Task Order 007 2010 Lidar

Thumbnail Not Available

Tags

None, None, Elevation, Topography, Mississippi, Lake Pontchartrain, USA, Barrier Islands, Louisiana, LAS V.1.2 LiDAR, Lidar, Height

Summary

Task Order 007 Aerial Survey 2010 project will support the US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) collection of data representing the post-hurricane condition of the beaches, barrier islands, and lakeshores along the coasts of South East Louisiana, Lake Pontchartrain and Mississippi Barrier Islands.

Description

The Light Detection and Ranging (LiDAR) LAS dataset is a topographic survey conducted for the Task Order 007 Aerial Survey 2010 project. This data was produced for the US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX). The LiDAR point cloud was flown at a density sufficient to support a maximum final post spacing of 1 points per meter. 3001 International Inc acquired flight lines between April 9 - 26, 2010. The Task Order 007 Aerial Survey 2010 was collected under the guidance of a Professional Mapper /Surveyor.

Credits

US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX)

Use limitations

These unaltered data may not be redistributed without all of the elements of the metadata listed in the Supplemental Information section of this metadata document. Acknowledgement of US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) would be appreciated in products derived from these data.

Extent

There is no extent for this item.

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:50,000

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE elevation

CONTENT TYPE Downloadable Data

PLACE KEYWORDS Mississippi, Lake Pontchartrain, USA, Barrier Islands, Louisiana

STRATUM KEYWORDS None

TEMPORAL KEYWORDS None

THEME KEYWORDS Elevation, Topography, LAS V.1.2 LiDAR, Lidar, Height

Citation ►

TITLE Task Order 007 2010 Lidar
PUBLICATION DATE
INDETERMINATE DATE unknown
INDETERMINATE TIME unknown

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

Citation Contacts ►

RESPONSIBLE PARTY
ORGANIZATION'S NAME 3001 International Inc
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME 3001 International Inc
CONTACT'S ROLE publisher

CONTACT INFORMATION ►
ADDRESS
DELIVERY POINT Huntsville, AL

Resource Details ►

DATASET LANGUAGES English

STATUS completed
SPATIAL REPRESENTATION TYPE vector

SUPPLEMENTAL INFORMATION
The metadata is not FGDC compliant if copies of the survey report in PDF format are not delivered as an attachment. The information in this report is the result of the LiDAR surveys performed on the dates indicated and the general conditions at that time.

PROCESSING ENVIRONMENT Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 3; ESRI ArcCatalog 9.3.1.3000

CREDITS
US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX)

ARCGIS ITEM PROPERTIES
* LOCATION file://\\BYASSIN-GEO\D$\WorkspaceD\LidarLayouts\2010_NCMP_MS_GeoClassified_LAS\Report_Metadata\2010_NCMP_MS_GeoClassified_LAS_Metadata.las
* ACCESS PROTOCOL Local Area Network

Extents ►

EXTENT
DESCRIPTION
ground condition

TEMPORAL EXTENT
BEGINNING DATE 2010-04-09
INDETERMINATE TIME unknown
ENDING DATE 2010-04-26
INDETERMINATE TIME unknown

Resource Points of Contact ►

POINT OF CONTACT
ORGANIZATION'S NAME Northrop Grumman formerly 3001 International Inc
CONTACT'S POSITION LiDAR Department
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►
PHONE
VOICE 251.443.6979

ADDRESS
TYPE both
DELIVERY POINT 5821 Rangeline Road Suite 101
CITY Theodore
ADMINISTRATIVE AREA Alabama
POSTAL CODE 36582
COUNTRY US
E-MAIL ADDRESS carlos.prieto@ngc.com

HOURS OF SERVICE
8:00 - 5:00 CDT

Resource Maintenance ►

RESOURCE MAINTENANCE
UPDATE FREQUENCY not planned

Resource Constraints ►

SECURITY CONSTRAINTS
CLASSIFICATION unclassified
CLASSIFICATION SYSTEM Unclassified

ADDITIONAL RESTRICTIONS
Unclassified

CONSTRAINTS

LIMITATIONS OF USE

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Spatial Data Properties ►

VECTOR ►

GEOMETRIC OBJECTS

OBJECT TYPE composite

OBJECT COUNT 1

Hide Vector ▲

INDIRECT SPATIAL REFERENCING

Point

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL dataset

DATA QUALITY REPORT - TOPOLOGICAL CONSISTENCY ►

EVALUATION METHOD

The Light Detection and Ranging (LiDAR) LAS dataset is a topographic survey conducted Task Order 007 year 2010. This data was produced for US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX).

