U.S. Geological Survey Data Series 799

FGDC Metadata

Baseline Coastal Oblique Aerial Photographs Collected from Pensacola, Florida, to Breton Islands, Louisiana, February 7, 2012

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Distribution Information
- Metadata Reference Information

Identification Information:

Citation:

Citation Information:

Originator: K. Morgan
Publication Date: 2013
Title:
Baseline Coastal Oblique Aerial Photographs Collected from Pensacola, Florida, to Breton Islands, Louisiana, February 7, 2012
Geospatial Data Presentation Form: JPEG images, and point data in ASCII and CSV files
Series Information:

Series Name: U.S. Geological Survey Data Series
Issue Identification: 799

Publication Information:

Publication Place: St. Petersburg, Fla.
Publisher: U.S. Geological Survey

Online Linkage: http://pubs.usgs.gov/ds/0799

Description:

Abstract:
The U.S. Geological Survey (USGS) conducts baseline and storm response
photography missions to document and understand the changes in vulnerability of the Nation's coasts to extreme storms. On February 7, 2012, the USGS conducted an oblique aerial photographic survey from Pensacola, Florida, to Breton Islands, Louisiana, aboard a Piper Navajo Chieftain aircraft at an altitude of 500 feet (ft) and approximately 1,000 ft offshore (Figure 2). This mission was flown to collect data for assessing incremental changes since the last survey and can be used for assessing future coastal change. The photographs provided here are Joint Photographic Experts Group (JPEG) images. The photograph locations are an estimate of the position of the aircraft do not indicate the location of the feature in the images (See the Navigation Data page). These photographs document the configuration of the barrier islands and other coastal features at the time of the survey. Exiftool was used to add the following to the header of each photo: time of collection, Global Positioning System (GPS) latitude, GPS longitude, keywords, credit, artist (photographer), caption, copyright, and contact information. Photographs can be opened directly with any JPEG-compatible image viewer by clicking on a thumbnail on the contact sheet. All image times are recorded in UTM. Table 1 provides detailed information about the assigned location, name, data, and time the photograph was taken along with links to the photograph. In addition to the photographs, a Google Earth Keyhole Markup Language (KML) file is provided and can be used can be used to view the images by clicking on the marker and then clicking on either the thumbnail or the link above the thumbnail. The KML files were created using the photographic navigation files.

Purpose:
To provide access for a subset of photographs taken as part of the February 07, 2012, baseline oblique aerial survey collected along the coast, from Pensacola, Florida, to Breton Islands, Louisiana, and to provide access to attribute data that documents the time and location of where each photograph was taken. The full data series for these images can be found at: [http://pubs.usgs.gov/ds/0799](http://pubs.usgs.gov/ds/0799)

**Time_Period_of_Content:**

**Time_Period.Information:**

**Range_of_Dates/Times:**

- **Beginning_Date:** 20120207
- **Beginning_Time:** 16:38:49
- **Ending_Date:** 20120207
- **Ending_Time:** 19:49:08

**Currentness_Reference:** Completed

**Status:**

- **Progress:** Complete
- **Maintenance_and_Update_Frequency:** None Planned

**Spatial_Domain:**

**Bounding_Coordinates:**

- **West_BoundingCoordinate:** -89.1986083
- **East_BoundingCoordinate:** -87.0634850
- **North_BoundingCoordinate:** 30.5158650
- **South_BoundingCoordinate:** 29.4559900

**Keywords:**
Theme:

Theme_Keyword_Thesaurus: General
Theme_Keyword: U.S. Geological Survey
Theme_Keyword: National Assessment Project
Theme_Keyword: photographs
Theme_Keyword: coastline
Theme_Keyword: Beach Erosion
Theme_Keyword: Coastal Aerial Photography

Theme:

Theme_Keyword_Thesaurus: ISO 19115 Topic Category
Theme_Keyword: environment
Theme_Keyword: imageryBaseMapsEarthCover
Theme_Keyword: structure

Place:

Place_Keyword_Thesaurus: Geographic Names Information Service (GNIS)
Place_Keyword: Chandeleur Islands
Place_Keyword: Breton Islands
Place_Keyword: Horn Island
Place_Keyword: Petit Bois Island
Place_Keyword: Ship Island
Place_Keyword: Cat Island
Place_Keyword: Dauphin Island
Place_Keyword: Barrier Islands
Place_Keyword: Florida
Place_Keyword: Alabama
Place_Keyword: Mississippi
Place_Keyword: Louisiana

Access_Constraints: None

Use_Constraints:
The U.S. Geological Survey requests to be acknowledged as originator of the data in future products or derivative research.

