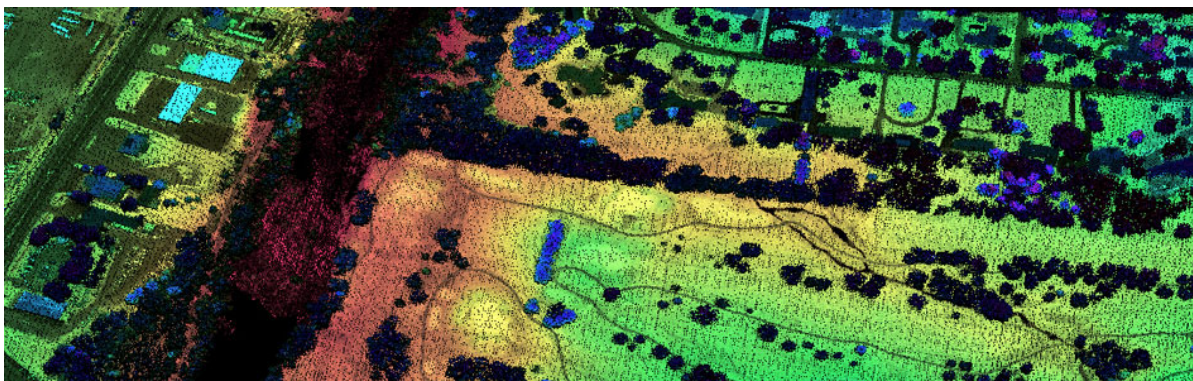


ATLANTIC GROUP

Remote Sensing and Land Information Solutions



NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

LiDAR for the Hurricane and Storm Damage Risk Reduction System (HSDRRS)

LiDAR System Data Report

Revisions

Information shown for each revision supersedes information on original Project Data Sheet

Original Version: Paul Barnes

Date: 04/26/2012

Revision 2: Paul Barnes

Date: 05/10/2012

Revision 3:

Date:

Revision 4:

Date:

Revision 5:

Date:

Table of Contents

Table of Contents	3
INTRODUCTION	4
1.0 LiDAR System Data Report.....	5
1.1 Data Processing Methods Used	5
1.2 Final LiDAR Pulse and Scan Rates.....	5
1.3 Scan Angle.....	5
1.4 Capability of Multiple Returns form Single Pulses.....	5
1.5 Accuracy and Precision of the LiDAR Data Acquired.....	6
1.6 Geo-referenced, Digital Spatial Representation of Project Extents	6
2.0 Collection Report.....	7
2.1 Mission Planning	7
2.2 Flight Logs.....	8
3.0 Ground Control (Survey) Report	28
3.1 Control and Calibration Points.....	28
3.2 QA/QC Reports	29
4.0 Ellipsoid Model	29
5.0 Geoid Model	29
6.0 Data Processing Procedures.....	30
7.0 System Calibration Report.....	32
Appendix A (Field Validation Points)	33
Appendix B (Calibration File)	54

INTRODUCTION

This document is the LiDAR System Data Report for the LiDAR acquisition for the Hurricane and Storm Damage Risk Reduction System (HSDRRS). In February 2012, USACE, Contracting Division contracted with The Atlantic Group to provide acquisition of Light Detection and Ranging (LiDAR) elevation data in the Hurricane and Storm Damage Risk Reduction System, St. Charles, Jefferson, Orleans, St. Bernard and Plaquemines Parishes, LA. This data will be used to support interior drainage modeling. LiDAR data should be collected to fully capture the total interior of the HSDRRS, including floodwalls, structures, and levees, and 200 feet outside of the HSDRRS to water's edge as appropriate. The project shall include capture of LiDAR data and the creation of digital elevation models derived from the LiDAR. The Atlantic Group will plan the LiDAR mission using Optech ALTM digital flight planning software. LiDAR acquisition involved utilizing an Optech 3100 sensor with multiple return capabilities. Forward-motion compensation on-board the aircraft will provide total stability of the LiDAR sensor to ensure optimum results.

To ensure positional accuracy, The Atlantic Group will establish a base station network incorporating established NGS monuments. This highly-accurate network of control will form the basis to fully calibrate X, Y, and Z calculations and evaluate recorded returns to the LiDAR sensor. Final accuracy will be verified through ground control check points distributed throughout the project area.

Questions concerning this report should be directed to the following:

Atlantic Group
2223 Drake Avenue SW, Suite 100
Huntsville, Alabama 35805
256-971.9991 (Direct)
256-971.1154 (Fax)

Patrick Robinson
LiDAR Department Manager
256-971-9991
perobinson@theatlgrp.com

Justin Henderson
Project Lead
256-971-9991
jlhenderson@theatlgrp.com

1.0 LiDAR System Data Report

1.1 Data Processing Methods Used

The Atlantic Group uses strict processing methods to integrate the Optech 3100 sensor into our LiDAR workflow and has standardized our procedures to maintain integrity and accuracies. Key elements to our quality controlled methods for LiDAR data acquisition, post-processing, and data validation include:

- ◆ Static pre-initialization and post-initialization of the GPS system (we do not recommend attempting to initialize while airborne because convergence of the GPS solution is not guaranteed).
- ◆ Pre-mission and post-mission calibration flight lines over the data validation test site
- ◆ Pre-processing in the field on a daily basis to ensure full coverage and data quality control.
- ◆ Post-processing of the airborne GPS (AGPS) measurements yielding improved position and orientation information.
- ◆ The use of DZ Ortho to validate calibration of LiDAR data
- ◆ Manually editing and QC of every tile. This step ensures there are no tile boundary artifacts or voids between DEM tiles and no avoidable miss-classification of returns as well as checks for correct classification of identifiable artifact, vegetation, building, and outlier removal as required by specifications.
- ◆ The use of checkpoints for the evaluation of the final DTM.

1.2 Final LiDAR Pulse and Scan Rates

In order to meet or exceed the required specifications of the project, flight missions were planned for a 70,000 (Hz) LiDAR Pulse Rate with a Scan Frequency Rate of 42 (Hz).

1.3 Scan Angle

The Scan Angle was maintained at 17.5-degrees to optimize the accuracy of the dataset.

1.4 Capability of Multiple Returns form Single Pulses

The Optech 3100 have the distinct features of recording 1st, 2nd, 3rd, and last returns, plus intensity for each pulse.

1.5 Accuracy and Precision of the LiDAR Data Acquired

Fundamental Vertical Accuracy (FVA), Supplemental Vertical Accuracy (SVA), and Consolidated Vertical Accuracy (CVA) testing will be assessed by using checkpoints in open terrain. The following accuracy standards represent the target levels of acceptability for vertical and horizontal accuracies:

Flat to Rolling Terrain

- ◆ 1-foot Vertical Accuracy: The data must meet the NSSDA $RMSE_z$ of 0.30 ft (9.25 cm) and the NSSDA Accuracy_r, 95% confidence level, of 0.60ft (18.2 cm).
- ◆ 2-foot Vertical Accuracy: The data must meet the NSSDA $RMSE_z$ of 0.61 ft (18.5 cm) and the NSSDA Accuracy_r, 95% confidence level, of 1.19ft (36.3 cm).
- ◆ Horizontal Accuracy: The data must meet the NSSDA $RMSE_r$ of 2.2 ft and the NSSDA Accuracy_r of 95% confidence level is 3.80 ft.

The final results of the validation points tested against the LiDAR DEM are shown below. The $RMSE_{(z)}$ was determined for the project area.

Land Cover Category	# of Points	Fundamental Vertical Accuracy	Consolidated Vertical Accuracy	Supplemental Vertical Accuracy
Consolidated	1285		0.50	
Bare Earth	215	0.40		
Levee	595	0.55		
High Grass	101			0.53
Forest	63			0.53
Chenier	80			0.54
Wetland	80			0.57
Urban	151	0.50		

1.6 Geo-referenced, Digital Spatial Representation of Project Extents

All data will be referenced to Louisiana State Plane Zone 1702, NAD83 (2007) US Survey ft, Vertical Datum NAVD88 2004.65 GEOID 09 US Survey ft.

An additional set of DEM & ASCII files will be reference to Louisiana State Plane Zone 1702, NAD83 (2007) US Survey ft, Vertical Datum NAVD88 2006.81 GEOID 09 US Survey ft.



2.0 Collection Report

Upon notification to proceed, the flight crew loaded the flight plans and validated the flight parameters. The Acquisition Manager contacted air traffic control and coordinated flight pattern requirements. LiDAR acquisition began immediately upon notification that control base stations were in place. During flight operations, the flight crew monitored weather and atmospheric conditions. LiDAR missions were flown only when no condition existed below the sensor that would affect the collection of data. The pilot constantly monitored the aircraft course, position, pitch, roll, and yaw of the aircraft. The sensor operator monitored the sensor, the status of PDOPs, and performed the first Q/C review during acquisition. The flight crew constantly reviewed weather and cloud locations. Any flight lines impacted by unfavorable conditions were marked as invalid and re-flown immediately or at an optimal time.

2.1 Mission Planning

Utilizing Optech's ALTM software, 238 passes were planned as a series of parallel flight lines with cross flight lines for the purposes of quality control. In addition, the flight plan included flight line distances of 40 kilometers or less and zigzag flight line collection as a result of the inherent IMU drift associated with all IMU systems. In order to reduce any margin for error in the flight plan, The Atlantic Group will follow FEMA's Appendix A "guidelines" for flight planning and, at a minimum, include the following criteria:

- ◆ A digital flight line layout using OPTECH ALTM NAV flight design software for direct integration into the aircraft flight navigation system.
- ◆ Planned flight lines; flight line numbers; and coverage area.
- ◆ LiDAR coverage extended by a predetermined margin beyond all project borders to ensure necessary over-edge coverage appropriate for specific task order deliverables.
- ◆ Local restrictions related to air space and any controlled areas have been investigated so that required permissions can be obtained in a timely manner with respect to schedule. Additionally, The Atlantic Group will file our flight plans as required by local Air Traffic Control (ATC) prior to each mission.

The Atlantic Group carefully planned all missions with consideration for geographic characteristics. The flight plan takes into account any “rolling” terrain characteristics and thus, we will ensure a 50% side-lap for optimum data collection.

The Atlantic Group monitored weather and atmospheric conditions and conducted LiDAR missions only when no conditions exist below the sensor that will affect the collection of data. These conditions include leaf-off for hardwoods, no snow, rain, virga, fog, smoke, mist and low clouds. LiDAR systems are active sensors, not requiring light, thus missions may be conducted during night hours when weather restrictions do not prevent collection. The Atlantic Group accesses reliable weather sites and indicators (webcams) to establish the highest probability for successful collection in order to position our sensor to maximize successful data acquisition.

Within 72-hours prior to the planned day(s) of acquisition, The Atlantic Group closely monitored the weather, checking all sources for forecasts at least twice daily. As soon as weather conditions were conducive to acquisition, our aircraft mobilized to the project site to begin data collection. Once on site, the acquisition team took responsibility for weather analysis.

2.2 Flight Logs

The Atlantic Group operated the collection aircraft, a Cessna T-210 (Tail No. - N732JE) from the Lakefront Airport (KNEW) and Houma-Terrebonne Airport (KHUM). The LiDAR was completed over sixteen (16) lifts during eight (10) days. Calibration lines were flown each day to verify the calibration of the sensor and consist of three passes flown over the airport or a flat area such as an open field. The following pages detail the actual flight logs

Project Number	12-101	Date	4-Mar-12		
S/N	05SEN175	Julian Day	64		
Operator	S SPRATT	Temperature	15C		
Pilot(s)	S HEINRICH	Visibility	>7		
Aircraft	N732JE	Clouds	skc<15K		
Airport	KHUM	Precipitation	na		
Mission	JD064F01	Wind Dir	250	AC :	Airport Calibration
Wheels Up		Wind Speed	6	TS :	Test Shot
Flight Length		Pressure	30.19	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1678	1678	56311.19	56320.37	15:38:31	15:38:40										AC
2	1678	1678	56410.36	56529.37	15:40:10	15:42:09										AC
3	1678	1678	56669.36	56762.38	15:44:29	15:46:02										AC
4	1678	1678	56984.38	57029.38	15:49:44	15:50:29										AC
5	1678	1678	58775.4	58782.39	16:19:35	16:19:42	1	966	70	42	17.5	NO	NAR	ON	360	TS
6	1678	1678	58820.38	58883.4	16:20:20	16:21:23	1	959	70	42	17.5	NO	NAR	ON	360	
7	1678	1678	59061.4	59130.39	16:24:21	16:25:30	2	983	70	42	17.5	NO	NAR	ON	180	
8	1678	1678	59340.39	59452.41	16:29:00	16:30:52	3	961	70	42	17.5	NO	NAR	ON	360	
9	1678	1678	59616.41	59723.41	16:33:36	16:35:23	4	979	70	42	17.5	NO	NAR	ON	180	
10	1678	1678	59904.41	60054.41	16:38:24	16:40:54	5	970	70	42	17.5	NO	NAR	ON	360	
11	1678	1678	60197.4	60310.4	16:43:17	16:45:10	6	987	70	42	17.5	NO	NAR	ON	180	
12	1678	1678	60473.4	60611.41	16:47:53	16:50:11	7	957	70	42	17.5	NO	NAR	ON	360	
13	1678	1678	60759.42	60876.43	16:52:39	16:54:36	8	934	70	42	17.5	NO	NAR	ON	180	
14	1678	1678	61041.42	61192.4	16:57:21	16:59:52	9	964	70	42	17.5	NO	NAR	ON	360	
15	1678	1678	61328.41	61470.43	17:02:08	17:04:30	10	957	70	42	17.5	NO	NAR	ON	180	
16	1678	1678	61653.43	61798.44	17:07:33	17:09:58	11	936	70	42	17.5	NO	NAR	ON	360	
17	1678	1678	61933.43	62065.44	17:12:13	17:14:25	12	978	70	42	17.5	NO	NAR	ON	180	

18	1678	1678	62243.43	62411.42	17:17:23	17:20:11	13	953	70	42	17.5	NO	NAR	ON	360	
19	1678	1678	62551.42	62672.68	17:22:31	17:24:32										
20	1678	1678	62864.67	63014.43	17:27:44	17:30:14	14	1000	70	42	17.5	NO	NAR	ON	180	RF
21	1678	1678	63217.43	63379.44	17:33:37	17:36:19	15	958	70	42	17.5	NO	NAR	ON	360	
22	1678	1678	63502.43	63669.43	17:38:22	17:41:09	16	944	70	42	17.5	NO	NAR	ON	180	
23	1678	1678	63837.43	64009.45	17:43:57	17:46:49	17	949	70	42	17.5	NO	NAR	ON	360	
24	1678	1678	64140.45	64303.45	17:49:00	17:51:43	18	993	70	42	17.5	NO	NAR	ON	180	
25	1678	1678	64447.44	64635.45	17:54:07	17:57:15	19	935	70	42	17.5	NO	NAR	ON	360	
26	1678	1678	64757.44	64927.46	17:59:17	18:02:07	20	999	70	42	17.5	NO	NAR	ON	180	
27	1678	1678	65084.46	65280.45	18:04:44	18:08:00	21	965	70	42	17.5	NO	NAR	ON	360	
28	1678	1678	65650.45	66055.48	18:14:10	18:20:55	22	985	70	42	17.5	NO	NAR	ON	180	
29	1678	1678	66238.48	66705.47	18:23:58	18:31:45	23	974	70	42	17.5	NO	NAR	ON	360	
30	1678	1678	66848.47	67282.48	18:34:08	18:41:22	24	981	70	42	17.5	NO	NAR	ON	180	
31	1678	1678	67468.47	67984.51	18:44:28	18:53:04	25	982	70	42	17.5	NO	NAR	ON	360	
32	1678	1678	68151.5	68604.51	18:55:51	19:03:24	26	986	70	42	17.5	NO	NAR	ON	180	
33	1678	1678	68785.51	69255.52	19:06:25	19:14:15	27	948	70	42	17.5	NO	NAR	ON	360	
34	1678	1678	69400.51	69842.5	19:16:40	19:24:02	28	997	70	42	17.5	NO	NAR	ON	180	

Project Number	12-101	Date	4-Mar-12		
S/N	05SEN175	Julian Day	64		
Operator	S SPRATT	Temperature	15C		
Pilot(s)	S HEINRICH	Visibility	>7		
Aircraft	N732jE	Clouds	skc<15K		
Airport	KHUM	Precipitation	na		
Mission	JD064F02	Wind Dir	250	AC :	Airport Calibration
Wheels Up		Wind Speed	6	TS :	Test Shot
Flight Length		Pressure	30.19	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1678	1678	88390.6	88398.79	0:33:11	0:33:21	1	971	70	42	18	NO	NAR	ON	0.31	
2	1678	1678	88445.78	88531.77	0:34:07	0:35:34	1	982	70	42	18	NO	NAR	ON	0.31	
3	1678	1678	88683.77	88782.79	0:38:06	0:39:46	2	965	70	42	18	NO	NAR	ON	180	
4	1678	1678	88978.79	89040.79	0:43:00	0:44:03	3	952	70	42	18	NO	NAR	ON	90.3	
5	1678	1678	90527.8	90982.79	1:08:52	1:16:25	29	962	70	42	17.5	NO	NAR	ON	360	
6	1678	1678	91185.79	91661.81	1:19:49	1:27:45	30	974	70	42	17.5	NO	NAR	ON	180	
7	1678	1678	91831.81	92336.82	1:30:35	1:39:01	31	970	70	42	17.5	NO	NAR	ON	360	
8	1678	1678	92491.82	93065.82	1:41:33	1:51:05	32	959	70	42	17.5	NO	NAR	ON	180	
9	1678	1678	93248.81	93801.84	1:54:11	2:03:21	33	958	70	42	17.5	NO	NAR	ON	360	
10	1678	1678	93950.84	94515.84	2:05:52	2:15:18	34	963	70	42	17.5	NO	NAR	ON	180	
11	1678	1678	94684.85	95249.85	2:18:07	2:27:33	35	961	70	42	17.5	NO	NAR	ON	360	
12	1678	1678	95727.86	96321.84	2:35:31	2:45:21	36	966	70	42	17.5	NO	NAR	ON	180	
13	1678	1678	96529.85	97129.87	2:48:52	2:58:54	37	964	70	42	17.5	NO	NAR	ON	360	
14	1678	1678	97323.87	97916.88	3:02:07	3:12:01	38	957	70	42	17.5	NO	NAR	ON	180	
15	1678	1678	98084.86	98675.9	3:14:48	3:24:38	39	970	70	42	17.5	NO	NAR	ON	360	
16	1678	1678	98832.89	99406.89	3:27:15	3:36:46	40	960	70	42	17.5	NO	NAR	ON	180	
17	1678	1678	99585.88	100127.91	3:39:49	3:48:51	41	968	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	5-Mar-12		
S/N	05SEN175	Julian Day	65		
Operator	S SPRATT	Temperature	17C		
Pilot(s)	S HEINRICH	Visibility	>7		
Aircraft	N732jE	Clouds	skc<15K		
Airport	KHUM	Precipitation	na		
Mission	JD065F01	Wind Dir	270	AC :	Airport Calibration
Wheels Up		Wind Speed	5	TS :	Test Shot
Flight Length		Pressure	30.19	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1678	1678	143750.94	143762.12	15:55:50	15:56:02	2	984	70	42	18	NO	NAR	ON	0.31	
2	1678	1678	143808.12	143901.11	15:56:48	15:58:21	2	973	70	42	18	NO	NAR	ON	0.31	
3	1678	1678	144077.11	144165.14	16:01:17	16:02:45	1	957	70	42	18	NO	NAR	ON	180	
4	1678	1678	144347.13	144416.12	16:05:47	16:06:56	3	994	70	42	18	NO	NAR	ON	90.3	
5	1678	1678	145942.13	146523.15	16:32:22	16:42:03	42	978	70	42	17.5	NO	NAR	ON	360	
6	1678	1678	146658.15	147239.17	16:44:18	16:53:59	43	971	70	42	17.5	NO	NAR	ON	180	
7	1678	1678	147436.16	148017.18	16:57:16	17:06:57	44	975	70	42	17.5	NO	NAR	ON	360	
8	1678	1678	148181.17	148719.16	17:09:41	17:18:39	45	963	70	42	17.5	NO	NAR	ON	180	
9	1678	1678	148925.16	149476.18	17:22:05	17:31:16	46	947	70	42	17.5	NO	NAR	ON	360	
10	1678	1678	149692.17	150227.2	17:34:52	17:43:47	47	973	70	42	17.5	NO	NAR	ON	180	
11	1678	1678	150426.2	150933.2	17:47:06	17:55:33	48	968	70	42	17.5	NO	NAR	ON	360	
12	1678	1678	151112.21	151604.21	17:58:32	18:06:44	49	970	70	42	17.5	NO	NAR	ON	180	
13	1678	1678	152586.22	153051.21	18:23:06	18:30:51	50	966	70	42	17.5	NO	NAR	ON	360	
14	1678	1678	153204.21	153681.22	18:33:24	18:41:21	51	971	70	42	17.5	NO	NAR	ON	180	
15	1678	1678	153985.22	154464.23	18:46:25	18:54:24	52	949	70	42	17.5	NO	NAR	ON	360	
16	1678	1678	154665.23	155152.25	18:57:45	19:05:52	53	954	70	42	17.5	NO	NAR	ON	180	
17	1678	1678	155372.24	155822.26	19:09:32	19:17:02	54	934	70	42	17.5	NO	NAR	ON	360	
18	1678	1678	155975.26	156395.26	19:19:35	19:26:35	55	974	70	42	17.5	NO	NAR	ON	180	

Project Number	12-101	Date	5-Mar-12		
S/N	05SEN175	Julian Day	65		
Operator	S SPRATT	Temperature	24C		
Pilot(s)	S HEINRICH	Visibility	>7		
Aircraft	N732JE	Clouds	skc<15K		
Airport	KHUM	Precipitation	na		
Mission	JD065F02	Wind Dir	360	AC :	Airport Calibration

Wheels Up		Wind Speed	5	TS :	Test Shot
Flight Length		Pressure	30.36	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1678	1678	162511.69	162517.88	21:08:31	21:08:37	2	966	70	42	18	NO	NAR	ON	0.31	
2	1678	1678	162607.87	162707.88	21:10:07	21:11:47	2	955	70	42	18	NO	NAR	ON	0.31	
3	1678	1678	162868.87	162968.88	21:14:28	21:16:08	1	935	70	42	18	NO	NAR	ON	180	
4	1678	1678	163152.88	163220.88	21:19:12	21:20:20	3	972	70	42	18	NO	NAR	ON	90.3	
5	1678	1678	165154.9	165593.9	21:52:34	21:59:53	56	970	70	42	17.5	NO	NAR	ON	360	
6	1678	1678	165733.89	166189.92	22:02:13	22:09:49	57	962	70	42	17.5	NO	NAR	ON	180	
7	1678	1678	166356.91	166784.92	22:12:36	22:19:44	58	955	70	42	17.5	NO	NAR	ON	360	
8	1678	1678	166954.92	167353.91	22:22:34	22:29:13	59	971	70	42	17.5	NO	NAR	ON	180	
9	1678	1678	167519.91	167933.93	22:31:59	22:38:53	60	972	70	42	17.5	NO	NAR	ON	360	
10	1678	1678	168077.93	168490.94	22:41:17	22:48:10	61	982	70	42	17.5	NO	NAR	ON	180	
11	1678	1678	168659.94	169046.95	22:50:59	22:57:26	62	966	70	42	17.5	NO	NAR	ON	360	
12	1678	1678	169181.95	169545.95	22:59:41	23:05:45	63	959	70	42	17.5	NO	NAR	ON	180	
13	1678	1678	169756.94	170147.95	23:09:16	23:15:47	64	975	70	42	17.5	NO	NAR	ON	360	
14	1678	1678	170311.94	170674.96	23:18:31	23:24:34	65	977	70	42	17.5	NO	NAR	ON	180	
15	1678	1678	171040.95	171044.12	23:30:40	23:30:44										
16	1678	1678	171066.12	171068.89	23:31:06	23:31:08										
17	1678	1678	171239.89	171610.97	23:33:59	23:40:10	66	970	70	42	17.5	NO	NAR	ON	360	
18	1678	1678	171789.96	172170.99	23:43:09	23:49:30	67	955	70	42	17.5	NO	NAR	ON	180	
19	1678	1678	172330.98	172749.99	23:52:10	23:59:09	68	978	70	42	17.5	NO	NAR	ON	360	
20	1678	1678	172902.99	173332.99	0:01:42	0:08:52	69	971	70	42	17.5	NO	NAR	ON	180	
21	1678	1678	173466	173900.99	0:11:05	0:18:20	70	952	70	42	17.5	NO	NAR	ON	360	
22	1678	1678	174050.99	174477.02	0:20:50	0:27:57	71	977	70	42	17.5	NO	NAR	ON	180	

