0.007 2.3 0.4 -3.21 -0.069 60 0 02:11:11
43383.09095 0.0000 2018/11/11
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3549.896 0.010 -1.7 4.9 -3.21 -0.069 60 2 02:13:07
43383.09229 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.897 0.009 -1.2 6.2 -3.21 -0.069 60 0 02:14:17
43383.09310 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.898 0.007 -0.5 6.4 -3.21 -0.069 60 1 02:15:23
43383.09387 0.0000 2018/11/11
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
29.0194435 -110.9488907 260.0000 3549.730 0.015 2.0 1.5 -3.21 -0.068 60 2 02:17:10
43383.09510 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.730 0.009 2.4 2.0 -3.21 -0.068 60 0 02:18:20
43383.09591 0.0000 2018/11/11
29.0194435 -110.9488907 260.0000 3549.729 0.009 2.5 1.7 -3.22 -0.068 60 0 02:19:26
43383.09667 0.0000 2018/11/11

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:43:06

Project Name: Hermosillo_AA_20181110a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Hermosillo AA
Site Code:
Lat: 29.01963 Long: -110.94975 Elev: 260.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.452 µGal/cm
Nominal Air Pressure: 982.40 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Hermosillo AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1

0.921941 0.974188 1.154240 0.0000 O1
0.989049 0.998028 1.149150 0.0000 P1
0.999853 1.216397 1.134890 0.0000 K1
1.719381 1.906462 1.161720 0.0000 N2
1.923766 1.976926 1.161720 0.0000 M2
1.991787 2.002885 1.161720 0.0000 S2
2.003032 2.182843 1.161720 0.0000 K2
2.753244 3.081254 1.07338 0.0000 M3
3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Hermosillo AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.150	0.790	2.139	1.318	0.370	0.656	0.266	0.269	0.000	0.000	0.000
Phase (deg):	290.8	306.8	73.5	89.4	301.6	75.8	302.6	100.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/11/18
Time: 01:31:54
DOY: 315
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 979157602.06 µGal
Set Scatter: 1.49 µGal
Measurement Precision: 0.53 µGal
Total Uncertainty: 7.72 µGal
Red/Blue Separation: 4.46 µGal
Number of Sets Collected: 8
Number of Sets Processed: 8
Set #s Processed: 1,2,3,4,5,6,7,8
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 927
Total Drops Rejected: 33
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -67.96 µGal
Ocean Load: 2.80 µGal
Polar Motion: -3.37 µGal
Barometric Pressure: -0.32 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.07 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.28 µGal
Barometric: 1.00 µGal

Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:44:08

Project Name: Hermosillo_AA_20181110b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Hermosillo AA
Site Code:
Lat: 29.01963 Long: -110.94975 Elev: 260.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.452 µGal/cm
Nominal Air Pressure: 982.40 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Hermosillo AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Hermosillo AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.150	0.790	2.139	1.318	0.370	0.656	0.266	0.269	0.000	0.000	0.000
Phase (deg):	290.8	306.8	73.5	89.4	301.6	75.8	302.6	100.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/11/18
Time: 02:11:52
DOY: 315
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 979157601.15 µGal
Set Scatter: 1.46 µGal

Measurement Precision: 0.42 μGal
Total Uncertainty: 7.72 μGal
Red/Blue Separation: 3.51 μGal
Number of Sets Collected: 12
Number of Sets Processed: 12
Set #s Processed: 1,2,3,4,5,6,7,8,9,10,11,12
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1422
Total Drops Rejected: 18
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -70.18 μGal
Ocean Load: 2.90 μGal
Polar Motion: -3.37 μGal
Barometric Pressure: -0.24 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

Uncertainties

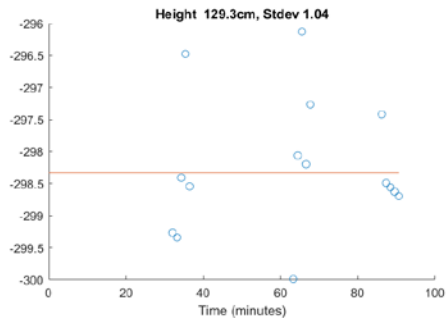
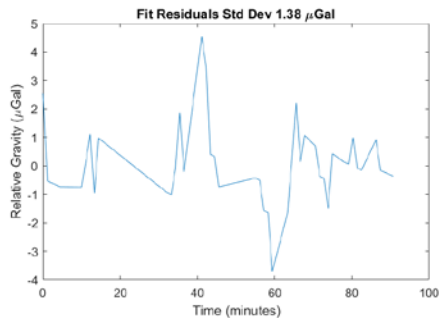
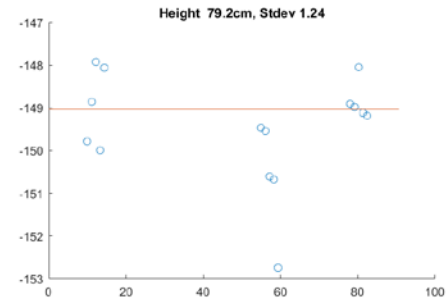
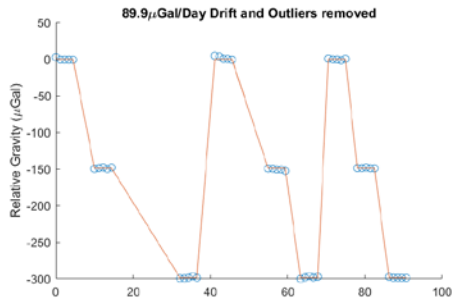
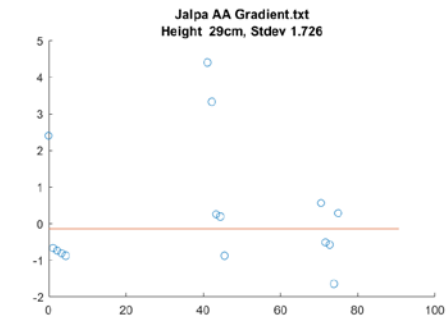
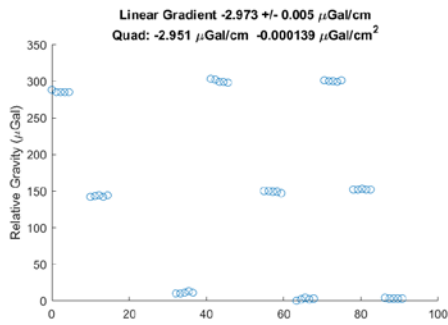
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.07 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.29 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

Jalpa AA

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Jalpa AA	10/25/2018	21.61708	-102.99838	1396
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978251372.2	7.72	0.63	6
2	978251375.9	7.7	0.2	8
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.0	0.0	1.7	
2	79.2	-148.9	1.2	
3	129.3	-298.2	1.0	



Stn Heights: 10.1

/ CG-5 SURVEY
/ Survey name: JALPA AA
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/10/25
/ Time: 16:07:51
/ LONG: 104.0000000 W
/ LAT: 24.0000000 N
/ ZONE: 13
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 14:26:12
/ DriftDate Start: 2018/10/24

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

Line	DEC.TIME+DATE	LAT	LONG	TERRAIN	DATE	ALT.	GRAV.	SD.	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.829	0.034	-4.3	-0.7	-2.55	0.000	60	20	16:11:37
43367.67365	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.826	0.015	-4.6	-2.1	-2.54	0.000	60	0	16:12:47
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.826	0.017	-5.0	-3.0	-2.53	0.001	60	0	16:13:52
43367.67521	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.826	0.013	-5.0	-3.6	-2.53	0.002	60	0	16:14:57
43367.67597	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.826	0.019	-5.2	-4.5	-2.53	0.003	60	0	16:16:03
43367.67673	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.826	0.019	-5.2	-4.5	-2.53	0.003	60	0	16:16:03

Line 2.000N

Line	DEC.TIME+DATE	LAT	LONG	TERRAIN	DATE	ALT.	GRAV.	SD.	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.683	0.018	-0.9	-1.8	-2.59	0.008	60	0	16:21:36
43367.68058	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.684	0.016	-1.5	-2.7	-2.59	0.009	60	0	16:22:46
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.685	0.024	-1.7	-3.3	-2.60	0.010	60	0	16:23:51
43367.68214	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.683	0.021	-2.3	-3.8	-2.61	0.011	60	0	16:24:56
43367.68289	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.683	0.021	-2.3	-3.8	-2.61	0.011	60	0	16:24:56
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.685	0.021	-2.9	-4.2	-2.62	0.012	60	0	16:26:02
43367.68365	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.685	0.021	-2.9	-4.2	-2.62	0.012	60	0	16:26:02

Line 3.000N

Line	DEC.TIME+DATE	LAT	LONG	TERRAIN	DATE	ALT.	GRAV.	SD.	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.551	0.024	-1.0	-14.4	-2.68	0.027	60	0	16:43:42
43367.69590	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.551	0.021	-0.7	-14.5	-2.68	0.028	60	0	16:44:52
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.552	0.019	-0.4	-14.4	-2.68	0.029	60	0	16:45:57
43367.69746	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.554	0.021	-0.3	-13.9	-2.68	0.029	60	0	16:47:02
43367.69821	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.554	0.021	-0.3	-13.9	-2.68	0.029	60	0	16:47:02
21.6170769	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.552	0.020	-0.2	-13.9	-2.68	0.030	60	0	16:48:08
43367.69897	2018/10/25	-102.9983749	1423.7000	0.0000	2018/10/25	1423.7000	2632.552	0.020	-0.2	-13.9	-2.68	0.030	60	0	16:48:08

```

Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.6170769 -102.9983749 1423.7000 2632.844 0.016 -0.3 -2.9 -2.68 0.034 60 18 16:52:43
43367.70215 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.843 0.043 -4.1 -1.2 -2.68 0.035 60 19 16:53:53
43367.70296 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.840 0.029 -4.8 -2.0 -2.68 0.036 60 0 16:54:58
43367.70371 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.840 0.019 -4.9 -2.0 -2.68 0.037 60 0 16:56:03
43367.70446 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.839 0.022 -5.3 -2.4 -2.68 0.038 60 0 16:57:09
43367.70522 0.0000 2018/10/25
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.6170769 -102.9983749 1423.7000 2632.691 0.025 -3.7 -1.2 -2.69 0.046 60 0 17:06:34
43367.71175 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.691 0.017 -4.0 -1.1 -2.69 0.046 60 0 17:07:44
43367.71256 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.690 0.027 -4.3 -1.0 -2.69 0.047 60 0 17:08:49
43367.71331 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.690 0.019 -4.7 -1.4 -2.69 0.048 60 0 17:09:54
43367.71406 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.688 0.028 -4.8 -1.4 -2.69 0.049 60 9 17:11:00
43367.71483 0.0000 2018/10/25
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.6170769 -102.9983749 1423.7000 2632.541 0.019 -3.8 -2.2 -2.69 0.052 60 19 17:14:56
43367.71755 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.543 0.022 -4.0 -2.0 -2.69 0.052 60 0 17:16:06
43367.71836 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.545 0.017 -4.8 -2.6 -2.69 0.053 60 0 17:17:11
43367.71911 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.543 0.017 -5.1 -2.6 -2.69 0.054 60 0 17:18:16
43367.71986 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.544 0.020 -6.0 -3.2 -2.69 0.055 60 0 17:19:22
43367.72063 0.0000 2018/10/25
Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.6170769 -102.9983749 1423.7000 2632.842 0.020 -4.1 -0.1 -2.69 0.057 60 0 17:22:08
43367.72255 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.841 0.015 -4.8 -0.6 -2.69 0.057 60 0 17:23:18
43367.72335 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.841 0.016 -5.5 -1.7 -2.69 0.058 60 0 17:24:23
43367.72411 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.840 0.022 -7.2 -2.6 -2.69 0.059 60 0 17:25:28
43367.72486 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.842 0.021 -8.7 -3.6 -2.69 0.060 60 0 17:26:34
43367.72562 0.0000 2018/10/25
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.6170769 -102.9983749 1423.7000 2632.693 0.023 -3.7 -1.3 -2.70 0.062 60 0 17:29:39
43367.72776 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.693 0.019 -3.9 -1.6 -2.70 0.063 60 0 17:30:49
43367.72857 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.694 0.017 -3.6 -1.2 -2.70 0.064 60 0 17:31:54
43367.72932 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.693 0.017 -3.9 -1.3 -2.70 0.064 60 0 17:32:59
43367.73007 0.0000 2018/10/25
21.6170769 -102.9983749 1423.7000 2632.693 0.017 -4.7 -1.8 -2.70 0.065 60 0 17:34:05
43367.73083 0.0000 2018/10/25
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.6170769 -102.9983749 1423.7000 2632.545 0.024 -5.1 -1.0 -2.70 0.068 60 0 17:37:50
43367.73343 0.0000 2018/10/25

```

21.6170769	-102.9983749	1423.7000	2632.544	0.017	-6.0	-1.9	-2.71	0.068	60	0	17:39:00
43367.73424	0.0000	2018/10/25									
21.6170769	-102.9983749	1423.7000	2632.544	0.013	-6.7	-2.1	-2.70	0.069	60	0	17:40:05
43367.73499	0.0000	2018/10/25									
21.6170769	-102.9983749	1423.7000	2632.544	0.015	-7.6	-2.4	-2.70	0.069	60	0	17:41:10
43367.73574	0.0000	2018/10/25									
21.6170769	-102.9983749	1423.7000	2632.544	0.019	-8.0	-3.0	-2.70	0.070	60	0	17:42:16
43367.73650	0.0000	2018/10/25									

Micro-g LaCoste g Processing Report
File Created: 11/06/18, 09:06:59

Project Name: Jalpa_AA_20181025a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Jalpa
Site Code:
Lat: 21.61708 Long: -102.99838 Elev: 1396.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.973 μ Gal/cm
Nominal Air Pressure: 856.41 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Jalpa.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Jalpa.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	0.482	0.760	1.325	0.895	0.267	0.397	0.230	0.202	0.000	0.000	0.000
Phase (deg):	284.1	308.7	79.4	95.2	270.4	84.7	301.7	104.8	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 10/25/18
Time: 16:42:27
DOY: 298
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978251372.18 μ Gal
Set Scatter: 1.54 μ Gal
Measurement Precision: 0.63 μ Gal
Total Uncertainty: 7.72 μ Gal