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY ►

MEASURE DESCRIPTION

The Light Detection and Ranging (LiDAR) LAS dataset is a topographic survey conducted Task Order 007 year 2010. This data was produced for US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX).

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

MEASURE DESCRIPTION

The LAS files were flown at a density sufficient to support a maximum final post spacing of final post spacing of 1 point per meter.

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ►

MEASURE DESCRIPTION

The Task Order 007 survey 2010 project was collected under the guidance of a Professional Mapper Surveyor. The data was collected at a density sufficient to support a maximum final post spacing of 1 point per meter.

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►

DIMENSION horizontal

MEASURE DESCRIPTION

All ground control processing and adjustment is performed using published coordinate horizontal and vertical datums (e.g. NGS CORS). For deliverables, Corpscon for Windows Version 5.11.08 (geoid 03) was used for horizontal and vertical datum conversion as well as for coordinate system conversion purposes (e.g. UTM to State Plane).

QUANTITATIVE TEST RESULTS

VALUE 0.5 m

EVALUATION METHOD

See entity and attribute information

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►

DIMENSION vertical

MEASURE DESCRIPTION

The accuracy assessment was performed using a standard method to compute the root mean square error (RMSE) based on a comparison of ground control points (GCP) and filtered LiDAR data points. Filtered LiDAR data has had vegetation and cultural features removed and by analysis represents bare-earth elevations. The RMSE figure was used to compute the vertical National Standard for Spatial Data Accuracy (NSSDA). Ground control was established by 3001, Inc. A spatial proximity analysis was used to select

edited LiDAR data points contiguous to the relevant GCPs. A search radius decision rule is applied with consideration of terrain complexity, cumulative error and adequate sample size. Cumulative error results from the errors inherent in the various sources of horizontal measurement. These sources include the airborne GPS, GCPs and the uncertainty of the accuracy of the LiDAR data points. This accuracy is achieved prior to the sub-sampling that occurs through integration with the inertial measurement unit (IMU) positions that are recorded. It is unclear at this time whether the initial accuracy is maintained. The horizontal accuracy of the GCPs is estimated to be in the range of approximately 1 to 1.6 inches. Finally, sample size was considered. The specification for the National Standard for Spatial Data Accuracy is a minimum of 20 points to conduct a statistically significant accuracy evaluation (Minnesota Planning, 1999, Positional Accuracy Handbook, Minnesota Planning Land Management Information Center, St. Paul, Minnesota., p.3). Most statistical texts indicate that a minimum of 30 sample points provide a reasonable Approximation of a normal distribution. The intent of the NSSDA is to reflect the geographic area of interest and the distribution of error in the data set (Federal Geographic Data Committee, 1998, Geospatial National Standard for Spatial Data Accuracy, Federal Geographic Data Committee Secretariat, Reston, Virginia, p.3-4). Additional steps were taken to ensure the vertical accuracy of the LiDAR data including: Step 1: Precision Bore sighting (Check Edge-matching) Step 2: Compare the LiDAR data to the Field Survey (Field survey is to FEMA specifications and more stringent internal specifications) Step 3: Automated Filtering Step 4: Manual Editing (Quality Control) Step

QUANTITATIVE TEST RESULTS
VALUE 15 cm

EVALUATION METHOD
See entity and attribute information

Lineage ►

PROCESS STEP ►
WHEN THE PROCESS OCCURRED 2010-07-01
DESCRIPTION
The Airborne Global Position System (ABGPS), inertial measurement unit (IMU), and raw scans are collected during the LiDAR aerial survey. The ABGPS monitors the xyz position of the sensor and the IMU monitors the orientation of the aircraft. During the aerial survey laser pulses reflected from features on the surface and are detected by the receiver optics and collected by the data logger. GPS locations are based on data collected by receivers on the aircraft and base stations on the ground. The ground base stations are placed no more than 20 km radius from the flight survey area.

PROCESS CONTACT
ORGANIZATION'S NAME 3001 International Inc.
CONTACT'S POSITION LiDAR Department
CONTACT'S ROLE processor

CONTACT INFORMATION ▶
PHONE
VOICE 251.443.6979

ADDRESS
TYPE both
DELIVERY POINT 501 Robert Blvd
DELIVERY POINT 2nd Floor
CITY Slidell
ADMINISTRATIVE AREA Louisiana
POSTAL CODE 70458
COUNTRY US

HOURS OF SERVICE
8:00 - 5:00 CDT

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES Inertial Measuring Unit

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES Optech ALTM Gemini

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES Airborne Global Positioning System

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES Global Positioning System