Project Number	12-101	Date	6-Mar-12		
S/N	05SEN175	Julian Day	66		
Operator	Ben Kimbrough	Temperature	8		
Pilot(s)	Heinrich	Visibility	3		
Aircraft	N732JE	Clouds	Clear		
Airport	Houma	Precipitation	0		
Mission	JD066F01	Wind Dir	Calm	AC :	Airport Calibration
Wheels Up		Wind Speed	Calm	TS :	Test Shot
Flight Length		Pressure	3035	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1678	1678	223966.47	224060.65	14:12:47	14:14:24	1	971	70	42	18	NO	NAR	ON	0.31	
2	1678	1678	224263.65	224361.66	14:17:45	14:19:24	2	972	70	42	18	NO	NAR	ON	180	
3	1678	1678	224528.66	224603.65	14:22:10	14:23:27	3	972	70	42	18	NO	NAR	ON	90.3	
4	1678	1678	226055.67	226481.67	14:47:37	14:54:46	72	970	70	42	17.5	NO	NAR	ON	360	
5	1678	1678	226683.66	227122.69	14:58:05	15:05:27	73	959	70	42	17.5	NO	NAR	ON	180	
6	1678	1678	227274.68	227704.69	15:07:56	15:15:09	74	962	70	42	17.5	NO	NAR	ON	360	
7	1678	1678	227912.69	228378.7	15:18:34	15:26:22	75	973	70	42	17.5	NO	NAR	ON	180	
8	1678	1678	228542.7	228993.71	15:29:05	15:36:37	76	958	70	42	17.5	NO	NAR	ON	360	
9	1678	1678	229172.7	229666.71	15:39:37	15:47:50	77	968	70	42	17.5	NO	NAR	ON	180	
10	1678	1678	229813.71	230292.72	15:50:15	15:58:15	78	964	70	42	17.5	NO	NAR	ON	360	
11	1678	1678	230447.72	230950.72	16:00:51	16:09:10	79	970	70	42	17.5	NO	NAR	ON	180	
12	1678	1678	231082.71	231583.74	16:11:24	16:19:47	80	957	70	42	17.5	NO	NAR	ON	360	
13	1678	1678	231762.73	232296.75	16:22:49	16:31:40	81	972	70	42	17.5	NO	NAR	ON	180	
14	1678	1678	232442.74	232948.73	16:34:04	16:42:31	82	969	70	42	17.5	NO	NAR	ON	360	
15	1678	1678	233111.73	233645.75	16:45:13	16:54:09	83	974	70	42	17.5	NO	NAR	ON	180	

Project Number	12-101	Date	6-Mar-12
S/N	05SEN175	Julian Day	66

Operator	Ben Kimbrough	Temperature	18		
Pilot(s)	Heinrich Steffen	Visibility	10		
Aircraft	N732JE	Clouds	Sct		
Airport	Houma	Precipitation	0		
Mission	JD066F02	Wind Dir	0	AC :	Airport Calibration
Wheels Up		Wind Speed	10	TS :	Test Shot
Flight Length		Pressure	3037	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1678	1678	243894.86	243977.93	19:44:55	19:46:21	1	956	50	35	20	NO	NAR	ON	0.31	
2	1678	1678	244153.03	244248.95	19:49:14	19:50:52	2	963	50	35	20	NO	NAR	ON	180	
3	1678	1678	244408.05	244480.96	19:53:29	19:54:44	3	993	50	35	20	NO	NAR	ON	90.3	
4	1678	1678	246046.94	246620.93	20:20:48	20:30:24	84	968	70	42	17.5	NO	NAR	ON	180	
5	1678	1678	246770.93	247312.95	20:32:53	20:41:56	85	997	70	42	17.5	NO	NAR	ON	360	
6	1678	1678	247519.95	248071.96	20:45:21	20:54:35	86	966	70	42	17.5	NO	NAR	ON	180	
7	1678	1678	248208.96	248693.98	20:56:51	21:04:57	87	958	70	42	17.5	NO	NAR	ON	360	
8	1678	1678	248869.97	249407.96	21:07:52	21:16:47	88	979	70	42	17.5	NO	NAR	ON	180	
9	1678	1678	249556.96	250031.97	21:19:18	21:27:15	89	951	70	42	17.5	NO	NAR	ON	360	
10	1678	1678	250210.97	250747.97	21:30:13	21:39:12	90	961	70	42	17.5	NO	NAR	ON	180	
11	1678	1678	250919.98	251374.99	21:42:02	21:49:39	91	940	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	15-Mar-12		
S/N	05SEN175	Julian Day	75		
Operator	Stephen Spratt	Temperature	25C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	FEW26K		
Airport	KNEW	Precipitation	NA		
Mission	JD075F01	Wind Dir	110	AC :	Airport Calibration
Wheels Up		Wind Speed	6	TS :	Test Shot

Flight Length		Pressure	30.24	RF :	Reflight
---------------	--	----------	-------	------	----------

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1679	1679	420715.33	420721.52	20:51:55	20:52:05	1	978	70	42	17.5	NO	NAR	OFF	179	
2	1679	1679	420770.51	420867.5	20:52:52	20:54:30	2	973	70	42	17.5	NO	NAR	ON	179	
3	1679	1679	421045.5	421129.52	20:57:27	20:58:52	3	975	70	42	17.5	NO	NAR	OFF	359	
4	1679	1679	421345.52	421406.5	21:02:27	21:03:29	4	978	70	42	17.5	NO	NAR	ON	270	
5	1679	1679	422230.51	422294.52	21:17:12	21:18:18	216	975	70	41	17	NO	NAR	ON	360	
6	1679	1679	422500.52	422592.52	21:21:42	21:23:15	215	964	70	42	17.5	NO	NAR	ON	180	
7	1679	1679	422763.52	422858.54	21:26:05	21:27:42	214	966	70	42	17.5	NO	NAR	ON	360	
8	1679	1679	423015.54	423139.54	21:30:18	21:32:23	213	980	70	42	17.5	NO	NAR	ON	180	
9	1679	1679	423366.54	423475.55	21:36:09	21:37:58	212	973	70	42	17.5	NO	NAR	ON	360	
10	1679	1679	423661.55	423790.54	21:41:04	21:43:14	211	984	70	42	17.5	NO	NAR	ON	180	
11	1679	1679	423957.53	424084.55	21:45:59	21:48:03	210	966	70	42	17.5	NO	NAR	ON	360	
12	1679	1679	424281.55	424425.55	21:51:23	21:53:50	209	962	70	42	17.5	NO	NAR	ON	180	
13	1679	1679	424590.54	424727.54	21:56:33	21:58:52	208	978	70	42	17.5	NO	NAR	ON	360	
14	1679	1679	424927.54	425087.55	22:02:10	22:04:50	207	972	70	42	17.5	NO	NAR	ON	180	
15	1679	1679	425566.55	425728.56	22:12:49	22:15:32	206	957	70	42	17.5	NO	NAR	ON	360	
16	1679	1679	425922.56	426107.57	22:18:45	22:21:51	205	964	70	42	17.5	NO	NAR	ON	180	
17	1679	1679	426277.58	426449.57	22:24:41	22:27:34	204	948	70	42	17.5	NO	NAR	ON	360	
18	1679	1679	426655.56	426851.58	22:30:58	22:34:15	203	987	70	42	17.5	NO	NAR	ON	180	
19	1679	1679	427119.57	427320.57	22:38:41	22:42:03	202	970	70	42	17.5	NO	NAR	ON	360	
20	1679	1679	427528.57	427743.59	22:45:32	22:49:03	201	962	70	42	17.5	NO	NAR	ON	180	
21	1679	1679	427932.6	428129.6	22:52:15	22:55:34	200	980	70	42	17.5	NO	NAR	ON	360	
22	1679	1679	428344.6	428575.6	22:59:07	23:02:58	199	991	70	42	17.5	NO	NAR	ON	180	
23	1679	1679	428737.61	428948.59	23:05:41	23:09:08	198	957	70	42	17.5	NO	NAR	ON	360	

24	1679	1679	429162.59	429390.61	23:12:44	23:16:34	197	980	70	42	17.5	NO	NAR	ON	180	
25	1679	1679	429583.6	429795.63	23:19:45	23:23:19	196	968	70	42	17.5	NO	NAR	ON	360	
26	1679	1679	429988.62	430254.61	23:26:31	23:30:54	195	992	70	42	17.5	NO	NAR	ON	180	
27	1679	1679	430433.61	430686.64	23:33:57	23:38:10	194	964	70	42	17.5	NO	NAR	ON	360	
28	1679	1679	430940.63	431194.64	23:42:23	23:46:39	193	979	70	42	17.5	NO	NAR	ON	180	
29	1679	1679	431357.64	431603.64	23:49:20	23:53:22	192	975	70	42	17.5	NO	NAR	ON	360	
30	1679	1679	431823.64	432080.64	23:57:06	0:01:23	191	962	70	42	17.5	NO	NAR	ON	180	
31	1679	1679	432244.63	432488.63	0:04:08	0:08:12	190	981	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	16-Mar-12		
S/N	05SEN175	Julian Day	76		
Operator	Stephen Spratt	Temperature	22C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	SKC		
Airport	KNEW	Precipitation	NA		
Mission	JD075F02	Wind Dir	160	AC :	Airport Calibration
Wheels Up		Wind Speed	5	TS :	Test Shot
Flight Length		Pressure	30.19	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1679	1679	437337.12	437424.28	1:28:57	1:30:27	1	955	70	42	17.5	NO	NAR	ON	179	
2	1679	1679	437567.29	437649.31	1:32:49	1:34:13	1	932	70	42	17.5	NO	NAR	ON	359	
3	1679	1679	437818.31	437884.31	1:37:00	1:38:07	2	956	70	42	17.5	NO	NAR	OFF	270	
4	1679	1679	438683.32	438925.32	1:51:29	1:55:28	189	959	70	42	17.5	NO	NAR	ON	360	
5	1679	1679	439138.3	439410.33	1:59:01	2:03:29	188	975	70	42	17.5	NO	NAR	ON	180	
6	1679	1679	439583.33	439832.32	2:06:27	2:10:36	187	966	70	42	17.5	NO	NAR	ON	360	
7	1679	1679	440047.32	440299.32	2:14:09	2:18:22	186	979	70	42	17.5	NO	NAR	ON	180	
8	1679	1679	440481.32	440723.35	2:21:27	2:25:26	185	988	70	42	17.5	NO	NAR	ON	360	

9	1679	1679	441009.34	441160.33	2:30:12	2:32:39	184	965	70	42	17.5	NO	NAR	ON	180	
10	1679	1679	441329.33	441446.34	2:35:33	2:37:25	183	979	70	42	17.5	NO	NAR	ON	360	
11	1679	1679	441619.33	441757.35	2:40:22	2:42:41	182	987	70	42	17.5	NO	NAR	ON	180	
12	1679	1679	441917.35	442040.34	2:45:22	2:47:25	181	961	70	42	17.5	NO	NAR	ON	360	
13	1679	1679	442262.34	442409.35	2:51:05	2:53:32	180	974	70	42	17.5	NO	NAR	ON	180	
14	1679	1679	442575.34	442690.35	2:56:19	2:58:09	179	977	70	42	17.5	NO	NAR	ON	360	
15	1679	1679	442889.35	443036.36	3:01:31	3:03:55	178	961	70	42	17.5	NO	NAR	ON	180	
16	1679	1679	443207.35	443326.36	3:06:52	3:08:49	177	980	70	42	17.5	NO	NAR	ON	360	
17	1679	1679	443556.36	443693.36	3:12:39	3:14:56	176	962	70	42	17.5	NO	NAR	ON	180	
18	1679	1679	443859.36	443970.36	3:17:44	3:19:34	175	960	70	42	17.5	NO	NAR	ON	360	
19	1679	1679	444185.36	444320.39	3:23:09	3:25:23	174	987	70	42	17.5	NO	NAR	ON	180	
20	1679	1679	444468.38	444594.39	3:27:53	3:29:53	173	962	70	42	17.5	NO	NAR	ON	360	
21	1679	1679	444817.39	444981.4	3:33:41	3:36:25	172	968	70	42	17.5	NO	NAR	ON	180	
22	1679	1679	445267.39	445418.38	3:41:12	3:43:42	171	954	70	42	17.5	NO	NAR	ON	360	
23	1679	1679	445636.38	445798.39	3:47:19	3:50:02	170	979	70	42	17.5	NO	NAR	ON	180	
24	1679	1679	445966.38	446114.41	3:52:49	3:55:14	169	981	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	17-Mar-12		
S/N	05SEN175	Julian Day	77		
Operator	Stephen Spratt	Temperature	24C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	FEW3K		
Airport	KNEW	Precipitation	NA		
Mission	JD076F01	Wind Dir	110	AC :	Airport Calibration
Wheels Up		Wind Speed	8	TS :	Test Shot
Flight Length		Pressure	30.2	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
--------	----------------	--------------	------------------	----------------	------------------	-----------------	--------	-----	------------------	--------------	---------------	----	-----------------	-----------	-----	------

1	1679	1679	502607.42	502611.6	19:36:47	19:36:51	1	984	70	42	17.5	NO	NAR	ON		
2	1679	1679	502668.6	502750.59	19:37:48	19:39:10	2	973	70	42	17.5	NO	NAR	ON		
3	1679	1679	502894.59	502968.6	19:41:34	19:42:48	3	957	70	42	17.5	NO	NAR	ON		
4	1679	1679	503180.59	503239.6	19:46:20	19:47:19	4	994	70	42	17.5	NO	NAR	ON		
5	1679	1679	504160.6	504316.6	20:02:40	20:05:16	169	978	70	42	17.5	NO	NAR	ON	180	RF
6	1679	1679	504536.6	504696.61	20:08:56	20:11:36	168	971	70	42	17.5	NO	NAR	ON	360	
7	1679	1679	504890.61	505063.61	20:14:50	20:17:43	167	975	70	42	17.5	NO	NAR	ON	180	
8	1679	1679	505209.61	505387.64	20:20:09	20:23:07	166	963	70	42	17.5	NO	NAR	ON	360	
9	1679	1679	505584.63	505761.64	20:26:24	20:29:21	165	947	70	42	17.5	NO	NAR	ON	180	
10	1679	1679	505916.64	506095.65	20:31:56	20:34:55	164	973	70	42	17.5	NO	NAR	ON	360	
11	1679	1679	506268.64	506461.64	20:37:48	20:41:01	163	968	70	42	17.5	NO	NAR	ON	180	
12	1679	1679	506631.63	506831.65	20:43:51	20:47:11	162	970	70	42	17.5	NO	NAR	ON	360	
13	1679	1679	507048.65	507330.66	20:50:48	20:55:30	161	966	70	42	17.5	NO	NAR	ON	180	
14	1679	1679	507502.66	507791.66	20:58:22	21:03:11	160	971	70	42	17.5	NO	NAR	ON	360	
15	1679	1679	507955.66	508262.65	21:05:55	21:11:02	159	949	70	42	17.5	NO	NAR	ON	180	
16	1679	1679	508439.65	508733.67	21:13:59	21:18:53	158	954	70	42	17.5	NO	NAR	ON	360	
17	1679	1679	508902.67	509193.67	21:21:42	21:26:33	157	934	70	42	17.5	NO	NAR	ON	180	
18	1679	1679	509362.68	509657.68	21:29:22	21:34:17	156	974	70	42	17.5	NO	NAR	ON	360	
19	1679	1679	509799.68	510107.69	21:36:39	21:41:47	155	968	70	42	17.5	NO	NAR	ON	180	
20	1679	1679	510265.69	510563.68	21:44:25	21:49:23	154	970	70	42	17.5	NO	NAR	ON	360	
21	1679	1679	510720.68	511035.7	21:52:00	21:57:15	153	966	70	42	17.5	NO	NAR	ON	180	
22	1679	1679	511197.7	511515.71	21:59:57	22:05:15	152	971	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	17-Mar-12
S/N	05SEN175	Julian Day	77
Operator	Stephen Spratt	Temperature	27C
Pilot(s)	Heinrich Steffen	Visibility	>10
Aircraft	N732JE	Clouds	SKC

Airport	KNEW	Precipitation	NA		
Mission	JD077F01	Wind Dir	140	AC :	Airport Calibration
Wheels Up		Wind Speed	11 G32	TS :	Test Shot
Flight Length		Pressure	30.19	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1679	1679	585789.9	585905.09	18:43:09	18:45:05	1	1003	70	42	17.5	NO	NAR	ON	179	
2	1679	1679	586101.09	586179.07	18:48:21	18:49:39	1	986	70	42	17.5	NO	NAR	ON	359	
3	1679	1679	586401.07	586461.07	18:53:21	18:54:21	2	976	70	42	17.5	NO	NAR	OFF	270	
4	1679	1679	587228.08	587552.1	19:07:08	19:12:32	151	993	70	42	17.5	NO	NAR	ON	360	
5	1679	1679	587770.11	588139.1	19:16:10	19:22:19	150	966	70	42	17.5	NO	NAR	ON	180	
6	1679	1679	588312.1	588661.13	19:25:12	19:31:01	149	975	70	42	17.5	NO	NAR	ON	360	
7	1679	1679	588848.12	589210.12	19:34:08	19:40:10	148	965	70	42	17.5	NO	NAR	ON	180	
8	1679	1679	589409.11	589455.12	19:43:29	19:44:15	147	949	70	42	17.5	NO	NAR	ON	360	
9	1679	1679	589713.13	590064.13	19:48:33	19:54:24	147	973	70	42	17.5	NO	NAR	ON	360	
10	1679	1679	590310.13	590677.12	19:58:30	20:04:37	146	977	70	42	17.5	NO	NAR	ON	180	
11	1679	1679	590865.13	591201.13	20:07:45	20:13:21	145	953	70	42	17.5	NO	NAR	ON	360	
12	1679	1679	591392.13	591760.14	20:16:32	20:22:40	144	950	70	42	17.5	NO	NAR	ON	180	
13	1679	1679	591988.14	592333.17	20:26:28	20:32:13	143	967	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	18-Mar-12		
S/N	05SEN175	Julian Day	78		
Operator	Stephen Spratt	Temperature	22C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	SKC		
Airport	KNEW	Precipitation	NA		
Mission	JD078F01	Wind Dir	140	AC :	Airport Calibration
Wheels Up		Wind Speed	7	TS :	Test Shot
Flight Length		Pressure	30.16	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1680	1680	6904.24	6910.43	1:55:04	1:55:14	1	962	70	42	17.5	NO	NAR	ON	179	
2	1680	1680	6947.42	7033.42	1:55:49	1:57:16	1	944	70	42	17.5	NO	NAR	ON	179	
3	1680	1680	7214.41	7296.43	2:00:16	2:01:39	1	960	70	42	17.5	NO	NAR	ON	359	
4	1680	1680	7529.43	7592.42	2:05:30	2:06:35	2	976	70	42	17.5	NO	NAR	OFF	90	
5	1680	1680	8320.42	8643.43	2:18:45	2:24:02	142	979	70	42	17.5	NO	NAR	ON	360	
6	1680	1680	8830.43	9161.44	2:27:14	2:32:41	141	979	70	42	17.5	NO	NAR	ON	180	
7	1680	1680	9353.43	9677.45	2:35:59	2:41:16	140	1011	70	42	17.5	NO	NAR	ON	360	
8	1680	1680	9921.46	10276.46	2:45:27	2:51:16	139	975	70	42	17.5	NO	NAR	ON	180	
9	1680	1680	10438.46	10742.46	2:54:02	2:59:02	138	983	70	42	17.5	NO	NAR	ON	360	
10	1680	1680	10951.45	11299.47	3:02:33	3:08:23	137	992	70	42	17.5	NO	NAR	ON	180	

Project Number	12-101	Date	19-Mar-12		
S/N	05SEN175	Julian Day	79		
Operator	Stephen Spratt	Temperature	23C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	SKC		
Airport	KNEW	Precipitation	NA		
Mission	JD079F01	Wind Dir	130	AC :	Airport Calibration
Wheels Up		Wind Speed	8	TS :	Test Shot
Flight Length		Pressure	30.14	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1680	1680	92750.43	92831.62	1:45:50	1:47:15	1	948	70	42	17.5	NO	NAR	ON	179	
2	1680	1680	93018.61	93100.6	1:50:20	1:51:44	1	972	70	42	17.5	NO	NAR	ON	359	

3	1680	1680	93301.6	93371.61	1:55:05	1:56:15	2	966	70	42	17.5	NO	NAR	OFF	90	
4	1680	1680	94069.61	94368.62	2:07:52	2:12:52	137	1000	70	42	17.5	NO	NAR	ON	360	RF
5	1680	1680	94488.61	94827.63	2:14:53	2:20:27	136	986	70	42	17.5	NO	NAR	ON	180	
6	1680	1680	95030.64	95339.62	2:23:53	2:29:03	135	973	70	42	17.5	NO	NAR	ON	360	
7	1680	1680	95504.62	95850.64	2:31:47	2:37:34	134	970	70	42	17.5	NO	NAR	ON	180	
8	1680	1680	96023.63	96333.64	2:40:29	2:45:32	133	968	70	42	17.5	NO	NAR	ON	360	
9	1680	1680	96466.64	96820.65	2:47:52	2:53:40	132	1007	70	42	17.5	NO	NAR	ON	180	
10	1680	1680	96996.66	97299.67	2:56:43	3:01:42	131	997	70	42	17.5	NO	NAR	ON	360	
11	1680	1680	97479.66	97818.65	3:04:45	3:10:23	130	997	70	42	17.5	NO	NAR	ON	180	
12	1680	1680	97972.65	98290.67	3:12:58	3:18:09	129	990	70	42	17.5	NO	NAR	ON	360	
13	1680	1680	98476.66	98811.68	3:21:21	3:26:51	128	1007	70	42	17.5	NO	NAR	ON	180	
14	1680	1680	98971.66	99276.68	3:29:36	3:34:39	127	960	70	42	17.5	NO	NAR	ON	360	
15	1680	1680	99457.67	99778.67	3:37:41	3:42:58	126	990	70	42	17.5	NO	NAR	ON	180	
16	1680	1680	99957.68	100251.7	3:46:01	3:50:51	125	1018	70	42	17.5	NO	NAR	ON	360	
17	1680	1680	100442.7	100736.69	3:54:08	3:58:55	124	992	70	42	17.5	NO	NAR	ON	180	
18	1680	1680	100891.69	101157.71	4:01:35	4:05:56	123	969	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	24-Mar-12		
S/N	05SEN175	Julian Day	84		
Operator	Stephen Spratt	Temperature	22C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	SKC		
Airport	KNEW	Precipitation	NA		
Mission	JD084F01	Wind Dir	130	AC :	Airport Calibration
Wheels Up		Wind Speed	8	TS :	Test Shot
Flight Length		Pressure	30.16	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
--------	----------------	--------------	------------------	----------------	------------------	-----------------	--------	-----	------------------	--------------	---------------	----	-----------------	-----------	-----	------

