# **Mississippi Coastal Orthos**

### Geotiff

### Thumbnail Not Available

### Tags

IMU, Harrison County, Coastal Mississippi, Aerial, United States, Aerial Triangulation, Hancock County, GPS, Jackson County, Orthophotography

### **Summary**

One foot GSD Digital ortho Imagery for the coast of Mississippi and barrier islands prior to the BP oil spill reaching the shoreline. Aerial imagery was acquired on May 9, 2010 and the final deliverable products were RGB, CIR, and Panchromatic digital orthophotography.

#### Description

Capture and process digital aerial imagery using the Leica ADS40-52 sensor. The digital data was then processed to produce 1 foot GSD digital orthophotography.

### Credits

There are no credits for this item.

#### **Use limitations**

Neither MDEQ, its contractors, nor any employee thereof, assumes liability associated with the use of these data and will not be liable for any damages whatsoever arising out of the use, inability to use, or results of the use of 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** ►

CONTENT TYPE Downloadable Data

PLACE KEYWORDS Harrison County, Coastal Mississippi, United States, Hancock County, Jackson County

THESAURUS TITLE Geographic Names Information System

Hide Thesaurus

THEME KEYWORDS IMU, Aerial, Aerial Triangulation, GPS, Orthophotography

THESAURUS TITLE Mississippi Gulf Coastal Hide Thesaurus

Hide Topics and Keywords

### Citation **>**

TITLE Mississippi Coastal Orthos PUBLICATION DATE 2010-05-28 INDETERMINATE TIME unknown

EDITION 2010

PRESENTATION FORMATS digital map FGDC GEOSPATIAL PRESENTATION FORMAT remote-sensing image

SERIES NAME Mississippi Coastal Shoreline ISSUE 1

Hide Citation 🔺

### Citation Contacts ►

RESPONSIBLE PARTY ORGANIZATION'S NAME Fugro EarthData, Inc. CONTACT'S ROLE publisher

CONTACT INFORMATION ADDRESS DELIVERY POINT Fugro EarthData, Inc.

Hide Contact information **A** 

RESPONSIBLE PARTY ORGANIZATION'S NAME Fugro EarthData, Inc. CONTACT'S ROLE originator

Hide Citation Contacts

# **Resource Details** ►

DATASET LANGUAGES English

STATUS completed

PROCESSING ENVIRONMENT Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 3; ESRI ArcCatalog 9.2.6.1500

ARCGIS ITEM PROPERTIES *Hide Resource Details* 

### Extents **>**

EXTENT GEOGRAPHIC EXTENT BOUNDING RECTANGLE WEST LONGITUDE -89.290533 EAST LONGITUDE -89.25872 SOUTH LATITUDE 30.29664 NORTH LATITUDE 30.324242

EXTENT DESCRIPTION publication date

TEMPORAL EXTENT DATE AND TIME 2010-01-01 INDETERMINATE TIME UNKNOWN

Hide Extents

# **Resource Points of Contact** ►

POINT OF CONTACT INDIVIDUAL'S NAME Stephen Champlin, RPG ORGANIZATION'S NAME Geospatial Resources Division/Flood Mapping MDEQ - Office of Geology CONTACT'S ROLE point of contact

CONTACT INFORMATION PHONE VOICE 601-961-5506 FAX 601-961-5521

Address Type postal Delivery point PO Box 2279 City Jackson Administrative area Mississippi Postal code 39225 Country US E-MAIL Address Stephen\_Champlin@deq.state.ms.us

HOURS OF SERVICE 8:30 am - 5:00 pm

Hide Contact information **A** 

Hide Resource Points of Contact **A** 

### **Resource Maintenance** ►

RESOURCE MAINTENANCE UPDATE FREQUENCY as needed Hide Resource Maintenance

### **Resource Constraints** ►

LEGAL CONSTRAINTS LIMITATIONS OF USE None

OTHER CONSTRAINTS Contact MDEQ

SECURITY CONSTRAINTS CLASSIFICATION Unclassified CLASSIFICATION SYSTEM Not Applicable

ADDITIONAL RESTRICTIONS None required

CONSTRAINTS

#### LIMITATIONS OF USE

Neither MDEQ, its contractors, nor any employee thereof, assumes liability associated with the use of these data and will not be liable for any damages whatsoever arising out of the use, inability to use, or results of the use of these data.