Red/Blue Separation: 8.76 μ Gal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 717
Total Drops Rejected: 3
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 21.21 μ Gal
Ocean Load: -1.47 μ Gal
Polar Motion: -3.36 μ Gal
Barometric Pressure: 1.37 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.02 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.15 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Micro-g LaCoste g Processing Report
File Created: 11/06/18, 09:07:54

Project Name: Jalpa_AA_20181025b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Jalpa
Site Code:
Lat: 21.61708 Long: -102.99838 Elev: 1396.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.973 μ Gal/cm
Nominal Air Pressure: 856.41 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat

Delta Factor Filename: C:\gData\OceanLoad-Jalpa.dff

Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Jalpa.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.482	0.760	1.325	0.895	0.267	0.397	0.230	0.202	0.000	0.000	0.000
Phase (deg):	284.1	308.7	79.4	95.2	270.4	84.7	301.7	104.8	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 10/25/18
Time: 17:15:07
DOY: 298
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978251375.88 µGal
Set Scatter: 0.58 µGal
Measurement Precision: 0.20 µGal
Total Uncertainty: 7.70 µGal
Red/Blue Separation: 1.31 µGal
Number of Sets Collected: 8
Number of Sets Processed: 8
Set #s Processed: 1,2,3,4,5,6,7,8
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 955
Total Drops Rejected: 5
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 47.47 µGal
Ocean Load: -0.94 µGal
Polar Motion: -3.36 µGal
Barometric Pressure: 1.33 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

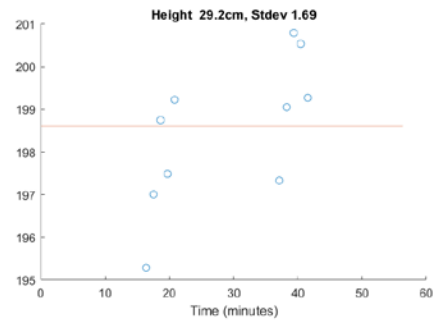
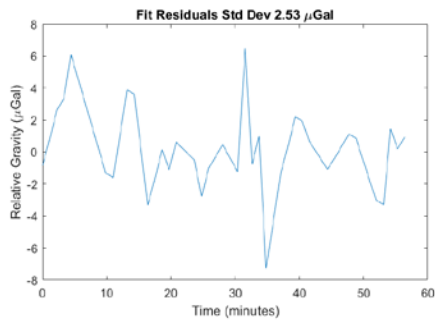
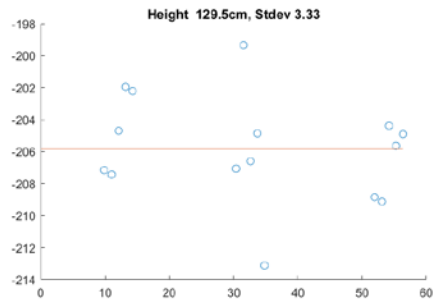
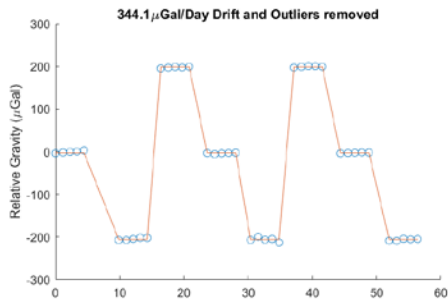
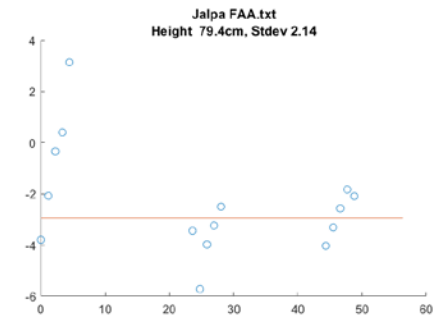
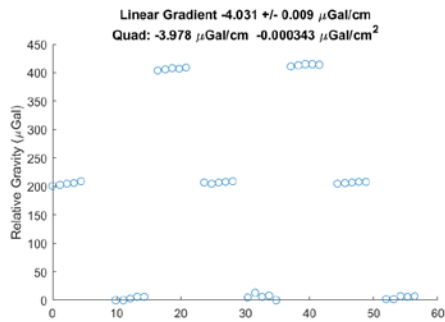
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.05 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.09 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Jalpa FAA

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Jalpa FAA	10/25/2018	21.6065	-102.84792	2545
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978033161.9	7.72	0.49	6
2	978033156.2	7.72	0.56	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	79.4	0.0	2.1	
2	129.5	-202.9	3.3	
3	29.2	201.6	1.7	



DEC.TIME+DATE	TERRAIN	DATE	GRAV.	SD.	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
21.6065006	-102.8479691	2538.0000	2414.264	0.011	4.0	-5.1	-2.60	-0.012	60	3	22:30:03
43367.93603	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.265	0.023	5.5	-6.9	-2.59	-0.012	60	13	22:31:09
43367.93680	0.0000	2018/10/25									
Line 3.000N											
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
21.6065006	-102.8479691	2538.0000	2414.061	0.054	3.7	-7.1	-2.59	-0.015	60	10	22:33:29
43367.93842	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.069	0.083	5.3	-7.5	-2.59	-0.016	60	14	22:34:39
43367.93922	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.062	0.040	4.1	-8.8	-2.59	-0.017	60	2	22:35:44
43367.93998	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.064	0.064	6.9	-8.5	-2.59	-0.017	60	4	22:36:49
43367.94073	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.056	0.073	6.4	-9.2	-2.59	-0.018	60	3	22:37:55
43367.94149	0.0000	2018/10/25									
Line 1.000N											
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
21.6065006	-102.8479691	2538.0000	2414.467	0.013	-9.1	-15.5	-2.59	-0.020	60	9	22:40:13
43367.94308	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.469	0.012	-8.6	-15.7	-2.59	-0.021	60	0	22:41:23
43367.94389	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.471	0.018	-8.0	-16.6	-2.59	-0.022	60	1	22:42:28
43367.94464	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.471	0.016	-7.6	-17.7	-2.59	-0.023	60	13	22:43:33
43367.94539	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.470	0.010	-6.9	-18.3	-2.59	-0.024	60	2	22:44:39
43367.94616	0.0000	2018/10/25									
Line 2.000N											
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
21.6065006	-102.8479691	2538.0000	2414.261	0.025	-1.2	-2.0	-2.59	-0.026	60	9	22:47:28
43367.94811	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.262	0.020	-0.7	-3.4	-2.59	-0.027	60	3	22:48:38
43367.94892	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.263	0.015	-0.2	-3.8	-2.59	-0.028	60	1	22:49:43
43367.94967	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.264	0.024	0.3	-5.5	-2.59	-0.029	60	9	22:50:48
43367.95042	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.264	0.029	0.6	-5.9	-2.59	-0.030	60	3	22:51:54
43367.95118	0.0000	2018/10/25									
Line 3.000N											
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
21.6065006	-102.8479691	2538.0000	2414.058	0.043	2.1	-4.1	-2.58	-0.032	60	6	22:55:03
43367.95337	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.058	0.032	-0.6	-3.9	-2.58	-0.033	60	3	22:56:13
43367.95418	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.063	0.024	3.6	-7.1	-2.58	-0.034	60	3	22:57:18
43367.95493	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.062	0.032	0.9	-11.1	-2.58	-0.034	60	1	22:58:23
43367.95568	0.0000	2018/10/25									
21.6065006	-102.8479691	2538.0000	2414.063	0.037	1.6	-9.2	-2.58	-0.035	60	1	22:59:29
43367.95644	0.0000	2018/10/25									

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:47:39

Project Name: Jalpa_FAA_20181025a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Jalpa FAA
Site Code:
Lat: 21.60650 Long: -102.84792 Elev: 2545.00 m
Setup Height: 0.00 cm

Transfer Height: 72.20 cm
 Actual Height: 72.20 cm
 Gradient: -4.031 $\mu\text{Gal}/\text{cm}$
 Nominal Air Pressure: 742.61 mBar
 Barometric Admittance Factor: 0.30
 Polar Motion Coord: 0.1981 " 0.3085 "
 Earth Tide (ETGTAB) Selected
 Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
 Delta Factor Filename: C:\gData\OceanLoad-Jalpa FAA.dff
 Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Jalpa FAA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μGal):	0.443	0.747	1.304	0.880	0.261	0.391	0.226	0.199	0.000	0.000	0.000
Phase (deg):	282.5	309.1	79.3	95.1	268.7	84.7	301.9	104.7	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 μGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 10/25/18
 Time: 21:28:59
 DOY: 298
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978033161.92 μGal
 Set Scatter: 1.20 μGal
 Measurement Precision: 0.49 μGal
 Total Uncertainty: 7.72 μGal
 Red/Blue Separation: 24.94 μGal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 700
 Total Drops Rejected: 20
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 12
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 37.83 µGal
Ocean Load: 1.92 µGal
Polar Motion: -3.36 µGal
Barometric Pressure: 2.46 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.04 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.19 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Comments

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:48:34

Project Name: Jalpa_FAA_20181025b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Jalpa FAA
Site Code:
Lat: 21.60650 Long: -102.84792 Elev: 2545.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -4.031 µGal/cm
Nominal Air Pressure: 742.61 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Jalpa FAA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Jalpa FAA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.443	0.747	1.304	0.880	0.261	0.391	0.226	0.199	0.000	0.000	0.000
Phase (deg):	282.5	309.1	79.3	95.1	268.7	84.7	301.9	104.7	0.0	0.0	0.0

Instrument Data

Meter Type: A10

Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 10/25/18
Time: 21:53:32
DOY: 298
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978033156.16 μ Gal
Set Scatter: 1.37 μ Gal
Measurement Precision: 0.56 μ Gal
Total Uncertainty: 7.72 μ Gal
Red/Blue Separation: 8.97 μ Gal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 718
Total Drops Rejected: 2
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 17.79 μ Gal
Ocean Load: 1.89 μ Gal
Polar Motion: -3.36 μ Gal
Barometric Pressure: 2.43 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

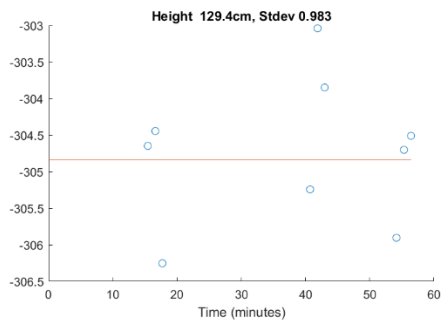
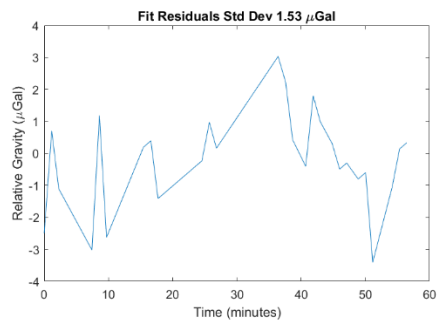
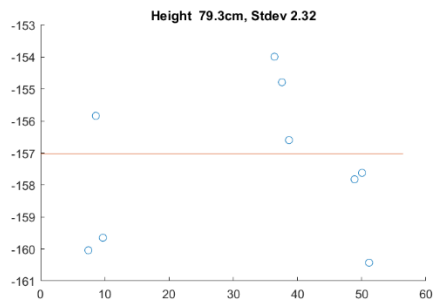
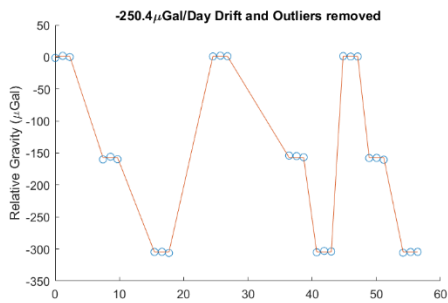
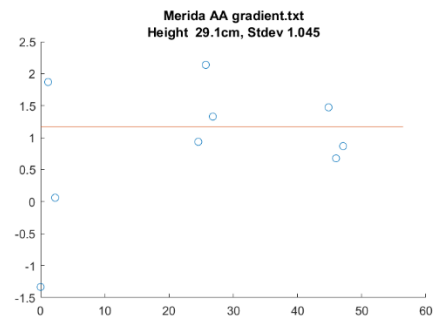
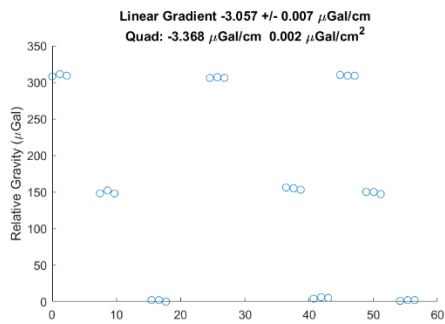
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.02 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.19 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Merida

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Merida AA	10/31/2018	20.98004	-89.62032	25
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978689724.2	7.7	0.23	6
2	978689729.4	7.7	0.31	44
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.1	0.0	1.0	
2	79.3	-158.2	2.3	
3	129.4	-306.0	1.0	



Stn Heights: 10.2

/ CG-5 SURVEY
/ Survey name: MERIDA AA
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/10/31
/ Time: 17:01:37
/ LONG: 104.0000000 W
/ LAT: 24.0000000 N
/ ZONE: 13
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 14:26:12
/ DriftDate Start: 2018/10/24

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

Line	LAT	LONG	ALT	GRAV	SD	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
20.9800282	-89.6203079	25.0000	3071.888	0.043	-1.3	-5.1	-2.92	-0.024	60	0	17:12:21	
43373.71576	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.891	0.044	-0.9	-4.9	-2.93	-0.025	60	8	17:13:31	
43373.71657	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.889	0.045	-1.2	-5.7	-2.95	-0.025	60	0	17:14:37	
43373.71733	0.0000	2018/10/31										

Line 2.000N

Line	LAT	LONG	ALT	GRAV	SD	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
20.9800282	-89.6203079	25.0000	3071.728	0.056	-1.5	2.1	-2.99	-0.027	60	6	17:19:47	
43373.72092	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.732	0.048	-1.0	2.0	-3.00	-0.028	60	8	17:20:57	
43373.72173	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.728	0.075	-3.8	-1.1	-3.00	-0.028	60	3	17:22:03	
43373.72249	0.0000	2018/10/31										