1	1680	1680	573814.26	573821.43	15:23:34	15:23:41	1	901	70	42	17.5	NO	NAR	ON	179	
2	1680	1680	573865.42	573958.44	15:24:25	15:25:58	2	962	70	42	17.5	NO	NAR	ON	179	
3	1680	1680	574144.44	574222.43	15:29:04	15:30:22	3	964	70	42	17.5	NO	NAR	ON	359	
4	1680	1680	574386.43	574448.43	15:33:06	15:34:08	4	993	70	42	17.5	NO	NAR	OFF	270	
5	1680	1680	575156.44	575645.46	15:45:56	15:54:05	86	971	70	42	17.5	NO	NAR	ON	360	RF
6	1680	1680	575844.45	576334.45	15:57:24	16:05:34	87	940	70	42	17.5	NO	NAR	ON	180	RF
7	1680	1680	576478.45	576950.47	16:07:58	16:15:50	91	968	70	42	17.5	NO	NAR	ON	360	RF
8	1680	1680	577178.46	577618.48	16:19:38	16:26:58	92	967	70	42	17.5	NO	NAR	ON	180	
9	1680	1680	577787.47	578254.5	16:29:47	16:37:34	93	949	70	42	17.5	NO	NAR	ON	360	
10	1680	1680	578460.49	578949.48	16:41:00	16:49:09	94	937	70	42	17.5	NO	NAR	ON	180	
11	1680	1680	579150.49	579615.51	16:52:30	17:00:15	95	967	70	42	17.5	NO	NAR	ON	180	
12	1680	1680	579889.51	580378.5	17:04:49	17:12:58	96	970	70	42	17.5	NO	NAR	ON	180	
13	1680	1680	580567.5	581024.52	17:16:07	17:23:44	97	952	70	42	17.5	NO	NAR	ON	360	
14	1680	1680	581217.51	581607.54	17:26:57	17:33:27	98	1000	70	42	17.5	NO	NAR	ON	180	
15	1680	1680	581962.54	582259.55	17:39:22	17:44:19	123	951	70	42	17.5	NO	NAR	ON	360	DNU
16	1680	1680	582433.54	582718.54	17:47:13	17:51:58	122	990	70	42	17.5	NO	NAR	ON	180	
17	1680	1680	582919.53	583208.53	17:55:19	18:00:08	121	960	70	42	17.5	NO	NAR	ON	360	
18	1680	1680	583416.54	583678.56	18:03:36	18:07:58	120	970	70	42	17.5	NO	NAR	ON	180	
19	1680	1680	583851.56	584139.54	18:10:51	18:15:39	119	967	70	42	17.5	NO	NAR	ON	360	
20	1680	1680	584292.55	584588.57	18:18:12	18:23:08	118	967	70	42	17.5	NO	NAR	ON	180	
21	1680	1680	584783.57	585097.58	18:26:23	18:31:37	117	955	70	42	17.5	NO	NAR	ON	360	

Project Number	12-101	Date	24-Mar-12
S/N	05SEN175	Julian Day	84
Operator	Stephen Spratt	Temperature	22C
Pilot(s)	Heinrich Steffen	Visibility	>10
Aircraft	N732JE	Clouds	SKC
Airport	KNEW	Precipitation	NA

Mission	JD084F02	Wind Dir	130	AC :	Airport Calibration
Wheels Up		Wind Speed	8	TS :	Test Shot
Flight Length		Pressure	30.16	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1680	1680	590862.23	590930.42	20:07:42	20:08:50	1	974	70	42	17.5	NO	NAR	ON	360	
2	1680	1680	591200.42	591254.41	20:13:20	20:14:14	2	975	70	42	17.5	NO	NAR	ON	180	
3	1680	1680	591430.41	591466.41	20:17:10	20:17:46	3	978	70	42	17.5	NO	NAR	ON	45	
4	1680	1680	591706.41	591796.41	20:21:46	20:23:16	4	975	70	42	17.5	NO	NAR	ON	270	
5	1680	1680	592033.41	592388.42	20:27:13	20:33:08	116	964	70	42	17.5	NO	NAR	ON	180	
6	1680	1680	592641.42	592993.44	20:37:21	20:43:13	115	966	70	42	17.5	NO	NAR	ON	360	
7	1680	1680	593305.44	593657.43	20:48:25	20:54:17	114	980	70	42	17.5	NO	NAR	ON	180	
8	1680	1680	593955.44	594315.46	20:59:15	21:05:15	113	973	70	42	17.5	NO	NAR	ON	360	
9	1680	1680	594576.46	594944.46	21:09:36	21:15:44	112	984	70	42	17.5	NO	NAR	ON	180	
10	1680	1680	595266.47	595677.47	21:21:06	21:27:57	111	966	70	42	17.5	NO	NAR	ON	360	
11	1680	1680	595947.48	596387.49	21:32:27	21:39:47	110	962	70	42	17.5	NO	NAR	ON	180	
12	1680	1680	596687.49	597126.49	21:44:47	21:52:06	109	978	70	42	17.5	NO	NAR	ON	360	
13	1680	1680	597354.48	597816.49	21:55:54	22:03:36	108	972	70	42	17.5	NO	NAR	ON	180	
14	1680	1680	598039.49	598532.51	22:07:19	22:15:32	107	957	70	42	17.5	NO	NAR	ON	360	
15	1680	1680	598789.51	598874.74	22:19:49	22:21:14	106	964	70	42	17.5	NO	NAR	ON		
16	1680	1680	599126.73	599576.51	22:25:26	22:32:56	106	948	70	42	17.5	NO	NAR	ON	180	RF
17	1680	1680	599810.51	600263.52	22:36:50	22:44:23	105	987	70	42	17.5	NO	NAR	ON	360	
18	1680	1680	600510.52	600927.52	22:48:30	22:55:27	104	970	70	42	17.5	NO	NAR	ON	180	

Project Number	12-101	Date	24-Mar-12
S/N	05SEN175	Julian Day	85
Operator	Stephen Spratt	Temperature	22C
Pilot(s)	Heinrich Steffen	Visibility	>10

Aircraft	N732JE	Clouds	SKC		
Airport	KNEW	Precipitation	NA		
Mission	JD085F01	Wind Dir	130	AC :	Airport Calibration
Wheels Up		Wind Speed	8	TS :	Test Shot
Flight Length		Pressure	30.16	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1681	1681	4746.21	4751.39	1:19:06	1:19:11	1	975	70	42	17.5	NO	NAR	ON	179	
2	1681	1681	4804.38	4889.39	1:20:04	1:21:29	2	984	70	42	17.5	NO	NAR	ON	179	
3	1681	1681	5052.38	5162.4	1:24:12	1:26:02	3	963	70	42	17.5	NO	NAR	ON	359	
4	1681	1681	5328.4	5337.4	1:28:48	1:28:57	4	969	70	42	17.5	NO	NAR	OFF	90	
5	1681	1681	5349.39	5390.41	1:29:09	1:29:50	5	964	70	42	17.5	NO	NAR	ON	90	
6	1681	1681	6104.41	6586.41	1:41:44	1:49:46	103	977	70	42	17.5	NO	NAR	ON	360	
7	1681	1681	6759.4	7215.43	1:52:39	2:00:15	102	973	70	42	17.5	NO	NAR	ON	180	
8	1681	1681	7426.43	7890.44	2:03:46	2:11:30	101	981	70	42	17.5	NO	NAR	ON	360	
9	1681	1681	8056.43	8493.43	2:14:16	2:21:33	100	986	70	42	17.5	NO	NAR	ON	180	
10	1681	1681	8697.43	9148.44	2:24:57	2:32:28	99	962	70	42	17.5	NO	NAR	ON	360	
11	1681	1681	9710.44	9758.45	2:41:50	2:42:38	238	997	70	41	17	NO	NAR	ON	180	
12	1681	1681	9934.46	10015.46	2:45:34	2:46:55	237	987	70	41	17	NO	NAR	ON	360	
13	1681	1681	10167.46	10262.45	2:49:27	2:51:02	236	989	70	41	17	NO	NAR	ON	180	
14	1681	1681	10466.45	10560.45	2:54:26	2:56:00	235	970	70	41	17	NO	NAR	ON	360	
15	1681	1681	10730.45	10838.46	2:58:50	3:00:38	234	975	70	41	17	NO	NAR	ON	180	
16	1681	1681	11070.47	11175.47	3:04:30	3:06:15	233	977	70	41	17	NO	NAR	ON	360	
17	1681	1681	11357.46	11474.47	3:09:17	3:11:14	232	967	70	41	17	NO	NAR	ON	180	
18	1681	1681	11609.46	11731.46	3:13:29	3:15:31	231	967	70	41	17	NO	NAR	ON	360	
19	1681	1681	11896.46	11987.48	3:18:16	3:19:47	230	986	70	41	17	NO	NAR	ON	180	
20	1681	1681	12150.46	12240.46	3:22:30	3:24:00	229	960	70	41	17	NO	NAR	ON	360	

21	1681	1681	12387.47	12613.48	3:26:27	3:30:13	228	967	70	41	17	NO	NAR	ON	180	
22	1681	1681	12863.47	13103.5	3:34:23	3:38:23	227	968	70	41	17	NO	NAR	ON	360	
23	1681	1681	13258.49	13489.5	3:40:58	3:44:49	226	986	70	41	17	NO	NAR	ON	180	
24	1681	1681	13684.5	13968.51	3:48:04	3:52:48	225	963	70	41	17	NO	NAR	ON	360	
25	1681	1681	14125.5	14384.5	3:55:25	3:59:44	224	974	70	41	17	NO	NAR	ON	180	
26	1681	1681	14538.49	14774.51	4:02:18	4:06:14	223	991	70	41	17	NO	NAR	ON	360	
27	1681	1681	14927.51	15120.51	4:08:47	4:12:00	222	973	70	41	17	NO	NAR	ON	180	
28	1681	1681	15257.5	15457.52	4:14:17	4:17:37	221	981	70	41	17	NO	NAR	ON	360	
29	1681	1681	15607.52	15682.52	4:20:07	4:21:22	220	952	70	41	17	NO	NAR	ON	180	
30	1681	1681	15811.52	15891.51	4:23:31	4:24:51	219	983	70	41	17	NO	NAR	ON	360	
31	1681	1681	16060.51	16123.53	4:27:40	4:28:43	218	983	70	41	17	NO	NAR	ON	180	
32	1681	1681	16273.53	16340.52	4:31:13	4:32:20	217	958	70	41	17	NO	NAR	ON	360	

Project Number	12-101	Date	24-Mar-12		
S/N	05SEN175	Julian Day	85		
Operator	Stephen Spratt	Temperature	22C		
Pilot(s)	Heinrich Steffen	Visibility	>10		
Aircraft	N732JE	Clouds	SKC		
Airport	KNEW	Precipitation	NA		
Mission	JD085F02	Wind Dir	130	AC :	Airport Calibration
Wheels Up		Wind Speed	8	TS :	Test Shot
Flight Length		Pressure	30.16	RF :	Reflight

Strip#	Start GPS Week	End GPS Week	Start Time (GPS)	End Time (GPS)	Start Time (UTC)	Stop Time (UTC)	Line #	Alt	Laser Freq (KHz)	Scanner Freq	Scanner Range	MP	Beam Divergence	Roll Comp	HDG	NOTE
1	1681	1681	59725.23	59735.43	16:35:25	16:35:35	1	965	70	42	17.5	NO	NAR	ON	360	
2	1681	1681	59798.42	59873.41	16:36:38	16:37:53	2	971	70	42	17.5	NO	NAR	ON	180	
3	1681	1681	60124.42	60178.41	16:42:04	16:42:58	3	940	70	42	17.5	NO	NAR	ON		

4	1681	1681	60422.41	60482.41	16:47:02	16:48:02	4	968	70	42	17.5	NO	NAR	ON		
5	1681	1681	60924.41	61262.42	16:55:24	17:01:02	246	967	70	42	17.5	NO	NAR	ON	270	TIELINE
6	1681	1681	61646.42	62415.45	17:07:26	17:20:15	247	949	70	42	17.5	NO	NAR	ON	90	TIELINE
7	1681	1681	62627.45	63499.44	17:23:47	17:38:19	248	937	70	42	17.5	NO	NAR	ON	270	TIELINE
8	1681	1681	63742.45	63987.62	17:42:22	17:46:27	249	967	70	42	17.5	NO	NAR	ON	90	TIELINE
9	1681	1681	64303.62	65049.48	17:51:43	18:04:09	250	970	70	42	17.5	NO	NAR	ON	90	TIELINE
10	1681	1681	65255.48	65512.48	18:07:35	18:11:52	251	952	70	42	17.5	NO	NAR	ON	270	TIELINE
11	1681	1681	65789.47	65849.47	18:16:29	18:17:29	239	1000	70	42	17.5	NO	NAR	ON	315	URBAN CANYON
12	1681	1681	66073.47	66165.47	18:21:13	18:22:45	240	951	70	42	17.5	NO	NAR	ON	135	URBAN CANYON
13	1681	1681	66445.48	66515.49	18:27:25	18:28:35	241	990	70	42	17.5	NO	NAR	ON	315	URBAN CANYON
14	1681	1681	66748.48	66834.51	18:32:28	18:33:54	242	960	70	42	17.5	NO	NAR	ON	135	URBAN CANYON
15	1681	1681	67097.5	67153.5	18:38:17	18:39:13	243	970	70	42	17.5	NO	NAR	ON	315	URBAN CANYON
16	1681	1681	67348.49	67421.52	18:42:28	18:43:41	244	967	70	42	17.5	NO	NAR	ON	135	URBAN CANYON
17	1681	1681	67655.51	67735.5	18:47:35	18:48:55	245	967	70	42	17.5	NO	NAR	ON	315	URBAN CANYON

3.0 Ground Control (Survey) Report

To support our quality evaluation, we will collect well-distributed checkpoints for the land cover class including the following:

Code	Description	Vertical accuracy
BARE	Bare earth including plowed fields, low grass, and open fields	1-foot
HIGRASS	Hay, corn, wheat fields	2-foot
CHENIERS	Swamps, marsh	2-foot
WETLAND	Shrub/scrub, wetland forests	2-foot
TREES	Fully covered by trees	2-foot

Final validation point survey information is referenced in Appendix A.

3.1 Control and Calibration Points

The Atlantic Group will maximize existing NGS monuments to provide the control network which will be designed with proper redundancies, session occupation times, and time between sessions. GPS observations will be conducted using Federal Geodetic Control Committee (FGCC) approved dual frequency GPS receivers. A minimum of two receivers will be used as ground base stations and will be set up and running at a one (1.0) second epoch collection rate during every mission, typically at a minimum of four hours. The Atlantic Group will plan the control locations to ensure 30km baseline distance from the furthest flight line distance. All mission collections will be conducted with a PDOP of 3.2 or lower.

The following GPS stations will be utilized in the field for GPS observations.

Station	Latitude	Longitude	Northing	Easting	Elavition	PID
A 148	29 59 20.98643	90 5 14.21554	3321156.763	781016.417	-24.333	AU0429
BS 2	29 55 29.24052	90 8 3.13365	3313904.908	776665.957	-19.166	
S 188	29 58 0.31256	90 13 45.30564	3318332.184	767373.895	-23.733	AU0520
V 375	29 55 1.55058	89 58 18.04408	3313455.167	792385.921	-25.224	AT0760
B 369	29 46 5.46809	90 6 1.68837	3296622.932	780361.834	-23.643	AU2163

The Atlantic Group performed a system calibration in order to identify inconsistencies between the software corrections as they relate to the sensor hardware and its relationship to the GPS antenna location on the aircraft. A system calibration survey was performed on January 04 2010. Measurements from GPS antenna to the LiDAR sensor head were acquired to determine Lever setting for the survey. Data collection over surveyed airport runway and buildings provides the exact position for the Calibration.

A series of calibration lines were flown over a test range at verified attitudes to validate the calibration of the LiDAR sensor. The Atlantic Group's calibration site is at the Lawrence

County Airport in Courtland, Alabama. The flight logs are referenced in section 2.2. Final results are referenced in Appendix B Calibration File.

3.2 QA/QC Reports

The Atlantic Group manually edited every tile to guarantee no tile boundary artifacts, no voids between tiles, no avoidable miss-classification of returns. The Atlantic Group then validated the classification of identifiable artifact, vegetation, building, and outlier removal as required by specifications. The specifications below reflect the acceptable percentages of above ground feature removal and outlier points within the entire dataset delivered. The remaining balance is within product acceptance tolerances and meets the requirements of this project. There will be no (invalid) data voids due to system or lack of overlap. Dense vegetation valid data voids will be minimized by the automatic removal process. LAS classification will meet or exceeded the following guidelines:

- ◆ **Artifacts-** **90%**
- ◆ **Outliers-** **95%**
- ◆ **Vegetation-** **95%**
- ◆ **Buildings-** **98%**

Perform Completeness check on break lines using either intensity imagery or LiDAR derived hill shades

- ◆ Check entire dataset for missing features that were not captured during manual editing in order to meet baseline specifications and overall data consistency. Features should be collected consistently across tile bounds within a dataset and between datasets.
- ◆ Check to make sure break lines are compiled to correct extent boundary plus full coverage without overlap.
- ◆ Verify break lines are correctly edge-matched to adjoining datasets. Verify break lines from one dataset join break lines from another including matching codes and vertices (X, Y, and Z). Verify no break lines abruptly end at dataset boundaries and no discrepancies of Z-elevation in overlapping vertices between datasets exist.
- ◆ Ensure water body vertices are identical.
- ◆ Ensure no dangles on hydrographic feature.
- ◆ Ensure no “duplicate geometry”.
- ◆ Ensure no “polyline/polygon slivers and gaps”.

4.0 Ellipsoid Model

GPS-surveys will be collected in the WGS84 Ellipsoid model to establish elevations.

5.0 Geoid Model

Elevations will be cross-referenced to the GEOID09 model to establish the final NAVD88 (2004.65) US Survey ft.

6.0 Data Processing Procedures

The Atlantic Group processes LIDAR using Dashmap, Terrasolid, GeoCue, and ESRI processing tools to produce 3-D point cloud, bare earth, classified LIDAR surfaces. Large datasets are stored on servers in house and managed using the GeoCue software package. Transpac 7 External drives are downloaded in the field and backed up on solid state media before any processing commences. After post processing and delivery of final products, data is stored on large capacity archived drives for an indefinite period. Files are kept in a directory structure using the Julian date format. Deliverables are field tested for both vertical and horizontal accuracy. All data will be seamless with no gaps or voided areas.

All data is post-processed in a quality controlled environment where we continue to strive for process improvement. The following is an outline of the data processing work flow performed after data collection; field verification, and QC processes have been completed.

- QC - Verify swath data, flight data, ground reference data, and finalize collection reporting documentation.
- Back up data on server for processing.
- QC – verify coverage to extend of client specified boundary and between flight lines.
- Process GPS data.
- QC – Check GPS data to meet The Atlantic Group’s internal GPS accuracy and in accordance with scanner manufacturer’s specifications.
- Convert GPS data to POS format and process POS Data.
- QC – Check POS data to meet internal POS accuracy requirements
- Process runway strips for calibration
- Calibrate project flights using runway data
- QC and verify calibration values in project area.
- Process all laser data to raw standard LAS format and output.
- Project setup – Create tiling structure and validate project extents.
- Import trajectories and LAS format into project.
- Filter data using The Atlantic Group proprietary algorithms.
 - The filter process requires adjustments to the algorithms based on terrain type. Different terrain, vegetation, and urban areas require custom algorithms. Based on the complexity of the project area different values will be applied based on the terrain slope, proximity of adjacent points, and the structure of these points. Localized processing and adapting the filtering process is paramount to provide a product that meets or exceeds the LiDAR product specifications.
- Manually edit and QC every tile to correct any anomalies and data issues.
- Generate data delivery products.
- QC formats.
- Apply any additional coordinate and datum transformation for additional delivery products.
- Final QC – including independent accuracy assessment.
- Generation of reporting and documentation for delivery.

The Atlantic Group will utilize the following procedures and formats LiDAR products:

- ◆ HSDRRS QQ 1-16 approved tile index
 - Louisiana State Plane Zone 1702, NAD83 (2007) US Survey ft, Vertical Datum NAVD88 2004.65 GEOID 09 US Survey ft.

Raw and Classified compliant LAS v1.2, Point Record Format 1

- a. Geo-reference information included in LAS header.
- b. Classification Scheme:
 - ◆ Class 1 – Unclassified (used for feature points that are not in Classes 2, 7, 9, 10, or 12. These typically represent returns from vegetation, man-made structures, etc.)
 - ◆ Class 2 – Ground (used for feature points that represent the bare-earth)
 - ◆ Class 7 – Low point and noise (used for artifacts that do not represent the ground, manmade structures or vegetation. Typically these are extraneous points that are either below, or well above the surface not representing any true feature)
 - ◆ Class 9 – Water (used for water when classified using break lines)
 - ◆ Class 12 – Overlap

7.0 System Calibration Report

The current system calibration was performed by Optech on January 04, 2009. Results are as follows:

Data from 5133-10210

Strip #	Strip Info	# of Points	Min Intensity	Max Intensity	Avg Intensity	Min Range	Max Range	Avg Range	RMS (cm)	St Dev (cm)
5	50x29x25_1060	146	35	61	46.14	101.61	101.85	101.7073	4.57	4.59
6	70x34x25_1100	169	19	33	24.56	101.57	101.85	101.7142	5.39	5.41
7	100x40x25_1050	289	8	19	13.79	101.39	101.86	101.6699	7.59	7.61

Data from Test Flight 314

Strip #	Strip Info	# of Points	Min Intensity	Max Intensity	Avg Intensity	Min Range	Max Range	Avg Range	RMS (cm)	St Dev (cm)
5	100x20x20_1140	219	13	54	28.2	147.91	148.19	148.0548	5.14	5.15
6	100x20x20_1150	228	10	50	27.88	148.37	148.61	148.4661	4.39	4.40
9	100x20x15_1130	301	13	41	27.74	147.89	148.13	147.9983	4.40	4.41
18	100x20x20_620	370	26	240	112.17	147.65	147.89	147.7808	3.58	3.59

Appendix A (Field Validation Points)

The following table is created from the control point collected RTK sessions. All positions as shown in the tables are in Louisiana State Plane Zone 1702, NAD83 (2007) US Survey ft, Vertical Datum NAVD88 2004.65 GEOID 09 US Survey ft.

pointNo	easting	northing	zSurvey	zLidar	DeltaZ	LandCoverClass
A148-037	3657628.443	548019.174	-1.748	-1.730	0.02	BARE EARTH
A148-038	3657630.736	548028.760	-1.575	-1.630	-0.05	BARE EARTH
A148-039	3657631.508	548038.738	-1.665	-1.620	0.04	BARE EARTH
A148-040	3668022.308	541357.593	1.463	1.130	-0.33	BARE EARTH
A148-041	3668021.021	541305.458	1.145	1.070	-0.08	BARE EARTH
A148-042	3668019.298	541274.337	0.938	0.770	-0.17	BARE EARTH
A148-043	3668019.350	541270.855	0.794	0.790	0.00	BARE EARTH
A148-044	3668018.746	541255.020	0.660	0.550	-0.11	BARE EARTH
A148-045	3668017.909	541238.504	0.552	0.560	0.01	BARE EARTH
A148-062	3678788.269	530883.848	0.943	0.730	-0.21	BARE EARTH
A148-063	3678811.634	530876.502	0.837	0.760	-0.08	BARE EARTH
A148-064	3678811.027	530859.411	0.935	0.790	-0.15	BARE EARTH
A148-065	3678875.557	530807.009	0.982	0.960	-0.02	BARE EARTH
A148-072	3688169.791	536324.699	2.343	2.480	0.14	BARE EARTH
A148-073	3688174.634	536344.820	2.405	2.340	-0.06	BARE EARTH
LFVA01-001	3667033.368	477464.609	14.233	14.240	0.01	BARE EARTH
LFVA01-032	3687899.334	475017.162	-4.896	-5.010	-0.11	BARE EARTH
LFVA01-033	3687907.877	475037.324	-4.935	-5.220	-0.29	BARE EARTH
LFVA01-034	3687917.516	475064.108	-5.051	-5.160	-0.11	BARE EARTH
LFVA01-035	3687913.107	475080.965	-5.205	-5.250	-0.04	BARE EARTH
LFVA01-036	3687898.708	475058.645	-5.140	-5.210	-0.07	BARE EARTH
LFVA01-056	3672615.068	472581.326	-3.101	-2.870	0.23	BARE EARTH
LFVA01-057	3672610.621	472592.029	-3.197	-3.190	0.01	BARE EARTH
LFVA01-058	3672606.536	472611.424	-3.502	-3.290	0.21	BARE EARTH
LFVA01-059	3672604.478	472624.947	-3.597	-3.360	0.24	BARE EARTH
LFVA01-060	3672602.344	472638.195	-3.821	-3.560	0.26	BARE EARTH
LFVA01-081	3668202.746	485110.250	3.686	3.840	0.15	BARE EARTH
LFVA01-082	3668206.993	485092.602	3.947	3.970	0.02	BARE EARTH
LFVA01-083	3668213.330	485073.868	4.052	3.760	-0.29	BARE EARTH
LFVA01-084	3668219.029	485057.155	3.977	3.960	-0.02	BARE EARTH
LFVA01-085	3668225.274	485039.838	4.206	4.210	0.00	BARE EARTH
LFVA01-116	3667033.180	477464.942	14.140	14.260	0.12	BARE EARTH
LFVA03-001	3732038.219	498621.930	19.670	19.310	-0.36	BARE EARTH
LFVA03-012	3733368.766	499602.920	6.321	6.190	-0.13	BARE EARTH
LFVA03-013	3733371.796	499565.258	4.200	4.240	0.04	BARE EARTH
LFVA03-014	3733386.287	499551.827	3.564	3.740	0.18	BARE EARTH
LFVA03-015	3733425.831	499568.529	3.317	3.330	0.01	BARE EARTH
LFVA03-016	3733450.759	499600.684	8.121	8.140	0.02	BARE EARTH
LFVA03-067	3737258.039	503691.390	4.973	4.780	-0.19	BARE EARTH
LFVA03-068	3737245.694	503711.421	4.734	4.640	-0.09	BARE EARTH
LFVA03-069	3737254.592	503728.687	4.767	4.630	-0.14	BARE EARTH
LFVA03-070	3737268.641	503736.654	4.909	4.790	-0.12	BARE EARTH
LFVA03-071	3737273.840	503707.197	5.118	4.880	-0.24	BARE EARTH
LFVA03-111	3743024.737	504168.803	2.122	1.830	-0.29	BARE EARTH
LFVA03-112	3743007.857	504191.441	2.120	1.930	-0.19	BARE EARTH
LFVA03-113	3742996.537	504213.986	2.235	2.020	-0.22	BARE EARTH