Hide Resource Constraints

# Spatial Data Properties

GEORECTIFIED GRID NUMBER OF DIMENSIONS 2 **AXIS DIMENSIONS PROPERTIES** DIMENSION TYPE row (y-axis) DIMENSION SIZE 10000 **AXIS DIMENSIONS PROPERTIES** DIMENSION TYPE column (x-axis) DIMENSION SIZE 10000 **AXIS DIMENSIONS PROPERTIES** DIMENSION TYPE vertical (z-axis) DIMENSION SIZE 1 CELL GEOMETRY area Hide Georectified Grid VECTOR **> GEOMETRIC OBJECTS** OBJECT TYPE complex **OBJECT COUNT** 49

Hide Vector

Hide Spatial Data Properties

### Spatial Data Content

IMAGE DESCRIPTION PERCENT CLOUD COVER 5

Hide Spatial Data Content

### Data Quality

SCOPE OF QUALITY INFORMATION RESOURCE LEVEL dataset

Hide Scope of quality information **A** 

#### DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY MEASURE DESCRIPTION

Compliance with the accuracy standard was ensured by Airborne GPS. The following checks were performed. 1. The ground control and airborne GPS data stream were validated through a fully analytical bundle aerotriangulation adjustment. The ground control was from a previous Mississippi Coastal mapping project. 2. The DEM data was checked against the project control. The technician visited and confirmed the accuracy of the points during initial processing. 3. Digital orthophotography was validated through an inspection of edge matching and visual inspection for image quality. 4. Planimetry was validated through an inspection of edge matching and visual inspection for data quality.

Hide Data quality report - Conceptual consistency

# DATA QUALITY REPORT - COMPLETENESS OMISSION

MEASURE DESCRIPTION

The following methods are used to assure imagery accuracy. 1. Use of IMU and ground control network utilizing GPS techniques. 2. Use of airborne GPS in conjunction with the acquisition of imagery. 3. Measurement of quality control ground survey points within the finished product. The following software is used for validation of the 1. Aerotriangulation - Orima 2. Check of DEM data 3. Digital Orthophotography - Orima The following software was used for the validation. 1. Bentley - Microstation 2. ISTAR 3. ZI OrthoPro 4. ESRI - ArcInfo 5. EarthData Proprietary software

Hide Data quality report - Completeness omission ▲

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY MEASURE DESCRIPTION

Orthophotos were created from the aerial photography using the USGS DEM using the ISTAR software and photo triangulation data. Airborne GPS data was collected during the acquisition mission for each flight line. An additional control point was set for a basestation that was recorded during imagery acquistion for processing the airborne GPS. Ground control from the Misssissippi coastal mapping project was used in the production of this data. The final bundle adjustment of this block was solved using airborne GPS. During GPS data collection, the Positional Dilution of Precision (PDOP) was monitored and held at or below 3.5 when possible. Imagery was mosaiced to provide seamless coverage. Images were then radiometrically corrected for tone balance and geometry quality control along tile edges for terrain and linear features.

Hide Data quality report - Quantitative attribute accuracy

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY 
DIMENSION horizontal

#### MEASURE DESCRIPTION

The digital mapping products fully comply with a verified horizontal accuracy of 6.7 feet at the 95% confidence interval (4.4 feet RMSE) as specified in the National Standard for Spatial Data Accuracy (NSSDA). at a horizontal scale of 1 / 2400 with an orthophoto ground pixel resolution of one foot .