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP produced

SOURCE CITATION ▶
ALTERNATE TITLES LiDAR Scan Files

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP produced

SOURCE CITATION ▶
ALTERNATE TITLES LiDAR Scans, GPS data

PROCESS STEP ▶
WHEN THE PROCESS OCCURRED 2009-05-27
DESCRIPTION

The data is subjected to rigorous QA/QC according to the 3001 Inc. Quality Control Plan and procedures. Very briefly, a series of quantitative and visual procedures are employed to validate the accuracy and consistency of the data. Ground control is established by 3001, Inc. and GPS-derived ground control points (GCPs) points in various areas of dominant and prescribed land cover. These points are coded according to land cover, surface material and ground control suitability. A suitable number of points are selected for calculation of a statistically significant accuracy assessment as per the requirements of the National Standard for Spatial Data Accuracy. A spatial proximity analysis is used to select edited LiDAR data points within a specified distance of the relevant GCPs. A search radius decision rule is applied with consideration of terrain complexity, cumulative error and adequate sample size. Accuracy validation and evaluation is accomplished using proprietary software to apply relevant statistical routines for calculation of Root Mean Square Error (RMSE) and the National Standard for Spatial Data Accuracy (NSSDA) according to Federal Geographic Data Committee (FGDC) specifications.

PROCESS CONTACT
ORGANIZATION'S NAME 3001 Inc.
CONTACT'S POSITION LiDAR Department
CONTACT'S ROLE processor

CONTACT INFORMATION ▶
PHONE
VOICE (985) 661 - 3001
FAX (985) 649 - 5082

ADDRESS
TYPE both
DELIVERY POINT 2nd Floor

DELIVERY POINT 501 Robert Blvd.
CITY Slidell
ADMINISTRATIVE AREA Louisiana
POSTAL CODE 70458
COUNTRY US
E-MAIL ADDRESS lidar@3001inc.com

HOURS OF SERVICE
8:00 - 5:00 CDT

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES LiDAR data LAS 1.1 format

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP produced

SOURCE CITATION ▶
ALTERNATE TITLES Quality verified data set LAS 1.1 file format

PROCESS STEP ▶
WHEN THE PROCESS OCCURRED 2009-05-27
DESCRIPTION
The ABGPS, IMU, and raw scans are integrated using proprietary software developed by Optech and delivered with the Optech ALTM Gemini System. The resultant file is in a LAS binary file format. The LAS file version 1.1 format can be easily transferred from one file format to another. It is a binary file format that maintains information specific to the LiDAR data (return#, intensity value, xyz, etc.). The resultant points are referenced to the Geographic NAD83 horizontal datum and NAVD88 vertical datum.

PROCESS CONTACT
ORGANIZATION'S NAME 3001 International Inc.
CONTACT'S POSITION LiDAR Department
CONTACT'S ROLE processor

CONTACT INFORMATION ▶
PHONE
VOICE (985) 661 - 3001
FAX (985) 649 - 5082

ADDRESS
TYPE both
DELIVERY POINT 2nd Floor
DELIVERY POINT 501 Robert Blvd
CITY Slidell
ADMINISTRATIVE AREA Louisiana
POSTAL CODE 70458
COUNTRY US
E-MAIL ADDRESS lidar@3001inc.com

HOURS OF SERVICE
8:00 - 5:00 CDT

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES Airborne Global Positioning System Data

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES LiDAR Scans

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶
ALTERNATE TITLES Inertial Measurement Unit

SOURCE DATA ▶
RELATIONSHIP TO THE PROCESS STEP produced

SOURCE CITATION ▶
ALTERNATE TITLES LiDAR Project Point Cloud data sets LAS 1.1 file format

SOURCE DATA ▶

DESCRIPTION

The Task Order 007 2010 data was acquired for US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) and processed by 3001 International Inc.

RESOLUTION OF THE SOURCE DATA

SCALE DENOMINATOR 24000

SOURCE CITATION ▶

TITLE Task Order 007 2010 Lidar

ALTERNATE TITLES scale map

PUBLICATION DATE

INDETERMINATE DATE unknown

INDETERMINATE TIME unknown

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT raster digital data

RESPONSIBLE PARTY

ORGANIZATION'S NAME 3001 International Inc

CONTACT'S ROLE publisher

CONTACT INFORMATION ▶

ADDRESS

DELIVERY POINT Huntsville, AL

RESPONSIBLE PARTY

ORGANIZATION'S NAME 3001 International Inc

CONTACT'S ROLE originator

Hide Source citation ▲

EXTENT OF THE SOURCE DATA

DESCRIPTION

ground condition

TEMPORAL EXTENT

BEGINNING DATE 2009-11-19

INDETERMINATE TIME unknown

ENDING DATE 2010-02-29

INDETERMINATE TIME unknown

Distribution ►

DISTRIBUTOR ►
CONTACT INFORMATION
ORGANIZATION'S NAME JALBTCX
CONTACT'S ROLE distributor

CONTACT INFORMATION ►
PHONE
VOICE 228-252-1101

ADDRESS
TYPE physical
DELIVERY POINT 7225 Stennis Airport Dr. Suite 100
CITY Kiln
ADMINISTRATIVE AREA MS
POSTAL CODE 39556
COUNTRY US