LFVA03-114	3742983.763	504189.529	2.103	1.740	-0.36	BARE EARTH
LFVA03-115	3742963.072	504181.644	1.497	1.090	-0.41	BARE EARTH
LFVA03-116	3735465.536	512152.001	2.156	2.120	-0.04	BARE EARTH
LFVA03-117	3735478.852	512138.692	2.373	2.300	-0.07	BARE EARTH
LFVA03-118	3735502.257	512142.059	2.314	2.300	-0.01	BARE EARTH
LFVA03-119	3735485.531	512166.107	2.597	2.440	-0.16	BARE EARTH
LFVA03-120	3735459.727	512170.879	2.139	2.110	-0.03	BARE EARTH
LFVA03-171	3732038.122	498622.072	19.449	19.310	-0.14	BARE EARTH
LFVA05-012	3613185.480	545127.621	2.892	3.330	0.44	BARE EARTH
LFVA05-013	3613209.173	545117.431	2.800	3.160	0.36	BARE EARTH
LFVA05-014	3613234.118	545116.453	2.853	3.220	0.37	BARE EARTH
LFVA05-015	3613244.452	545096.792	2.879	3.150	0.27	BARE EARTH
LFVA05-016	3613269.729	545098.982	2.708	3.050	0.34	BARE EARTH
LFVA05-030	3603553.786	537247.500	4.436	3.910	-0.53	BARE EARTH
LFVA05-064	3615872.108	544240.011	-2.947	-3.200	-0.25	BARE EARTH
LFVA05-065	3615900.323	544234.602	-2.871	-3.190	-0.32	BARE EARTH
LFVA05-066	3615928.482	544225.970	-3.077	-3.100	-0.02	BARE EARTH
LFVA05-067	3615962.283	544209.152	-2.954	-3.190	-0.24	BARE EARTH
LFVA05-068	3615988.394	544188.774	-2.740	-2.880	-0.14	BARE EARTH
LFVA05-099	3614365.693	546441.523	3.539	3.250	-0.29	BARE EARTH
LFVA06-042	3563271.987	552520.357	5.376	5.150	-0.23	BARE EARTH
LFVA06-043	3563258.358	552530.935	5.396	5.080	-0.32	BARE EARTH
LFVA06-044	3563240.008	552541.990	5.378	5.200	-0.18	BARE EARTH
LFVA06-045	3563219.403	552549.034	5.225	5.010	-0.22	BARE EARTH
LFVA06-046	3563201.012	552555.483	5.105	5.000	-0.11	BARE EARTH
LFVA06-057	3561030.359	554230.859	6.672	6.470	-0.20	BARE EARTH
LFVA06-058	3561029.687	554254.913	7.337	7.050	-0.29	BARE EARTH
LFVA06-059	3561023.391	554271.393	7.856	7.730	-0.13	BARE EARTH
LFVA06-060	3561035.984	554287.671	7.823	7.630	-0.19	BARE EARTH
LFVA06-061	3561053.882	554283.714	7.361	7.230	-0.13	BARE EARTH
LFVA06-090	3588310.467	542076.833	1.092	1.090	0.00	BARE EARTH
LFVA06-091	3588304.539	542095.087	1.111	1.200	0.09	BARE EARTH
LFVA06-092	3588303.111	542114.329	1.234	1.140	-0.09	BARE EARTH
LFVA06-093	3588278.393	542118.364	1.077	1.130	0.05	BARE EARTH
LFVA06-094	3588276.704	542091.709	1.098	1.040	-0.06	BARE EARTH
LFVA06-156	3586433.172	543453.974	15.628	15.450	-0.18	BARE EARTH
LFVA08-001	3617549.781	514342.167	12.946	12.570	-0.38	BARE EARTH
LFVA08-040	3625956.743	520839.441	1.293	1.000	-0.29	BARE EARTH
LFVA08-041	3625947.174	520832.789	1.245	0.920	-0.33	BARE EARTH
LFVA08-042	3625933.189	520822.641	1.286	0.960	-0.33	BARE EARTH
LFVA08-043	3625923.081	520815.796	1.090	0.810	-0.28	BARE EARTH
LFVA08-044	3625910.016	520812.660	1.095	0.930	-0.17	BARE EARTH
LFVA08-073	3617549.753	514342.175	12.993	12.570	-0.42	BARE EARTH
LFVA09-001	3650266.837	502394.254	12.980	12.520	-0.46	BARE EARTH
LFVA09-066	3642502.006	514201.490	2.388	2.150	-0.24	BARE EARTH
LFVA09-067	3642505.304	514131.439	1.926	1.590	-0.34	BARE EARTH
LFVA09-068	3642497.741	514120.308	1.681	1.240	-0.44	BARE EARTH
LFVA09-105	3650266.728	502393.353	12.795	12.530	-0.27	BARE EARTH
LFVA12-067	3770028.206	503913.218	5.187	4.760	-0.43	BARE EARTH
LFVA12-068	3770002.414	503922.154	5.207	4.690	-0.52	BARE EARTH
LFVA12-070	3769957.699	503937.182	5.144	4.640	-0.50	BARE EARTH
LFVA12-071	3769937.081	503943.412	5.144	4.630	-0.51	BARE EARTH
LFVA13s1-001	3721720.111	550579.808	14.987	14.740	-0.25	BARE EARTH
LFVA13s1-042	3702717.073	538482.742	-5.513	-5.240	0.27	BARE EARTH
LFVA13s1-043	3702727.581	538468.926	-5.209	-4.860	0.35	BARE EARTH
LFVA13s1-044	3702735.444	538456.862	-4.958	-4.670	0.29	BARE EARTH
LFVA13s1-045	3702719.232	538450.264	-5.079	-4.800	0.28	BARE EARTH
LFVA13s1-046	3702704.459	538449.512	-5.157	-4.930	0.23	BARE EARTH
LFVA13s1-047	3702699.463	538435.142	-5.288	-4.900	0.39	BARE EARTH
LFVA13s1-048	3702691.317	538425.498	-5.326	-5.070	0.26	BARE EARTH
LFVA13s1-049	3707309.906	553486.250	-0.990	-1.070	-0.08	BARE EARTH
LFVA13s1-050	3707297.095	553482.526	-1.090	-1.020	0.07	BARE EARTH
LFVA13s1-051	3707282.008	553479.186	-1.256	-1.280	-0.02	BARE EARTH

LFVA13s1-052	3707271.329	553469.894	-1.185	-1.190	0.00	BARE EARTH
LFVA13s1-053	3707257.466	553473.187	-1.432	-1.350	0.08	BARE EARTH
LFVA13s2-001	3721720.073	550579.562	14.981	14.710	-0.27	BARE EARTH
LFVA15-001	3747915.043	576615.859	18.742	18.350	-0.39	BARE EARTH
LFVA15-012	3742381.381	596861.552	17.031	16.990	-0.04	BARE EARTH
LFVA15-013	3742387.325	596870.589	17.027	16.920	-0.11	BARE EARTH
LFVA15-014	3742394.625	596880.757	16.995	16.840	-0.16	BARE EARTH
LFVA15-015	3742400.425	596889.622	16.991	16.640	-0.35	BARE EARTH
LFVA15-016	3742409.213	596902.507	16.881	16.670	-0.21	BARE EARTH
LFVA15-034	3730427.172	580841.917	1.707	1.820	0.11	BARE EARTH
LFVA15-035	3730430.516	580855.729	1.611	1.650	0.04	BARE EARTH
LFVA15-036	3730431.330	580870.670	1.595	1.450	-0.15	BARE EARTH
LFVA15-037	3730437.111	580885.540	1.561	1.560	0.00	BARE EARTH
LFVA15-038	3730439.922	580903.167	1.522	1.480	-0.04	BARE EARTH
LFVA15-039	3744496.348	591567.051	1.451	1.390	-0.06	BARE EARTH
LFVA15-040	3744498.260	591557.667	1.471	1.370	-0.10	BARE EARTH
LFVA15-041	3744490.974	591560.351	1.443	1.390	-0.05	BARE EARTH
LFVA15-042	3744485.564	591576.122	1.368	1.250	-0.12	BARE EARTH
LFVA15-043	3744483.229	591588.565	1.302	1.210	-0.09	BARE EARTH
LFVA15-044	3746283.278	575684.101	2.293	2.060	-0.23	BARE EARTH
LFVA15-045	3746272.810	575690.100	2.303	2.070	-0.23	BARE EARTH
LFVA15-046	3746260.949	575694.278	2.426	2.200	-0.23	BARE EARTH
LFVA15-047	3746250.881	575682.749	2.654	2.370	-0.28	BARE EARTH
LFVA15-048	3746255.959	575701.571	2.497	2.260	-0.24	BARE EARTH
LFVA15-069	3747915.493	576615.331	18.605	18.320	-0.29	BARE EARTH
LFVA17-001	3652364.359	554734.427	16.225	16.040	-0.19	BARE EARTH
LFVA17-022	3627448.822	554215.843	-6.216	-6.570	-0.35	BARE EARTH
LFVA17-023	3627437.841	554217.004	-6.215	-6.190	0.02	BARE EARTH
LFVA17-024	3627425.579	554219.502	-6.429	-6.330	0.10	BARE EARTH
LFVA17-025	3627416.179	554219.056	-6.048	-6.180	-0.13	BARE EARTH
LFVA17-041	3646031.661	540927.244	-1.941	-1.920	0.02	BARE EARTH
LFVA17-042	3646032.887	540916.578	-1.942	-1.840	0.10	BARE EARTH
LFVA17-043	3646036.312	540902.340	-1.710	-1.730	-0.02	BARE EARTH
LFVA17-044	3646038.529	540890.610	-1.736	-1.680	0.06	BARE EARTH
LFVA17-045	3646041.661	540875.572	-1.643	-1.740	-0.10	BARE EARTH
LFVA17-066	3652364.406	554734.435	16.200	16.050	-0.15	BARE EARTH
LFVA20-001	3664647.451	452184.026	6.772	6.790	0.02	BARE EARTH
LFVA20-005	3670216.342	423118.222	4.175	4.210	0.04	BARE EARTH
LFVA20-006	3670208.689	423101.180	4.215	4.350	0.14	BARE EARTH
LFVA20-007	3670208.629	423080.164	4.289	4.380	0.09	BARE EARTH
LFVA20-008	3670196.949	423053.685	4.399	4.470	0.07	BARE EARTH
LFVA20-009	3670189.528	423035.106	4.229	4.130	-0.10	BARE EARTH
LFVA20-020	3669436.404	426636.922	-0.014	0.060	0.07	BARE EARTH
LFVA20-021	3669436.336	426616.564	-0.163	0.000	0.16	BARE EARTH
LFVA20-022	3669451.523	426612.371	-0.368	-0.260	0.11	BARE EARTH
LFVA20-023	3669471.461	426619.363	-0.271	-0.250	0.02	BARE EARTH
LFVA20-024	3669485.730	426624.832	0.116	0.150	0.03	BARE EARTH
LFVA20-032	3671636.245	429403.469	-0.577	-0.430	0.15	BARE EARTH
LFVA20-033	3671646.647	429397.110	-0.577	-0.470	0.11	BARE EARTH
LFVA20-034	3671656.493	429420.633	-0.611	-0.480	0.13	BARE EARTH
LFVA20-035	3671642.569	429428.438	-0.612	-0.550	0.06	BARE EARTH
LFVA20-050	3673099.873	433330.269	0.136	0.320	0.18	BARE EARTH
LFVA20-051	3673103.273	433344.244	0.213	0.300	0.09	BARE EARTH
LFVA20-052	3673106.475	433355.388	0.298	0.320	0.02	BARE EARTH
LFVA20-053	3673109.368	433366.079	0.197	0.400	0.20	BARE EARTH
LFVA20-054	3673112.230	433377.528	0.242	0.370	0.13	BARE EARTH
LFVA20-061	3664345.394	446550.269	0.557	0.580	0.02	BARE EARTH
LFVA20-062	3664344.044	446568.750	0.565	0.450	-0.12	BARE EARTH
LFVA20-063	3664328.479	446586.097	0.596	0.430	-0.17	BARE EARTH
LFVA20-064	3664310.095	446584.721	0.274	0.360	0.09	BARE EARTH
LFVA20-065	3664304.836	446566.798	0.363	0.510	0.15	BARE EARTH
LFVA20-066	3663265.553	450335.941	6.337	6.600	0.26	BARE EARTH
LFVA20-067	3663277.073	450341.854	6.239	6.270	0.03	BARE EARTH

LFVA20-068	3663285.862	450348.598	6.221	6.290	0.07	BARE EARTH
LFVA20-069	3663211.707	450313.326	5.660	5.870	0.21	BARE EARTH
LFVA20-070	3663149.560	450280.254	4.732	4.900	0.17	BARE EARTH
LFVA20-093	3663869.694	450806.901	0.815	1.000	0.19	BARE EARTH
LFVA20-094	3663845.247	450804.384	0.959	0.960	0.00	BARE EARTH
LFVA20-095	3663809.034	450784.586	1.538	1.550	0.01	BARE EARTH
LFVA20-096	3663795.747	450788.453	1.253	1.410	0.16	BARE EARTH
LFVA20-097	3663782.634	450800.775	1.168	1.300	0.13	BARE EARTH
LFVA20-099	3661204.774	453487.027	4.065	4.200	0.14	BARE EARTH
LFVA20-100	3661189.393	453476.670	3.503	3.530	0.03	BARE EARTH
LFVA20-101	3661214.961	453443.422	3.373	3.360	-0.01	BARE EARTH
LFVA20-102	3661216.914	453431.917	2.906	3.000	0.09	BARE EARTH
LFVA20-103	3661221.659	453408.258	2.178	2.260	0.08	BARE EARTH
LFVA20-110	3661147.793	455866.364	2.386	2.530	0.14	BARE EARTH
LFVA20-111	3661136.356	455869.403	2.451	2.530	0.08	BARE EARTH
LFVA20-112	3661122.829	455868.634	2.281	2.530	0.25	BARE EARTH
LFVA20-113	3661106.276	455861.760	2.177	2.490	0.31	BARE EARTH
LFVA20-114	3661093.331	455855.832	2.403	2.580	0.18	BARE EARTH
LFVA20-130	3661984.252	457000.952	3.311	3.280	-0.03	BARE EARTH
LFVA20-131	3661991.665	456985.680	3.307	3.250	-0.06	BARE EARTH
LFVA20-132	3661999.490	456970.849	3.165	3.110	-0.06	BARE EARTH
LFVA20-133	3662005.474	456959.919	3.049	3.020	-0.03	BARE EARTH
LFVA20-134	3662017.527	456939.756	3.294	3.130	-0.16	BARE EARTH
LFVA20-135	3670983.984	460580.998	1.879	1.990	0.11	BARE EARTH
LFVA20-136	3670970.191	460592.905	1.774	1.900	0.13	BARE EARTH
LFVA20-137	3670951.672	460606.116	1.813	1.810	0.00	BARE EARTH
LFVA20-138	3670943.841	460623.637	1.735	1.730	-0.01	BARE EARTH
LFVA20-139	3670931.045	460638.624	1.760	1.800	0.04	BARE EARTH
LFVA20-145	3675139.667	460014.185	0.999	1.040	0.04	BARE EARTH
LFVA20-146	3675158.330	459996.310	0.837	0.870	0.03	BARE EARTH
LFVA20-147	3675176.440	459979.175	0.724	0.720	0.00	BARE EARTH
LFVA20-148	3675190.394	459966.929	0.794	0.790	0.00	BARE EARTH
LFVA20-149	3675210.066	459953.437	0.687	0.750	0.06	BARE EARTH
LFVA20-151	3677467.124	462102.627	1.177	1.230	0.05	BARE EARTH
LFVA20-152	3677450.997	462092.475	1.294	1.420	0.13	BARE EARTH
LFVA20-153	3677432.092	462077.616	1.409	1.490	0.08	BARE EARTH
LFVA20-154	3677411.676	462063.269	1.244	1.430	0.19	BARE EARTH
LFVA20-155	3677392.421	462049.078	1.407	1.470	0.06	BARE EARTH
V375-001	3712188.398	517906.531	2.245	1.740	-0.51	BARE EARTH
V375-020	3696830.870	520594.539	-4.714	-4.850	-0.14	BARE EARTH
V375-021	3696807.309	520576.278	-4.730	-4.960	-0.23	BARE EARTH
V375-022	3696773.604	520589.241	-4.774	-5.020	-0.25	BARE EARTH
V375-023	3696757.213	520612.422	-4.902	-5.040	-0.14	BARE EARTH
LFVA03-002	3732070.150	498767.476	9.335	9.340	0.00	CHENIERS
LFVA03-003	3732054.342	498730.250	8.776	9.050	0.27	CHENIERS
LFVA03-004	3732021.896	498696.194	8.128	8.380	0.25	CHENIERS
LFVA03-005	3731973.456	498663.340	8.068	8.290	0.22	CHENIERS
LFVA03-006	3731951.155	498649.694	8.126	8.330	0.20	CHENIERS
LFVA03-017	3733430.499	499752.542	6.564	6.800	0.24	CHENIERS
LFVA03-018	3733393.615	499767.033	6.668	6.850	0.18	CHENIERS
LFVA03-019	3733359.844	499811.509	7.572	7.760	0.19	CHENIERS
LFVA03-020	3733332.891	499827.864	7.946	7.880	-0.07	CHENIERS
LFVA03-021	3733287.298	499774.096	8.103	8.580	0.48	CHENIERS
LFVA05-052	3613798.749	539518.657	6.054	6.520	0.47	CHENIERS
LFVA05-053	3613851.420	539520.131	3.462	3.800	0.34	CHENIERS
LFVA06-074	3576197.524	555694.721	3.829	3.500	-0.33	CHENIERS
LFVA06-075	3576197.406	555694.731	3.889	3.510	-0.38	CHENIERS
LFVA06-076	3576181.540	555679.799	3.683	3.680	0.00	CHENIERS
LFVA06-077	3576161.359	555667.055	3.992	4.300	0.31	CHENIERS
LFVA06-078	3576140.596	555652.075	4.059	4.340	0.28	CHENIERS
LFVA06-079	3576131.330	555632.479	3.899	4.210	0.31	CHENIERS
LFVA09-017	3651645.125	509731.713	-3.059	-2.910	0.15	CHENIERS
LFVA09-018	3651630.129	509713.822	-3.094	-2.970	0.12	CHENIERS

LFVA09-019	3651693.245	509744.795	-3.281	-3.450	-0.17	CHENIERS
LFVA09-020	3651705.300	509778.441	-2.301	-2.640	-0.34	CHENIERS
LFVA09-021	3651679.346	509786.897	-2.537	-2.760	-0.22	CHENIERS
LFVA09-037	3660434.887	501416.325	-3.830	-3.850	-0.02	CHENIERS
LFVA09-038	3660479.754	501419.008	-4.195	-3.550	0.65	CHENIERS
LFVA09-039	3660502.063	501417.971	-4.117	-3.750	0.37	CHENIERS
LFVA09-040	3660517.154	501415.942	-4.089	-3.690	0.40	CHENIERS
LFVA09-041	3660533.647	501412.686	-3.823	-3.910	-0.09	CHENIERS
LFVA09-047	3654002.100	507982.012	-4.273	-3.790	0.48	CHENIERS
LFVA09-050	3654001.932	507994.466	-4.276	-4.130	0.15	CHENIERS
LFVA09-051	3653985.469	508036.511	-4.263	-4.130	0.13	CHENIERS
LFVA12-072	3769969.264	503978.890	-1.158	-0.890	0.27	CHENIERS
LFVA12-073	3769946.049	503990.378	-0.957	-0.910	0.05	CHENIERS
LFVA12-074	3769915.779	504000.593	-1.126	-1.440	-0.31	CHENIERS
LFVA12-075	3769886.859	504008.637	-1.185	-1.260	-0.08	CHENIERS
LFVA12-076	3769858.430	504016.963	-1.259	-1.500	-0.24	CHENIERS
LFVA12-082	3763413.892	504658.556	-0.295	-0.830	-0.54	CHENIERS
LFVA12-083	3763399.512	504651.438	0.100	-0.640	-0.74	CHENIERS
LFVA12-084	3763393.221	504650.318	-0.540	-0.830	-0.29	CHENIERS
LFVA12-085	3763398.007	504639.975	-0.634	-1.090	-0.46	CHENIERS
LFVA12-139	3757120.693	504267.145	-1.621	-1.360	0.26	CHENIERS
LFVA13s1-027	3732456.330	561625.659	4.349	4.600	0.25	CHENIERS
LFVA13s1-028	3732454.097	561599.793	4.523	4.560	0.04	CHENIERS
LFVA13s1-029	3732485.452	561618.896	5.523	5.320	-0.20	CHENIERS
LFVA13s1-030	3732488.673	561599.697	5.530	5.530	0.00	CHENIERS
LFVA13s1-031	3732513.481	561619.549	5.159	5.160	0.00	CHENIERS
LFVA15-029	3736458.308	588801.617	0.418	0.620	0.20	CHENIERS
LFVA15-030	3736446.191	588832.996	1.434	1.750	0.32	CHENIERS
LFVA15-031	3736383.703	588812.080	2.789	3.030	0.24	CHENIERS
LFVA15-032	3736322.471	588794.462	3.365	3.120	-0.25	CHENIERS
LFVA15-033	3736370.149	588806.603	2.577	3.070	0.49	CHENIERS
LFVA15-049	3743907.137	569892.381	1.063	1.040	-0.02	CHENIERS
LFVA15-050	3743930.460	569910.924	0.779	1.220	0.44	CHENIERS
LFVA15-051	3743947.170	569921.574	0.836	1.100	0.26	CHENIERS
LFVA15-052	3743959.689	569932.681	0.879	0.980	0.10	CHENIERS
LFVA15-053	3743969.918	569940.888	1.020	1.140	0.12	CHENIERS
LFVA20-002	3670316.349	422183.066	1.563	1.680	0.12	CHENIERS
LFVA20-003	3670315.362	422200.739	1.747	1.770	0.02	CHENIERS
LFVA20-004	3670293.885	422218.062	1.521	1.530	0.01	CHENIERS
LFVA20-030	3672084.652	427920.207	3.315	3.690	0.38	CHENIERS
LFVA20-031	3672084.585	427920.290	3.349	3.700	0.35	CHENIERS
LFVA20-088	3665918.639	448248.519	1.671	1.920	0.25	CHENIERS
LFVA20-089	3665932.526	448255.238	1.752	1.740	-0.01	CHENIERS
LFVA20-090	3665950.571	448261.985	1.638	1.650	0.01	CHENIERS
LFVA20-091	3665961.566	448270.657	1.575	1.800	0.23	CHENIERS
LFVA20-092	3665981.199	448281.568	1.487	1.800	0.31	CHENIERS
LFVA20-098	3664693.904	452159.953	3.179	3.590	0.41	CHENIERS
LFVA20-115	3661282.514	454496.254	8.179	8.240	0.06	CHENIERS
LFVA20-116	3661296.847	454478.919	8.055	8.160	0.11	CHENIERS
LFVA20-117	3661321.118	454485.259	7.720	8.060	0.34	CHENIERS
LFVA20-118	3661336.533	454456.344	7.390	7.880	0.49	CHENIERS
LFVA20-119	3661322.881	454436.847	7.180	7.800	0.62	CHENIERS
V375-024	3696880.305	520620.405	-4.875	-5.150	-0.28	CHENIERS
V375-025	3696904.879	520615.043	-5.198	-4.980	0.22	CHENIERS
V375-026	3696958.983	520613.354	-4.523	-4.560	-0.04	CHENIERS
V375-027	3696991.093	520610.839	-4.760	-4.760	0.00	CHENIERS
V375-028	3697428.901	510372.308	-4.597	-4.400	0.20	CHENIERS
V375-030	3697470.125	510379.562	-4.162	-3.570	0.59	CHENIERS
V375-036	3697496.631	510260.791	-3.470	-2.940	0.53	CHENIERS
V375-037	3697464.652	510239.854	-4.011	-3.680	0.33	CHENIERS
LFVA01-049	3677037.911	488210.756	-2.859	-3.010	-0.15	FOREST
LFVA01-050	3677064.687	488213.771	-3.438	-3.300	0.14	FOREST
LFVA01-051	3673984.605	480760.775	-1.928	-1.940	-0.01	FOREST