Hide Data quality report - Absolute external positional accuracy

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY DIMENSION **Vertical** 

MEASURE DESCRIPTION

Hide Data quality report - Absolute external positional accuracy

Hide Data Quality

Lineage 🕨

PROCESS STEP WHEN THE PROCESS OCCURRED 2010-05-28

#### DESCRIPTION

The airborne GPS data were processed and integrated with the IMU data collected on 5/09/10. Fugro EarthData utilized an ISTAR workflow for processing the aerotriangulation (AT) for the orthoimagery covering the Mississippi Coastal and barrier islands areas. The airborne GPS data was processed and integrated with the inertial measurement unit (IMU). The resulting imagery and control were imported into the ISTAR system for use in the aerotriangulation. The ADS40 imagery was downloaded onto the EarthData server and brought over to the UNIX based ISTAR system. The ground control was used in conjunction with the processed airborne global positioning system (ABGPS) results for the AT. The ground control points were read in all available imagery and tie points between flight lines were selected. A fully analytical bundle adjustment was run. The properly formatted ISTAR results were used for subsequent processing.

SOURCE DATA RELATIONSHIP TO THE PROCESS STEP **used** 

Source citation Alternate titles Airborne GPS

Hide Source citation ▲

Hide Source data

Hide Process step ▲

PROCESS STEP

When the process occurred 2010-05-09 Description

The aerial imagery acquisition for Coastal Mississippi and the Barrier Islands was flown to support the creation of digital orthophotography with a one foot pixel. The imagery was acquired in one sortie at an average altitude of 9,490 feet AMT, using a Leica ADS40-52 sensor. The Sortie occured on May 09, 2010 and consisted of flight lines 1-17.

PROCESS CONTACT INDIVIDUAL'S NAME Frank Sokoloski ORGANIZATION'S NAME Fugro EarthData, Inc. CONTACT'S POSITION Project Manager CONTACT'S ROLE processor

CONTACT INFORMATION PHONE VOICE 301-948-8550 FAX 301-963-2064 Address Type postal Delivery point 7320 Executive Way City Frederick Administrative area Maryland Postal code 21704 Country US E-MAIL Address fsokoloski@earthdata.com

Hide Contact information

SOURCE DATA RELATIONSHIP TO THE PROCESS STEP **used** 

SOURCE CITATION ALTERNATE TITLES Aerial Imagery

Hide Source citation

Hide Source data

Hide Process step ▲

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-05-28 DESCRIPTION

The digital orthophotography is comprised of a 1 inch pixel Ground Ortho for Coastal Mississippi and barrier islands. The DSM was created from the USGS Digital Elevation Model. Once the DSM data was intergrated into the ISTAR system the initial radiometric adjustments were performed on the imagery for each flight line attempting to reach the best possible histogram. The rectification process was run using the processed DSM surface and the radiometrically balanced imagery on each flight line. A second set of radiometric adjustments were made and mosaic lines were placed. QA/QC was performed looking for smears and other indications of problems within the digital orthophoto creation process. The final imagery data set is removed from the ISTAR environment in a process called packaging out; where the individual tiles are created. The created tiles are reviewed again for anomalies and interactive radiometric adjustment applied where needed.

PROCESS CONTACT INDIVIDUAL'S NAME Frank Sokoloski ORGANIZATION'S NAME FUGRO EarthData, Inc CONTACT'S POSITION Project Manager CONTACT'S ROLE processor