ORDERING PROCESS

Fields ►

DETAILS FOR OBJECT Task Order 007 2010 ►
DEFINITION
LAS Data

DEFINITION SOURCE
Contract

FIELD FID ►
FIELD DESCRIPTION
Internal feature number.

DESCRIPTION SOURCE
ESRI

DESCRIPTION OF VALUES
Sequential unique whole numbers that are automatically generated.

FIELD Shape ►
FIELD DESCRIPTION
Feature geometry.

DESCRIPTION SOURCE
ESRI

DESCRIPTION OF VALUES
Coordinates defining the features.

FIELD Id ►

FIELD NAME ►

FIELD DESCR ►

FIELD FOLDER ►

References ►

AGGREGATE INFORMATION
ASSOCIATION TYPE cross reference

AGGREGATE RESOURCE NAME ►
TITLE Task Order 007 2010 Lidar survey
PUBLICATION DATE
INDETERMINATE DATE unknown
INDETERMINATE TIME unknown

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT raster digital data

RESPONSIBLE PARTY
ORGANIZATION'S NAME 3001 International Inc
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME 3001 International Inc
CONTACT'S ROLE publisher

CONTACT INFORMATION ►
ADDRESS
DELIVERY POINT Huntsville, AL

Metadata Details ►

METADATA LANGUAGE English
METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset

LAST UPDATE 2010-07-01

ARCGIS METADATA PROPERTIES
METADATA FORMAT ArcGIS 1.0

CREATED IN ARCGIS FOR THE ITEM 2010-10-05 15:42:20
LAST MODIFIED IN ARCGIS FOR THE ITEM 2010-10-05 15:13:10

AUTOMATIC UPDATES
HAVE BEEN PERFORMED No

ITEM LOCATION HISTORY
ITEM COPIED OR MOVED 2014-05-14 11:58:31
FROM
D:\WorkspaceD\LidarLayouts\2010_NCMP_MS_GeoClassified_LAS\2010_NCMP_MS_GeoClassified_LAS_Metadata.las
TO \\BYASSIN-GEO\D$\WorkspaceD\LidarLayouts\2010_NCMP_MS_GeoClassified_LAS\Report_Metadata\2010_NCMP_MS_GeoClassified_LAS_Metadata.las

Metadata Contacts ►

METADATA CONTACT
ORGANIZATION'S NAME 3001 International Inc.
CONTACT'S POSITION LiDAR Department
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►
PHONE
VOICE (985) 661 - 3001
FAX (985) 649 - 5082

ADDRESS
TYPE both
DELIVERY POINT 2nd Floor
DELIVERY POINT 501 Robert Blvd
CITY Slidell
ADMINISTRATIVE AREA Louisiana
POSTAL CODE 70458
COUNTRY US
E-MAIL ADDRESS lidar@3001inc.com

HOURS OF SERVICE
8:00 - 5:00 CDT

Metadata Constraints ►

SECURITY CONSTRAINTS
CLASSIFICATION unclassified
CLASSIFICATION SYSTEM Unclassified

ADDITIONAL RESTRICTIONS
None Specified

Thumbnail and Enclosures ►

ENCLOSURE
ENCLOSURE TYPE File
DESCRIPTION OF ENCLOSURE original metadata
ORIGINAL METADATA DOCUMENT, WHICH WAS TRANSLATED yes
SOURCE METADATA FORMAT fgdc

CITATION
CITATION INFORMATION
ORIGINATOR 3001 International Inc
PUBLICATION DATE Unknown
PUBLICATION TIME Unknown
TITLE
Task Order 007 2010 Lidar
GEOSPATIAL DATA PRESENTATION FORM vector digital data
PUBLICATION INFORMATION
PUBLICATION PLACE Huntsville, AL
PUBLISHER 3001 International Inc
ONLINE LINKAGE \\DALMPCE00234547\C\Aprojects\Metadata\TO-007_LAS