LFVA01-052	3673981.735	480725.792	-1.662	-2.100	-0.44	FOREST
LFVA01-053	3673978.660	480675.336	-2.127	-2.210	-0.08	FOREST
LFVA01-054	3673970.546	480588.647	-1.777	-1.900	-0.12	FOREST
LFVA01-055	3673968.079	480553.242	-1.975	-2.070	-0.09	FOREST
LFVA03-096	3734483.272	497183.621	2.224	2.150	-0.07	FOREST
LFVA03-097	3734485.374	497145.945	2.317	2.360	0.04	FOREST
LFVA03-099	3735027.969	498676.261	2.544	2.640	0.10	FOREST
LFVA05-059	3615981.013	544118.773	-3.084	-3.120	-0.04	FOREST
LFVA05-060	3615962.875	544136.947	-3.278	-3.410	-0.13	FOREST
LFVA05-061	3615921.267	544153.878	-3.425	-3.430	-0.01	FOREST
LFVA05-062	3615900.964	544169.928	-3.615	-3.600	0.02	FOREST
LFVA05-063	3615860.981	544186.632	-3.314	-3.450	-0.14	FOREST
LFVA06-062	3561163.345	554326.320	4.886	4.960	0.07	FOREST
LFVA06-068	3573430.828	553170.945	3.320	2.930	-0.39	FOREST
LFVA06-155	3579220.131	538602.962	5.588	5.350	-0.24	FOREST
LFVA08-038	3630294.638	515197.936	-1.023	-0.320	0.70	FOREST
LFVA08-039	3630295.884	515225.982	-0.983	-0.260	0.72	FOREST
LFVA08-045	3622603.275	525843.924	1.149	0.960	-0.19	FOREST
LFVA08-046	3622612.823	525858.938	1.000	0.800	-0.20	FOREST
LFVA09-042	3664504.532	503808.649	1.788	1.660	-0.13	FOREST
LFVA09-043	3664494.263	503727.854	1.843	2.030	0.19	FOREST
LFVA09-044	3664487.592	503686.547	1.418	1.240	-0.18	FOREST
LFVA09-045	3664487.314	503666.777	1.575	1.660	0.09	FOREST
LFVA09-046	3664487.293	503652.347	1.431	1.940	0.51	FOREST
LFVA09-062	3648043.762	510086.489	-4.123	-4.170	-0.05	FOREST
LFVA09-063	3648021.881	510098.670	-4.154	-3.770	0.38	FOREST
LFVA09-069	3645634.159	508629.551	-3.471	-3.390	0.08	FOREST
LFVA09-070	3645597.900	508625.931	-4.412	-4.610	-0.20	FOREST
LFVA09-071	3645557.942	508629.412	-4.073	-4.230	-0.16	FOREST
LFVA09-072	3645505.337	508623.378	-4.654	-4.830	-0.18	FOREST
LFVA09-073	3645440.448	508625.933	-3.952	-3.940	0.01	FOREST
LFVA09-074	3639735.790	508499.513	-7.710	-7.540	0.17	FOREST
LFVA09-075	3648730.166	515310.678	0.173	0.400	0.23	FOREST
LFVA09-076	3648764.986	515296.634	-0.002	0.580	0.58	FOREST
LFVA09-077	3648795.167	515290.962	0.397	0.930	0.53	FOREST
LFVA09-078	3648824.560	515284.592	0.281	0.610	0.33	FOREST
LFVA09-079	3648843.668	515280.418	0.186	0.280	0.09	FOREST
LFVA09-080	3654690.750	511771.247	-0.215	-0.390	-0.18	FOREST
LFVA09-081	3654653.256	511777.341	-1.066	-1.150	-0.08	FOREST
LFVA09-082	3654633.991	511784.330	-1.658	-1.680	-0.02	FOREST
LFVA09-083	3654618.862	511779.070	-2.178	-2.050	0.13	FOREST
LFVA09-084	3654630.004	511787.072	-1.701	-1.750	-0.05	FOREST
LFVA12-027	3772154.010	504239.137	-0.784	-1.050	-0.27	FOREST
LFVA12-028	3772171.352	504231.344	-0.913	-0.800	0.11	FOREST
LFVA12-029	3772184.904	504223.254	-1.101	-1.370	-0.27	FOREST
LFVA12-030	3772198.630	504218.690	-1.425	-1.180	0.25	FOREST
LFVA12-031	3772211.350	504214.590	-1.439	-1.560	-0.12	FOREST
LFVA12-062	3773461.599	499850.403	0.152	-0.100	-0.25	FOREST
LFVA12-063	3773439.903	499811.026	0.589	0.310	-0.28	FOREST
LFVA12-064	3773422.040	499785.805	0.648	0.340	-0.31	FOREST
LFVA12-065	3773418.897	499768.345	0.609	0.400	-0.21	FOREST
LFVA12-066	3773414.392	499737.325	0.750	0.560	-0.19	FOREST
LFVA20-047	3672028.605	431202.416	-1.026	-0.980	0.05	FOREST
LFVA20-048	3672076.958	431215.026	-1.510	-1.200	0.31	FOREST
LFVA20-049	3672102.486	431190.926	-1.606	-1.150	0.46	FOREST
LFVA20-055	3673220.459	433409.331	-1.035	-0.520	0.52	FOREST
LFVA20-081	3662347.483	451061.979	1.267	1.230	-0.04	FOREST
LFVA20-082	3662348.202	451065.338	0.926	1.040	0.11	FOREST
LFVA20-109	3663080.556	453729.938	2.170	2.350	0.18	FOREST
LFVA20-150	3675249.605	459948.174	0.451	0.690	0.24	FOREST
A148-055	3679288.946	534990.831	0.342	0.340	0.00	HIGH GRASS
A148-056	3679300.207	534982.771	0.301	0.140	-0.16	HIGH GRASS
A148-057	3679309.590	534975.595	0.442	0.510	0.07	HIGH GRASS

A148-058	3679325.576	534962.326	0.635	0.640	0.01	HIGH GRASS
A148-059	3679337.720	534954.715	0.281	0.550	0.27	HIGH GRASS
A148-060	3679352.910	534942.766	0.205	0.390	0.19	HIGH GRASS
A148-061	3679368.206	534928.339	0.399	0.470	0.07	HIGH GRASS
LFVA01-039	3676461.906	488226.605	-5.180	-4.620	0.56	HIGH GRASS
LFVA01-040	3676446.697	488227.075	-5.301	-4.730	0.57	HIGH GRASS
LFVA01-041	3676374.494	488228.316	-4.754	-4.670	0.08	HIGH GRASS
LFVA01-042	3676359.801	488225.944	-5.027	-4.630	0.40	HIGH GRASS
LFVA01-043	3676324.759	488227.749	-5.164	-4.670	0.49	HIGH GRASS
LFVA01-091	3670456.225	484953.409	4.817	5.020	0.20	HIGH GRASS
LFVA01-092	3670469.381	484950.191	4.966	5.170	0.20	HIGH GRASS
LFVA01-093	3670473.220	484959.417	4.946	5.240	0.29	HIGH GRASS
LFVA01-094	3670466.264	484978.653	4.794	5.000	0.21	HIGH GRASS
LFVA01-095	3670449.748	484983.065	4.646	4.820	0.17	HIGH GRASS
LFVA03-062	3736259.843	503762.137	6.199	6.500	0.30	HIGH GRASS
LFVA03-063	3736262.084	503742.938	6.188	6.170	-0.02	HIGH GRASS
LFVA03-064	3736272.249	503728.948	5.987	6.250	0.26	HIGH GRASS
LFVA03-065	3736286.217	503737.336	6.129	6.300	0.17	HIGH GRASS
LFVA03-066	3736304.831	503747.396	5.864	6.240	0.38	HIGH GRASS
LFVA05-047	3613767.285	539571.099	3.907	4.250	0.34	HIGH GRASS
LFVA05-048	3613773.370	539545.677	6.678	7.150	0.47	HIGH GRASS
LFVA05-049	3613782.062	539533.015	6.481	6.980	0.50	HIGH GRASS
LFVA05-050	3613777.641	539524.253	6.209	6.670	0.46	HIGH GRASS
LFVA05-051	3613787.158	539492.848	5.664	6.170	0.51	HIGH GRASS
LFVA06-052	3563412.358	552618.985	4.952	4.460	-0.49	HIGH GRASS
LFVA06-053	3563401.158	552608.587	5.065	4.540	-0.53	HIGH GRASS
LFVA06-054	3563390.659	552585.277	4.823	4.450	-0.37	HIGH GRASS
LFVA06-055	3563384.965	552576.152	4.998	4.510	-0.49	HIGH GRASS
LFVA06-056	3563374.209	552558.754	4.967	4.610	-0.36	HIGH GRASS
LFVA06-063	3559269.270	547089.229	15.555	15.940	0.39	HIGH GRASS
LFVA06-064	3559263.398	547099.892	15.767	16.140	0.37	HIGH GRASS
LFVA06-065	3559251.189	547103.017	15.476	15.730	0.25	HIGH GRASS
LFVA06-066	3559243.562	547101.942	15.393	15.520	0.13	HIGH GRASS
LFVA06-067	3559236.433	547110.037	15.245	15.580	0.34	HIGH GRASS
LFVA06-135	3584560.241	535789.013	1.040	1.000	-0.04	HIGH GRASS
LFVA06-136	3584562.578	535773.836	1.320	1.120	-0.20	HIGH GRASS
LFVA06-137	3584555.863	535755.694	0.896	0.810	-0.09	HIGH GRASS
LFVA06-138	3584538.295	535775.552	1.437	1.490	0.05	HIGH GRASS
LFVA06-139	3584548.672	535790.864	1.119	1.190	0.07	HIGH GRASS
LFVA06-140	3580645.697	531276.170	10.037	10.130	0.09	HIGH GRASS
LFVA06-141	3580632.540	531295.706	10.045	10.080	0.04	HIGH GRASS
LFVA06-142	3580619.214	531297.477	9.976	10.000	0.02	HIGH GRASS
LFVA06-143	3580604.554	531290.983	10.110	10.360	0.25	HIGH GRASS
LFVA06-144	3580605.048	531278.210	10.290	10.230	-0.06	HIGH GRASS
LFVA06-150	3579366.158	536371.193	7.109	6.770	-0.34	HIGH GRASS
LFVA06-151	3579378.363	536386.017	7.066	6.820	-0.25	HIGH GRASS
LFVA06-152	3579389.411	536400.749	7.139	6.950	-0.19	HIGH GRASS
LFVA06-153	3579390.207	536413.277	7.435	7.280	-0.15	HIGH GRASS
LFVA06-154	3579397.427	536426.331	7.844	7.690	-0.15	HIGH GRASS
LFVA08-033	3618217.998	518385.268	4.738	4.380	-0.36	HIGH GRASS
LFVA08-034	3618200.775	518375.206	4.898	4.570	-0.33	HIGH GRASS
LFVA08-035	3618175.310	518367.038	4.948	4.620	-0.33	HIGH GRASS
LFVA08-036	3618169.639	518348.429	4.686	4.420	-0.27	HIGH GRASS
LFVA08-037	3618195.406	518348.995	4.675	4.500	-0.18	HIGH GRASS
LFVA08-047	3625313.699	533483.918	11.686	11.710	0.02	HIGH GRASS
LFVA08-048	3625306.603	533487.448	11.741	12.020	0.28	HIGH GRASS
LFVA08-049	3625305.892	533496.568	11.749	11.690	-0.06	HIGH GRASS
LFVA08-050	3625299.511	533497.911	11.529	11.730	0.20	HIGH GRASS
LFVA08-051	3625322.370	533487.973	11.858	12.110	0.25	HIGH GRASS
LFVA09-032	3659517.378	506053.828	2.473	2.300	-0.17	HIGH GRASS
LFVA09-033	3659504.405	506058.148	2.298	2.330	0.03	HIGH GRASS
LFVA09-034	3659493.848	506058.961	2.247	2.250	0.00	HIGH GRASS
LFVA09-035	3659485.336	506057.469	2.309	2.280	-0.03	HIGH GRASS

LFVA09-036	3659480.749	506055.459	2.302	2.340	0.04	HIGH GRASS
LFVA09-057	3647466.525	510133.045	-0.748	-0.490	0.26	HIGH GRASS
LFVA09-058	3647470.164	510126.209	-0.665	-0.520	0.15	HIGH GRASS
LFVA09-059	3647471.880	510119.727	-0.607	-0.220	0.39	HIGH GRASS
LFVA09-060	3647458.694	510144.387	-0.543	0.010	0.55	HIGH GRASS
LFVA09-061	3647450.530	510151.301	-0.674	-0.510	0.16	HIGH GRASS
LFVA13s1-032	3729402.564	548020.957	5.651	6.070	0.42	HIGH GRASS
LFVA13s1-033	3729415.575	548014.048	5.808	6.210	0.40	HIGH GRASS
LFVA13s1-034	3729426.196	548012.527	5.794	6.310	0.52	HIGH GRASS
LFVA13s1-035	3729430.686	548003.658	5.908	6.210	0.30	HIGH GRASS
LFVA13s1-036	3729434.888	547993.519	5.860	5.860	0.00	HIGH GRASS
LFVA17-026	3628222.130	554110.591	-5.917	-5.560	0.36	HIGH GRASS
LFVA17-027	3628218.074	554095.735	-5.949	-5.560	0.39	HIGH GRASS
LFVA17-028	3628213.951	554085.804	-5.854	-5.420	0.43	HIGH GRASS
LFVA17-029	3628217.510	554077.769	-5.638	-5.120	0.52	HIGH GRASS
LFVA17-030	3628235.216	554074.540	-5.226	-4.700	0.53	HIGH GRASS
LFVA20-042	3671268.530	429880.129	0.165	0.450	0.29	HIGH GRASS
LFVA20-043	3671270.446	429860.371	-0.345	-0.030	0.32	HIGH GRASS
LFVA20-044	3671274.753	429843.803	-0.365	-0.160	0.21	HIGH GRASS
LFVA20-045	3671287.185	429829.700	-0.376	0.090	0.47	HIGH GRASS
LFVA20-046	3671290.165	429850.402	-0.487	-0.100	0.39	HIGH GRASS
LFVA20-084	3665897.707	448313.135	1.554	2.020	0.47	HIGH GRASS
LFVA20-085	3665900.280	448304.713	1.676	1.970	0.29	HIGH GRASS
LFVA20-086	3665902.593	448296.862	1.324	1.790	0.47	HIGH GRASS
LFVA20-087	3665910.135	448286.197	1.577	2.170	0.59	HIGH GRASS
V375-031	3697476.063	510369.711	-3.847	-3.560	0.29	HIGH GRASS
V375-032	3697487.355	510349.338	-3.183	-2.720	0.46	HIGH GRASS
V375-033	3697498.172	510334.904	-3.054	-2.820	0.23	HIGH GRASS
V375-034	3697504.172	510312.664	-3.274	-3.140	0.13	HIGH GRASS
V375-035	3697511.728	510287.326	-3.431	-3.310	0.12	HIGH GRASS
V375-038	3697438.194	510295.720	-3.723	-3.700	0.02	HIGH GRASS
V375-039	3697407.511	510301.293	-3.897	-3.760	0.14	HIGH GRASS
V375-040	3697385.346	510295.703	-3.862	-3.790	0.07	HIGH GRASS
V375-041	3697375.737	510281.684	-4.019	-3.740	0.28	HIGH GRASS
V375-042	3697373.496	510264.942	-4.038	-3.950	0.09	HIGH GRASS
LFVA09-002	3646374.626	500051.380	13.092	12.640	-0.45	LEVEE
LFVA09-003	3646374.504	500051.264	13.159	12.650	-0.51	LEVEE
LFVA09-004	3646374.497	500051.224	13.179	12.650	-0.53	LEVEE
LFVA09-005	3646374.559	500051.322	13.156	12.640	-0.52	LEVEE
LFVA09-006	3646374.590	500051.314	13.160	12.640	-0.52	LEVEE
LFVA09-007	3646374.572	500051.301	13.121	12.640	-0.48	LEVEE
LFVA09-008	3646374.607	500051.351	13.140	12.640	-0.50	LEVEE
LFVA09-009	3646374.583	500051.293	13.116	12.640	-0.48	LEVEE
LFVA09-010	3646374.590	500051.282	13.150	12.640	-0.51	LEVEE
LFVA09-011	3646374.574	500051.319	13.128	12.640	-0.49	LEVEE
LFVA09-095	3646374.776	500051.480	13.098	12.630	-0.47	LEVEE
LFVA09-096	3646374.747	500051.503	13.091	12.630	-0.46	LEVEE
LFVA09-097	3646374.786	500051.503	13.088	12.630	-0.46	LEVEE
LFVA09-098	3646374.722	500051.565	13.065	12.630	-0.43	LEVEE
LFVA09-099	3646374.805	500051.555	13.046	12.630	-0.42	LEVEE
LFVA09-100	3646374.776	500051.514	13.070	12.630	-0.44	LEVEE
LFVA09-101	3646374.809	500051.509	13.047	12.630	-0.42	LEVEE
LFVA09-102	3646374.830	500051.562	13.059	12.630	-0.43	LEVEE
LFVA09-103	3646374.736	500051.514	13.085	12.630	-0.46	LEVEE
LFVA09-104	3646374.741	500051.508	13.080	12.630	-0.45	LEVEE
LFVA08-017	3630018.604	500691.473	14.087	13.530	-0.56	LEVEE
LFVA08-018	3630018.586	500691.475	14.108	13.530	-0.58	LEVEE
LFVA08-019	3630018.583	500691.380	14.120	13.520	-0.60	LEVEE
LFVA08-020	3630018.604	500691.382	14.128	13.520	-0.61	LEVEE
LFVA08-021	3630018.620	500691.368	14.131	13.520	-0.61	LEVEE
LFVA08-022	3630018.687	500691.356	14.119	13.520	-0.60	LEVEE
LFVA08-023	3630018.680	500691.353	14.120	13.520	-0.60	LEVEE
LFVA08-024	3630018.673	500691.355	14.117	13.520	-0.60	LEVEE

LFVA08-025	3630018.662	500691.324	14.124	13.520	-0.60	LEVEE
LFVA08-026	3630018.611	500691.228	14.099	13.510	-0.59	LEVEE
LFVA08-052	3630018.359	500691.182	13.969	13.500	-0.47	LEVEE
LFVA08-053	3630018.400	500691.256	14.005	13.510	-0.50	LEVEE
LFVA08-054	3630018.419	500691.315	13.987	13.510	-0.48	LEVEE
LFVA08-055	3630018.384	500691.333	14.011	13.510	-0.50	LEVEE
LFVA08-056	3630018.438	500691.388	13.995	13.520	-0.48	LEVEE
LFVA08-057	3630018.403	500691.301	13.990	13.510	-0.48	LEVEE
LFVA08-058	3630018.402	500691.249	13.974	13.510	-0.46	LEVEE
LFVA08-059	3630018.409	500691.394	13.968	13.520	-0.45	LEVEE
LFVA08-060	3630018.433	500691.405	13.980	13.520	-0.46	LEVEE
LFVA08-061	3630018.389	500691.369	13.999	13.520	-0.48	LEVEE
LFVA08-062	3630018.437	500691.364	14.012	13.520	-0.49	LEVEE
LFVA03-027	3733362.260	499688.757	19.423	19.250	-0.17	LEVEE
LFVA03-028	3733362.257	499688.750	19.422	19.250	-0.17	LEVEE
LFVA03-029	3733362.268	499688.703	19.422	19.250	-0.17	LEVEE
LFVA03-030	3733362.324	499688.716	19.396	19.250	-0.15	LEVEE
LFVA03-031	3733362.347	499688.702	19.389	19.250	-0.14	LEVEE
LFVA03-032	3733362.377	499688.664	19.378	19.240	-0.14	LEVEE
LFVA03-033	3733362.331	499688.679	19.400	19.250	-0.15	LEVEE
LFVA03-034	3733362.333	499688.685	19.399	19.250	-0.15	LEVEE
LFVA03-035	3733362.351	499688.674	19.393	19.240	-0.15	LEVEE
LFVA03-036	3733362.375	499688.650	19.390	19.240	-0.15	LEVEE
LFVA03-121	3733362.284	499688.768	19.450	19.250	-0.20	LEVEE
LFVA03-122	3733362.246	499688.774	19.439	19.250	-0.19	LEVEE
LFVA03-123	3733362.256	499688.803	19.430	19.250	-0.18	LEVEE
LFVA03-124	3733362.263	499688.831	19.436	19.250	-0.19	LEVEE
LFVA03-125	3733362.290	499688.860	19.442	19.250	-0.19	LEVEE
LFVA03-126	3733362.303	499688.875	19.423	19.250	-0.17	LEVEE
LFVA03-127	3733362.313	499688.835	19.441	19.250	-0.19	LEVEE
LFVA03-128	3733362.327	499688.862	19.447	19.250	-0.20	LEVEE
LFVA03-129	3733362.310	499688.788	19.453	19.250	-0.20	LEVEE
LFVA03-130	3733362.330	499688.836	19.465	19.250	-0.22	LEVEE
LFVA03-037	3735768.064	499789.359	19.232	19.130	-0.10	LEVEE
LFVA03-038	3735768.107	499789.361	19.265	19.130	-0.14	LEVEE
LFVA03-039	3735768.163	499789.369	19.267	19.140	-0.13	LEVEE
LFVA03-040	3735768.123	499789.400	19.263	19.130	-0.13	LEVEE
LFVA03-041	3735768.144	499789.387	19.248	19.140	-0.11	LEVEE
LFVA03-042	3735768.166	499789.433	19.254	19.140	-0.11	LEVEE
LFVA03-043	3735768.228	499789.410	19.260	19.140	-0.12	LEVEE
LFVA03-044	3735768.206	499789.406	19.265	19.140	-0.13	LEVEE
LFVA03-045	3735768.224	499789.412	19.281	19.140	-0.14	LEVEE
LFVA03-046	3735768.177	499789.421	19.276	19.140	-0.14	LEVEE
LFVA03-131	3735768.160	499789.327	19.290	19.130	-0.16	LEVEE
LFVA03-132	3735768.025	499789.333	19.297	19.130	-0.17	LEVEE
LFVA03-133	3735767.946	499789.384	19.314	19.130	-0.18	LEVEE
LFVA03-134	3735768.021	499789.415	19.306	19.130	-0.18	LEVEE
LFVA03-135	3735768.015	499789.420	19.286	19.130	-0.16	LEVEE
LFVA03-136	3735768.046	499789.470	19.257	19.130	-0.13	LEVEE
LFVA03-137	3735768.032	499789.432	19.264	19.130	-0.13	LEVEE
LFVA03-138	3735768.135	499789.359	19.267	19.130	-0.14	LEVEE
LFVA03-139	3735768.147	499789.322	19.287	19.130	-0.16	LEVEE
LFVA03-140	3735768.118	499789.320	19.279	19.130	-0.15	LEVEE
LFVA03-047	3735650.318	504211.324	19.693	19.630	-0.06	LEVEE
LFVA03-048	3735650.143	504211.333	19.687	19.620	-0.07	LEVEE
LFVA03-049	3735650.158	504211.346	19.698	19.620	-0.08	LEVEE
LFVA03-050	3735650.195	504211.324	19.720	19.620	-0.10	LEVEE
LFVA03-051	3735650.194	504211.340	19.686	19.620	-0.07	LEVEE
LFVA03-052	3735650.220	504211.343	19.705	19.630	-0.07	LEVEE
LFVA03-053	3735650.182	504211.356	19.685	19.620	-0.06	LEVEE
LFVA03-054	3735650.193	504211.364	19.697	19.630	-0.07	LEVEE
LFVA03-055	3735650.183	504211.345	19.692	19.620	-0.07	LEVEE
LFVA03-056	3735650.196	504211.356	19.683	19.630	-0.05	LEVEE