Line 3.000N

Line	LAT	LONG	ALT	GRAV	SD	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
20.9800282	-89.6203079	25.0000	3071.582	0.041	-7.1	-7.2	-3.01	-0.030	60	0	17:27:48	
43373.72647	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.582	0.038	-6.7	-7.3	-3.02	-0.030	60	0	17:28:58	
43373.72728	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.580	0.035	-6.6	-7.7	-3.02	-0.031	60	0	17:30:04	
43373.72805	0.0000	2018/10/31										

Line 1.000N

Line	LAT	LONG	ALT	GRAV	SD	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
20.9800282	-89.6203079	25.0000	3071.886	0.044	-2.7	2.8	-3.04	-0.033	60	0	17:36:54	
43373.73278	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.887	0.039	-2.4	3.1	-3.04	-0.033	60	0	17:38:04	
43373.73359	0.0000	2018/10/31										
20.9800282	-89.6203079	25.0000	3071.886	0.042	-2.5	2.2	-3.05	-0.034	60	0	17:39:10	
43373.73436	0.0000	2018/10/31										

Line 2.000N

Line	LAT	LONG	ALT	GRAV	SD	TILTX	TILTY	TEMP	TIDE	DUR	REJ	TIME
------	-----	------	-----	------	----	-------	-------	------	------	-----	-----	------

20.9800282	-89.6203079	25.0000	3071.736	0.044	0.7	1.9	-3.06	-0.037	60	2	17:48:46
43373.74101	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.735	0.038	0.7	3.0	-3.06	-0.037	60	0	17:49:56
43373.74182	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.733	0.046	0.0	1.5	-3.06	-0.037	60	3	17:51:02
43373.74258	0.0000	2018/10/31									
Line	3.000N										
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
20.9800282	-89.6203079	25.0000	3071.584	0.048	0.1	-3.3	-3.06	-0.038	60	2	17:53:04
43373.74399	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.586	0.040	0.7	-3.3	-3.06	-0.038	60	4	17:54:14
43373.74480	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.585	0.048	1.0	-3.6	-3.06	-0.038	60	0	17:55:20
43373.74556	0.0000	2018/10/31									
Line	1.000N										
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
20.9800282	-89.6203079	25.0000	3071.890	0.041	-1.2	0.5	-3.06	-0.039	60	0	17:57:11
43373.74685	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.889	0.032	-0.8	1.9	-3.06	-0.039	60	0	17:58:21
43373.74766	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.889	0.041	0.7	2.1	-3.06	-0.039	60	9	17:59:27
43373.74842	0.0000	2018/10/31									
Line	2.000N										
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
20.9800282	-89.6203079	25.0000	3071.730	0.040	-6.1	2.4	-3.05	-0.040	60	0	18:01:14
43373.74966	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.730	0.044	-4.8	3.1	-3.05	-0.040	60	1	18:02:24
43373.75046	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.727	0.045	-4.9	3.1	-3.06	-0.040	60	6	18:03:30
43373.75123	0.0000	2018/10/31									
Line	3.000N										
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---											
-DEC.TIME+DATE--TERRAIN---DATE											
20.9800282	-89.6203079	25.0000	3071.581	0.037	-1.2	0.1	-3.06	-0.041	60	0	18:06:31
43373.75332	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.582	0.034	-1.3	-0.3	-3.06	-0.041	60	0	18:07:41
43373.75413	0.0000	2018/10/31									
20.9800282	-89.6203079	25.0000	3071.582	0.036	-1.3	-0.6	-3.06	-0.042	60	0	18:08:47
43373.75489	0.0000	2018/10/31									

Micro-g LaCoste g Processing Report
File Created: 11/06/18, 08:56:27

Project Name: Merida_AA_20181031a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Merida AA
Site Code:
Lat: 20.98004 Long: -89.62032 Elev: 25.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.057 μ Gal/cm
Nominal Air Pressure: 1010.25 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1869 " 0.2995 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Merida AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1

0.921941 0.974188 1.154240 0.0000 O1
 0.989049 0.998028 1.149150 0.0000 P1
 0.999853 1.216397 1.134890 0.0000 K1
 1.719381 1.906462 1.161720 0.0000 N2
 1.923766 1.976926 1.161720 0.0000 M2
 1.991787 2.002885 1.161720 0.0000 S2
 2.003032 2.182843 1.161720 0.0000 K2
 2.753244 3.081254 1.07338 0.0000 M3
 3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Merida AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.496	0.445	0.266	0.423	0.295	0.114	0.106	0.075	0.000	0.000	0.000
Phase (deg):	86.4	7.0	238.7	246.3	128.0	232.3	2.8	261.9	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 10/31/18
 Time: 17:16:49
 DOY: 304
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978689724.22 µGal
 Set Scatter: 0.56 µGal
 Measurement Precision: 0.23 µGal
 Total Uncertainty: 7.70 µGal
 Red/Blue Separation: 11.38 µGal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 713
 Total Drops Rejected: 7
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 12
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -27.75 µGal
 Ocean Load: 0.48 µGal
 Polar Motion: -3.85 µGal
 Barometric Pressure: 0.41 µGal
 Transfer Height: 0.00 µGal
 Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
 Earth Tide Factor: 0.001
 Average Earth Tide Uncertainty: 0.03 µGal
 Ocean Load Factor: 0.10
 Average Ocean Load Uncertainty: 0.05 µGal
 Barometric: 1.00 µGal

Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report
File Created: 11/06/18, 08:59:44

Project Name: Merida_AA_20181031b_long
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Merida AA
Site Code:
Lat: 20.98004 Long: -89.62032 Elev: 25.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.057 µGal/cm
Nominal Air Pressure: 1010.25 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1869 " 0.2995 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Merida AA.dff

Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Merida AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.496	0.445	0.266	0.423	0.295	0.114	0.106	0.075	0.000	0.000	0.000
Phase (deg):	86.4	7.0	238.7	246.3	128.0	232.3	2.8	261.9	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/01/18
Time: 04:16:34
DOY: 305
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978689729.40 µGal

Set Scatter: 2.07 μ Gal
Measurement Precision: 0.31 μ Gal
Total Uncertainty: 7.70 μ Gal
Red/Blue Separation: 12.66 μ Gal
Number of Sets Collected: 44
Number of Sets Processed: 44
Set #s Processed:
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,3
6,37,38,39,40,41,42,43,44
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 5269
Total Drops Rejected: 11
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 60 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 48
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 20.83 μ Gal
Ocean Load: 0.13 μ Gal
Polar Motion: -3.85 μ Gal
Barometric Pressure: -0.06 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

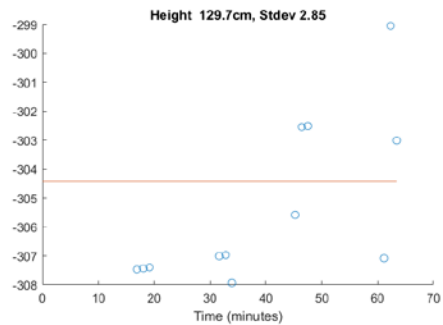
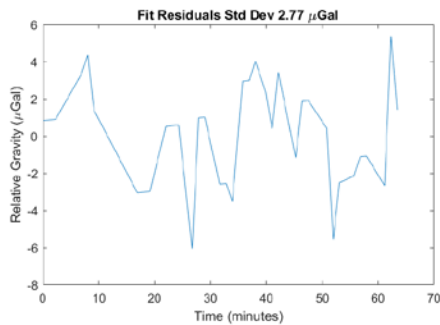
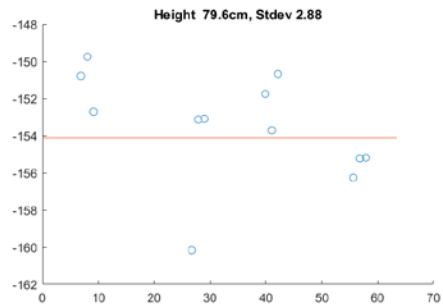
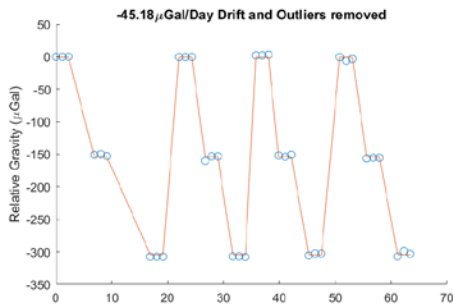
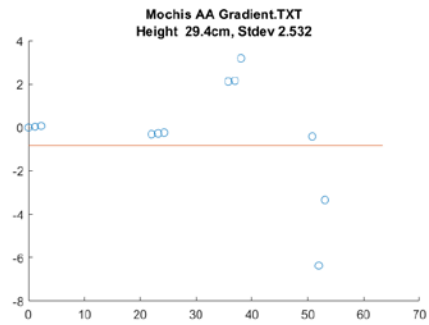
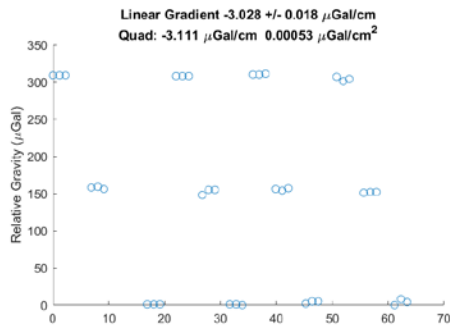
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.02 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.01 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Mochis AA

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Mochis AA	11/9/2018	25.81536	-108.97992	12
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	979006885.7	8.1	2.52	8
2	979006889.4	7.72	0.47	38
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.4	0.0	2.5	
2	79.6	-153.3	2.9	
3	129.7	-303.6	2.8	



Stn Heights: 10.5

/ CG-5 SURVEY
/ Survey name: MOCHIS
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/11/ 9
/ Time: 18:42:48
/ LONG: 104.0000000 W
/ LAT: 24.0000000 N
/ ZONE: 13
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 22:46:07
/ DriftDate Start: 2018/11/06

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.8143101 -108.9802551 13.0000 3399.173 0.032 -6.8 -2.3 -3.02 0.039 60 0 20:32:45
43381.85471 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3399.173 0.032 -7.0 -2.4 -3.02 0.039 60 0 20:33:55
43381.85552 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3399.173 0.031 -6.1 -2.0 -3.02 0.039 60 4 20:35:01
43381.85628 0.0000 2018/11/09

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.8143101 -108.9802551 13.0000 3399.022 0.037 -2.1 -0.4 -3.04 0.038 60 0 20:39:37
43381.85947 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3399.023 0.040 -1.9 -1.0 -3.04 0.038 60 0 20:40:47
43381.86028 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3399.020 0.049 -1.4 -1.4 -3.05 0.038 60 21 20:41:53
43381.86104 0.0000 2018/11/09

Line 3.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.8143101 -108.9802551 13.0000 3398.865 0.032 -9.9 4.8 -3.07 0.037 60 1 20:49:39
43381.86642 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3398.865 0.040 -9.7 4.4 -3.08 0.036 60 0 20:50:49
43381.86723 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3398.865 0.034 -9.6 4.0 -3.08 0.036 60 0 20:51:55
43381.86800 0.0000 2018/11/09

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.8143101 -108.9802551 13.0000 3399.172 0.035 -7.9 -0.2 -3.08 0.036 60 0 20:54:47
43381.86998 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3399.172 0.038 -7.8 0.7 -3.08 0.035 60 0 20:55:57
43381.87079 0.0000 2018/11/09
25.8143101 -108.9802551 13.0000 3399.172 0.037 -7.9 0.5 -3.08 0.035 60 0 20:57:03
43381.87155 0.0000 2018/11/09

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 16:59:07

Project Name: Mochis_AA_20181109a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Mochis AA
Site Code:
Lat: 25.81536 Long: -108.97992 Elev: 12.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.028 μ Gal/cm
Nominal Air Pressure: 1011.81 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Mochis AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Mochis AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	1.601	1.107	2.153	1.363	0.478	0.654	0.358	0.286	0.000	0.000	0.000
Phase (deg):	295.4	300.2	77.9	94.1	301.1	81.8	298.1	105.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/09/18
Time: 18:51:25
DOY: 313
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 979006885.70 μ Gal
Set Scatter: 7.14 μ Gal
Measurement Precision: 2.52 μ Gal
Total Uncertainty: 8.10 μ Gal
Red/Blue Separation: 5.26 μ Gal
Number of Sets Collected: 8
Number of Sets Processed: 8
Set #s Processed: 1,2,3,4,5,6,7,8
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 951

Total Drops Rejected: 9
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings
Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections
Earth Tide (ETGTAB): 22.42 μ Gal
Ocean Load: -2.40 μ Gal
Polar Motion: -3.25 μ Gal
Barometric Pressure: -0.73 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

Uncertainties
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.02 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.24 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Comments

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:01:38

Project Name: Mochis_AA_20181109c
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Mochis AA
Site Code:
Lat: 25.81536 Long: -108.97992 Elev: 12.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.028 μ Gal/cm
Nominal Air Pressure: 1011.81 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Mochis AA.dff

Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long

0.721500 0.906315 1.154250 0.0000 Q1
 0.921941 0.974188 1.154240 0.0000 O1
 0.989049 0.998028 1.149150 0.0000 P1
 0.999853 1.216397 1.134890 0.0000 K1
 1.719381 1.906462 1.161720 0.0000 N2
 1.923766 1.976926 1.161720 0.0000 M2
 1.991787 2.002885 1.161720 0.0000 S2
 2.003032 2.182843 1.161720 0.0000 K2
 2.753244 3.081254 1.07338 0.0000 M3
 3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Mochis AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.601	1.107	2.153	1.363	0.478	0.654	0.358	0.286	0.000	0.000	0.000
Phase (deg):	295.4	300.2	77.9	94.1	301.1	81.8	298.1	105.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 11/10/18
 Time: 07:07:38
 DOY: 314
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 979006889.42 µGal
 Set Scatter: 2.93 µGal
 Measurement Precision: 0.47 µGal
 Total Uncertainty: 7.72 µGal
 Red/Blue Separation: 11.78 µGal
 Number of Sets Collected: 38
 Number of Sets Processed: 38
 Set #s Processed:
 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 4546
 Total Drops Rejected: 14
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 60 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 48
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 13.64 µGal
 Ocean Load: 0.61 µGal
 Polar Motion: -3.25 µGal
 Barometric Pressure: -0.84 µGal
 Transfer Height: 0.00 µGal
 Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
 Earth Tide Factor: 0.001
 Average Earth Tide Uncertainty: 0.01 µGal