CONTACT INFORMATION PHONE VOICE 301-948-8550 FAX 301-963-2064 **A**DDRESS TYPE postal DELIVERY POINT 7320 Executive Way **CITY** Frederick ADMINISTRATIVE AREA Maryland POSTAL CODE 21704 COUNTRY US E-MAIL ADDRESS fsokoloski@earthdata.com HOURS OF SERVICE 8:00 - 5:00 Hide Contact information SOURCE DATA RELATIONSHIP TO THE PROCESS STEP USEd SOURCE CITATION ALTERNATE TITLES Digital Surface Model Hide Source citation Hide Source data 🔺 SOURCE DATA RELATIONSHIP TO THE PROCESS STEP produced SOURCE CITATION ALTERNATE TITLES Digital Orthophoto Hide Source citation Hide Source data Hide Process step ▲ SOURCE DATA

DESCRIPTION

Provided surface to perform orthophotography rectification

RESOLUTION OF THE SOURCE DATA SCALE DENOMINATOR 2400

SOURCE CITATION TITLE USGS DEM ALTERNATE TITLES USGSDEM PUBLICATION DATE 2010-05-28 INDETERMINATE TIME UNKNOWN

PRESENTATION FORMATS digital map FGDC GEOSPATIAL PRESENTATION FORMAT raster digital data

RESPONSIBLE PARTY ORGANIZATION'S NAME USGS CONTACT'S ROLE originator

Hide Source citation **A** 

EXTENT OF THE SOURCE DATA DESCRIPTION publication date

TEMPORAL EXTENT DATE AND TIME INDETERMINATE DATE UNKNOWN

Hide Source data 🔺

Hide Lineage 🔺

### **Distribution** ►

DISTRIBUTOR CONTACT INFORMATION INDIVIDUAL'S NAME Cragin Knox ORGANIZATION'S NAME Mississippi Geographic Information, LLC CONTACT'S POSITION Project Manager CONTACT'S ROLE distributor

CONTACT INFORMATION PHONE VOICE 601-355-9526 FAX 601-352-3945

Address Type both DELIVERY POINT 143-A LeFleurs Square CITY Jackson Administrative area MS Postal code 39211 Country US E-mail address Cragin.Knox@waggonereng.com

Hide Contact information

AVAILABLE FORMAT NAME Geotiff VERSION 1 SPECIFICATION TILES FILE DECOMPRESSION TECHNIQUE NO COMPRESSION APPLIED FORMAT INFORMATION CONTENT Geo-referenced imagery

ORDERING PROCESS TERMS AND FEES NA DATE OF AVAILABILITY DATE UNKNOWN

TRANSFER OPTIONS TRANSFER SIZE 50

MEDIUM OF DISTRIBUTION *Hide Distributor* 

TRANSFER OPTIONS ONLINE SOURCE LOCATION \\FRIZZELLBURG\E\DELME\geotiff\08400290\_MSE.tif

Hide Distribution

# **References** ►

AGGREGATE INFORMATION ASSOCIATION TYPE Cross reference

AGGREGATE RESOURCE NAME TITLE Mississippi Coastal Mapping PUBLICATION DATE INDETERMINATE DATE UNKNOWN INDETERMINATE TIME UNKNOWN

RESPONSIBLE PARTY ORGANIZATION'S NAME MDEQ CONTACT'S ROLE originator

Hide Aggregate resource name 🔺

Hide References

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 2010-06-15

ARCGIS METADATA PROPERTIES METADATA FORMAT ArcGIS 1.0

CREATED IN ARCGIS FOR THE ITEM 2018-11-13 07:40:14

Hide Metadata Details 🔺

### Metadata Contacts <

METADATA CONTACT INDIVIDUAL'S NAME Frank Sokoloski ORGANIZATION'S NAME FUGRO EarthData, Inc CONTACT'S POSITION Project Manager CONTACT'S ROLE point of contact

CONTACT INFORMATION PHONE VOICE 301-948-8550 Fax 301-963-2064

Address Type both Delivery point 7320 Executive way City Frederick Administrative area Maryland Postal code 21704 Country US E-MAIL Address fsokoloski@earthdata.com