LFVA03-141	3735650.154	504211.423	19.645	19.620	-0.02	LEVEE
LFVA03-142	3735650.155	504211.387	19.688	19.620	-0.07	LEVEE
LFVA03-143	3735650.117	504211.393	19.663	19.620	-0.04	LEVEE
LFVA03-144	3735650.139	504211.401	19.679	19.620	-0.06	LEVEE
LFVA03-145	3735650.152	504211.473	19.644	19.630	-0.01	LEVEE
LFVA03-146	3735650.178	504211.488	19.632	19.630	0.00	LEVEE
LFVA03-147	3735650.207	504211.407	19.663	19.630	-0.03	LEVEE
LFVA03-148	3735650.210	504211.434	19.670	19.630	-0.04	LEVEE
LFVA03-149	3735650.295	504211.366	19.671	19.630	-0.04	LEVEE
LFVA03-150	3735650.220	504211.373	19.640	19.630	-0.01	LEVEE
LFVA03-087	3724794.365	499153.203	19.577	19.510	-0.07	LEVEE
LFVA03-088	3724794.452	499153.165	19.609	19.510	-0.10	LEVEE
LFVA03-089	3724794.471	499153.189	19.596	19.510	-0.09	LEVEE
LFVA03-090	3724794.485	499153.212	19.591	19.510	-0.08	LEVEE
LFVA03-091	3724794.495	499153.212	19.588	19.510	-0.08	LEVEE
LFVA03-092	3724794.496	499153.234	19.581	19.510	-0.07	LEVEE
LFVA03-093	3724794.503	499153.222	19.608	19.510	-0.10	LEVEE
LFVA03-094	3724794.465	499153.221	19.615	19.510	-0.10	LEVEE
LFVA03-095	3724794.503	499153.200	19.581	19.510	-0.07	LEVEE
LFVA03-161	3724794.480	499153.196	19.577	19.510	-0.07	LEVEE
LFVA03-162	3724794.469	499153.164	19.584	19.510	-0.07	LEVEE
LFVA03-163	3724794.463	499153.220	19.573	19.510	-0.06	LEVEE
LFVA03-164	3724794.433	499153.213	19.551	19.510	-0.04	LEVEE
LFVA03-165	3724794.469	499153.237	19.571	19.510	-0.06	LEVEE
LFVA03-166	3724794.465	499153.305	19.619	19.520	-0.10	LEVEE
LFVA03-167	3724794.460	499153.251	19.583	19.510	-0.07	LEVEE
LFVA03-168	3724794.443	499153.238	19.606	19.510	-0.10	LEVEE
LFVA03-169	3724794.443	499153.286	19.591	19.510	-0.08	LEVEE
LFVA03-170	3724794.468	499153.278	19.625	19.510	-0.11	LEVEE
LFVA12-012	3772170.556	504286.274	9.424	9.020	-0.40	LEVEE
LFVA12-013	3772170.533	504286.265	9.413	9.020	-0.39	LEVEE
LFVA12-014	3772170.520	504286.248	9.439	9.020	-0.42	LEVEE
LFVA12-015	3772170.464	504286.223	9.423	9.020	-0.40	LEVEE
LFVA12-016	3772170.466	504286.263	9.433	9.020	-0.41	LEVEE
LFVA12-017	3772170.465	504286.203	9.403	9.020	-0.38	LEVEE
LFVA12-018	3772170.439	504286.207	9.394	9.020	-0.37	LEVEE
LFVA12-019	3772170.445	504286.164	9.402	9.020	-0.38	LEVEE
LFVA12-020	3772170.382	504286.179	9.404	9.020	-0.38	LEVEE
LFVA12-021	3772170.430	504286.223	9.405	9.020	-0.39	LEVEE
LFVA12-097	3772170.483	504286.393	9.403	9.020	-0.38	LEVEE
LFVA12-098	3772170.480	504286.386	9.397	9.020	-0.38	LEVEE
LFVA12-099	3772170.472	504286.422	9.411	9.020	-0.39	LEVEE
LFVA12-100	3772170.496	504286.424	9.419	9.020	-0.40	LEVEE
LFVA12-101	3772170.456	504286.382	9.401	9.020	-0.38	LEVEE
LFVA12-102	3772170.451	504286.404	9.427	9.020	-0.41	LEVEE
LFVA12-103	3772170.423	504286.384	9.404	9.030	-0.37	LEVEE
LFVA12-104	3772170.457	504286.365	9.399	9.020	-0.38	LEVEE
LFVA12-105	3772170.437	504286.359	9.394	9.020	-0.37	LEVEE
LFVA12-106	3772170.387	504286.353	9.408	9.030	-0.38	LEVEE
LFVA12-032	3769756.627	504958.828	9.476	9.010	-0.47	LEVEE
LFVA12-033	3769756.799	504958.818	9.472	9.010	-0.46	LEVEE
LFVA12-034	3769756.754	504958.850	9.493	9.010	-0.48	LEVEE
LFVA12-035	3769756.814	504958.851	9.480	9.000	-0.48	LEVEE
LFVA12-036	3769756.826	504958.871	9.479	9.000	-0.48	LEVEE
LFVA12-037	3769756.752	504958.808	9.472	9.010	-0.46	LEVEE
LFVA12-038	3769756.732	504958.889	9.482	9.010	-0.47	LEVEE
LFVA12-039	3769756.700	504958.832	9.478	9.010	-0.47	LEVEE
LFVA12-040	3769756.655	504958.816	9.465	9.010	-0.46	LEVEE
LFVA12-041	3769756.666	504958.836	9.488	9.010	-0.48	LEVEE
LFVA12-107	3769756.706	504958.689	9.457	9.000	-0.46	LEVEE
LFVA12-108	3769756.774	504958.749	9.462	9.010	-0.45	LEVEE
LFVA12-109	3769756.762	504958.782	9.456	9.010	-0.45	LEVEE
LFVA12-110	3769756.654	504958.769	9.435	9.000	-0.44	LEVEE

LFVA12-111	3769756.795	504958.808	9.447	9.010	-0.44	LEVEE
LFVA12-112	3769756.769	504958.766	9.451	9.010	-0.44	LEVEE
LFVA12-113	3769756.793	504958.829	9.453	9.010	-0.44	LEVEE
LFVA12-114	3769756.756	504958.851	9.433	9.010	-0.42	LEVEE
LFVA12-115	3769756.778	504958.871	9.430	9.010	-0.42	LEVEE
LFVA12-116	3769756.794	504958.939	9.441	9.000	-0.44	LEVEE
LFVA12-042	3767598.711	505372.124	9.184	8.890	-0.29	LEVEE
LFVA12-043	3767598.558	505371.923	9.173	8.890	-0.28	LEVEE
LFVA12-044	3767598.589	505371.907	9.156	8.890	-0.27	LEVEE
LFVA12-045	3767598.640	505371.898	9.161	8.880	-0.28	LEVEE
LFVA12-046	3767598.624	505371.950	9.158	8.890	-0.27	LEVEE
LFVA12-047	3767598.642	505371.917	9.168	8.890	-0.28	LEVEE
LFVA12-048	3767598.673	505371.958	9.162	8.890	-0.27	LEVEE
LFVA12-049	3767598.641	505371.865	9.148	8.880	-0.27	LEVEE
LFVA12-050	3767598.657	505371.853	9.161	8.880	-0.28	LEVEE
LFVA12-051	3767598.714	505371.980	9.160	8.890	-0.27	LEVEE
LFVA12-117	3767598.882	505372.630	9.043	8.800	-0.24	LEVEE
LFVA12-118	3767598.901	505372.567	9.062	8.810	-0.25	LEVEE
LFVA12-119	3767598.895	505372.502	9.104	8.820	-0.28	LEVEE
LFVA12-120	3767598.896	505372.491	9.064	8.830	-0.23	LEVEE
LFVA12-121	3767598.937	505372.431	9.080	8.840	-0.24	LEVEE
LFVA12-122	3767598.965	505372.432	9.084	8.830	-0.25	LEVEE
LFVA12-123	3767598.962	505372.469	9.093	8.830	-0.26	LEVEE
LFVA12-124	3767598.935	505372.466	9.096	8.830	-0.27	LEVEE
LFVA12-125	3767598.955	505372.484	9.069	8.830	-0.24	LEVEE
LFVA12-126	3767599.036	505372.470	9.069	8.820	-0.25	LEVEE
LFVA05-002	3613232.632	545165.187	10.843	11.160	0.32	LEVEE
LFVA05-003	3613232.617	545165.171	10.835	11.160	0.32	LEVEE
LFVA05-004	3613232.644	545165.157	10.849	11.160	0.31	LEVEE
LFVA05-005	3613232.609	545165.066	10.804	11.160	0.36	LEVEE
LFVA05-006	3613232.528	545165.041	10.824	11.160	0.34	LEVEE
LFVA05-007	3613232.565	545165.044	10.831	11.160	0.33	LEVEE
LFVA05-008	3613232.564	545165.047	10.817	11.160	0.34	LEVEE
LFVA05-009	3613232.560	545165.049	10.801	11.160	0.36	LEVEE
LFVA05-010	3613232.547	545165.068	10.806	11.160	0.35	LEVEE
LFVA05-011	3613232.610	545165.157	10.805	11.160	0.36	LEVEE
LFVA05-074	3613232.583	545165.172	10.859	11.160	0.30	LEVEE
LFVA05-075	3613232.594	545165.179	10.841	11.160	0.32	LEVEE
LFVA05-076	3613232.594	545165.179	10.848	11.160	0.31	LEVEE
LFVA05-077	3613232.609	545165.195	10.861	11.160	0.30	LEVEE
LFVA05-078	3613232.589	545165.167	10.849	11.160	0.31	LEVEE
LFVA05-079	3613232.636	545165.186	10.842	11.160	0.32	LEVEE
LFVA05-080	3613232.615	545165.181	10.823	11.160	0.34	LEVEE
LFVA05-081	3613232.588	545165.183	10.831	11.160	0.33	LEVEE
LFVA05-082	3613232.617	545165.176	10.836	11.160	0.32	LEVEE
LFVA05-083	3613232.641	545165.197	10.836	11.160	0.32	LEVEE
LFVA05-017	3614305.780	542856.435	8.832	8.720	-0.11	LEVEE
LFVA05-018	3614305.834	542856.444	8.834	8.720	-0.11	LEVEE
LFVA05-019	3614305.878	542856.430	8.845	8.720	-0.13	LEVEE
LFVA05-020	3614305.877	542856.402	8.865	8.720	-0.15	LEVEE
LFVA05-021	3614305.862	542856.420	8.852	8.720	-0.13	LEVEE
LFVA05-022	3614305.890	542856.417	8.855	8.720	-0.14	LEVEE
LFVA05-023	3614305.913	542856.400	8.834	8.720	-0.11	LEVEE
LFVA05-024	3614305.928	542856.422	8.849	8.720	-0.13	LEVEE
LFVA05-025	3614305.872	542856.475	8.855	8.720	-0.14	LEVEE
LFVA05-026	3614305.896	542856.446	8.852	8.720	-0.13	LEVEE
LFVA05-084	3614305.832	542856.680	8.805	8.720	-0.08	LEVEE
LFVA05-085	3614305.840	542856.631	8.808	8.720	-0.09	LEVEE
LFVA05-086	3614305.907	542856.559	8.839	8.720	-0.12	LEVEE
LFVA05-087	3614305.928	542856.538	8.834	8.720	-0.11	LEVEE
LFVA05-088	3614305.928	542856.545	8.853	8.720	-0.13	LEVEE
LFVA05-089	3614305.917	542856.538	8.833	8.720	-0.11	LEVEE
LFVA05-090	3614305.880	542856.565	8.842	8.720	-0.12	LEVEE

LFVA05-091	3614305.920	542856.579	8.815	8.720	-0.09	LEVEE
LFVA05-092	3614305.921	542856.588	8.811	8.720	-0.09	LEVEE
LFVA05-093	3614305.901	542856.596	8.817	8.720	-0.10	LEVEE
LFVA06-002	3591212.491	541957.854	15.546	15.580	0.03	LEVEE
LFVA06-003	3591212.497	541957.818	15.528	15.590	0.06	LEVEE
LFVA06-004	3591212.534	541957.814	15.562	15.590	0.03	LEVEE
LFVA06-005	3591212.549	541957.837	15.520	15.590	0.07	LEVEE
LFVA06-006	3591212.535	541957.830	15.546	15.590	0.04	LEVEE
LFVA06-007	3591212.536	541957.798	15.541	15.590	0.05	LEVEE
LFVA06-008	3591212.535	541957.831	15.517	15.590	0.07	LEVEE
LFVA06-009	3591212.562	541957.819	15.524	15.590	0.07	LEVEE
LFVA06-010	3591212.554	541957.816	15.534	15.590	0.06	LEVEE
LFVA06-011	3591212.569	541957.839	15.564	15.590	0.03	LEVEE
LFVA06-125	3591212.563	541957.814	15.464	15.590	0.13	LEVEE
LFVA06-126	3591212.594	541957.747	15.448	15.590	0.14	LEVEE
LFVA06-127	3591212.734	541957.472	15.456	15.600	0.14	LEVEE
LFVA06-128	3591212.486	541957.951	15.538	15.590	0.05	LEVEE
LFVA06-129	3591212.484	541957.977	15.520	15.590	0.07	LEVEE
LFVA06-130	3591212.485	541957.999	15.543	15.590	0.05	LEVEE
LFVA06-131	3591212.456	541958.002	15.529	15.590	0.06	LEVEE
LFVA06-132	3591212.479	541957.992	15.508	15.590	0.08	LEVEE
LFVA06-133	3591212.519	541958.029	15.487	15.590	0.10	LEVEE
LFVA06-134	3591212.477	541958.026	15.474	15.590	0.12	LEVEE
LFVA06-012	3583466.129	545174.385	15.419	15.000	-0.42	LEVEE
LFVA06-013	3583466.116	545174.481	15.389	15.000	-0.39	LEVEE
LFVA06-014	3583466.230	545174.554	15.398	14.990	-0.41	LEVEE
LFVA06-015	3583466.223	545174.489	15.407	14.990	-0.42	LEVEE
LFVA06-016	3583466.214	545174.478	15.425	14.990	-0.44	LEVEE
LFVA06-017	3583466.145	545174.480	15.414	15.000	-0.41	LEVEE
LFVA06-018	3583466.149	545174.466	15.427	15.000	-0.43	LEVEE
LFVA06-019	3583466.143	545174.471	15.418	15.000	-0.42	LEVEE
LFVA06-020	3583466.131	545174.503	15.432	15.000	-0.43	LEVEE
LFVA06-021	3583466.123	545174.464	15.443	15.000	-0.44	LEVEE
LFVA06-115	3583466.133	545174.565	15.441	15.000	-0.44	LEVEE
LFVA06-116	3583466.114	545174.553	15.404	15.000	-0.40	LEVEE
LFVA06-117	3583466.118	545174.497	15.407	15.000	-0.41	LEVEE
LFVA06-118	3583466.063	545174.514	15.420	15.000	-0.42	LEVEE
LFVA06-119	3583466.050	545174.488	15.401	15.000	-0.40	LEVEE
LFVA06-120	3583466.068	545174.504	15.423	15.000	-0.42	LEVEE
LFVA06-121	3583466.091	545174.549	15.450	15.000	-0.45	LEVEE
LFVA06-122	3583466.090	545174.532	15.465	15.000	-0.47	LEVEE
LFVA06-123	3583466.100	545174.553	15.443	15.000	-0.44	LEVEE
LFVA06-124	3583466.077	545174.483	15.447	15.000	-0.45	LEVEE
LFVA06-022	3579104.753	537148.718	27.276	26.900	-0.38	LEVEE
LFVA06-023	3579104.739	537148.700	27.285	26.900	-0.39	LEVEE
LFVA06-024	3579104.761	537148.682	27.282	26.900	-0.38	LEVEE
LFVA06-025	3579104.681	537148.651	27.297	26.900	-0.40	LEVEE
LFVA06-026	3579104.707	537148.622	27.338	26.900	-0.44	LEVEE
LFVA06-027	3579104.703	537148.589	27.293	26.900	-0.39	LEVEE
LFVA06-028	3579104.670	537148.617	27.302	26.900	-0.40	LEVEE
LFVA06-029	3579104.678	537148.615	27.290	26.900	-0.39	LEVEE
LFVA06-030	3579104.674	537148.596	27.287	26.900	-0.39	LEVEE
LFVA06-031	3579104.726	537148.599	27.314	26.900	-0.41	LEVEE
LFVA06-105	3579104.849	537148.811	27.215	26.890	-0.32	LEVEE
LFVA06-106	3579104.833	537148.827	27.185	26.890	-0.29	LEVEE
LFVA06-107	3579104.828	537148.791	27.208	26.890	-0.32	LEVEE
LFVA06-108	3579104.819	537148.809	27.200	26.890	-0.31	LEVEE
LFVA06-109	3579104.861	537148.812	27.170	26.890	-0.28	LEVEE
LFVA06-110	3579104.841	537148.818	27.195	26.890	-0.31	LEVEE
LFVA06-111	3579104.831	537148.827	27.202	26.890	-0.31	LEVEE
LFVA06-112	3579104.829	537148.814	27.151	26.890	-0.26	LEVEE
LFVA06-113	3579104.791	537148.817	27.218	26.900	-0.32	LEVEE
LFVA06-114	3579104.772	537148.829	27.224	26.900	-0.32	LEVEE

LFVA06-032	3571155.222	545656.764	28.279	27.840	-0.44	LEVEE
LFVA06-033	3571155.206	545656.801	28.309	27.840	-0.47	LEVEE
LFVA06-034	3571155.208	545656.799	28.275	27.840	-0.43	LEVEE
LFVA06-035	3571155.213	545656.747	28.283	27.840	-0.44	LEVEE
LFVA06-036	3571155.251	545656.756	28.278	27.840	-0.44	LEVEE
LFVA06-037	3571155.223	545656.768	28.308	27.840	-0.47	LEVEE
LFVA06-038	3571155.207	545656.718	28.326	27.840	-0.49	LEVEE
LFVA06-039	3571155.224	545656.664	28.322	27.850	-0.47	LEVEE
LFVA06-040	3571155.237	545656.712	28.281	27.840	-0.44	LEVEE
LFVA06-041	3571155.241	545656.687	28.337	27.840	-0.50	LEVEE
LFVA06-095	3571155.066	545656.927	28.361	27.830	-0.53	LEVEE
LFVA06-096	3571155.111	545656.916	28.365	27.830	-0.54	LEVEE
LFVA06-097	3571155.066	545656.912	28.381	27.830	-0.55	LEVEE
LFVA06-098	3571155.081	545656.939	28.354	27.830	-0.52	LEVEE
LFVA06-099	3571155.088	545656.915	28.350	27.830	-0.52	LEVEE
LFVA06-100	3571155.060	545656.915	28.378	27.830	-0.55	LEVEE
LFVA06-101	3571155.110	545656.947	28.358	27.830	-0.53	LEVEE
LFVA06-102	3571155.092	545656.966	28.392	27.830	-0.56	LEVEE
LFVA06-103	3571155.070	545656.918	28.339	27.830	-0.51	LEVEE
LFVA06-104	3571155.101	545656.971	28.352	27.830	-0.52	LEVEE
LFVA01-002	3664819.376	489960.406	13.787	13.950	0.16	LEVEE
LFVA01-003	3664819.423	489960.509	13.814	13.940	0.13	LEVEE
LFVA01-004	3664819.443	489960.531	13.783	13.940	0.16	LEVEE
LFVA01-005	3664819.431	489960.517	13.796	13.940	0.14	LEVEE
LFVA01-006	3664819.438	489960.453	13.782	13.950	0.17	LEVEE
LFVA01-007	3664819.467	489960.526	13.822	13.940	0.12	LEVEE
LFVA01-008	3664819.476	489960.506	13.824	13.940	0.12	LEVEE
LFVA01-009	3664819.504	489960.570	13.829	13.940	0.11	LEVEE
LFVA01-010	3664819.482	489960.550	13.839	13.940	0.10	LEVEE
LFVA01-011	3664819.516	489960.612	13.825	13.940	0.12	LEVEE
LFVA01-106	3664819.387	489960.442	13.960	13.940	-0.02	LEVEE
LFVA01-107	3664819.405	489960.388	13.936	13.950	0.01	LEVEE
LFVA01-108	3664819.410	489960.379	13.951	13.950	0.00	LEVEE
LFVA01-109	3664819.443	489960.316	13.952	13.950	0.00	LEVEE
LFVA01-110	3664819.433	489960.356	13.979	13.950	-0.03	LEVEE
LFVA01-111	3664819.427	489960.356	13.936	13.950	0.01	LEVEE
LFVA01-112	3664819.428	489960.388	13.917	13.950	0.03	LEVEE
LFVA01-113	3664819.477	489960.409	13.920	13.950	0.03	LEVEE
LFVA01-114	3664819.407	489960.406	13.913	13.950	0.04	LEVEE
LFVA01-115	3664819.435	489960.421	13.923	13.950	0.03	LEVEE
LFVA01-012	3677698.435	478720.895	12.488	12.380	-0.11	LEVEE
LFVA01-013	3677698.466	478720.878	12.499	12.380	-0.12	LEVEE
LFVA01-014	3677698.506	478720.921	12.487	12.370	-0.12	LEVEE
LFVA01-015	3677698.480	478720.873	12.474	12.380	-0.09	LEVEE
LFVA01-016	3677698.483	478720.877	12.501	12.380	-0.12	LEVEE
LFVA01-017	3677698.482	478720.887	12.473	12.380	-0.09	LEVEE
LFVA01-018	3677698.497	478720.892	12.514	12.380	-0.13	LEVEE
LFVA01-019	3677698.425	478720.870	12.466	12.380	-0.09	LEVEE
LFVA01-020	3677698.433	478720.847	12.512	12.380	-0.13	LEVEE
LFVA01-021	3677698.448	478720.919	12.495	12.370	-0.13	LEVEE
LFVA01-061	3677698.573	478720.984	12.848	12.370	-0.48	LEVEE
LFVA01-062	3677698.571	478720.989	12.825	12.370	-0.46	LEVEE
LFVA01-063	3677698.547	478720.979	12.763	12.370	-0.39	LEVEE
LFVA01-064	3677698.564	478720.992	12.816	12.370	-0.45	LEVEE
LFVA01-065	3677698.563	478720.982	12.742	12.370	-0.37	LEVEE
LFVA01-066	3677698.550	478721.058	12.751	12.370	-0.38	LEVEE
LFVA01-067	3677698.537	478721.021	12.678	12.370	-0.31	LEVEE
LFVA01-068	3677698.519	478721.007	12.685	12.370	-0.32	LEVEE
LFVA01-069	3677698.506	478721.035	12.703	12.370	-0.33	LEVEE
LFVA01-070	3677698.447	478721.108	12.632	12.370	-0.26	LEVEE
LFVA01-022	3681558.473	476823.839	13.406	13.290	-0.12	LEVEE
LFVA01-023	3681558.437	476823.838	13.373	13.290	-0.08	LEVEE
LFVA01-024	3681558.420	476823.800	13.380	13.290	-0.09	LEVEE