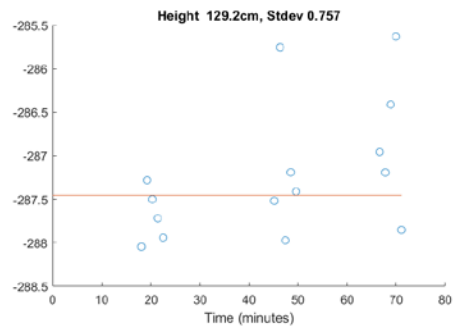
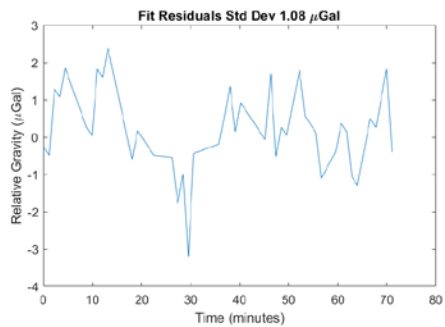
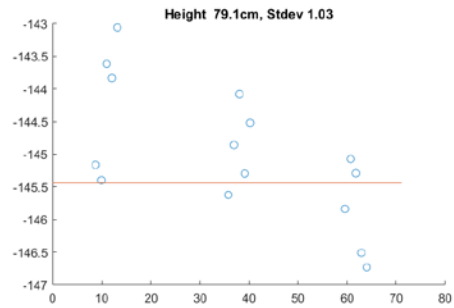
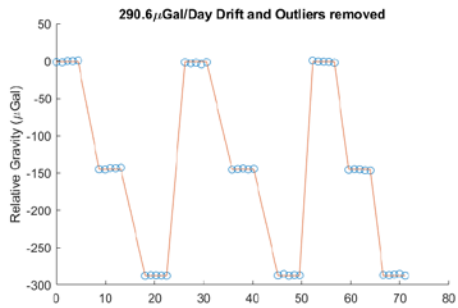
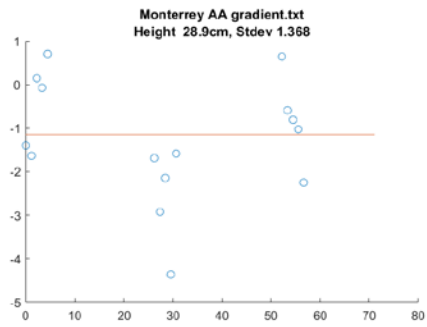
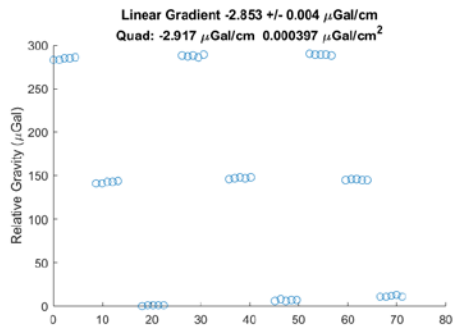
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.06 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

Monterrey

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Monterrey_AA	10/20/2018	25.71561	-100.31292	530
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978801757.3	7.73	0.7	6
2	978801757.4	7.71	0.49	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	28.9	0.0	1.4	
2	79.1	-144.3	1.0	
3	129.2	-286.3	0.8	




```

25.7154999 -100.3128891 515.0000 3180.501 0.013 -3.4 -0.3 -2.70 -0.075 60 0 22:48:23
43362.94875 0.0000 2018/10/20
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.7154999 -100.3128891 515.0000 3180.788 0.014 1.0 2.1 -2.70 -0.075 60 3 22:52:06
43362.95132 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.787 0.012 1.1 2.3 -2.70 -0.075 60 0 22:53:16
43362.95213 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.788 0.008 1.2 1.6 -2.70 -0.075 60 1 22:54:21
43362.95288 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.786 0.010 1.3 1.2 -2.70 -0.075 60 1 22:55:26
43362.95363 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.789 0.009 1.2 0.9 -2.70 -0.075 60 0 22:56:32
43362.95440 0.0000 2018/10/20
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.7154999 -100.3128891 515.0000 3180.646 0.013 -1.3 0.2 -2.70 -0.074 60 2 23:01:41
43362.95797 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.647 0.007 -1.1 0.3 -2.70 -0.074 60 0 23:02:51
43362.95878 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.648 0.011 -1.0 -0.1 -2.70 -0.074 60 0 23:03:56
43362.95953 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.647 0.007 -1.0 -0.6 -2.70 -0.074 60 0 23:05:01
43362.96028 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.648 0.009 -1.0 -1.0 -2.70 -0.074 60 0 23:06:07
43362.96104 0.0000 2018/10/20
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.7154999 -100.3128891 515.0000 3180.506 0.010 -1.6 -2.0 -2.71 -0.073 60 0 23:11:04
43362.96447 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.508 0.009 -1.4 -2.0 -2.71 -0.073 60 0 23:12:14
43362.96528 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.506 0.009 -1.4 -2.1 -2.71 -0.073 60 1 23:13:19
43362.96603 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.507 0.011 -1.3 -2.2 -2.71 -0.073 60 4 23:14:24
43362.96678 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.507 0.009 -1.7 -2.3 -2.71 -0.072 60 0 23:15:30
43362.96755 0.0000 2018/10/20
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.7154999 -100.3128891 515.0000 3180.790 0.010 -0.7 1.4 -2.71 -0.072 60 4 23:18:07
43362.96936 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.789 0.010 -0.2 2.6 -2.71 -0.072 60 1 23:19:17
43362.97017 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.789 0.011 0.2 2.4 -2.71 -0.072 60 4 23:20:22
43362.97092 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.789 0.012 0.2 1.8 -2.70 -0.072 60 10 23:21:27
43362.97167 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.788 0.014 0.0 1.7 -2.70 -0.071 60 5 23:22:33
43362.97243 0.0000 2018/10/20
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
25.7154999 -100.3128891 515.0000 3180.645 0.009 -3.1 4.9 -2.70 -0.070 60 0 23:25:28
43362.97446 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.646 0.009 -2.7 6.0 -2.70 -0.070 60 0 23:26:38
43362.97527 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.646 0.012 -2.4 5.8 -2.70 -0.070 60 0 23:27:43
43362.97602 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.645 0.008 -2.4 5.2 -2.70 -0.070 60 1 23:28:48
43362.97677 0.0000 2018/10/20
25.7154999 -100.3128891 515.0000 3180.645 0.009 -2.6 4.7 -2.70 -0.069 60 0 23:29:54
43362.97753 0.0000 2018/10/20
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

25.7154999	-100.3128891	515.0000	3180.511	0.012	4.7	-0.8	-2.70	-0.069	60	0	23:32:32
43362.97936	0.0000	2018/10/20									
25.7154999	-100.3128891	515.0000	3180.511	0.011	4.9	-0.9	-2.70	-0.068	60	0	23:33:42
43362.98017	0.0000	2018/10/20									
25.7154999	-100.3128891	515.0000	3180.512	0.011	5.2	-1.3	-2.70	-0.068	60	5	23:34:47
43362.98092	0.0000	2018/10/20									
25.7154999	-100.3128891	515.0000	3180.513	0.008	5.1	-1.7	-2.70	-0.068	60	0	23:35:52
43362.98167	0.0000	2018/10/20									
25.7154999	-100.3128891	515.0000	3180.511	0.011	5.0	-2.0	-2.70	-0.067	60	6	23:36:58
43362.98243	0.0000	2018/10/20									

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:07:43

Project Name: Monterrey_AA_20181020a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Monterrey_AA
Site Code:
Lat: 25.71561 Long: -100.31292 Elev: 530.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.853 μ Gal/cm
Nominal Air Pressure: 951.18 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Monterrey_AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Monterrey_AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	0.164	0.405	0.843	0.490	0.091	0.247	0.122	0.109	0.000	0.000	0.000
Phase (deg):	81.6	323.2	66.9	84.1	239.4	71.7	311.1	93.6	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99091480 nm
Red Lock: 632.99193360 nm

Processing Results

Date: 10/20/18
Time: 22:35:03
DOY: 293
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978801757.34 μ Gal
Set Scatter: 1.73 μ Gal

Measurement Precision: 0.70 µGal
Total Uncertainty: 7.73 µGal
Red/Blue Separation: 12.07 µGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 707
Total Drops Rejected: 13
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 6
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -76.90 µGal
Ocean Load: -0.36 µGal
Polar Motion: -4.01 µGal
Barometric Pressure: 2.02 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.08 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.04 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Comments

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:08:41

Project Name: Monterrey_AA_20181020b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Monterrey_AA
Site Code:
Lat: 25.71561 Long: -100.31292 Elev: 530.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.853 µGal/cm

Nominal Air Pressure: 951.18 mBar
 Barometric Admittance Factor: 0.30
 Polar Motion Coord: 0.1981 " 0.3085 "
 Earth Tide (ETGTAB) Selected
 Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
 Delta Factor Filename: C:\gData\OceanLoad-Monterrey_AA.dff

Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Monterrey_AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.164	0.405	0.843	0.490	0.091	0.247	0.122	0.109	0.000	0.000	0.000
Phase (deg):	81.6	323.2	66.9	84.1	239.4	71.7	311.1	93.6	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99091480 nm
 Red Lock: 632.99193360 nm

Processing Results

Date: 10/20/18
 Time: 23:03:18
 DOY: 293
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978801757.42 µGal
 Set Scatter: 1.19 µGal
 Measurement Precision: 0.49 µGal
 Total Uncertainty: 7.71 µGal
 Red/Blue Separation: 9.68 µGal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 715
 Total Drops Rejected: 5
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 10
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -76.53 µGal
 Ocean Load: -0.37 µGal
 Polar Motion: -4.01 µGal

Barometric Pressure: 2.07 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

Uncertainties

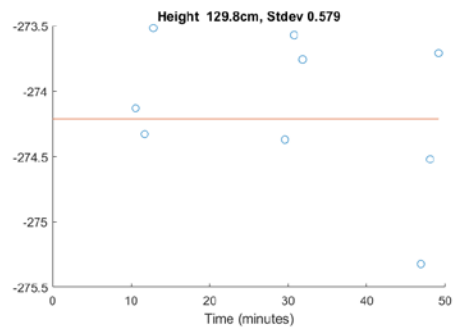
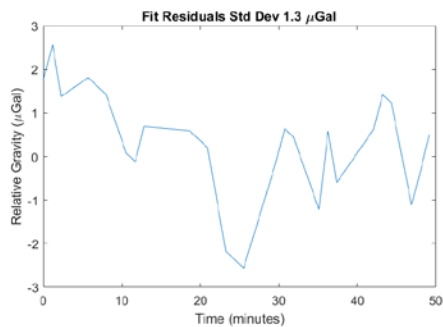
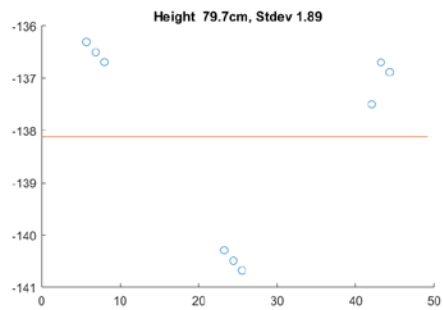
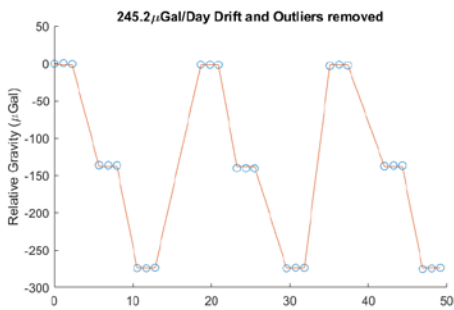
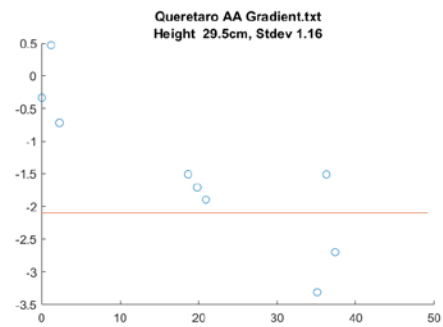
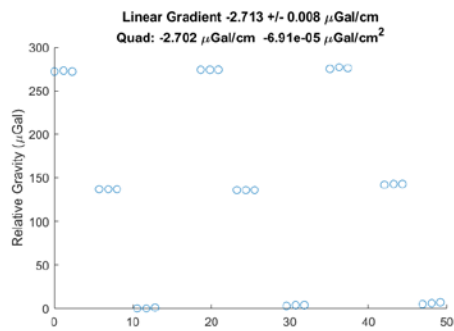
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.08 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.04 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Comments

Querétaro

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Queretaro AA	11/5/2018	20.53833	-100.26027	1940
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978081571.6	7.71	0.44	6
2	978081568.2	7.71	0.37	8
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.5	0.0	1.2	
2	79.7	-136.0	1.9	
3	129.8	-272.1	0.6	



Stn Heights: 10.6

```
/ CG-5 SURVEY
/ Survey name: CENAM
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/11/ 5
/ Time: 22:15:02
/ LONG: 104.0000000 W
/ LAT: 24.0000000 N
/ ZONE: 13
/ GMT DIFF.: 0.0
/ CG-5 SURVEY
/ Survey name: CENAM grad
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/11/ 5
/ Time: 22:56:49
/ LONG: 104.0000000 W
/ LAT: 24.0000000 N
/ ZONE: 13
/ GMT DIFF.: 0.0
```

Line 1.000N

```
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2471.208 0.013 0.5 -1.0 -2.83 -0.092 60 0 22:59:13
43377.95626 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.209 0.011 1.0 -1.6 -2.83 -0.092 60 0 23:00:23
43377.95707 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.208 0.018 1.2 -2.1 -2.83 -0.093 60 0 23:01:29
43377.95783 0.0000 2018/11/05
```

Line 2.000N