Hide Contact information **A** 

Hide Metadata Contacts 🔺

# Thumbnail and Enclosures

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

Hide Thumbnail and Enclosures

FGDC Metadata (read-only) ▼

CITATION CITATION INFORMATION ORIGINATOR Fugro EarthData, Inc. PUBLICATION DATE 2010-05-28 PUBLICATION TIME UNKNOWN TITLE Mississippi Coastal Orthos Edition 2010 GEOSPATIAL DATA PRESENTATION FORM remote-sensing image SERIES INFORMATION SERIES NAME Mississippi Coastal Shoreline ISSUE IDENTIFICATION 1 PUBLICATION INFORMATION PUBLICATION PLACE Fugro EarthData, Inc. PUBLISHER Fugro EarthData, Inc. ONLINE LINKAGE \\FRIZZELLBURG\E\DELME\geotiff\08400290 MSE.tif DESCRIPTION

ABSTRACT

Capture and process digital aerial imagery using the Leica ADS40-52 sensor. The digital data was then proccessed to produce 1 foot GSD digital orthophotography. PURPOSE

One foot GSD Digital ortho Imagery for the coast of Mississippi and barrier islands prior to the BP oil spill reaching the shoreline. Aerial imagery was acquired on May 9, 2010 and the final deliverable products were RGB, CIR, and Panchromatic digital orthophotography.

TIME PERIOD OF CONTENT TIME PERIOD INFORMATION SINGLE DATE/TIME CALENDAR DATE 2010 TIME OF DAY UNKNOWN CURRENTNESS REFERENCE publication date STATUS PROGRESS COMPLETE MAINTENANCE AND UPDATE FREQUENCY As needed

SPATIAL DOMAIN BOUNDING COORDINATES WEST BOUNDING COORDINATE -89.290533 EAST BOUNDING COORDINATE -89.258720 NORTH BOUNDING COORDINATE 30.324242 SOUTH BOUNDING COORDINATE 30.296640

Keywords

THEME THEME KEYWORD THESAURUS Mississippi Gulf Coastal THEME KEYWORD Orthophotography THEME KEYWORD GPS THEME KEYWORD IMU THEME KEYWORD Aerial THEME KEYWORD Aerial Triangulation

#### PLACE

PLACE KEYWORD THESAURUSGeographic Names Information SystemPLACE KEYWORDCoastal MississippiPLACE KEYWORDHancock CountyPLACE KEYWORDHarrison County

PLACE KEYWORD Jackson County PLACE KEYWORD United States

ACCESS CONSTRAINTS

Contact MDEQ

USE CONSTRAINTS

Neither MDEQ, its contractors, nor any employee thereof, assumes liability associated with the use of these data and will not be liable for any damages whatsoever arising out of the use, inability to use, or results of the use of these data.

POINT OF CONTACT

CONTACT INFORMATION CONTACT ORGANIZATION PRIMARY

CONTACT ORGANIZATION Geospatial Resources Division/Flood Mapping MDEQ - Office of Geology

CONTACT PERSON Stephen Champlin, RPG CONTACT ADDRESS ADDRESS TYPE mailing address ADDRESS PO Box 2279 CITY Jackson

STATE OR PROVINCE Mississippi

POSTAL CODE 39225 COUNTRY UNITED STATES

> CONTACT VOICE TELEPHONE 601-961-5506 CONTACT FACSIMILE TELEPHONE 601-961-5521 CONTACT ELECTRONIC MAIL ADDRESS **Stephen\_Champlin@deq.state.ms.us** HOURS OF SERVICE 8:30 am - 5:00 pm

SECURITY INFORMATION SECURITY CLASSIFICATION SYSTEM Not Applicable SECURITY CLASSIFICATION Unclassified SECURITY HANDLING DESCRIPTION None required

NATIVE DATA SET ENVIRONMENT

Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 3; ESRI ArcCatalog 9.2.6.1500

CROSS REFERENCE CITATION INFORMATION ORIGINATOR MDEQ PUBLICATION DATE UNKNOWN PUBLICATION TIME UNKNOWN TITLE Mississippi Coastal Mapping