LFVA01-025	3681558.434	476823.813	13.398	13.290	-0.11	LEVEE
LFVA01-026	3681558.407	476823.861	13.361	13.290	-0.07	LEVEE
LFVA01-027	3681558.761	476823.676	13.420	13.280	-0.14	LEVEE
LFVA01-028	3681558.745	476823.669	13.422	13.280	-0.14	LEVEE
LFVA01-029	3681558.708	476823.642	13.404	13.280	-0.12	LEVEE
LFVA01-030	3681558.667	476823.580	13.430	13.280	-0.15	LEVEE
LFVA01-031	3681558.720	476823.654	13.435	13.280	-0.16	LEVEE
LFVA01-096	3681558.626	476823.807	13.298	13.290	-0.01	LEVEE
LFVA01-097	3681558.678	476823.786	13.299	13.290	-0.01	LEVEE
LFVA01-098	3681558.706	476823.781	13.295	13.280	-0.02	LEVEE
LFVA01-099	3681558.683	476823.722	13.315	13.280	-0.04	LEVEE
LFVA01-100	3681558.739	476823.747	13.313	13.280	-0.03	LEVEE
LFVA01-101	3681558.674	476823.756	13.316	13.280	-0.04	LEVEE
LFVA01-102	3681558.653	476823.726	13.360	13.280	-0.08	LEVEE
LFVA01-103	3681558.598	476823.632	13.375	13.280	-0.10	LEVEE
LFVA01-104	3681558.604	476823.607	13.375	13.280	-0.10	LEVEE
LFVA01-105	3681558.673	476823.683	13.334	13.280	-0.05	LEVEE
LFVA09-022	3659565.197	506199.323	13.687	13.340	-0.35	LEVEE
LFVA09-023	3659565.226	506199.328	13.682	13.340	-0.34	LEVEE
LFVA09-024	3659565.209	506199.308	13.637	13.340	-0.30	LEVEE
LFVA09-025	3659565.234	506199.316	13.660	13.340	-0.32	LEVEE
LFVA09-026	3659565.179	506199.453	13.648	13.340	-0.31	LEVEE
LFVA09-027	3659565.124	506199.419	13.647	13.350	-0.30	LEVEE
LFVA09-028	3659565.133	506199.468	13.685	13.350	-0.34	LEVEE
LFVA09-029	3659565.180	506199.493	13.656	13.340	-0.32	LEVEE
LFVA09-030	3659565.172	506199.507	13.669	13.340	-0.33	LEVEE
LFVA09-031	3659565.170	506199.441	13.666	13.340	-0.33	LEVEE
LFVA09-085	3659564.957	506199.542	13.655	13.360	-0.30	LEVEE
LFVA09-086	3659565.094	506199.515	13.663	13.350	-0.31	LEVEE
LFVA09-087	3659565.074	506199.514	13.648	13.350	-0.30	LEVEE
LFVA09-088	3659565.034	506199.534	13.674	13.350	-0.32	LEVEE
LFVA09-089	3659565.036	506199.483	13.636	13.350	-0.29	LEVEE
LFVA09-090	3659565.032	506199.452	13.653	13.350	-0.30	LEVEE
LFVA09-091	3659565.014	506199.436	13.633	13.350	-0.28	LEVEE
LFVA09-092	3659565.002	506199.325	13.639	13.350	-0.29	LEVEE
LFVA09-093	3659564.982	506199.436	13.646	13.360	-0.29	LEVEE
LFVA09-094	3659565.077	506199.535	13.647	13.350	-0.30	LEVEE
LFVA08-007	3619829.935	514301.489	13.724	13.750	0.03	LEVEE
LFVA08-008	3619829.889	514301.402	13.726	13.740	0.01	LEVEE
LFVA08-009	3619829.879	514301.416	13.731	13.740	0.01	LEVEE
LFVA08-010	3619829.765	514301.312	13.702	13.720	0.02	LEVEE
LFVA08-011	3619829.780	514301.339	13.709	13.730	0.02	LEVEE
LFVA08-012	3619829.731	514301.399	13.704	13.730	0.03	LEVEE
LFVA08-013	3619829.744	514301.368	13.736	13.730	-0.01	LEVEE
LFVA08-014	3619829.745	514301.355	13.736	13.730	-0.01	LEVEE
LFVA08-015	3619829.810	514301.345	13.769	13.730	-0.04	LEVEE
LFVA08-016	3619829.761	514301.400	13.808	13.730	-0.08	LEVEE
LFVA08-063	3619829.763	514301.203	13.735	13.720	-0.01	LEVEE
LFVA08-064	3619829.783	514301.169	13.717	13.710	-0.01	LEVEE
LFVA08-065	3619829.815	514301.111	13.731	13.710	-0.02	LEVEE
LFVA08-066	3619829.833	514301.140	13.728	13.720	-0.01	LEVEE
LFVA08-067	3619829.859	514301.197	13.730	13.720	-0.01	LEVEE
LFVA08-068	3619829.870	514301.182	13.727	13.720	-0.01	LEVEE
LFVA08-069	3619829.860	514301.138	13.744	13.720	-0.02	LEVEE
LFVA08-070	3619829.907	514301.170	13.730	13.730	0.00	LEVEE
LFVA08-071	3619829.902	514301.140	13.734	13.720	-0.01	LEVEE
LFVA08-072	3619829.905	514301.142	13.741	13.720	-0.02	LEVEE
LFVA17-002	3647325.363	555215.999	16.317	16.430	0.11	LEVEE
LFVA17-003	3647325.380	555216.036	16.358	16.420	0.06	LEVEE
LFVA17-004	3647325.404	555216.035	16.310	16.420	0.11	LEVEE
LFVA17-005	3647325.410	555216.056	16.353	16.420	0.07	LEVEE
LFVA17-006	3647325.397	555215.992	16.349	16.430	0.08	LEVEE
LFVA17-007	3647325.378	555215.976	16.328	16.430	0.10	LEVEE

LFVA17-008	3647325.373	555216.006	16.303	16.430	0.13	LEVEE
LFVA17-009	3647325.412	555216.048	16.337	16.420	0.08	LEVEE
LFVA17-010	3647325.423	555216.064	16.320	16.420	0.10	LEVEE
LFVA17-011	3647325.441	555216.064	16.327	16.420	0.09	LEVEE
LFVA17-056	3647325.748	555216.091	16.322	16.410	0.09	LEVEE
LFVA17-057	3647325.720	555216.032	16.322	16.420	0.10	LEVEE
LFVA17-058	3647325.798	555216.050	16.313	16.410	0.10	LEVEE
LFVA17-059	3647325.765	555216.028	16.319	16.420	0.10	LEVEE
LFVA17-060	3647325.781	555216.036	16.300	16.410	0.11	LEVEE
LFVA17-061	3647325.809	555216.042	16.308	16.410	0.10	LEVEE
LFVA17-062	3647325.863	555216.073	16.321	16.410	0.09	LEVEE
LFVA17-063	3647325.876	555216.079	16.320	16.410	0.09	LEVEE
LFVA17-064	3647325.859	555216.010	16.312	16.410	0.10	LEVEE
LFVA17-065	3647325.836	555216.010	16.329	16.410	0.08	LEVEE
LFVA17-012	3629297.199	560902.204	16.472	16.580	0.11	LEVEE
LFVA17-013	3629297.211	560902.286	16.446	16.580	0.13	LEVEE
LFVA17-014	3629297.214	560902.237	16.447	16.580	0.13	LEVEE
LFVA17-015	3629297.102	560902.275	16.447	16.590	0.14	LEVEE
LFVA17-016	3629297.035	560902.225	16.485	16.600	0.12	LEVEE
LFVA17-017	3629297.051	560902.236	16.460	16.600	0.14	LEVEE
LFVA17-018	3629297.051	560902.284	16.499	16.600	0.10	LEVEE
LFVA17-019	3629297.070	560902.271	16.481	16.600	0.12	LEVEE
LFVA17-020	3629297.062	560902.256	16.459	16.600	0.14	LEVEE
LFVA17-021	3629297.016	560902.256	16.459	16.600	0.14	LEVEE
LFVA17-046	3629296.958	560902.231	16.493	16.610	0.12	LEVEE
LFVA17-047	3629296.917	560902.231	16.490	16.610	0.12	LEVEE
LFVA17-048	3629296.933	560902.219	16.492	16.610	0.12	LEVEE
LFVA17-049	3629296.959	560902.237	16.501	16.610	0.11	LEVEE
LFVA17-050	3629296.864	560902.199	16.504	16.610	0.11	LEVEE
LFVA17-051	3629296.867	560902.160	16.512	16.610	0.10	LEVEE
LFVA17-052	3629296.879	560902.199	16.474	16.610	0.14	LEVEE
LFVA17-053	3629296.886	560902.228	16.459	16.610	0.15	LEVEE
LFVA17-054	3629296.858	560902.289	16.487	16.610	0.12	LEVEE
LFVA17-055	3629296.949	560902.163	16.473	16.600	0.13	LEVEE
LFVA15-002	3742333.636	596879.462	17.767	17.790	0.02	LEVEE
LFVA15-003	3742333.900	596879.366	17.799	17.780	-0.02	LEVEE
LFVA15-004	3742333.910	596879.339	17.810	17.780	-0.03	LEVEE
LFVA15-005	3742333.928	596879.383	17.814	17.780	-0.03	LEVEE
LFVA15-006	3742333.894	596879.389	17.805	17.780	-0.02	LEVEE
LFVA15-007	3742333.897	596879.392	17.831	17.780	-0.05	LEVEE
LFVA15-008	3742333.882	596879.390	17.812	17.780	-0.03	LEVEE
LFVA15-009	3742333.896	596879.325	17.783	17.780	0.00	LEVEE
LFVA15-010	3742333.855	596879.360	17.821	17.780	-0.04	LEVEE
LFVA15-011	3742333.865	596879.341	17.811	17.780	-0.03	LEVEE
LFVA15-017	3742333.906	596879.456	17.851	17.780	-0.07	LEVEE
LFVA15-018	3742333.908	596879.424	17.837	17.780	-0.06	LEVEE
LFVA15-019	3742333.983	596879.470	17.819	17.770	-0.05	LEVEE
LFVA15-020	3742333.937	596879.441	17.822	17.780	-0.04	LEVEE
LFVA15-021	3742333.937	596879.443	17.806	17.780	-0.03	LEVEE
LFVA15-022	3742333.951	596879.471	17.841	17.780	-0.06	LEVEE
LFVA15-023	3742333.940	596879.443	17.852	17.780	-0.07	LEVEE
LFVA15-024	3742333.949	596879.439	17.863	17.780	-0.08	LEVEE
LFVA15-025	3742333.951	596879.440	17.881	17.780	-0.10	LEVEE
LFVA15-026	3742333.942	596879.434	17.871	17.780	-0.09	LEVEE
LFVA15-027	3742333.962	596879.425	17.845	17.770	-0.07	LEVEE
LFVA15-028	3742333.950	596879.448	17.852	17.780	-0.07	LEVEE
LFVA15-059	3742333.566	596879.527	17.871	17.790	-0.08	LEVEE
LFVA15-060	3742333.531	596879.550	17.894	17.790	-0.10	LEVEE
LFVA15-061	3742333.513	596879.569	17.907	17.790	-0.12	LEVEE
LFVA15-062	3742333.519	596879.443	17.868	17.790	-0.08	LEVEE
LFVA15-063	3742333.547	596879.525	17.902	17.790	-0.11	LEVEE
LFVA15-064	3742333.559	596879.469	17.881	17.790	-0.09	LEVEE
LFVA15-065	3742333.598	596879.487	17.899	17.790	-0.11	LEVEE

LFVA15-066	3742333.564	596879.528	17.871	17.790	-0.08	LEVEE
LFVA15-067	3742333.593	596879.459	17.861	17.790	-0.07	LEVEE
LFVA15-068	3742333.541	596879.472	17.834	17.790	-0.04	LEVEE
LFVA13s1-002	3719659.759	550097.867	13.927	13.670	-0.26	LEVEE
LFVA13s1-003	3719659.758	550097.793	13.930	13.680	-0.25	LEVEE
LFVA13s1-004	3719659.784	550097.789	13.934	13.680	-0.25	LEVEE
LFVA13s1-005	3719659.783	550097.750	13.920	13.680	-0.24	LEVEE
LFVA13s1-006	3719659.758	550097.770	13.914	13.680	-0.23	LEVEE
LFVA13s1-007	3719659.748	550097.792	13.919	13.680	-0.24	LEVEE
LFVA13s1-008	3719659.794	550097.725	13.902	13.680	-0.22	LEVEE
LFVA13s1-009	3719659.736	550097.761	13.921	13.680	-0.24	LEVEE
LFVA13s1-010	3719659.714	550097.803	13.915	13.670	-0.24	LEVEE
LFVA13s1-011	3719659.577	550098.013	13.905	13.660	-0.24	LEVEE
LFVA13s2-002	3719659.479	550097.822	13.881	13.670	-0.21	LEVEE
LFVA13s2-003	3719659.472	550097.826	13.890	13.670	-0.22	LEVEE
LFVA13s2-004	3719659.520	550097.814	13.872	13.670	-0.20	LEVEE
LFVA13s2-005	3719659.533	550097.731	13.872	13.670	-0.20	LEVEE
LFVA13s2-006	3719659.512	550097.756	13.903	13.670	-0.23	LEVEE
LFVA13s2-007	3719659.503	550097.721	13.886	13.670	-0.22	LEVEE
LFVA13s2-008	3719659.541	550097.699	13.880	13.680	-0.20	LEVEE
LFVA13s2-009	3719659.586	550097.667	13.906	13.680	-0.23	LEVEE
LFVA13s2-010	3719659.565	550097.667	13.883	13.680	-0.20	LEVEE
LFVA13s2-011	3719659.573	550097.662	13.907	13.680	-0.23	LEVEE
LFVA13s2-012	3719659.573	550097.668	13.917	13.680	-0.24	LEVEE
LFVA13s1-012	3718091.432	549730.007	14.872	14.500	-0.37	LEVEE
LFVA13s1-013	3718091.433	549729.981	14.893	14.500	-0.39	LEVEE
LFVA13s1-014	3718091.445	549729.949	14.885	14.500	-0.39	LEVEE
LFVA13s1-015	3718091.431	549729.977	14.913	14.500	-0.41	LEVEE
LFVA13s1-016	3718091.524	549730.203	14.892	14.490	-0.40	LEVEE
LFVA13s1-017	3718091.489	549730.112	14.902	14.500	-0.40	LEVEE
LFVA13s1-018	3718091.491	549730.089	14.924	14.500	-0.42	LEVEE
LFVA13s1-019	3718091.490	549730.053	14.929	14.500	-0.43	LEVEE
LFVA13s1-020	3718091.491	549729.982	14.901	14.500	-0.40	LEVEE
LFVA13s1-021	3718091.544	549730.015	14.923	14.500	-0.42	LEVEE
LFVA13s2-013	3718091.233	549730.126	14.871	14.500	-0.37	LEVEE
LFVA13s2-014	3718091.243	549730.146	14.873	14.500	-0.37	LEVEE
LFVA13s2-015	3718091.244	549730.126	14.866	14.500	-0.37	LEVEE
LFVA13s2-016	3718091.250	549730.087	14.880	14.500	-0.38	LEVEE
LFVA13s2-017	3718091.242	549730.068	14.868	14.500	-0.37	LEVEE
LFVA13s2-018	3718091.237	549730.120	14.862	14.500	-0.36	LEVEE
LFVA13s2-019	3718091.236	549730.082	14.857	14.500	-0.36	LEVEE
LFVA13s2-020	3718091.202	549730.111	14.867	14.500	-0.37	LEVEE
LFVA13s2-021	3718091.192	549730.083	14.852	14.500	-0.35	LEVEE
LFVA13s2-022	3718091.168	549730.074	14.852	14.500	-0.35	LEVEE
A148-002	3681668.508	559409.605	18.382	18.400	0.02	LEVEE
A148-003	3681668.515	559409.612	18.417	18.400	-0.02	LEVEE
A148-004	3681668.520	559409.626	18.448	18.400	-0.05	LEVEE
A148-005	3681668.510	559409.626	18.446	18.400	-0.05	LEVEE
A148-006	3681668.519	559409.634	18.441	18.400	-0.04	LEVEE
A148-007	3681668.527	559409.611	18.437	18.400	-0.04	LEVEE
A148-008	3681668.519	559409.628	18.430	18.400	-0.03	LEVEE
A148-009	3681668.523	559409.637	18.425	18.400	-0.03	LEVEE
A148-010	3681668.501	559409.617	18.432	18.400	-0.03	LEVEE
A148-011	3681668.510	559409.633	18.446	18.400	-0.05	LEVEE
A148-074	3681668.526	559409.679	18.446	18.400	-0.05	LEVEE
A148-075	3681668.520	559409.661	18.456	18.400	-0.06	LEVEE
A148-076	3681668.537	559409.700	18.457	18.400	-0.06	LEVEE
A148-077	3681668.525	559409.661	18.439	18.400	-0.04	LEVEE
A148-078	3681668.531	559409.668	18.452	18.400	-0.05	LEVEE
A148-079	3681668.525	559409.669	18.463	18.400	-0.06	LEVEE
A148-080	3681668.551	559409.682	18.449	18.400	-0.05	LEVEE
A148-081	3681668.553	559409.686	18.460	18.400	-0.06	LEVEE
A148-082	3681668.521	559409.673	18.461	18.400	-0.06	LEVEE

A148-083	3681668.533	559409.684	18.468	18.400	-0.07	LEVEE
A148-012	3680030.744	559087.104	18.183	18.100	-0.08	LEVEE
A148-013	3680030.758	559087.118	18.191	18.100	-0.09	LEVEE
A148-014	3680030.751	559087.140	18.208	18.100	-0.11	LEVEE
A148-015	3680030.746	559087.131	18.184	18.100	-0.08	LEVEE
A148-016	3680030.746	559087.128	18.197	18.100	-0.10	LEVEE
A148-017	3680030.750	559087.128	18.188	18.100	-0.09	LEVEE
A148-018	3680030.730	559087.091	18.190	18.100	-0.09	LEVEE
A148-019	3680030.742	559087.128	18.156	18.100	-0.06	LEVEE
A148-020	3680030.736	559087.104	18.160	18.100	-0.06	LEVEE
A148-021	3680030.748	559087.109	18.173	18.100	-0.07	LEVEE
A148-084	3680030.740	559087.181	18.178	18.100	-0.08	LEVEE
A148-085	3680030.739	559087.162	18.140	18.100	-0.04	LEVEE
A148-086	3680030.758	559087.191	18.142	18.100	-0.04	LEVEE
A148-087	3680030.759	559087.201	18.148	18.100	-0.05	LEVEE
A148-088	3680030.752	559087.178	18.120	18.100	-0.02	LEVEE
A148-089	3680030.754	559087.176	18.123	18.100	-0.02	LEVEE
A148-090	3680030.769	559087.183	18.154	18.100	-0.05	LEVEE
A148-091	3680030.755	559087.184	18.172	18.100	-0.07	LEVEE
A148-092	3680030.792	559087.180	18.175	18.100	-0.07	LEVEE
A148-093	3680030.750	559087.180	18.151	18.100	-0.05	LEVEE
A148-022	3668494.435	557267.013	18.733	18.690	-0.04	LEVEE
A148-023	3668494.418	557266.990	18.732	18.690	-0.04	LEVEE
A148-024	3668494.422	557266.982	18.720	18.690	-0.03	LEVEE
A148-025	3668494.432	557267.017	18.771	18.690	-0.08	LEVEE
A148-026	3668494.423	557266.983	18.751	18.690	-0.06	LEVEE
A148-027	3668494.423	557266.985	18.748	18.690	-0.06	LEVEE
A148-028	3668494.424	557267.004	18.756	18.690	-0.07	LEVEE
A148-029	3668494.412	557266.986	18.762	18.690	-0.07	LEVEE
A148-030	3668494.418	557266.978	18.753	18.690	-0.06	LEVEE
A148-031	3668494.425	557266.986	18.753	18.690	-0.06	LEVEE
A148-094	3668494.451	557266.981	18.859	18.690	-0.17	LEVEE
A148-095	3668494.457	557266.971	18.871	18.690	-0.18	LEVEE
A148-096	3668494.390	557267.086	18.826	18.690	-0.14	LEVEE
A148-097	3668494.408	557267.043	18.797	18.690	-0.11	LEVEE
A148-098	3668494.377	557267.046	18.808	18.690	-0.12	LEVEE
A148-099	3668494.368	557267.043	18.808	18.690	-0.12	LEVEE
A148-100	3668494.381	557267.041	18.776	18.690	-0.09	LEVEE
A148-101	3668494.372	557267.033	18.796	18.690	-0.11	LEVEE
A148-102	3668494.334	557267.043	18.806	18.690	-0.12	LEVEE
A148-103	3668494.316	557267.056	18.810	18.690	-0.12	LEVEE
A148-104	3668494.361	557267.058	18.790	18.690	-0.10	LEVEE
A148-105	3668494.376	557267.044	18.797	18.690	-0.11	LEVEE
V375-002	3712654.583	518218.335	19.526	19.090	-0.44	LEVEE
V375-003	3712654.590	518218.370	19.540	19.090	-0.45	LEVEE
V375-004	3712654.583	518218.371	19.552	19.100	-0.45	LEVEE
V375-005	3712654.562	518218.356	19.489	19.100	-0.39	LEVEE
V375-006	3712654.571	518218.352	19.524	19.090	-0.43	LEVEE
V375-007	3712654.566	518218.352	19.522	19.090	-0.43	LEVEE
V375-008	3712654.544	518218.350	19.515	19.100	-0.41	LEVEE
V375-009	3712654.561	518218.370	19.538	19.100	-0.44	LEVEE
V375-010	3712654.573	518218.355	19.469	19.090	-0.38	LEVEE
V375-011	3712654.580	518218.359	19.523	19.090	-0.43	LEVEE
V375-049	3712654.590	518218.394	19.598	19.100	-0.50	LEVEE
V375-050	3712654.578	518218.383	19.651	19.100	-0.55	LEVEE
V375-051	3712654.567	518218.383	19.628	19.100	-0.53	LEVEE
V375-052	3712654.572	518218.409	19.567	19.100	-0.47	LEVEE
V375-053	3712654.550	518218.403	19.571	19.100	-0.47	LEVEE
V375-054	3712654.581	518218.390	19.596	19.100	-0.50	LEVEE
V375-055	3712654.571	518218.398	19.538	19.100	-0.44	LEVEE
V375-056	3712654.573	518218.396	19.516	19.100	-0.42	LEVEE
V375-057	3712654.574	518218.383	19.542	19.100	-0.44	LEVEE
V375-058	3712654.571	518218.383	19.545	19.100	-0.45	LEVEE