DESCRIPTION
ABSTRACT
The Light Detection and Ranging (LiDAR) LAS dataset is a topographic survey conducted for the Task Order 007 Aerial Survey 2010 project. This data was produced for the US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX). The LiDAR point cloud was flown at a density sufficient to support a maximum final post spacing of 1 points per meter. 3001 International Inc acquired flight lines between April 9 - 26, 2010. The Task Order 007 Aerial Survey 2010 was collected under the guidance of a Professional Mapper /Surveyor.
PURPOSE
Task Order 007 Aerial Survey 2010 project will support the US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) collection of data representing the post-hurricane condition of the beaches, barrier islands, and lakeshores along the coasts of South East Louisiana, Lake Pontchartrain and Mississippi Barrier Islands.
SUPPLEMENTAL INFORMATION
The metadata is not FGDC compliant if copies of the survey report in PDF format are not delivered as an attachment. The information in this report is the result of the LiDAR surveys performed on the dates indicated and the general conditions at that time.
TIME PERIOD OF CONTENT

Time Period Information
Range of Dates/Times
Beginning Date 2010-04-09
Beginning Time unknown
Ending Date 2010-04-26
Ending Time unknown
Currentness Reference
ground condition
Status
Progress Complete
Maintenance and Update Frequency None planned

Spatial Domain
Bounding Coordinates
West Bounding Coordinate
East Bounding Coordinate
North Bounding Coordinate
South Bounding Coordinate

Keywords
Theme
Theme Keyword Thesaurus None
Theme Keyword Elevation
Theme Keyword Height
Theme Keyword LAS V.1.2 LiDAR
Theme Keyword Topography
Theme Keyword Lidar

Place
Place Keyword Thesaurus None
Place Keyword USA
Place Keyword Louisiana
Place Keyword Mississippi
Place Keyword Barrier Islands
Place Keyword Lake Pontchartrain

Stratum
Stratum Keyword Thesaurus None
Stratum Keyword None

Temporal
Temporal Keyword Thesaurus None
Temporal Keyword None

Access Constraints
None
Use Constraints
These unaltered data may not be redistributed without all of the elements of the metadata listed in the Supplemental Information section of this metadata document. Acknowledgement of US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) would be appreciated in products derived from these data.
Point of Contact
Contact Information
Contact Organization Primary
Contact Organization Northrop Grumman formerly 3001 International Inc
Contact Position LiDAR Department
Contact Address

ADDRESS TYPE mailing and physical address
ADDRESS 5821 Rangeline Road Suite 101
CITY Theodore
STATE OR PROVINCE Alabama
POSTAL CODE 36582
COUNTRY UNITED STATES

CONTACT VOICE TELEPHONE 251.443.6979
CONTACT ELECTRONIC MAIL ADDRESS carlos.prieto@ngc.com
HOURS OF SERVICE 8:00 - 5:00 CDT

DATA SET CREDIT
US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX)

SECURITY INFORMATION
SECURITY CLASSIFICATION SYSTEM Unclassified
SECURITY CLASSIFICATION Unclassified
SECURITY HANDLING DESCRIPTION Unclassified

NATIVE DATA SET ENVIRONMENT
Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 3; ESRI ArcCatalog 9.3.1.3000

CROSS REFERENCE
CITATION INFORMATION
ORIGINATOR 3001 International Inc
PUBLICATION DATE Unknown
PUBLICATION TIME Unknown
TITLE
Task Order 007 2010 Lidar survey
GEOSPATIAL DATA PRESENTATION FORM raster digital data
PUBLICATION INFORMATION
PUBLICATION PLACE Huntsville, AL
PUBLISHER 3001 International Inc

ATTRIBUTE ACCURACY
ATTRIBUTE ACCURACY REPORT
The Task Order 007 survey 2010 project was collected under the guidance of a Professional Mapper Surveyor. The data was collected at a density sufficient to support a maximum final post spacing of 1 points per meter.
LOGICAL CONSISTENCY REPORT
The Light Detection and Ranging (LiDAR) LAS dataset is a topographic survey conducted Task Order 007 year 2010. This data was produced for US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX).
COMPLETENESS REPORT
The LAS files were flown at a density sufficient to support a maximum final post spacing of final post spacing of 1 points per meter.
POSITIONAL ACCURACY
HORIZONTAL POSITIONAL ACCURACY
HORIZONTAL POSITIONAL ACCURACY REPORT
All ground control processing and adjustment is performed using published coordinate horizontal and vertical datums (e.g. NGS CORS). For deliverables, Corpscon for Windows Version 5.11.08 (geoid 03) was used for horizontal and vertical datum conversion as well as for coordinate system conversion purposes (e.g. UTM to State Plane).
QUANTITATIVE HORIZONTAL POSITIONAL ACCURACY ASSESSMENT