#### Hide Identification

ATTRIBUTE ACCURACY

ATTRIBUTE ACCURACY REPORT

Orthophotos were created from the aerial photography using the USGS DEM using the ISTAR software and photo triangulation data. Airborne GPS data was collected during the acquisition mission for each flight line. An additional control point was set for a basestation that was recorded during imagery acquistion for processing the airborne GPS. Ground control from the Misssissippi coastal mapping project was used in the production of this data. The final bundle adjustment of this block was solved using airborne GPS. During GPS data collection, the Positional Dilution of Precision (PDOP) was monitored and held at or below 3.5 when possible. Imagery was mosaiced to

provide seamless coverage. Images were then radiometrically corrected for tone balance and geometry quality control along tile edges for terrain and linear features.

LOGICAL CONSISTENCY REPORT

Compliance with the accuracy standard was ensured by Airborne GPS. The following checks were performed.

1. The ground control and airborne GPS data stream were validated through a fully analytical bundle aerotriangulation adjustment. The ground control was from a previous Mississippi Coastal mapping project.

2. The DEM data was checked against the project control. The technician visited and confirmed the accuracy of the

points during initial processing.

3. Digital orthophotography was validated through an inspection of edge matching and visual inspection for image quality.

4. Planimetry was validated through an inspection of edge matching and visual inspection for data quality.

#### COMPLETENESS REPORT

The following methods are used to assure imagery accuracy.

1. Use of IMU and ground control network utilizing GPS techniques.

2. Use of airborne GPS in conjunction with the acquisition of imagery.

3. Measurement of quality control ground survey points within the finished product.

The following software is used for validation of the

- 1. Aerotriangulation Orima
- 2. Check of DEM data

3. Digital Orthophotography - Orima

The following software was used for the validation.

1. Bentley - Microstation

- 2. ISTAR
- 3. ZI OrthoPro
- 4. ESRI ArcInfo
- 5. EarthData Proprietary software POSITIONAL ACCURACY

HORIZONTAL POSITIONAL ACCURACY

HORIZONTAL POSITIONAL ACCURACY REPORT

The digital mapping products fully comply with a verified horizontal accuracy of 6.7 feet at the 95% confidence

interval (4.4 feet RMSE) as specified in the National Standard for Spatial Data Accuracy (NSSDA). at a horizontal scale of 1 / 2400 with an orthophoto ground pixel resolution of one foot .

VERTICAL POSITIONAL ACCURACY

VERTICAL POSITIONAL ACCURACY REPORT

None

LINEAGE

SOURCE INFORMATION

SOURCE CITATION CITATION INFORMATION

ORIGINATOR USGS

PUBLICATION DATE 2010-05-28

PUBLICATION TIME UNKNOWN

USGS DEM

GEOSPATIAL DATA PRESENTATION FORM raster digital data

SOURCE SCALE DENOMINATOR 2400

Type of Source Media Mobile Hard Drive Source Time Period of Content

TIME PERIOD INFORMATION

SINGLE DATE/TIME

Calendar Date unknown

SOURCE CURRENTNESS REFERENCE

publication date

Source Citation Abbreviation

USGSDEM

SOURCE CONTRIBUTION

Provided surface to perform orthophotography rectification

PROCESS STEP

PROCESS DESCRIPTION

The digital orthophotography is comprised of a 1 inch pixel Ground Ortho for Coastal Mississippi and barrier islands.

The DSM was created from the USGS Digital Elevation Model. Once the DSM data was intergrated into the ISTAR system the initial radiometric adjustments were performed on the imagery for each flight line attempting to reach the best possible histogram. The rectification process was run using the processed DSM surface and the

radiometrically balanced imagery on each flight line. A second set of radiometric adjustments were

made and mosaic lines were placed. QA/QC was performed looking for smears and other indications of

problems within the digital orthophoto creation process. The final imagery data set is removed from the ISTAR

environment in a process called packaging out; where the individual tiles are created. The created tiles are reviewed again for anomalies and interactive radiometric adjustment applied where needed.