A148-032	3667899.561	552084.260	-7.523	-7.560	-0.04	URBAN
A148-033	3667879.868	552086.045	-7.403	-7.460	-0.06	URBAN
A148-034	3667869.549	552086.822	-7.423	-7.360	0.06	URBAN
A148-035	3667868.333	552074.528	-7.196	-7.290	-0.09	URBAN
A148-036	3667867.494	552063.816	-7.116	-7.060	0.06	URBAN
A148-046	3668023.786	541164.100	0.459	0.410	-0.05	URBAN
A148-047	3668023.990	541171.892	0.063	0.130	0.07	URBAN
A148-048	3668024.866	541199.751	0.009	-0.010	-0.02	URBAN
A148-049	3668025.839	541226.770	0.469	0.650	0.18	URBAN
A148-050	3668026.354	541239.020	0.635	0.580	-0.06	URBAN
A148-051	3668027.626	541266.608	0.930	0.930	0.00	URBAN
A148-052	3668028.955	541311.546	1.086	1.110	0.02	URBAN
A148-053	3668030.117	541338.818	1.092	1.020	-0.07	URBAN
A148-054	3668031.007	541368.500	1.364	1.190	-0.17	URBAN
A148-066	3678879.449	530884.224	0.080	-0.130	-0.21	URBAN
A148-067	3678851.925	530896.103	0.377	0.040	-0.34	URBAN
A148-068	3678828.883	530905.914	0.551	0.380	-0.17	URBAN
A148-069	3678803.718	530916.755	0.638	0.490	-0.15	URBAN
A148-070	3678791.850	530921.794	0.579	0.570	-0.01	URBAN
A148-071	3678763.645	530934.107	0.657	0.640	-0.02	URBAN
LFVA01-071	3672410.255	466663.031	2.385	2.330	-0.05	URBAN
LFVA01-072	3672397.407	466666.075	2.485	2.300	-0.19	URBAN
LFVA01-073	3672379.305	466670.724	2.456	2.370	-0.09	URBAN
LFVA01-074	3672341.036	466679.824	2.467	2.220	-0.25	URBAN
LFVA01-075	3672334.680	466681.341	2.340	2.170	-0.17	URBAN
LFVA01-086	3666117.844	488940.238	3.567	3.740	0.17	URBAN
LFVA01-087	3666108.487	488930.905	3.371	3.530	0.16	URBAN
LFVA01-088	3666100.663	488943.954	3.330	3.670	0.34	URBAN
LFVA01-089	3666090.395	488960.985	3.384	3.600	0.22	URBAN
LFVA01-090	3666101.131	488963.746	3.505	3.640	0.14	URBAN
LFVA03-057	3736322.362	503960.330	7.284	7.200	-0.08	URBAN
LFVA03-058	3736319.878	503934.241	7.243	6.920	-0.32	URBAN
LFVA03-059	3736317.453	503906.894	7.121	6.950	-0.17	URBAN
LFVA03-060	3736314.168	503874.508	7.050	6.770	-0.28	URBAN
LFVA03-061	3736309.930	503828.446	7.062	6.720	-0.34	URBAN
LFVA03-072	3737266.539	503672.613	5.114	4.970	-0.14	URBAN
LFVA03-073	3737243.525	503674.566	5.214	5.170	-0.04	URBAN
LFVA03-074	3737215.570	503676.975	5.276	5.270	-0.01	URBAN
LFVA03-075	3737224.555	503658.978	5.238	5.070	-0.17	URBAN
LFVA03-076	3737250.663	503656.740	5.192	5.020	-0.17	URBAN
LFVA03-101	3744719.767	500439.660	8.018	7.680	-0.34	URBAN
LFVA03-102	3744719.755	500463.466	8.016	7.680	-0.34	URBAN
LFVA03-103	3744720.443	500485.620	7.976	7.780	-0.20	URBAN
LFVA03-104	3744719.885	500509.048	8.016	7.790	-0.23	URBAN
LFVA03-105	3744719.555	500527.741	8.004	7.740	-0.26	URBAN
LFVA03-106	3743206.847	502379.400	3.469	3.060	-0.41	URBAN
LFVA03-107	3743183.067	502387.311	3.264	2.810	-0.45	URBAN
LFVA03-108	3743181.856	502376.571	3.280	2.850	-0.43	URBAN
LFVA03-109	3743171.863	502370.725	3.087	2.810	-0.28	URBAN
LFVA03-110	3743164.067	502330.665	3.115	2.730	-0.39	URBAN
LFVA05-033	3606088.569	536823.358	3.446	3.170	-0.28	URBAN
LFVA05-034	3606054.899	536814.529	3.789	3.270	-0.52	URBAN
LFVA05-035	3606039.842	536812.840	3.789	3.410	-0.38	URBAN
LFVA05-036	3606012.390	536810.801	3.719	3.300	-0.42	URBAN
LFVA05-037	3605989.078	536809.245	3.598	3.070	-0.53	URBAN
LFVA05-038	3605960.849	536805.580	3.420	3.000	-0.42	URBAN
LFVA05-039	3606001.800	536808.917	3.491	3.190	-0.30	URBAN
LFVA05-040	3606013.981	536792.998	3.856	3.420	-0.44	URBAN
LFVA05-041	3606024.597	536793.682	3.861	3.540	-0.32	URBAN
LFVA05-054	3625324.914	539427.567	3.029	2.820	-0.21	URBAN
LFVA05-055	3625334.006	539439.639	3.153	2.900	-0.25	URBAN
LFVA05-056	3625339.116	539462.515	3.088	2.760	-0.33	URBAN
LFVA05-057	3625353.926	539509.972	3.022	2.720	-0.30	URBAN

LFVA05-058	3625357.336	539525.428	3.283	3.110	-0.17	URBAN
LFVA06-080	3573360.931	552446.348	3.360	2.880	-0.48	URBAN
LFVA06-081	3573378.184	552441.279	3.622	3.140	-0.48	URBAN
LFVA06-082	3573348.468	552471.661	3.132	2.740	-0.39	URBAN
LFVA06-083	3573357.290	552492.692	2.991	2.490	-0.50	URBAN
LFVA06-145	3579511.364	534206.812	7.430	7.130	-0.30	URBAN
LFVA06-146	3579524.476	534219.506	7.416	7.240	-0.18	URBAN
LFVA06-147	3579536.959	534231.755	7.451	7.270	-0.18	URBAN
LFVA06-148	3579502.667	534198.340	7.254	7.030	-0.22	URBAN
LFVA06-149	3579515.332	534210.742	7.454	7.330	-0.12	URBAN
LFVA08-027	3618288.791	515824.988	5.068	4.570	-0.50	URBAN
LFVA08-028	3618300.358	515824.272	5.049	4.490	-0.56	URBAN
LFVA08-030	3618331.285	515822.077	4.915	4.490	-0.43	URBAN
LFVA08-031	3618353.860	515821.076	4.795	4.420	-0.38	URBAN
LFVA09-052	3651597.985	512094.425	-3.866	-4.110	-0.24	URBAN
LFVA09-054	3651570.020	512105.034	-3.958	-4.380	-0.42	URBAN
LFVA09-055	3651559.410	512109.165	-4.064	-4.520	-0.46	URBAN
LFVA09-056	3651536.312	512117.821	-4.203	-4.690	-0.49	URBAN
LFVA13s1-037	3719566.084	539071.549	3.648	3.300	-0.35	URBAN
LFVA13s1-038	3719559.936	539056.272	3.747	3.420	-0.33	URBAN
LFVA13s1-039	3719551.693	539036.957	3.792	3.380	-0.41	URBAN
LFVA13s1-040	3719547.173	539025.386	3.745	3.310	-0.44	URBAN
LFVA13s1-041	3719537.456	539001.900	3.790	3.280	-0.51	URBAN
LFVA17-031	3628165.073	554149.115	-6.877	-6.670	0.21	URBAN
LFVA17-032	3628157.385	554149.495	-6.861	-6.600	0.26	URBAN
LFVA17-033	3628148.898	554159.178	-6.735	-6.460	0.28	URBAN
LFVA17-034	3628144.036	554173.936	-6.207	-5.950	0.26	URBAN
LFVA17-035	3628190.492	554168.781	-6.329	-5.900	0.43	URBAN
LFVA17-036	3636612.300	538551.334	0.534	0.590	0.06	URBAN
LFVA17-037	3636609.386	538560.935	0.583	0.470	-0.11	URBAN
LFVA17-038	3636606.552	538569.766	0.619	0.510	-0.11	URBAN
LFVA17-039	3636603.947	538578.110	0.611	0.560	-0.05	URBAN
LFVA17-040	3636598.821	538594.776	0.711	0.710	0.00	URBAN
LFVA20-015	3669776.142	424114.947	2.540	2.840	0.30	URBAN
LFVA20-016	3669806.514	424116.053	2.959	2.950	-0.01	URBAN
LFVA20-017	3669821.357	424116.343	3.287	3.120	-0.17	URBAN
LFVA20-018	3669836.841	424116.547	3.391	3.140	-0.25	URBAN
LFVA20-019	3669849.220	424116.394	3.415	3.130	-0.29	URBAN
LFVA20-025	3669380.136	427035.228	1.754	1.800	0.05	URBAN
LFVA20-026	3669394.838	427034.618	1.573	1.710	0.14	URBAN
LFVA20-027	3669411.086	427033.981	1.471	1.580	0.11	URBAN
LFVA20-028	3669421.523	427033.541	1.433	1.460	0.03	URBAN
LFVA20-029	3669396.528	427016.196	1.673	1.760	0.09	URBAN
LFVA20-036	3671639.995	429566.892	-0.227	-0.330	-0.10	URBAN
LFVA20-037	3671624.787	429567.216	-0.388	-0.370	0.02	URBAN
LFVA20-038	3671609.759	429576.104	-0.410	-0.520	-0.11	URBAN
LFVA20-039	3671610.053	429596.727	-0.393	-0.420	-0.03	URBAN
LFVA20-040	3671632.727	429583.330	-0.406	-0.410	0.00	URBAN
LFVA20-041	3671632.559	429582.889	-0.271	-0.380	-0.11	URBAN
LFVA20-056	3673650.606	433606.744	-2.202	-1.940	0.26	URBAN
LFVA20-057	3673673.883	433601.079	-2.293	-1.930	0.36	URBAN
LFVA20-058	3673695.739	433595.618	-2.326	-2.110	0.22	URBAN
LFVA20-059	3673723.589	433588.645	-2.308	-2.010	0.30	URBAN
LFVA20-060	3673764.601	433579.018	-2.493	-2.310	0.18	URBAN
LFVA20-076	3662348.720	451030.088	1.871	1.950	0.08	URBAN
LFVA20-077	3662327.927	451019.629	1.680	1.740	0.06	URBAN
LFVA20-078	3662324.464	451002.274	1.644	1.880	0.24	URBAN
LFVA20-079	3662330.968	450994.330	1.696	1.870	0.17	URBAN
LFVA20-080	3662285.289	451013.014	1.346	1.600	0.25	URBAN
LFVA20-104	3662186.684	453395.086	3.504	3.520	0.02	URBAN
LFVA20-105	3662179.501	453410.218	3.401	3.280	-0.12	URBAN
LFVA20-106	3662173.576	453425.741	3.145	3.090	-0.06	URBAN
LFVA20-107	3662170.341	453435.114	2.925	2.870	-0.05	URBAN

LFVA20-108	3662162.053	453462.533	2.727	2.570	-0.16	URBAN
LFVA20-125	3661944.028	457035.759	3.009	2.730	-0.28	URBAN
LFVA20-126	3661938.157	457047.174	2.999	2.910	-0.09	URBAN
LFVA20-127	3661930.573	457060.507	2.888	2.760	-0.13	URBAN
LFVA20-128	3661923.559	457072.644	2.745	2.640	-0.11	URBAN
LFVA20-129	3661915.328	457087.894	2.728	2.770	0.04	URBAN
LFVA20-140	3674243.084	460831.890	2.159	2.250	0.09	URBAN
LFVA20-141	3674247.222	460825.321	2.187	2.160	-0.03	URBAN
LFVA20-142	3674262.626	460807.753	1.982	2.260	0.28	URBAN
LFVA20-143	3674283.145	460813.474	2.106	2.090	-0.02	URBAN
LFVA20-144	3674297.921	460817.627	2.171	2.240	0.07	URBAN
V375-012	3696955.462	520731.612	-5.287	-5.400	-0.11	URBAN
V375-013	3696990.363	520730.142	-5.040	-5.250	-0.21	URBAN
V375-014	3697016.115	520729.031	-5.074	-5.230	-0.16	URBAN
V375-015	3697049.423	520727.398	-5.176	-5.490	-0.31	URBAN
V375-016	3697053.745	520799.388	-4.997	-5.170	-0.17	URBAN
V375-017	3697019.873	520800.853	-4.882	-5.150	-0.27	URBAN
V375-018	3696993.392	520802.398	-4.848	-5.140	-0.29	URBAN
V375-019	3696957.401	520803.836	-5.072	-5.350	-0.28	URBAN
V375-043	3697260.865	510280.115	-4.311	-4.380	-0.07	URBAN
V375-044	3697260.136	510267.522	-4.381	-4.340	0.04	URBAN
V375-045	3697259.414	510250.366	-4.314	-4.300	0.01	URBAN
V375-046	3697258.794	510237.207	-4.121	-4.170	-0.05	URBAN
V375-047	3697256.987	510197.814	-4.188	-4.320	-0.13	URBAN
V375-048	3697255.821	510169.356	-4.172	-4.260	-0.09	URBAN
LFVA01-044	3676862.998	488267.583	-3.083	-2.680	0.40	WETLAND
LFVA01-045	3676862.413	488297.134	-3.163	-2.830	0.33	WETLAND
LFVA01-046	3676858.996	488331.026	-3.294	-2.980	0.31	WETLAND
LFVA01-047	3676856.190	488363.608	-3.181	-2.910	0.27	WETLAND
LFVA01-048	3676856.381	488384.270	-3.211	-3.020	0.19	WETLAND
LFVA01-076	3670245.982	479715.117	2.678	3.050	0.37	WETLAND
LFVA01-077	3670269.983	479731.524	2.806	3.030	0.22	WETLAND
LFVA01-078	3670283.472	479738.530	3.038	3.090	0.05	WETLAND
LFVA01-079	3670242.742	479712.724	2.959	3.000	0.04	WETLAND
LFVA01-080	3670234.966	479701.116	3.127	3.380	0.25	WETLAND
LFVA03-007	3731930.696	498636.407	7.987	8.290	0.30	WETLAND
LFVA03-008	3731910.045	498622.562	8.058	8.160	0.10	WETLAND
LFVA03-009	3731892.169	498615.063	8.108	8.570	0.46	WETLAND
LFVA03-010	3731872.148	498601.516	8.081	8.440	0.36	WETLAND
LFVA03-011	3731864.876	498597.586	8.158	8.510	0.35	WETLAND
LFVA03-022	3733230.864	499730.751	6.603	6.690	0.09	WETLAND
LFVA03-023	3733213.765	499719.002	6.673	6.750	0.08	WETLAND
LFVA03-024	3733197.531	499707.049	6.667	6.850	0.18	WETLAND
LFVA03-025	3733169.918	499693.776	6.767	6.830	0.06	WETLAND
LFVA03-026	3733151.676	499687.588	6.662	6.840	0.18	WETLAND
LFVA05-069	3614731.543	543602.703	1.266	0.920	-0.35	WETLAND
LFVA05-070	3614738.301	543596.138	1.080	0.880	-0.20	WETLAND
LFVA05-071	3614749.655	543652.081	1.452	0.960	-0.49	WETLAND
LFVA05-072	3614730.902	543667.997	0.388	0.430	0.04	WETLAND
LFVA05-073	3614715.735	543680.496	1.244	0.590	-0.65	WETLAND
LFVA06-047	3563468.462	552634.966	2.063	2.020	-0.04	WETLAND
LFVA06-048	3563500.951	552671.406	2.317	2.270	-0.05	WETLAND
LFVA06-049	3563528.540	552700.777	2.475	3.060	0.59	WETLAND
LFVA06-050	3563539.406	552712.778	2.799	3.150	0.35	WETLAND
LFVA06-051	3563548.295	552726.233	2.761	3.070	0.31	WETLAND
LFVA06-069	3565507.658	560101.134	1.196	0.960	-0.24	WETLAND
LFVA06-070	3565508.943	560096.064	1.328	1.260	-0.07	WETLAND
LFVA06-071	3565517.728	560111.917	1.312	1.130	-0.18	WETLAND
LFVA06-072	3565518.968	560121.012	1.179	1.140	-0.04	WETLAND
LFVA06-073	3565513.924	560094.032	1.180	1.330	0.15	WETLAND
LFVA06-085	3587340.973	542427.660	2.355	2.180	-0.18	WETLAND
LFVA06-086	3587334.902	542421.285	1.708	1.850	0.14	WETLAND
LFVA06-087	3587319.704	542407.140	1.499	1.580	0.08	WETLAND

LFVA06-088	3587294.720	542381.887	2.699	2.940	0.24	WETLAND
LFVA06-089	3587300.330	542379.303	3.027	3.580	0.55	WETLAND
LFVA08-002	3619625.699	514343.066	0.969	1.250	0.28	WETLAND
LFVA08-003	3619606.875	514341.220	0.773	1.140	0.37	WETLAND
LFVA08-004	3619593.708	514338.848	0.940	1.450	0.51	WETLAND
LFVA08-005	3619581.232	514336.198	1.032	1.290	0.26	WETLAND
LFVA08-006	3619574.325	514336.769	0.963	1.240	0.28	WETLAND
LFVA09-012	3650138.042	502630.875	-7.911	-7.710	0.20	WETLAND
LFVA09-013	3650152.910	502643.967	-7.774	-7.780	-0.01	WETLAND
LFVA09-014	3650171.345	502655.949	-7.515	-7.780	-0.27	WETLAND
LFVA09-015	3650174.346	502670.216	-7.738	-7.820	-0.08	WETLAND
LFVA09-016	3650179.724	502683.999	-8.053	-7.740	0.31	WETLAND
LFVA12-022	3772167.471	504341.615	0.936	1.220	0.28	WETLAND
LFVA12-023	3772114.623	504355.460	0.999	0.870	-0.13	WETLAND
LFVA12-024	3772078.711	504364.500	1.167	0.780	-0.39	WETLAND
LFVA12-025	3772063.316	504369.701	1.367	0.720	-0.65	WETLAND
LFVA12-026	3772048.534	504372.481	0.982	0.790	-0.19	WETLAND
LFVA12-077	3763416.205	504578.002	-1.055	-1.500	-0.45	WETLAND
LFVA12-078	3763400.811	504599.799	-0.647	-1.220	-0.57	WETLAND
LFVA12-079	3763386.303	504609.695	-0.863	-1.290	-0.43	WETLAND
LFVA12-080	3763401.563	504617.640	-1.007	-1.410	-0.40	WETLAND
LFVA12-081	3763411.060	504625.625	-1.093	-1.430	-0.34	WETLAND
LFVA12-086	3763381.215	504630.526	-0.812	-0.930	-0.12	WETLAND
LFVA13s1-022	3728070.647	557358.644	-2.891	-2.650	0.24	WETLAND
LFVA13s1-023	3728066.662	557350.523	-2.997	-2.690	0.31	WETLAND
LFVA13s1-024	3728056.757	557340.030	-3.120	-2.830	0.29	WETLAND
LFVA13s1-025	3728049.303	557326.277	-2.958	-2.570	0.39	WETLAND
LFVA13s1-026	3728045.135	557321.750	-2.935	-2.630	0.31	WETLAND
LFVA20-010	3670303.020	422818.634	0.748	0.990	0.24	WETLAND
LFVA20-011	3670313.491	422832.815	0.645	1.060	0.42	WETLAND
LFVA20-012	3670327.515	422854.186	0.751	1.110	0.36	WETLAND
LFVA20-013	3670337.044	422865.138	0.726	1.060	0.33	WETLAND
LFVA20-014	3670343.370	422872.702	0.673	0.940	0.27	WETLAND
LFVA20-071	3663152.945	450263.689	1.298	1.840	0.54	WETLAND
LFVA20-072	3663139.898	450255.336	0.885	1.450	0.57	WETLAND
LFVA20-073	3663127.859	450249.317	1.072	1.590	0.52	WETLAND
LFVA20-074	3663112.358	450241.148	1.831	2.280	0.45	WETLAND
LFVA20-120	3661407.724	454427.294	1.403	1.620	0.22	WETLAND
LFVA20-121	3661398.679	454418.453	1.851	1.610	-0.24	WETLAND
LFVA20-122	3661392.988	454401.108	2.109	2.240	0.13	WETLAND
LFVA20-123	3661385.129	454388.111	2.461	2.390	-0.07	WETLAND
LFVA20-124	3661399.267	454388.524	1.284	1.680	0.40	WETLAND

Appendix B (Calibration File)

JD064F01

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.024150
IMUPitch=-0.004728
IMUHeading=-0.019416
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=15.000000
Pressure=1022.350000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0157884900000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD064F02

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.022007
IMUPitch=0.002512
IMUHeading=-0.001772
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=15.000000
Pressure=1022.350600
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0155482500000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD065F01

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.023475
IMUPitch=-0.004127
IMUHeading=-0.007347
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=17.000000
Pressure=1022.350000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0154967700000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD065F02

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.022622
IMUPitch=-0.004685
IMUHeading=-0.001772
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=24.000000
Pressure=1028.107000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0153205200000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD066F01

[CALIBRATION]
UseDroopCorrection=15.000000
IMURoll=0.027628
IMUPitch=-0.002958
IMUHeading=-0.001772
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=24.000000
Pressure=1028.107000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]
positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]
BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]
DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0156859200000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]
CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]
WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD066F02

[CALIBRATION]
UseDroopCorrection=15.000000
IMURoll=0.023499
IMUPitch=-0.004831
IMUHeading=-0.011725
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=18.000000
Pressure=1028.446000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]
positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]
BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]
DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0156631500000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]
CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]
WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD075F01

[CALIBRATION]
UseDroopCorrection=15.000000
IMURoll=0.046722
IMUPitch=-0.009737
IMUHeading=-0.010911
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=25.000000
Pressure=1024.043800
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]
positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]
BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]
DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0164454100000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]
CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]
WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD075F02

[CALIBRATION]
UseDroopCorrection=15.000000
IMURoll=0.039895
IMUPitch=-0.006265
IMUHeading=-0.010435
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=22.000000
Pressure=1022.350600
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]
positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]
BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]
DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0161493300000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]
CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]
WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD076F01

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.045156
IMUPitch=-0.008647
IMUHeading=-0.004453
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=24.000000
Pressure=1022.689000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0163462600000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD077F01

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.045156
IMUPitch=-0.008647
IMUHeading=-0.004453
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=27.000000
Pressure=1022.350000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0163462600000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD078F01

[CALIBRATION]
UseDroopCorrection=15.000000
IMURoll=0.039895
IMUPitch=-0.006265
IMUHeading=-0.010435
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=22.000000
Pressure=1021.334000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]
positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]
BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]
DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0161493300000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]
CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]
WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD079F01

[CALIBRATION]
UseDroopCorrection=15.000000
IMURoll=0.042553
IMUPitch=-0.007344
IMUHeading=-0.013330
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=23.000000
Pressure=1020.657000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]
positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]
BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]
DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0163172600000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]
CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]
WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD084F01

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.046046
IMUPitch=-0.009462
IMUHeading=-0.012222
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=23.000000
Pressure=1020.657000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0163238900000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD084F02

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.039262
IMUPitch=-0.010715
IMUHeading=-0.015414
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=23.000000
Pressure=1020.657000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0159494700000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD085F01

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.035581
IMUPitch=-0.005093
IMUHeading=-0.007285
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=23.000000
Pressure=1020.657000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0160620400000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0

JD085F02

[CALIBRATION]

UseDroopCorrection=15.000000
IMURoll=0.039527
IMUPitch=-0.002728
IMUHeading=-0.009927
IntensityGainFor3070=32.000000
meteoCorrMethod=2
Temperature=23.000000
Pressure=1020.657000
UseRightDroopCorrection=15.000000
UseLeftDroopCorrection=15.000000

[DualLag]

positiveLag=0.00001250
negativeLag=0.00001250

scannerAngleDiffThreshold=2.000000
ScannerAngleLimitingSmootherOn=0

[OpticalModel]

BEAM0_PITCH=0.000000
BEAM0_ROLL=0.000000
DX0=0.000000
DY0=0.000000
DZ0=0.000000
MIRROR_PITCH=0.000000
WINDOW_PITCH=0.000000
WINDOW_YAW=0.000000

[ScannerPolynomialCoefficients]

DegreeOfPoly=1
a0=0.0057000000000000
a1=1.0158900600000000
a2=0.0000000000000000
a3=0.0000000000000000
a4=0.0000000000000000
a5=0.0000000000000000

[MeteoCrystalPolyCoeff]

CrystalFreq=100.000000
CrystalResolution=50.000000
DegreeOfPoly=-1

[AtmosphericFilter]

WindowSizePoints=15
ThresholdMeters=50.000000
FilterType=0