HORIZONTAL POSITIONAL ACCURACY VALUE 0.5 m
HORIZONTAL POSITIONAL ACCURACY EXPLANATION
See entity and attribute information
VERTICAL POSITIONAL ACCURACY
VERTICAL POSITIONAL ACCURACY REPORT
The accuracy assessment was performed using a standard method to compute the root mean square error (RMSE) based on a comparison of ground control points (GCP) and filtered LiDAR data points. Filtered LiDAR data has had vegetation and cultural features removed and by analysis represents bare-earth elevations. The RMSE figure was used to compute the vertical National Standard for Spatial Data Accuracy (NSSDA). Ground control was established by 3001, Inc. A spatial proximity analysis was used to select edited LiDAR data points contiguous to the relevant GCPs. A search radius decision rule is applied with consideration of terrain complexity, cumulative error and adequate sample size. Cumulative error results from the errors inherent in the various sources of horizontal measurement. These sources include the airborne GPS, GCPs and the uncertainty of the accuracy of the LiDAR data points. This accuracy is achieved prior to the sub-sampling that occurs through integration with the inertial measurement unit (IMU) positions that are recorded. It is unclear at this time whether the initial accuracy is maintained. The horizontal accuracy of the GCPs is estimated to be in the range of approximately 1 to 1.6 inches. Finally, sample size was considered. The specification for the National Standard for Spatial Data Accuracy is a minimum of 20 points to conduct a statistically significant accuracy evaluation (Minnesota Planning, 1999, Positional Accuracy Handbook, Minnesota Planning Land Management Information Center, St. Paul, Minnesota., p.3). Most statistical texts indicate that a minimum of 30 sample points provide a reasonable Approximation of a normal distribution. The intent of the NSSDA is to reflect the geographic area of interest and the distribution of error in the data set (Federal Geographic Data Committee, 1998, Geospatial National Standard for Spatial Data Accuracy, Federal Geographic Data Committee Secretariat, Reston, Virginia, p.3-4). Additional steps were taken to ensure the vertical accuracy of the LiDAR data including: Step 1: Precision Bore sighting (Check Edge-matching) Step 2: Compare the LiDAR data to the Field Survey (Field survey is to FEMA specifications and more stringent internal specifications) Step 3: Automated Filtering Step 4: Manual Editing (Quality Control) Step
QUANTITATIVE VERTICAL POSITIONAL ACCURACY ASSESSMENT
VERTICAL POSITIONAL ACCURACY VALUE 15 cm
VERTICAL POSITIONAL ACCURACY EXPLANATION
See entity and attribute information
LINEAGE
SOURCE INFORMATION
SOURCE CITATION
CITATION INFORMATION
ORIGINATOR 3001 International Inc
PUBLICATION DATE Unknown
PUBLICATION TIME Unknown
TITLE
Task Order 007 2010 Lidar
GEOSPATIAL DATA PRESENTATION FORM raster digital data
PUBLICATION INFORMATION
PUBLICATION PLACE Huntsville, AL
PUBLISHER 3001 International Inc

SOURCE SCALE DENOMINATOR 24000
TYPE OF SOURCE MEDIA digital tape media
SOURCE TIME PERIOD OF CONTENT
TIME PERIOD INFORMATION
RANGE OF DATES/TIMES
BEGINNING DATE 2009-11-19

BEGINNING TIME unknown
ENDING DATE 2010-02-29
ENDING TIME unknown
SOURCE CURRENTNESS REFERENCE
ground condition
SOURCE CITATION ABBREVIATION
scale map
SOURCE CONTRIBUTION
The Task Order 007 2010 data was acquired for US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) and processed by 3001 International Inc.
PROCESS STEP
PROCESS DESCRIPTION
The Airborne Global Position System (ABGPS), inertial measurement unit (IMU), and raw scans are collected during the LiDAR aerial survey. The ABGPS monitors the xyz position of the sensor and the IMU monitors the orientation of the aircraft. During the aerial survey laser pulses reflected from features on the surface and are detected by the receiver optics and collected by the data logger. GPS locations are based on data collected by receivers on the aircraft and base stations on the ground. The ground base stations are placed no more than 20 km radius from the flight survey area.
SOURCE USED CITATION ABBREVIATION
Optech ALTM Gemini
SOURCE USED CITATION ABBREVIATION
Airborne Global Positioning System
SOURCE USED CITATION ABBREVIATION
Inertial Measuring Unit
SOURCE USED CITATION ABBREVIATION
Global Positioning System
PROCESS DATE 2010-07-01
SOURCE PRODUCED CITATION ABBREVIATION
LiDAR Scan Files
SOURCE PRODUCED CITATION ABBREVIATION
LiDAR Scans, GPS data