```
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2471.073 0.018 0.3 -2.2 -2.83 -0.093 60 0 23:04:55
43377.96021 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.073 0.010 0.7 -2.2 -2.83 -0.093 60 0 23:06:05
43377.96102 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.073 0.011 1.0 -2.2 -2.83 -0.093 60 3 23:07:11
43377.96178 0.0000 2018/11/05
```

Line 3.000N

```
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2470.936 0.015 2.3 0.6 -2.83 -0.094 60 0 23:09:46
43377.96357 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2470.936 0.012 3.0 1.0 -2.83 -0.094 60 0 23:10:56
43377.96438 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2470.937 0.014 3.5 1.0 -2.83 -0.094 60 0 23:12:02
43377.96514 0.0000 2018/11/05
```

Line 1.000N

```
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2471.210 0.011 -0.5 -0.4 -2.84 -0.094 60 1 23:17:52
43377.96919 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.210 0.013 -0.1 -0.1 -2.84 -0.094 60 0 23:19:02
43377.97000 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.210 0.014 0.1 -0.7 -2.84 -0.094 60 0 23:20:08
43377.97076 0.0000 2018/11/05
```

Line 2.000N

```
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2471.072 0.013 -0.3 3.3 -2.84 -0.094 60 0 23:22:28
43377.97238 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.072 0.014 0.0 2.9 -2.84 -0.094 60 0 23:23:38
43377.97319 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.072 0.014 0.0 2.6 -2.84 -0.094 60 0 23:24:44
43377.97395 0.0000 2018/11/05
```

Line 3.000N

```
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
```

```

20.5379505 -100.2598953 1970.2000 2470.939 0.012 3.2 1.5 -2.84 -0.093 60 0 23:28:48
43377.97677 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2470.940 0.014 3.4 1.3 -2.84 -0.093 60 0 23:29:58
43377.97758 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2470.940 0.012 3.3 1.2 -2.84 -0.093 60 0 23:31:04
43377.97834 0.0000 2018/11/05
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2471.211 0.011 1.7 4.5 -2.84 -0.093 60 0 23:34:20
43377.98060 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.213 0.011 2.2 5.2 -2.84 -0.093 60 1 23:35:30
43377.98141 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.212 0.014 2.6 4.8 -2.84 -0.092 60 0 23:36:36
43377.98218 0.0000 2018/11/05
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2471.078 0.016 1.8 -0.3 -2.84 -0.092 60 0 23:41:17
43377.98542 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.079 0.012 1.8 -0.6 -2.84 -0.092 60 0 23:42:27
43377.98623 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2471.079 0.010 2.0 -0.8 -2.84 -0.091 60 0 23:43:33
43377.98699 0.0000 2018/11/05
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
20.5379505 -100.2598953 1970.2000 2470.941 0.013 2.2 2.7 -2.84 -0.091 60 0 23:46:08
43377.98879 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2470.942 0.012 2.3 2.8 -2.84 -0.090 60 0 23:47:18
43377.98959 0.0000 2018/11/05
20.5379505 -100.2598953 1970.2000 2470.943 0.012 2.2 2.5 -2.84 -0.090 60 0 23:48:24
43377.99036 0.0000 2018/11/05

```

Micro-g LaCoste g Processing Report
File Created: 11/05/18, 23:12:27

Project Name: Queretaro_AA_20181105a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Queretaro AA
Site Code:
Lat: 20.53833 Long: -100.26027 Elev: 1940.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.713 μ Gal/cm
Nominal Air Pressure: 800.89 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Queretaro AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2

2.753244 3.081254 1.07338 0.0000 M3
3.791964 3.937897 1.03900 0.0000 M4
Ocean Load ON, Filename: C:\gData\OceanLoad-Queretaro AA.olf
Waves: M2 S2 K1 O1 N2 P1 K2 Q1 Mf Mm Ssa
Amplitude (µGal): 0.346 0.521 0.895 0.608 0.191 0.264 0.149 0.145 0.000 0.000 0.000
Phase (deg): 133.1 323.8 79.3 95.4 225.5 86.4 312.6 103.5 0.0 0.0 0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/05/18
Time: 22:52:16
DOY: 309
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978081571.61 µGal
Set Scatter: 1.08 µGal
Measurement Precision: 0.44 µGal
Total Uncertainty: 7.71 µGal
Red/Blue Separation: 15.57 µGal
Number of Sets Collected: 6
Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 716
Total Drops Rejected: 4
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -94.07 µGal
Ocean Load: 0.91 µGal
Polar Motion: -3.37 µGal
Barometric Pressure: 2.23 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.09 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal

System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Comments

Micro-g LaCoste g Processing Report
File Created: 11/05/18, 23:13:23

Project Name: Queretaro_AA_20181105b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Queretaro AA
Site Code:
Lat: 20.53833 Long: -100.26027 Elev: 1940.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -2.713 µGal/cm
Nominal Air Pressure: 800.89 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Queretaro AA.dff

Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Queretaro AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	0.346	0.521	0.895	0.608	0.191	0.264	0.149	0.145	0.000	0.000	0.000
Phase (deg):	133.1	323.8	79.3	95.4	225.5	86.4	312.6	103.5	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/05/18
Time: 23:21:26
DOY: 309
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978081568.24 µGal
Set Scatter: 1.05 µGal
Measurement Precision: 0.37 µGal
Total Uncertainty: 7.71 µGal
Red/Blue Separation: 14.08 µGal

Number of Sets Collected: 8
Number of Sets Processed: 8
Set #s Processed: 1,2,3,4,5,6,7,8
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 948
Total Drops Rejected: 12
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -96.78 μGal
Ocean Load: 0.89 μGal
Polar Motion: -3.37 μGal
Barometric Pressure: 2.27 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

Uncertainties

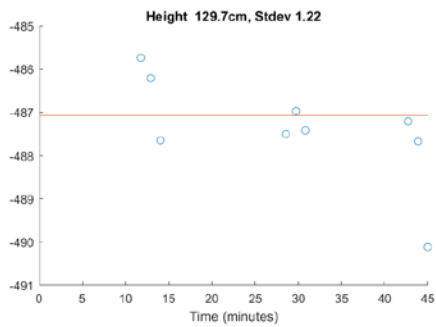
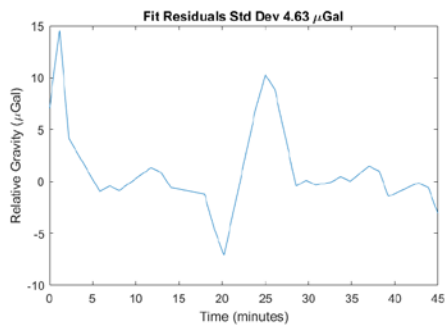
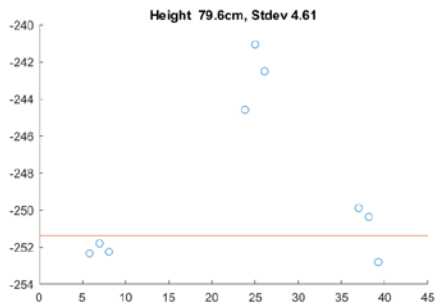
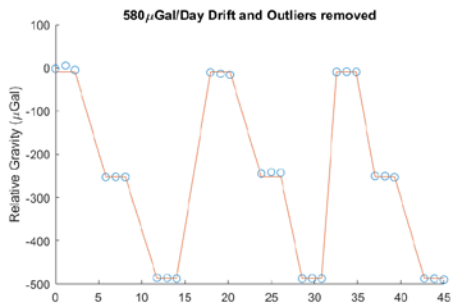
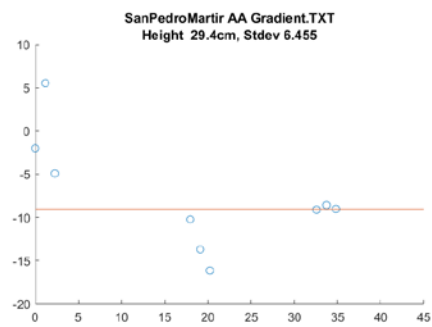
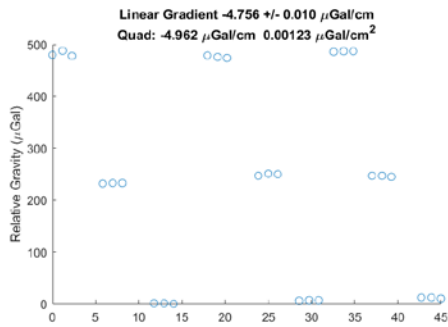
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.10 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.09 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

San Pedro Martir

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
SanPedroMartir AA	11/14/2018	31.044	-115.46393	2805
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978740108.8	7.78	1.1	6
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.4	0.0	6.5	
2	79.6	-242.3	4.6	
3	129.7	-478.0	1.2	



Stn Heights: 10.5

/ CG-5 SURVEY
/ Survey name: SN PEDRO AA
/ Instrument S/N: 41384
/ Client: INEGI
/ Operator: APOLO
/ Date: 2018/11/14
/ Time: 21:55:43
/ LONG: 116.6643219 W
/ LAT: 31.8677540 N
/ ZONE: 0
/ GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
/ Gref: 0.000
/ Gcall: 8583.375
/ TiltxS: 616.068
/ TiltyS: 492.577
/ TiltxO: -4.536
/ TiltyO: 18.236
/ Tempco: -0.132
/ Drift: 0.707
/ DriftTime Start: 22:46:07
/ DriftDate Start: 2018/11/06

/ CG-5 OPTIONS
/ Tide Correction: YES
/ Cont. Tilt: YES
/ Auto Rejection: YES
/ Terrain Corr.: NO
/ Seismic Filter: YES
/ Raw Data: NO

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.530 0.026 -6.1 -0.7 -2.98 -0.041 60 0 22:04:05
43386.91803 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.538 0.034 -10.5 0.3 -2.97 -0.041 60 24 22:05:15
43386.91884 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.528 0.027 -13.4 1.6 -2.97 -0.041 60 13 22:06:21
43386.91960 0.0000 2018/11/14

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.282 0.035 -5.6 4.0 -2.97 -0.041 60 12 22:09:54
43386.92206 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.283 0.033 -6.5 4.8 -2.97 -0.040 60 2 22:11:04
43386.92287 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.283 0.022 -8.3 5.9 -2.98 -0.040 60 0 22:12:10
43386.92364 0.0000 2018/11/14

Line 3.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.051 0.019 -7.7 -1.0 -2.99 -0.040 60 0 22:15:51
43386.92619 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.051 0.026 -7.6 -1.9 -2.99 -0.040 60 0 22:17:01
43386.92700 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.050 0.037 -6.3 -1.0 -2.99 -0.039 60 0 22:18:07
43386.92776 0.0000 2018/11/14

Line 1.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.529 0.021 -13.1 3.4 -3.00 -0.039 60 0 22:22:02
43386.93048 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.526 0.029 -17.8 3.8 -3.00 -0.039 60 0 22:23:12
43386.93129 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.524 0.025 -20.6 2.4 -3.00 -0.038 60 0 22:24:18
43386.93205 0.0000 2018/11/14

Line 2.000N

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE

```

31.0441360 -115.4637375 2803.0000 3132.297 0.020 9.2 -0.9 -3.01 -0.038 60 2 22:27:55
43386.93456 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.301 0.031 11.5 0.6 -3.01 -0.038 60 0 22:29:05
43386.93536 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.300 0.029 11.3 2.2 -3.01 -0.038 60 0 22:30:11
43386.93613 0.0000 2018/11/14
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.056 0.030 -7.3 -1.8 -3.02 -0.037 60 0 22:32:39
43386.93784 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.057 0.018 -8.2 -4.0 -3.02 -0.037 60 13 22:33:49
43386.93865 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.057 0.029 -6.8 -4.4 -3.02 -0.037 60 1 22:34:55
43386.93941 0.0000 2018/11/14
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.536 0.021 -6.8 -0.7 -3.03 -0.036 60 0 22:36:39
43386.94061 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.537 0.023 -8.3 0.8 -3.03 -0.036 60 0 22:37:49
43386.94142 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.537 0.015 -10.7 1.1 -3.03 -0.036 60 0 22:38:55
43386.94218 0.0000 2018/11/14
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.297 0.040 -5.0 -1.9 -3.03 -0.036 60 0 22:41:05
43386.94368 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.297 0.047 -3.7 -1.5 -3.03 -0.036 60 0 22:42:15
43386.94449 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.295 0.027 0.5 -0.6 -3.04 -0.035 60 0 22:43:21
43386.94526 0.0000 2018/11/14
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
31.0441360 -115.4637375 2803.0000 3132.062 0.027 -1.0 -4.9 -3.04 -0.035 60 0 22:46:48
43386.94765 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.062 0.022 -0.9 -2.7 -3.04 -0.035 60 1 22:47:58
43386.94846 0.0000 2018/11/14
31.0441360 -115.4637375 2803.0000 3132.060 0.026 -1.5 -2.9 -3.04 -0.034 60 0 22:49:04
43386.94922 0.0000 2018/11/14

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 14:58:45

Project Name: SanPedroMartir_AA
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: SanPedroMartir_AA
Site Code:
Lat: 31.04400 Long: -115.46393 Elev: 2805.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -4.756 µGal/cm
Nominal Air Pressure: 718.64 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-SanPedroMartir_AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC

0.000002 0.249951 1.160000 0.0000 Long
 0.721500 0.906315 1.154250 0.0000 Q1
 0.921941 0.974188 1.154240 0.0000 O1
 0.989049 0.998028 1.149150 0.0000 P1
 0.999853 1.216397 1.134890 0.0000 K1
 1.719381 1.906462 1.161720 0.0000 N2
 1.923766 1.976926 1.161720 0.0000 M2
 1.991787 2.002885 1.161720 0.0000 S2
 2.003032 2.182843 1.161720 0.0000 K2
 2.753244 3.081254 1.07338 0.0000 M3
 3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-SanPedroMartir AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	2.136	1.091	3.258	1.982	0.616	1.020	0.374	0.396	0.000	0.000	0.000
Phase (deg):	278.8	301.0	77.3	93.0	299.5	78.8	299.1	102.5	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 µGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 11/14/18
 Time: 22:20:20
 DOY: 318
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978740108.84 µGal
 Set Scatter: 2.68 µGal
 Measurement Precision: 1.10 µGal
 Total Uncertainty: 7.78 µGal
 Red/Blue Separation: 17.83 µGal
 Number of Sets Collected: 6
 Number of Sets Processed: 6
 Set #s Processed: 1,2,3,4,5,6
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 687
 Total Drops Rejected: 33
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec
 Number of Sets: 12
 Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): -39.44 µGal
 Ocean Load: -1.91 µGal
 Polar Motion: -3.14 µGal
 Barometric Pressure: 3.06 µGal
 Transfer Height: 0.00 µGal
 Reference Xo: -0.00 µGal