Source Used Citation Abbreviation

Digital Surface Model

PROCESS DATE 2010-05-28 SOURCE PRODUCED CITATION ABBREVIATION Digital Orthophoto

PROCESS CONTACT CONTACT INFORMATION CONTACT ORGANIZATION PRIMARY CONTACT ORGANIZATION Fugro EarthData, Inc CONTACT PERSON Frank Sokoloski CONTACT POSITION Project Manager CONTACT ADDRESS ADDRESS TYPE mailing address ADDRESS 7320 Executive Way CITY Frederick STATE OR PROVINCE Maryland POSTAL CODE 21704 COUNTRY UNITED STATES

CONTACT VOICE TELEPHONE 301-948-8550 CONTACT FACSIMILE TELEPHONE 301-963-2064 CONTACT ELECTRONIC MAIL ADDRESS fsokoloski@earthdata.com HOURS OF SERVICE 8:00 - 5:00

PROCESS STEP PROCESS DESCRIPTION

The airborne GPS data were processed and integrated with the IMU data collected on 5/09/10. Fugro EarthData utilized an ISTAR workflow for processing the aerotriangulation (AT) for the orthoimagery covering the Mississippi Coastal and barrier islands areas. The airborne GPS data was processed and integrated with the inertial measurement unit (IMU). The resulting imagery and control were imported into the

ISTAR system for use in the aerotriangulation. The ADS40 imagery was downloaded onto the EarthData server and brought over to the UNIX based ISTAR system. The ground control was used in conjunction with the processed airborne global positioning system (ABGPS) results for the AT. The ground control points were read in all available imagery and tie points between flight lines were selected. A fully analytical bundle adjustment was run. The properly formatted ISTAR results were used for subsequent processing.

Source Used Citation Abbreviation Airborne GPS PROCESS DATE 2010-05-28

#### PROCESS STEP

PROCESS DESCRIPTION

The aerial imagery acquisition for Coastal Mississippi and the Barrier Islands was flown to support the creation of digital orthophotography with a one foot pixel. The imagery was acquired in one sortie at an average altitude of 9,490 feet AMT, using a Leica ADS40-52 sensor. The Sortie occured on May 09, 2010 and consisted of flight lines 1-17.

Source Used CITATION ABBREVIATION Aerial Imagery Process Date 2010-05-09

PROCESS CONTACT CONTACT INFORMATION CONTACT ORGANIZATION PRIMARY CONTACT ORGANIZATION Fugro EarthData, Inc. CONTACT PERSON Frank Sokoloski CONTACT POSITION Project Manager CONTACT ADDRESS ADDRESS TYPE mailing address ADDRESS 7320 Executive Way CITY Frederick STATE OR PROVINCE Maryland POSTAL CODE 21704 COUNTRY UNITED STATES

Contact Voice Telephone 301-948-8550 Contact Facsimile Telephone 301-963-2064 Contact Electronic Mail Address fsokoloski@earthdata.com

CLOUD COVER 5

#### Hide Data Quality 🔺

DIRECT SPATIAL REFERENCE METHOD Raster

POINT AND VECTOR OBJECT INFORMATION SDTS TERMS DESCRIPTION SDTS POINT AND VECTOR OBJECT TYPE G-polygon POINT AND VECTOR OBJECT COUNT 49

RASTER OBJECT INFORMATION RASTER OBJECT TYPE Pixel ROW COUNT 10000 COLUMN COUNT 10000 VERTICAL COUNT 1

Hide Spatial Data Organization

HORIZONTAL COORDINATE SYSTEM DEFINITION PLANAR MAP PROJECTION MAP PROJECTION NAME Transverse Mercator TRANSVERSE MERCATOR SCALE FACTOR AT CENTRAL MERIDIAN 0.999950 LONGITUDE OF CENTRAL MERIDIAN -88.833333 LATITUDE OF PROJECTION ORIGIN 29.500000 FALSE EASTING 984250.000000 FALSE NORTHING 0.000000