PROCESS CONTACT
CONTACT INFORMATION
CONTACT ORGANIZATION PRIMARY
CONTACT ORGANIZATION 3001 International Inc.
CONTACT POSITION LiDAR Department
CONTACT ADDRESS
ADDRESS TYPE mailing and physical address
ADDRESS 501 Robert Blvd
ADDRESS 2nd Floor
CITY Slidell
STATE OR PROVINCE Louisiana
POSTAL CODE 70458
COUNTRY UNITED STATES

CONTACT VOICE TELEPHONE 251.443.6979
HOURS OF SERVICE 8:00 - 5:00 CDT

PROCESS STEP
PROCESS DESCRIPTION
The ABGPS, IMU, and raw scans are integrated using proprietary software developed by Optech and delivered with the Optech ALTM Gemini System. The resultant file is in a LAS binary file format. The LAS file version 1.1 format can be easily transferred from one file format to another. It is a binary file format that maintains information specific

to the LiDAR data (return#, intensity value, xyz, etc.). The resultant points are referenced to the Geographic NAD83 horizontal datum and NAVD88 vertical datum.

SOURCE USED CITATION ABBREVIATION

Airborne Global Positioning System Data

SOURCE USED CITATION ABBREVIATION

Inertial Measurement Unit

SOURCE USED CITATION ABBREVIATION

LiDAR Scans

PROCESS DATE 2009-05-27

SOURCE PRODUCED CITATION ABBREVIATION

LiDAR Project Point Cloud data sets LAS 1.1 file format

PROCESS CONTACT

CONTACT INFORMATION

CONTACT ORGANIZATION PRIMARY

CONTACT ORGANIZATION 3001 International Inc.

CONTACT POSITION LiDAR Department

CONTACT ADDRESS

ADDRESS TYPE mailing and physical address

ADDRESS 501 Robert Blvd

ADDRESS 2nd Floor

CITY Slidell

STATE OR PROVINCE Louisiana

POSTAL CODE 70458

COUNTRY UNITED STATES

CONTACT VOICE TELEPHONE (985) 661 - 3001

CONTACT FACSIMILE TELEPHONE (985) 649 - 5082

CONTACT ELECTRONIC MAIL ADDRESS lidar@3001inc.com

HOURS OF SERVICE 8:00 - 5:00 CDT

PROCESS STEP

PROCESS DESCRIPTION

The data is subjected to rigorous QA/QC according to the 3001 Inc. Quality Control Plan and procedures. Very briefly, a series of quantitative and visual procedures are employed to validate the accuracy and consistency of the data. Ground control is established by 3001, Inc. and GPS-derived ground control points (GCPs) points in various areas of dominant and prescribed land cover. These points are coded according to land cover, surface material and ground control suitability. A suitable number of points are selected for calculation of a statistically significant accuracy assessment as per the requirements of the National Standard for Spatial Data Accuracy. A spatial proximity analysis is used to select edited LiDAR data points within a specified distance of the relevant GCPs. A search radius decision rule is applied with consideration of terrain complexity, cumulative error and adequate sample size. Accuracy validation and evaluation is accomplished using proprietary software to apply relevant statistical routines for calculation of Root Mean Square Error (RMSE) and the National Standard for Spatial Data Accuracy (NSSDA) according to Federal Geographic Data Committee (FGDC) specifications.

SOURCE USED CITATION ABBREVIATION

LiDAR data LAS 1.1 format

PROCESS DATE 2009-05-27

SOURCE PRODUCED CITATION ABBREVIATION

Quality verified data set LAS 1.1 file format

PROCESS CONTACT

CONTACT INFORMATION

CONTACT ORGANIZATION PRIMARY

CONTACT ORGANIZATION 3001 Inc.
CONTACT POSITION LiDAR Department
CONTACT ADDRESS
ADDRESS TYPE mailing and physical address
ADDRESS 501 Robert Blvd.
ADDRESS 2nd Floor
CITY Slidell
STATE OR PROVINCE Louisiana
POSTAL CODE 70458
COUNTRY UNITED STATES

CONTACT VOICE TELEPHONE (985) 661 - 3001
CONTACT FACSIMILE TELEPHONE (985) 649 - 5082
CONTACT ELECTRONIC MAIL ADDRESS lidar@3001inc.com
HOURS OF SERVICE 8:00 - 5:00 CDT