Point_of_Contact:

Contact_Information:

Contact_Person_Primaries:

Contact_Person: K. Morgan
Contact_Organization: USGS

Contact_POSITION: Geologist

Contact_Address:

Address_Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State_orProvince: FL
Postal_Code: 33701
Country: USA

Contact_Voice_Telephone: (727) 502-8000, ext. 8037
Contact_Electronic_Mail_Address: kmorgan@usgs.gov
Data_Credit:
Funding and (or) support for this study was provided by the USGS Coastal and Marine Geology Program (CMGP). The authors wish to thank pilot, Mitch Bowbowski, for his assistance in data collection. This report benefited from the comments and reviews of Peter Howd (formerly contracted with Cherokee Nation Technology Solutions, at the USGS - St. Petersburg, Fla.) and James Flocks with the USGS St. Petersburg Coastal and Marine Science Center (SPMSC) - St. Petersburg, Fla.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:
Best attempts were made to set the camera to GMT time on the GPS receivers at the beginning of each flight. Latitude, longitude, and time were collected at an interval of approximately 1 every second. NOTE: Latitude and longitude positions in this report refer to the position of the aircraft, not the position of the landmarks photographed. Refer to the Process Steps below for more detail.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:
The GPS receiver used to provide navigation is accurate to within <15 m. Best attempts were made to keep the same relative distance between the aircraft and the beach in order to keep a constant field of view.

Logical_Conistency_Report:
Data presented here include the digitally collected photographs in JPEG format with EXIF headers imbedded with the individual photograph's location along the flightpath of a baseline coastal oblique aerial photographic survey of the coast, from Pensacola, Florida, to Breton Islands, Louisiana, which was flown on February 07, 2012, aboard a Piper Navajo Chieftain, tail number N2KK. Crew members were K. Morgan, D. Krohn, K. Guy, and K. Doran of the USGS in St. Petersburg, Fla., Crew members took still photography along the coast during this survey. GPS Data Collection: Instrument: Garmin GPS 18 PC, WAAS Enabled. Data Collection Interval: 1 Second. Data File Format: Native Fugawi and Text. Number of files created: 2. Computer/Software: Computer: Panasonic Toughbook C-51. Software: Fugawi Marine ENC, ver, 4.4 The GPS unit was used to record navigation fixes of the aircraft, not the position of the features imaged.

Completeness_Report: No known issues

Lineage:

Process_Step:

Process_Description:
These images are a subset of images collected during the baseline coastal oblique aerial photographs collected from Pensacola, Florida, to Breton Islands, Louisiana, February 7, 2012, survey and were extracted using the Spyglass Image Extraction tool. The full data series for these images can be found at: http://pubs.usgs.gov/ds/0799

Process_Contact:

Contact_Information:

Contact_Person_Primary:
Contact Person: K. Morgan
Contact Organization: USGS

Contact Position: Geologist
Contact Address:
Address Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State or Province: FL
Postal Code: 33701
Country: USA

Contact Voice Telephone: (727) 502-8000, ext. 8037
Contact Electronic Mail Address: kmorgan@usgs.gov

Process Date: unknown

Process Step:

Process Description:
Photographs were taken using a Nikon D1X camera. Camera is tethered to a Panasonic C-51 Toughbook. Images were written directly to the computer hard drive using Nikon Capture Control Version 4.4.2. Best effort was made at the beginning of the flight to synchronize both the computer and the camera's internal clocks to within 1 second of GMT time from the GPS sensor. The D1X records GPS in the EXIF Header. Image size is approximately 6 megapixels. Note: GPS locations indicate the position of the aircraft at the time of the photograph, not the position of the feature in the image. The still photography was shot out of the rear windows of the aircraft. Additional images were taken using a Nikon Coolpix 6000 camera. These images were taken from the front of the plane or as additional documentation of the flight. These images are designated with a "d2" in the file name. Image size is approximately 13 megapixels, captured to SDHD card within the camera. Best effort was made at the beginning of the flight to synchronize the camera's internal clocks to within one second of GMT time from the GPS sensor.

Process Date: 20120215
Process Contact:

Contact Information:

Contact Person Primary:

Contact Person: K. Morgan
Contact Organization: USGS

Contact Position: Geologist
Contact Address:
Address Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State or Province: FL
Postal Code: 33701
Country: USA

Contact Voice Telephone: (727) 502-8000, ext. 8037
Process_Step:

Process_Description:
Navigation files (one per day) were extracted as comma-delimited American Standard Code for Information Interchange (ASCII) text files from Fugawi Marine ENC Ver 4. The Garmin GPS 18 PC recorded: latitude (decimal degrees), longitude (decimal degrees), GMT, altitude (meters), Local Date (yyyyymmdd), GMT Date (yyyyymmdd), Local Time (hhmmss), GMT Time(hhmmss), Speed (kph), Heading, Leg Distance (meters from last data point), Total Flight Distance (meters), and Sequence Number at an interval of approximately 1 every second. Navigaion files can be found in the USGS Data Series 799. The full data series for these images can be found at:
http://pubs.usgs.gov/ds/0799

Process_Date: 20120215
Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: K. Morgan
Contact_Organization: USGS

Contact_Position: Geologist
Contact_Address:

Address_Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State_or_Province: FL
Postal_Code: 33701
Country: USA

Contact_Voice_Telephone: (727) 502-8000, ext. 8037
Contact_Electronic_Mail_Address: kmorgan@usgs.gov

Process_Step:

Process_Description:
Images were converted to JPG using Nikon Capture Camera Editor Ver 4.4.2. Images in JPG format were saved using the file name format yyyy_mmdd_hhmmssd.jpg (where the "d" signifies digital acquisition using the Nikon D1X). The names provide information about the photograph's year, month, day, hour, minute, and second. For example, image 2012_0207_133636d.jpg was taken February 07, 2012, at 13:36:36 GMT. Best effort is made to set the Nikon D1X camera's internal clock to within 1 second of GMT at the beginning of the flight.