Uncertainties

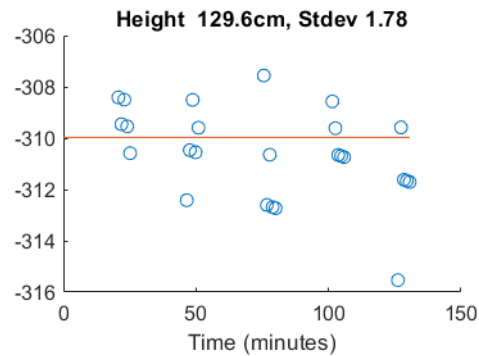
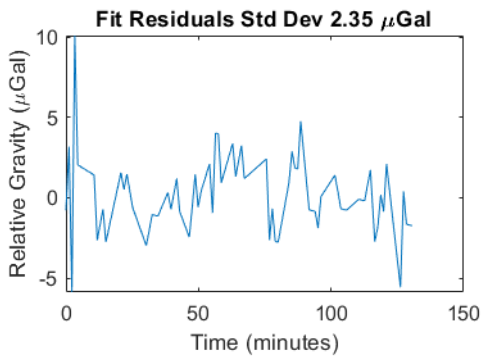
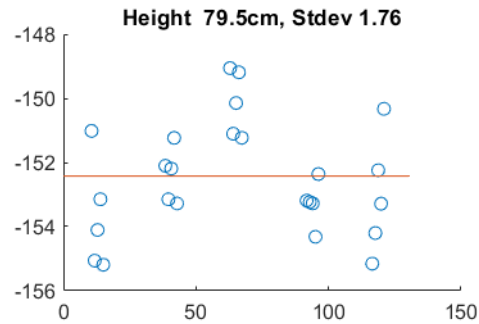
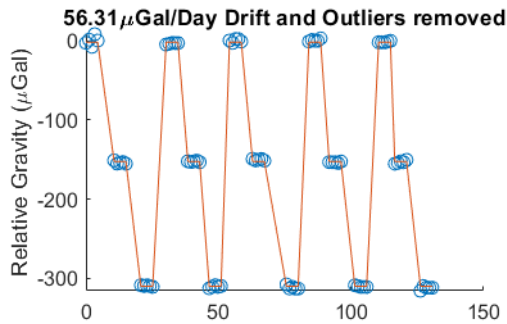
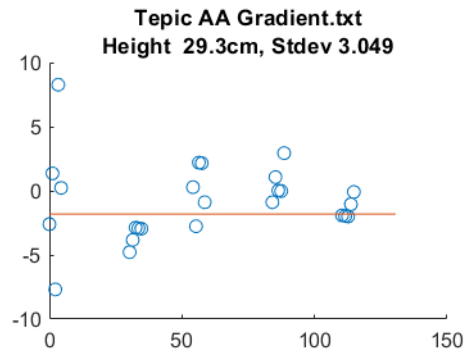
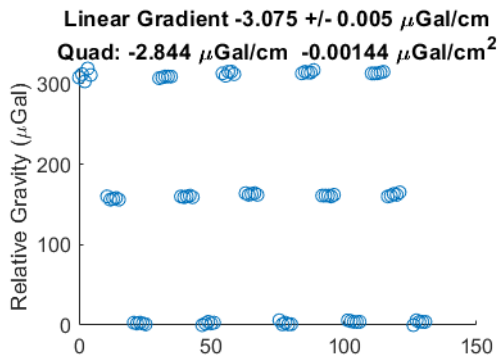
Sigma Reject: 3.00
 Earth Tide Factor: 0.001
 Average Earth Tide Uncertainty: 0.04 µGal
 Ocean Load Factor: 0.10

Average Ocean Load Uncertainty: 0.19 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Tepic AA	11/7/2018	21.48453	-104.84881	920
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978460799.4	7.81	1.3	10
2	978460804.5	7.94	1.92	10
3	978460802.5	8.07	2.4	10
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.3	0.0	3.0	
2	79.5	-150.6	1.8	
3	129.6	-308.2	1.8	




```

Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.460 0.044   -4.4    6.2 -2.90 0.094  60   0 18:36:53
43379.77437   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.461 0.031   -4.0    6.5 -2.90 0.094  60   0 18:38:03
43379.77518   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.462 0.029   -3.8    6.0 -2.90 0.095  60   0 18:39:08
43379.77593   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.462 0.047   -3.6    5.7 -2.90 0.095  60   0 18:40:13
43379.77668   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.462 0.036   -3.5    5.4 -2.90 0.095  60   0 18:41:19
43379.77745   0.0000  2018/11/07
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.313 0.038   -1.4   -3.1 -2.91 0.095  60   0 18:45:04
43379.78005   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.312 0.044   -2.3   -2.9 -2.91 0.095  60   2 18:46:14
43379.78086   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.313 0.044   -2.5   -3.0 -2.91 0.095  60   0 18:47:19
43379.78161   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.314 0.061   -2.5   -3.5 -2.91 0.095  60   2 18:48:24
43379.78236   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.312 0.030   -2.5   -3.7 -2.91 0.095  60   2 18:49:30
43379.78312   0.0000  2018/11/07
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.153 0.050   -4.2    0.2 -2.91 0.095  60   2 18:53:08
43379.78564   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.155 0.052   -4.1   -0.2 -2.91 0.095  60   0 18:54:18
43379.78645   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.157 0.056   -4.0   -0.4 -2.91 0.095  60   0 18:55:23
43379.78720   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.155 0.049   -4.0   -0.7 -2.91 0.095  60   5 18:56:28
43379.78795   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.156 0.030   -4.1   -0.8 -2.91 0.095  60   0 18:57:34
43379.78871   0.0000  2018/11/07
Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.466 0.040   -3.3    2.9 -2.91 0.095  60   0 19:00:46
43379.79093   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.463 0.038   -2.9    3.6 -2.91 0.094  60   0 19:01:56
43379.79174   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.468 0.046   -2.7    3.2 -2.91 0.094  60   0 19:03:01
43379.79249   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.468 0.044   -2.6    2.6 -2.91 0.094  60   0 19:04:06
43379.79324   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.465 0.038   -2.6    2.3 -2.91 0.094  60   0 19:05:12
43379.79401   0.0000  2018/11/07
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.317 0.029   -0.4   -2.7 -2.91 0.094  60   1 19:09:29
43379.79698   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.315 0.039   -1.0   -2.1 -2.91 0.093  60   4 19:10:39
43379.79778   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.316 0.056   -0.9   -2.5 -2.91 0.093  60   0 19:11:44
43379.79854   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.317 0.034   -0.7   -2.9 -2.91 0.093  60   0 19:12:49
43379.79929   0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.315 0.036   -0.8   -3.3 -2.91 0.093  60   1 19:13:55
43379.80005   0.0000  2018/11/07
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.159 0.037    1.6    8.0 -2.92 0.091  60   0 19:22:13
43379.80580   0.0000  2018/11/07

```



```

21.4845009 -104.8488083 920.0000 2852.318 0.045 -3.5 -1.4 -2.91 0.073 60 1 20:07:32
43379.83722 0.0000 2018/11/07
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.---TILTX---TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN--DATE
21.4845009 -104.8488083 920.0000 2852.153 0.051 -0.3 7.5 -2.92 0.070 60 11 20:12:47
43379.84086 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.159 0.026 -0.3 7.2 -2.92 0.069 60 3 20:13:57
43379.84167 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.157 0.040 -0.3 7.1 -2.92 0.068 60 0 20:15:02
43379.84242 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.157 0.031 -0.4 6.8 -2.92 0.068 60 0 20:16:07
43379.84317 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.157 0.040 -0.5 6.9 -2.92 0.067 60 0 20:17:13
43379.84394 0.0000 2018/11/07

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:25:39

Project Name: T epic_AA_20181107a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: T epic AA
Site Code:
Lat: 21.48453 Long: -104.84881 Elev: 920.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.075 μ Gal/cm
Nominal Air Pressure: 907.50 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-T epic AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-T epic AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	1.624	1.413	1.975	1.347	0.536	0.610	0.418	0.300	0.000	0.000	0.000
Phase (deg):	291.0	300.9	86.0	101.5	285.2	91.8	297.3	110.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/07/18
Time: 18:30:54
DOY: 311
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978460799.39 μGal
Set Scatter: 4.12 μGal
Measurement Precision: 1.30 μGal
Total Uncertainty: 7.81 μGal
Red/Blue Separation: 0.22 μGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1195
Total Drops Rejected: 5
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 92.12 μGal
Ocean Load: 0.17 μGal
Polar Motion: -3.07 μGal
Barometric Pressure: 0.79 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.02 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Comments

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:26:39

Project Name: Tpic_AA_20181107b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Tepic AA
 Site Code:
 Lat: 21.48453 Long: -104.84881 Elev: 920.00 m
 Setup Height: 0.00 cm
 Transfer Height: 72.20 cm
 Actual Height: 72.20 cm
 Gradient: -3.075 $\mu\text{Gal}/\text{cm}$
 Nominal Air Pressure: 907.50 mBar
 Barometric Admittance Factor: 0.30
 Polar Motion Coord: 0.1777 " 0.2904 "
 Earth Tide (ETGTAB) Selected
 Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
 Delta Factor Filename: C:\gData\OceanLoad-Tepic AA.dff
 Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Tepic AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μGal):	1.624	1.413	1.975	1.347	0.536	0.610	0.418	0.300	0.000	0.000	0.000
Phase (deg):	291.0	300.9	86.0	101.5	285.2	91.8	297.3	110.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
 Meter S/N: 025
 Factory Height: 72.20 cm
 Rubidium Frequency: 10000000.00172 Hz
 Offset: 0.000 μGal
 Laser: L-Series (025)
 Blue Lock: 632.99092480 nm
 Red Lock: 632.99193260 nm

Processing Results

Date: 11/07/18
 Time: 19:07:00
 DOY: 311
 Year: 2018
 Time Offset (D h:m:s): 0 0:0:0
 Gravity: 978460804.51 μGal
 Set Scatter: 6.07 μGal
 Measurement Precision: 1.92 μGal
 Total Uncertainty: 7.94 μGal
 Red/Blue Separation: 14.71 μGal
 Number of Sets Collected: 10
 Number of Sets Processed: 10
 Set #s Processed: 1,2,3,4,5,6,7,8,9,10
 Number of Sets NOT Processed: 0
 Set #s NOT Processed:
 Number of Drops/Set: 120
 Total Drops Accepted: 1199
 Total Drops Rejected: 1
 Total Fringes Acquired: 750
 Fringe Start: 19
 Processed Fringes: 687
 GuideCard Multiplex: 4
 GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
 Red/Blue Interval: 3 min
 Drop Interval: 1 sec

Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 92.36 µGal
Ocean Load: 1.40 µGal
Polar Motion: -3.07 µGal
Barometric Pressure: 0.66 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.14 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Comments

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:27:41

Project Name: Tepic_AA_20181107c
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Tepic AA
Site Code:
Lat: 21.48453 Long: -104.84881 Elev: 920.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.075 µGal/cm
Nominal Air Pressure: 907.50 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Tepic AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Tepic AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.624	1.413	1.975	1.347	0.536	0.610	0.418	0.300	0.000	0.000	0.000
Phase (deg):	291.0	300.9	86.0	101.5	285.2	91.8	297.3	110.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/07/18
Time: 19:44:57
DOY: 311
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978460802.53 µGal
Set Scatter: 7.60 µGal
Measurement Precision: 2.40 µGal
Total Uncertainty: 8.07 µGal
Red/Blue Separation: 13.60 µGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1197
Total Drops Rejected: 3
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 81.92 µGal
Ocean Load: 2.55 µGal
Polar Motion: -3.07 µGal
Barometric Pressure: 0.53 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

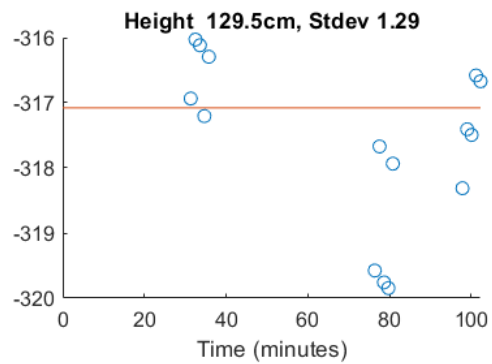
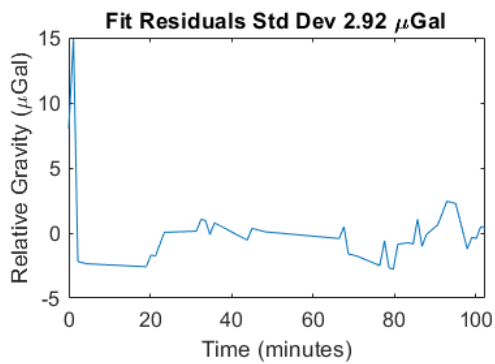
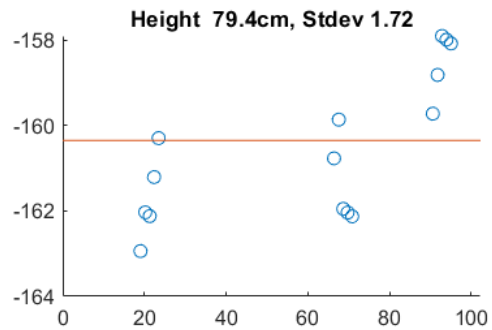
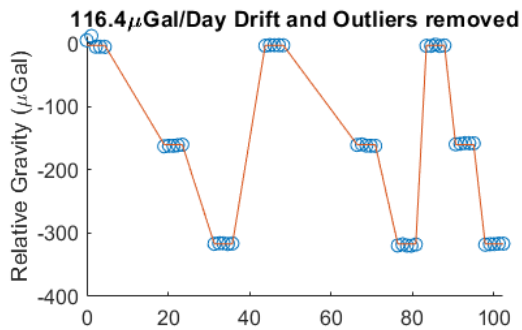
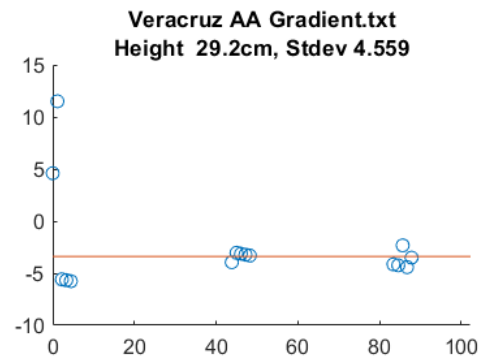
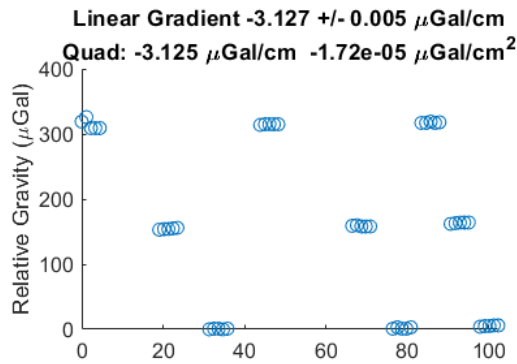
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.08 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.26 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Tepic

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Tepic AA	11/7/2018	21.48453	-104.84881	920
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978460799.4	7.81	1.3	10
2	978460804.5	7.94	1.92	10
3	978460802.5	8.07	2.4	10
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.3	0.0	3.0	
2	79.5	-150.6	1.8	
3	129.6	-308.2	1.8	