PROCESS STEP
PROCESS DESCRIPTION
Metadata imported.
SOURCE USED CITATION ABBREVIATION
Z:\Data01\Gustav_Ike\Phase_2_Deliverables\Lidar\2009_postike_29093f7c_2009_02_05_201.xml
PROCESS DATE 2010-09-01
PROCESS TIME 16:51:35

PROCESS STEP
PROCESS DESCRIPTION
Metadata imported.
SOURCE USED CITATION ABBREVIATION
Z:\Data01\Gustav_Ike\Phase_2_Deliverables\Lidar\WTXLAS.shp.xml
PROCESS DATE 2010-09-01
PROCESS TIME 17:28:24

PROCESS STEP
PROCESS DESCRIPTION
Dataset copied.
SOURCE USED CITATION ABBREVIATION
C:\Aprojects\Metadata\TO-007_LAS
PROCESS DATE 2010-10-05
PROCESS TIME 15:42:20

CLOUD COVER 0

INDIRECT SPATIAL REFERENCE METHOD
Point

DIRECT SPATIAL REFERENCE METHOD Point

POINT AND VECTOR OBJECT INFORMATION
SDTS TERMS DESCRIPTION
SDTS POINT AND VECTOR OBJECT TYPE String
POINT AND VECTOR OBJECT COUNT 1

HORIZONTAL COORDINATE SYSTEM DEFINITION
GEOGRAPHIC
LATITUDE RESOLUTION 0.000000
LONGITUDE RESOLUTION 0.000000

GEOGRAPHIC COORDINATE UNITS Decimal degrees

GEODETIC MODEL
HORIZONTAL DATUM NAME NAD_1983
ELLIPSOID NAME WGS_1984
SEMI-MAJOR AXIS 6378137.000000
DENOMINATOR OF FLATTENING RATIO 298.257224

VERTICAL COORDINATE SYSTEM DEFINITION
ALTITUDE SYSTEM DEFINITION
ALTITUDE DATUM NAME North American Vertical Datum of 1988
ALTITUDE DISTANCE UNITS meters

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL Task Order 007 2010
ENTITY TYPE DEFINITION
LAS Data
ENTITY TYPE DEFINITION SOURCE Contract

ATTRIBUTE
ATTRIBUTE LABEL FID
ATTRIBUTE DEFINITION
Internal feature number.
ATTRIBUTE DEFINITION SOURCE ESRI
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Sequential unique whole numbers that are automatically generated.

ATTRIBUTE
ATTRIBUTE LABEL Shape
ATTRIBUTE DEFINITION
Feature geometry.
ATTRIBUTE DEFINITION SOURCE ESRI
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Coordinates defining the features.

ATTRIBUTE
ATTRIBUTE LABEL Id

ATTRIBUTE
ATTRIBUTE LABEL NAME

ATTRIBUTE
ATTRIBUTE LABEL DESCR

ATTRIBUTE
ATTRIBUTE LABEL FOLDER

DISTRIBUTOR
CONTACT INFORMATION
CONTACT ORGANIZATION PRIMARY
CONTACT ORGANIZATION JALBTCX
CONTACT ADDRESS
ADDRESS TYPE physical address
ADDRESS 7225 Stennis Airport Dr. Suite 100
CITY Kiln

State or Province MS
Postal Code 39556
Country UNITED STATES

Contact Voice Telephone 228-252-1101

Resource Description Downloadable Data
Standard Order Process
Digital Form
Digital Transfer Information
Transfer Size 0.008

Metadata Date 2010-07-01
Metadata Contact
Contact Information
Contact Organization Primary
Contact Organization 3001 International Inc.
Contact Person REQUIRED: The person responsible for the metadata information.
Contact Position LiDAR Department
Contact Address
Address Type mailing and physical address
Address 501 Robert Blvd
Address 2nd Floor
City Slidell
State or Province Louisiana
Postal Code 70458
Country UNITED STATES

Contact Voice Telephone (985) 661 - 3001
Contact Facsimile Telephone (985) 649 - 5082
Contact Electronic Mail Address lidar@3001inc.com
Hours of Service 8:00 - 5:00 CDT

Metadata Standard Name FGDC Content Standards for Digital Geospatial Metadata
Metadata Standard Version FGDC-STD-001-1998
Metadata Time Convention local time

Metadata Access Constraints None
Metadata Use Constraints
None
Metadata Security Information
Metadata Security Classification System Unclassified
Metadata Security Classification Unclassified
Metadata Security Handling Description
None Specified

Metadata Extensions
Online Linkage http://www.esri.com/metadata/esriprof80.html
Profile Name ESRI Metadata Profile