Process_Date: 20120215
Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: K. Morgan
Contact_Organization: USGS
Contact Position: Geologist
Contact Address:
Address Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State or Province: FL
Postal Code: 33701
Country: USA

Contact Voice Telephone: (727) 502-8000, ext. 8037
Contact Electronic Mail Address: kmorgan@usgs.gov

Process Step:

Process Description:
Navigation processing: Using a custom PERL script written by K. Morgan - USGS, GPS data and image files are used to generate CSV files containing latitude, longitude, and time record for each image. The processed navigation file was saved as a comma separated value (CSV) file using Microsoft Excel 2011. Navigation files can be found in the USGS Data Series. The full data series for these images can be found at:
http://pubs.usgs.gov/ds/0799

Process Date: 20120215
Process Contact:

Contact Information:

Contact Person Primary:
Contact Person: K. Morgan
Contact Organization: USGS

Contact Position: Geologist
Contact Address:
Address Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State or Province: FL
Postal Code: 33701
Country: USA

Contact Voice Telephone: (727) 502-8000, ext. 8037
Contact Electronic Mail Address: kmorgan@usgs.gov

Process Step:

Process Description:
EXIF headers: Exchangeable Image File (EXIF) and International Press Telecommunications Council (IPTC) headers were populated from the command prompt using EXIFTools (http://www.sno.phy.queensu.ca/~phil/exiftool, 2012) as part of the post-flight processing using a PERL script written by Karen Morgan, USGS - St. Petersburg, Fla. EXIFTools added the following data to the EXIFHeader: time of collection, Global Positioning System (GPS) latitude, GPS longitude, keywords, credit, artist, caption, copyright, and contact information.

Process Date: 20120215
Process_Co ntact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: K. Morgan
Contact_Organization: USGS

Contact_Position: Geologist
Contact_Address:

Address_Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State_or_Province: FL
Postal_Code: 33701
Country: USA

Contact_Voice_Telephone: (727) 502-8000, ext. 8037
Contact_Electronic_Mail_Address: kmorgan@usgs.gov

Spatial_Data_Organization_Information:

Indirect_Spatial_Reference: none

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.000001
Longitude_Resolution: 0.000001
Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

Horizontal_Datum_Name: WGS84
Ellipsoid_Name: Geodetic Reference System 80
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257222

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: K. Morgan
Contact_Organization: USGS

Contact_Position: Geologist
Contact_Address:

Address_Type: Physical and Mailing
Address: 600 4th Street South  
City: St. Petersburg  
State_orProvince: FL  
Postal_Code: 33701  
Country: USA

Contact_Voice_Telephone: (727) 502-8000, ext. 8037  
Contact_Electronic_Mail_Address: kmorgan@usgs.gov

Resource_Description:  

Distribution_Liability:  
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Standard_Order_Process:  

Digital_Form:  

Digital_Transfer_Information:  

Format_Name: JPEG  
Format_Information_Content:  
JPEG: There are a total of 2876. This is a subset of those images. Images can be opened directly with any JPEG-compatible image viewer. The full data series for these images can be found at: [http://pubs.usgs.gov/ds/0799]

Digital_Transfer_Option:  

Online_Option:  

Computer_Contact_Information:  

Network_Address:  

Network_Resource_Name:  
The full data series for these images can be found at: [http://pubs.usgs.gov/ds/0799]

Access_Instructions: Available Online

Fees:  
Prices vary. None, if obtained online. Price for offline option will vary depending on the number of disks in the flight.

Ordering_Instructions:  
Publications are available from USGS Information Services, Box 25286, Federal Center, Denver, Col., 80225-0046 (telephone: 1-888-ASK-USGS, e-mail: infoservices@usgs.gov).
Metadata_Reference_Information:

Metadata_Date: 20131031
Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: K. Morgan
Contact_Organization: USGS

Contact_Position: Geologist
Contact_Address:

Address_Type: Physical and Mailing
Address: 600 4th Street South
City: St. Petersburg
State_orProvince: FL
Postal_Code: 33701
Country: USA

Contact_Voice_Telephone: (727) 502-8000, ext. 8037
Contact_Electronic_Mail_Address: kmorgan@usgs.gov

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

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NOTE: Adobe Acrobat Reader or similar software is required to view PDF documents.

Page Contact Information: Karen L.M. Morgan
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