PLANAR COORDINATE INFORMATION PLANAR COORDINATE ENCODING METHOD row and column COORDINATE REPRESENTATION ABSCISSA RESOLUTION 1.000000 ORDINATE RESOLUTION 1.000000 PLANAR DISTANCE UNITS SURVEY feet

GEODETIC MODEL HORIZONTAL DATUM NAME D\_North\_American\_1983\_HARN ELLIPSOID NAME Geodetic Reference System 80 SEMI-MAJOR AXIS 6378137.000000 DENOMINATOR OF FLATTENING RATIO 298.257222

VERTICAL COORDINATE SYSTEM DEFINITION ALTITUDE SYSTEM DEFINITION ALTITUDE DATUM NAME North American Vertical Datum of 1988 ALTITUDE RESOLUTION 0.0000328 ALTITUDE DISTANCE UNITS feet ALTITUDE ENCODING METHOD Explicit elevation coordinate included with horizontal coordinates

#### Hide Spatial Reference

DISTRIBUTOR CONTACT INFORMATION CONTACT ORGANIZATION PRIMARY CONTACT ORGANIZATION Mississippi Geographic Information, LLC CONTACT PERSON Cragin Knox CONTACT POSITION Project Manager CONTACT ADDRESS ADDRESS TYPE mailing and physical address ADDRESS 143-A LeFleurs Square CITY Jackson STATE OR PROVINCE MS POSTAL CODE 39211 COUNTRY UNITED STATES

CONTACT VOICE TELEPHONE 601-355-9526 CONTACT FACSIMILE TELEPHONE 601-352-3945 CONTACT ELECTRONIC MAIL ADDRESS Cragin.Knox@waggonereng.com

RESOURCE DESCRIPTION Downloadable Data DISTRIBUTION LIABILITY None STANDARD ORDER PROCESS DIGITAL FORM DIGITAL TRANSFER INFORMATION FORMAT NAME Geotiff FORMAT VERSION NUMBER 1 FORMAT SPECIFICATION Tiles FORMAT INFORMATION CONTENT Geo-referenced imagery FILE DECOMPRESSION TECHNIQUE no compression applied TRANSFER SIZE 50

DIGITAL TRANSFER OPTION OFFLINE OPTION OFFLINE MEDIA Mobile Hard Drive RECORDING FORMAT MS

Fees NA

AVAILABLE TIME PERIOD TIME PERIOD INFORMATION SINGLE DATE/TIME CALENDAR DATE UNKNOWN

#### Hide Distribution Information

METADATA DATE 2010-06-15 METADATA CONTACT CONTACT INFORMATION CONTACT ORGANIZATION PRIMARY CONTACT ORGANIZATION FUGIO EarthData, Inc CONTACT PERSON Frank Sokoloski CONTACT POSITION Project Manager CONTACT ADDRESS ADDRESS TYPE mailing and physical address ADDRESS 7320 Executive way CITY Frederick STATE OR PROVINCE Maryland POSTAL CODE 21704 COUNTRY UNITED STATES

Contact Voice Telephone 301-948-8550 Contact Facsimile Telephone 301-963-2064 Contact Electronic Mail Address fsokoloski@earthdata.com

METADATA STANDARD NAME FGDC Content Standards for Digital Geospatial Metadata METADATA STANDARD VERSION FGDC-STD-001-1998 METADATA TIME CONVENTION local time

METADATA EXTENSIONS ONLINE LINKAGE http://www.esri.com/metadata/esriprof80.html PROFILE NAME ESRI Metadata Profile

Hide Metadata Reference 🔺