```

Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.460 0.044   -4.4    6.2 -2.90 0.094  60   0 18:36:53
43379.77437  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.461 0.031   -4.0    6.5 -2.90 0.094  60   0 18:38:03
43379.77518  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.462 0.029   -3.8    6.0 -2.90 0.095  60   0 18:39:08
43379.77593  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.462 0.047   -3.6    5.7 -2.90 0.095  60   0 18:40:13
43379.77668  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.462 0.036   -3.5    5.4 -2.90 0.095  60   0 18:41:19
43379.77745  0.0000  2018/11/07
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.313 0.038   -1.4   -3.1 -2.91 0.095  60   0 18:45:04
43379.78005  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.312 0.044   -2.3   -2.9 -2.91 0.095  60   2 18:46:14
43379.78086  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.313 0.044   -2.5   -3.0 -2.91 0.095  60   0 18:47:19
43379.78161  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.314 0.061   -2.5   -3.5 -2.91 0.095  60   2 18:48:24
43379.78236  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.312 0.030   -2.5   -3.7 -2.91 0.095  60   2 18:49:30
43379.78312  0.0000  2018/11/07
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.153 0.050   -4.2    0.2 -2.91 0.095  60   2 18:53:08
43379.78564  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.155 0.052   -4.1   -0.2 -2.91 0.095  60   0 18:54:18
43379.78645  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.157 0.056   -4.0   -0.4 -2.91 0.095  60   0 18:55:23
43379.78720  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.155 0.049   -4.0   -0.7 -2.91 0.095  60   5 18:56:28
43379.78795  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.156 0.030   -4.1   -0.8 -2.91 0.095  60   0 18:57:34
43379.78871  0.0000  2018/11/07
Line      1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.466 0.040   -3.3    2.9 -2.91 0.095  60   0 19:00:46
43379.79093  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.463 0.038   -2.9    3.6 -2.91 0.094  60   0 19:01:56
43379.79174  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.468 0.046   -2.7    3.2 -2.91 0.094  60   0 19:03:01
43379.79249  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.468 0.044   -2.6    2.6 -2.91 0.094  60   0 19:04:06
43379.79324  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.465 0.038   -2.6    2.3 -2.91 0.094  60   0 19:05:12
43379.79401  0.0000  2018/11/07
Line      2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.317 0.029   -0.4   -2.7 -2.91 0.094  60   1 19:09:29
43379.79698  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.315 0.039   -1.0   -2.1 -2.91 0.093  60   4 19:10:39
43379.79778  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.316 0.056   -0.9   -2.5 -2.91 0.093  60   0 19:11:44
43379.79854  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.317 0.034   -0.7   -2.9 -2.91 0.093  60   0 19:12:49
43379.79929  0.0000  2018/11/07
21.4845009 -104.8488083  920.0000    2852.315 0.036   -0.8   -3.3 -2.91 0.093  60   1 19:13:55
43379.80005  0.0000  2018/11/07
Line      3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
21.4845009 -104.8488083  920.0000    2852.159 0.037    1.6    8.0 -2.92 0.091  60   0 19:22:13
43379.80580  0.0000  2018/11/07

```



```

21.4845009 -104.8488083 920.0000 2852.318 0.045 -3.5 -1.4 -2.91 0.073 60 1 20:07:32
43379.83722 0.0000 2018/11/07
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD---TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN--DATE
21.4845009 -104.8488083 920.0000 2852.153 0.051 -0.3 7.5 -2.92 0.070 60 11 20:12:47
43379.84086 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.159 0.026 -0.3 7.2 -2.92 0.069 60 3 20:13:57
43379.84167 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.157 0.040 -0.3 7.1 -2.92 0.068 60 0 20:15:02
43379.84242 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.157 0.031 -0.4 6.8 -2.92 0.068 60 0 20:16:07
43379.84317 0.0000 2018/11/07
21.4845009 -104.8488083 920.0000 2852.157 0.040 -0.5 6.9 -2.92 0.067 60 0 20:17:13
43379.84394 0.0000 2018/11/07

```

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:25:39

Project Name: T epic_AA_20181107a
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: T epic AA
Site Code:
Lat: 21.48453 Long: -104.84881 Elev: 920.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.075 µGal/cm
Nominal Air Pressure: 907.50 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-T epic AA.dff

Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-T epic AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.624	1.413	1.975	1.347	0.536	0.610	0.418	0.300	0.000	0.000	0.000
Phase (deg):	291.0	300.9	86.0	101.5	285.2	91.8	297.3	110.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/07/18
Time: 18:30:54

DOY: 311
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978460799.39 μGal
Set Scatter: 4.12 μGal
Measurement Precision: 1.30 μGal
Total Uncertainty: 7.81 μGal
Red/Blue Separation: 0.22 μGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1195
Total Drops Rejected: 5
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings
Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections
Earth Tide (ETGTAB): 92.12 μGal
Ocean Load: 0.17 μGal
Polar Motion: -3.07 μGal
Barometric Pressure: 0.79 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

Uncertainties
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.02 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Micro-g LaCoste g Processing Report
File Created: 12/13/18, 17:26:39

Project Name: Tepic_AA_20181107b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Tepic AA
Site Code:
Lat: 21.48453 Long: -104.84881 Elev: 920.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.075 $\mu\text{Gal}/\text{cm}$

Nominal Air Pressure: 907.50 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Tepic AA.dff

Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Tepic AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.624	1.413	1.975	1.347	0.536	0.610	0.418	0.300	0.000	0.000	0.000
Phase (deg):	291.0	300.9	86.0	101.5	285.2	91.8	297.3	110.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 11/07/18
Time: 19:07:00
DOY: 311
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978460804.51 µGal
Set Scatter: 6.07 µGal
Measurement Precision: 1.92 µGal
Total Uncertainty: 7.94 µGal
Red/Blue Separation: 14.71 µGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1199
Total Drops Rejected: 1
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 92.36 µGal
Ocean Load: 1.40 µGal
Polar Motion: -3.07 µGal

Barometric Pressure: 0.66 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.09 µGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.14 µGal
Barometric: 1.00 µGal
Polar Motion: 0.05 µGal
Laser: 0.05 µGal
Clock: 0.50 µGal
System Type: 7.00 µGal
Tidal Swell: 0.00 µGal
Water Table: 0.00 µGal
Unmodeled: 0.00 µGal
System Setup: 3.00 µGal
Gradient: 0.000 µGal (0.018 µGal/cm)

Micro-g LaCoste g Processing Report

File Created: 12/13/18, 17:27:41

Project Name: Tepic_AA_20181107c
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Tepic AA
Site Code:
Lat: 21.48453 Long: -104.84881 Elev: 920.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.075 µGal/cm
Nominal Air Pressure: 907.50 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1777 " 0.2904 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Tepic AA.dff
Delta Factors

Start	Stop	Amplitude	Phase	Term
0.000000	0.000001	1.000000	0.0000	DC
0.000002	0.249951	1.160000	0.0000	Long
0.721500	0.906315	1.154250	0.0000	Q1
0.921941	0.974188	1.154240	0.0000	O1
0.989049	0.998028	1.149150	0.0000	P1
0.999853	1.216397	1.134890	0.0000	K1
1.719381	1.906462	1.161720	0.0000	N2
1.923766	1.976926	1.161720	0.0000	M2
1.991787	2.002885	1.161720	0.0000	S2
2.003032	2.182843	1.161720	0.0000	K2
2.753244	3.081254	1.07338	0.0000	M3
3.791964	3.937897	1.03900	0.0000	M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Tepic AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.624	1.413	1.975	1.347	0.536	0.610	0.418	0.300	0.000	0.000	0.000
Phase (deg):	291.0	300.9	86.0	101.5	285.2	91.8	297.3	110.3	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm

Red Lock: 632.99193260 nm

Processing Results

Date: 11/07/18
Time: 19:44:57
DOY: 311
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978460802.53 μGal
Set Scatter: 7.60 μGal
Measurement Precision: 2.40 μGal
Total Uncertainty: 8.07 μGal
Red/Blue Separation: 13.60 μGal
Number of Sets Collected: 10
Number of Sets Processed: 10
Set #s Processed: 1,2,3,4,5,6,7,8,9,10
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 1197
Total Drops Rejected: 3
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 81.92 μGal
Ocean Load: 2.55 μGal
Polar Motion: -3.07 μGal
Barometric Pressure: 0.53 μGal
Transfer Height: 0.00 μGal
Reference Xo: -0.00 μGal

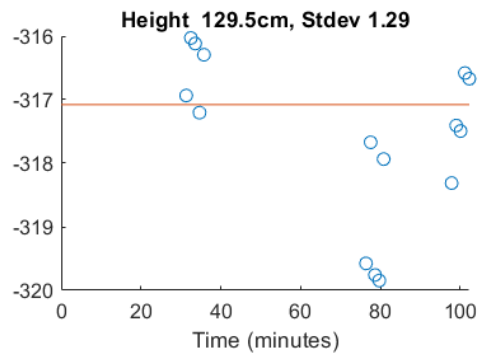
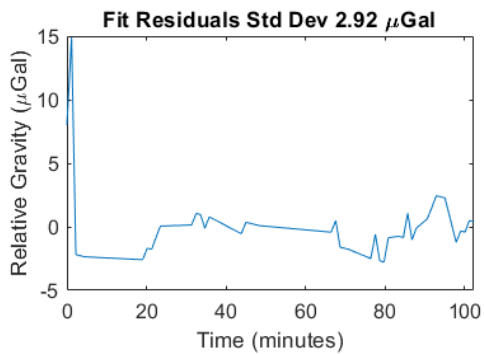
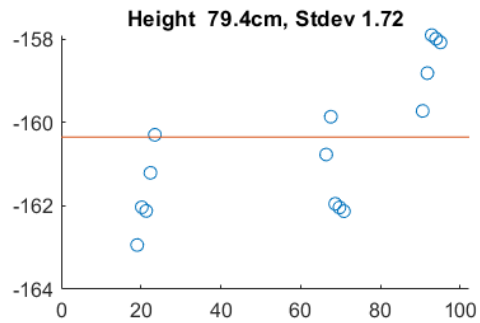
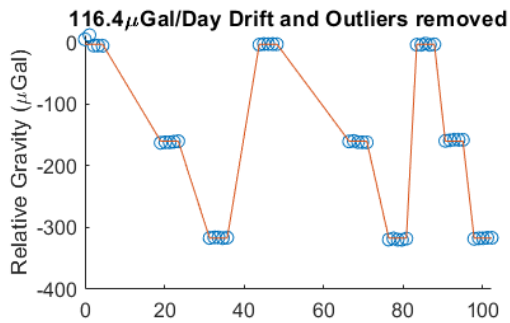
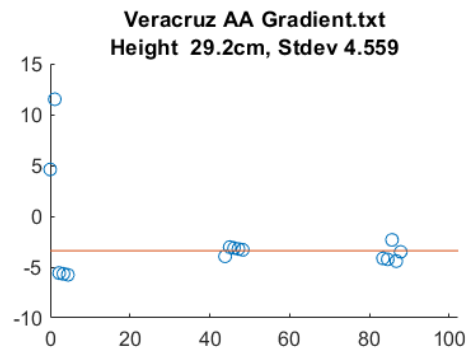
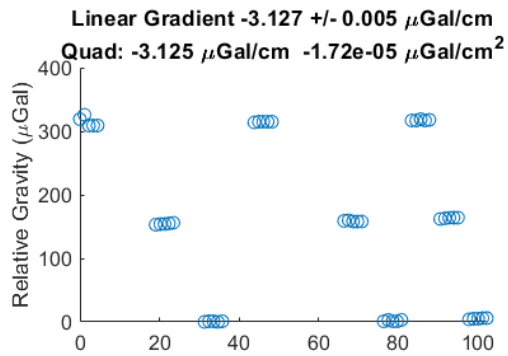
Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.08 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.26 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)

Veracruz

Absolute Gravity Site Raw Data Summary

<u>Site Name</u>	<u>Date Observed</u>	<u>Lat (Dec Deg)</u>	<u>Lon (Dec Deg)</u>	<u>Elev (m)</u>
Veracruz AA	10/29/2018	19.16542	-96.11494	12
A10 Observation	Gravity at 72.2 cm	Total Unc (μGal)	Stat Precision (μGal)	# of Sets
1	978564515.6	8.01	2.21	6
2	978564520.7	7.75	0.93	48
Vertical Gravity Gradient				
Gradient level	Measured Ht (cm)	Relative Gravity	Std Dev (μGal)	
1	29.2	0.0	4.6	
2	79.4	-157.0	1.7	
3	129.5	-313.7	1.3	



Stn Heights: 10.3
 / Survey name: UVER AA
 / Instrument S/N: 41384
 / Client: INEGI
 / Operator: APOLO
 / Date: 2018/10/29
 / Time: 00:36:08
 / LONG: 104.0000000 W
 / LAT: 24.0000000 N
 / ZONE: 13
 / GMT DIFF.: 0.0

/ CG-5 SETUP PARAMETERS
 / Gref: 0.000
 / Gcall: 8583.375
 / TiltxS: 616.068
 / TiltyS: 492.577
 / TiltxO: -4.536
 / TiltyO: 18.236
 / Tempco: -0.132
 / Drift: 0.707
 / DriftTime Start: 14:26:12
 / DriftDate Start: 2018/10/24

/ CG-5 OPTIONS
 / Tide Correction: YES
 / Cont. Tilt: YES
 / Auto Rejection: YES
 / Terrain Corr.: NO
 / Seismic Filter: YES
 / Raw Data: NO

Line 1.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 19.1654167 -96.1149445 12.0000 2946.481 0.261 -9.1 -11.0 -2.80 -0.054 60 0 01:57:35
 43371.08152 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.488 0.242 -5.5 -5.7 -2.81 -0.054 60 1 01:58:45
 43371.08233 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.471 0.220 -5.7 -6.0 -2.82 -0.054 60 0 01:59:50
 43371.08308 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.471 0.195 -5.8 -6.1 -2.83 -0.054 60 0 02:00:55
 43371.08384 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.471 0.240 -5.9 -6.1 -2.83 -0.055 60 0 02:02:01
 43371.08460 0.0000 2018/10/29

Line 2.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 19.1654167 -96.1149445 12.0000 2946.315 0.255 -3.8 -4.0 -2.89 -0.056 60 0 02:16:38
 43371.09473 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.316 0.215 -2.6 -2.2 -2.89 -0.056 60 0 02:17:48
 43371.09554 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.316 0.228 -2.5 -2.3 -2.89 -0.056 60 0 02:18:53
 43371.09629 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.317 0.233 -2.1 -2.7 -2.89 -0.056 60 0 02:19:58
 43371.09704 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.318 0.222 -2.2 -3.3 -2.89 -0.056 60 0 02:21:04
 43371.09781 0.0000 2018/10/29

Line 3.000N
 /-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
 -DEC.TIME+DATE--TERRAIN---DATE
 19.1654167 -96.1149445 12.0000 2946.162 0.254 -4.5 -4.6 -2.90 -0.056 60 0 02:28:56
 43371.10326 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.163 0.232 -4.6 -4.9 -2.90 -0.056 60 0 02:30:06
 43371.10407 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.163 0.211 -4.1 -5.3 -2.89 -0.056 60 0 02:31:11
 43371.10482 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.162 0.226 -4.2 -5.5 -2.89 -0.056 60 0 02:32:16
 43371.10557 0.0000 2018/10/29
 19.1654167 -96.1149445 12.0000 2946.163 0.231 -5.0 -5.9 -2.89 -0.056 60 0 02:33:22
 43371.10633 0.0000 2018/10/29

Line 1.000N

```

/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
19.1654167 -96.1149445 12.0000 2946.476 0.237 -3.5 -1.2 -2.90 -0.055 60 0 02:41:26
43371.11193 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.477 0.248 -3.3 -0.8 -2.90 -0.055 60 0 02:42:36
43371.11274 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.477 0.273 -3.2 -1.3 -2.90 -0.055 60 0 02:43:41
43371.11349 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.477 0.207 -3.3 -1.7 -2.90 -0.055 60 0 02:44:46
43371.11424 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.477 0.201 -3.4 -2.5 -2.89 -0.055 60 0 02:45:52
43371.11500 0.0000 2018/10/29
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
19.1654167 -96.1149445 12.0000 2946.321 0.201 -4.9 -4.1 -2.85 -0.052 60 0 03:04:01
43371.12758 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.322 0.245 -5.5 -3.1 -2.85 -0.052 60 0 03:05:11
43371.12839 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.320 0.253 -5.8 -3.4 -2.84 -0.052 60 0 03:06:16
43371.12914 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.320 0.242 -6.1 -4.1 -2.84 -0.052 60 0 03:07:21
43371.12990 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.320 0.240 -6.3 -4.3 -2.83 -0.051 60 0 03:08:27
43371.13066 0.0000 2018/10/29
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
19.1654167 -96.1149445 12.0000 2946.163 0.232 -7.6 -5.8 -2.85 -0.050 60 0 03:13:59
43371.13450 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.165 0.226 -7.7 -5.9 -2.85 -0.050 60 0 03:15:09
43371.13530 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.163 0.257 -7.3 -5.6 -2.85 -0.049 60 0 03:16:14
43371.13606 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.163 0.203 -7.7 -5.9 -2.86 -0.049 60 0 03:17:19
43371.13681 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.165 0.238 -7.7 -6.0 -2.86 -0.049 60 0 03:18:25
43371.13757 0.0000 2018/10/29
Line 1.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
19.1654167 -96.1149445 12.0000 2946.479 0.182 -2.5 -2.6 -2.87 -0.048 60 0 03:21:01
43371.13937 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.479 0.249 -2.1 -2.4 -2.87 -0.048 60 0 03:22:11
43371.14018 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.481 0.224 -2.1 -3.1 -2.87 -0.048 60 0 03:23:16
43371.14093 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.479 0.218 -2.1 -3.5 -2.88 -0.047 60 0 03:24:21
43371.14168 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.480 0.200 -2.2 -3.7 -2.88 -0.047 60 0 03:25:27
43371.14245 0.0000 2018/10/29
Line 2.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
19.1654167 -96.1149445 12.0000 2946.324 0.203 -2.9 -6.8 -2.88 -0.046 60 0 03:28:12
43371.14435 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.325 0.212 -2.7 -6.8 -2.89 -0.046 60 0 03:29:22
43371.14516 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.326 0.223 -2.6 -6.7 -2.89 -0.045 60 1 03:30:27
43371.14591 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.326 0.200 -2.7 -6.8 -2.89 -0.045 60 0 03:31:32
43371.14666 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.326 0.172 -2.8 -7.2 -2.89 -0.044 60 0 03:32:38
43371.14743 0.0000 2018/10/29
Line 3.000N
/-----LAT-----LONG-----ALT.-----GRAV.---SD.--TILTX--TILTY-TEMP---TIDE---DUR-REJ-----TIME---
-DEC.TIME+DATE--TERRAIN---DATE
19.1654167 -96.1149445 12.0000 2946.166 0.193 -4.8 -6.1 -2.90 -0.043 60 0 03:35:27
43371.14938 0.0000 2018/10/29
19.1654167 -96.1149445 12.0000 2946.167 0.173 -4.7 -5.5 -2.90 -0.043 60 0 03:36:37
43371.15019 0.0000 2018/10/29

```

19.1654167	-96.1149445	12.0000	2946.167	0.209	-4.5	-5.9	-2.90	-0.043	60	0	03:37:42
43371.15094	0.0000	2018/10/29									
19.1654167	-96.1149445	12.0000	2946.168	0.212	-4.4	-5.7	-2.90	-0.042	60	0	03:38:47
43371.15169	0.0000	2018/10/29									
19.1654167	-96.1149445	12.0000	2946.168	0.218	-4.5	-6.0	-2.90	-0.042	60	0	03:39:53
43371.15245	0.0000	2018/10/29									

Micro-g LaCoste g Processing Report
File Created: 11/06/18, 09:09:40

Project Name: Veracruz_AA_20181928b
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data

Name: Veracruz AA
Site Code:
Lat: 19.16542 Long: -96.11494 Elev: 12.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.127 μ Gal/cm
Nominal Air Pressure: 1011.81 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Veracruz AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC
0.000002	0.249951	1.160000	0.0000 Long
0.721500	0.906315	1.154250	0.0000 Q1
0.921941	0.974188	1.154240	0.0000 O1
0.989049	0.998028	1.149150	0.0000 P1
0.999853	1.216397	1.134890	0.0000 K1
1.719381	1.906462	1.161720	0.0000 N2
1.923766	1.976926	1.161720	0.0000 M2
1.991787	2.002885	1.161720	0.0000 S2
2.003032	2.182843	1.161720	0.0000 K2
2.753244	3.081254	1.07338	0.0000 M3
3.791964	3.937897	1.03900	0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Veracruz AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (μ Gal):	1.471	0.413	0.219	0.120	0.321	0.078	0.097	0.035	0.000	0.000	0.000
Phase (deg):	115.1	3.6	97.9	148.0	168.1	127.4	353.4	121.4	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 μ Gal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 10/29/18
Time: 02:55:02
DOY: 302
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978564515.62 μ Gal
Set Scatter: 5.42 μ Gal
Measurement Precision: 2.21 μ Gal
Total Uncertainty: 8.01 μ Gal
Red/Blue Separation: 25.18 μ Gal
Number of Sets Collected: 6

Number of Sets Processed: 6
Set #s Processed: 1,2,3,4,5,6
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 715
Total Drops Rejected: 5
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings
Sequence Interval: 6 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 12
Number of Drops: 120

Gravity Corrections
Earth Tide (ETGTAB): -56.14 μ Gal
Ocean Load: 0.40 μ Gal
Polar Motion: -3.39 μ Gal
Barometric Pressure: 1.19 μ Gal
Transfer Height: 0.00 μ Gal
Reference Xo: -0.00 μ Gal

Uncertainties
Sigma Reject: 3.00
Earth Tide Factor: 0.001
Average Earth Tide Uncertainty: 0.06 μ Gal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.04 μ Gal
Barometric: 1.00 μ Gal
Polar Motion: 0.05 μ Gal
Laser: 0.05 μ Gal
Clock: 0.50 μ Gal
System Type: 7.00 μ Gal
Tidal Swell: 0.00 μ Gal
Water Table: 0.00 μ Gal
Unmodeled: 0.00 μ Gal
System Setup: 3.00 μ Gal
Gradient: 0.000 μ Gal (0.018 μ Gal/cm)

Micro-g LaCoste g Processing Report
File Created: 11/06/18, 09:13:08

Project Name: Veracruz_AA_20181928c_long
g Acquisition Version: 4.041600
g Processing Version: 9.120423

Company/Institution:
Operator: Jeff Kanney

Station Data
Name: Veracruz AA
Site Code:
Lat: 19.16542 Long: -96.11494 Elev: 12.00 m
Setup Height: 0.00 cm
Transfer Height: 72.20 cm
Actual Height: 72.20 cm
Gradient: -3.127 μ Gal/cm
Nominal Air Pressure: 1011.81 mBar
Barometric Admittance Factor: 0.30
Polar Motion Coord: 0.1981 " 0.3085 "
Earth Tide (ETGTAB) Selected
Potential Filename: C:\gData\gWavefiles\ETCPOT.dat
Delta Factor Filename: C:\gData\OceanLoad-Veracruz AA.dff
Delta Factors

Start	Stop	Amplitude	Phase Term
0.000000	0.000001	1.000000	0.0000 DC

0.000002 0.249951 1.160000 0.0000 Long
0.721500 0.906315 1.154250 0.0000 Q1
0.921941 0.974188 1.154240 0.0000 O1
0.989049 0.998028 1.149150 0.0000 P1
0.999853 1.216397 1.134890 0.0000 K1
1.719381 1.906462 1.161720 0.0000 N2
1.923766 1.976926 1.161720 0.0000 M2
1.991787 2.002885 1.161720 0.0000 S2
2.003032 2.182843 1.161720 0.0000 K2
2.753244 3.081254 1.07338 0.0000 M3
3.791964 3.937897 1.03900 0.0000 M4

Ocean Load ON, Filename: C:\gData\OceanLoad-Veracruz AA.olf

Waves:	M2	S2	K1	O1	N2	P1	K2	Q1	Mf	Mm	Ssa
Amplitude (µGal):	1.471	0.413	0.219	0.120	0.321	0.078	0.097	0.035	0.000	0.000	0.000
Phase (deg):	115.1	3.6	97.9	148.0	168.1	127.4	353.4	121.4	0.0	0.0	0.0

Instrument Data

Meter Type: A10
Meter S/N: 025
Factory Height: 72.20 cm
Rubidium Frequency: 10000000.00172 Hz
Offset: 0.000 µGal
Laser: L-Series (025)
Blue Lock: 632.99092480 nm
Red Lock: 632.99193260 nm

Processing Results

Date: 10/29/18
Time: 09:02:03
DOY: 302
Year: 2018
Time Offset (D h:m:s): 0 0:0:0
Gravity: 978564520.65 µGal
Set Scatter: 6.42 µGal
Measurement Precision: 0.93 µGal
Total Uncertainty: 7.75 µGal
Red/Blue Separation: 25.72 µGal
Number of Sets Collected: 48
Number of Sets Processed: 48
Set #s Processed:
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48
Number of Sets NOT Processed: 0
Set #s NOT Processed:
Number of Drops/Set: 120
Total Drops Accepted: 5759
Total Drops Rejected: 1
Total Fringes Acquired: 750
Fringe Start: 19
Processed Fringes: 687
GuideCard Multiplex: 4
GuideCard Scale Factor: 25

Acquisition Settings

Sequence Interval: 30 min
Red/Blue Interval: 3 min
Drop Interval: 1 sec
Number of Sets: 48
Number of Drops: 120

Gravity Corrections

Earth Tide (ETGTAB): 56.02 µGal
Ocean Load: -0.09 µGal
Polar Motion: -3.39 µGal
Barometric Pressure: 1.00 µGal
Transfer Height: 0.00 µGal
Reference Xo: -0.00 µGal

Uncertainties

Sigma Reject: 3.00
Earth Tide Factor: 0.001

Average Earth Tide Uncertainty: 0.06 μGal
Ocean Load Factor: 0.10
Average Ocean Load Uncertainty: 0.01 μGal
Barometric: 1.00 μGal
Polar Motion: 0.05 μGal
Laser: 0.05 μGal
Clock: 0.50 μGal
System Type: 7.00 μGal
Tidal Swell: 0.00 μGal
Water Table: 0.00 μGal
Unmodeled: 0.00 μGal
System Setup: 3.00 μGal
Gradient: 0.000 μGal (0.018 $\mu\text{Gal}/\text{cm}$)