

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

2006 USGS Southeast U.S. Imagery

1.2. Summary description of the data:

Aerial imagery is a critical geospatial data component in identifying, planning, and preparing for the protection of the US and its people. This dataset includes approximately 78,000 square miles of coverage along or near the Gulf Coast and the Atlantic coastline, terminating north of Wilmington, North Carolina. The imagery was collected in 2006 using aircraft to produce a 0.5 meter pixel resolution. It is color and ortho-rectified.

Original contact information:

Contact Name: Skyla Petersen

Contact Org: Aerials Express, LLC

Phone: 480-777-9909

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2006-05

1.5. Actual or planned geographic coverage of the data:

W: -97.056666, E: -77.095555, N: 34.709166, S: 25.2775

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
remote sensing image

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:**1.8.1. If data are from another observing system, please specify:****2. Point of Contact for this Data Management Plan (author or maintainer)****2.1. Name:**

NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:

coastal.info@noaa.gov

2.5. Phone number:

(843) 740-1202

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:**3.2. Title:**

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):****5. Data Lineage and Quality**

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly

accessible

(describe or provide URL of description):

Process Steps:

- 2006-06-01 00:00:00 - The production process starts when the film is received from the processing lab. The process is broken into four phases: scanning, Automatic-Triangulation, Color Balancing, Seamlines, and quality control. Scanning Much is determined in the first step of scanning. It is important that this step is done correctly in order for the remaining steps to run smoothly. It is for this reason that a ZEISS Photo Scan photogrammetric scanner is used to perform all scanning in-house. This provides complete control for both resolution and color balance at the start of the process. Automatic Triangulation and Rectification We use Intergraph's Image Station Auto-Triangulation (ISAT) system that works hand-in-hand with IMU/ABGPS data to match photos together. It is an automated process to create automatic tie points between photos. The process uses a bundle adjustment to tighten the accuracy of the tie points. Upon good AT results, we then use a DEM to rectify the photos with Intergraph's Image Station Ortho Pro (ISOP) software. Color Balancing and Seamline Generation After rectification an overall tone balancing using ER MAPPER Software is applied to the aerial photo project. Seamlines or a stitching process are then assigned between each image to ensure a more seamless mosaic. The mosaic is then tiled into tiff images. Quality Control Aerials Express takes great care in the tone and color balance of the imagery. The ER Mapper software provides the automatic color correction of the imagery in batch mode. As a final review, Adobe Photoshop is used to correct color and image density where stitching is not able to fully disguise the match lines. The final step in this process is to color balance the entire image file to the best color, which gives the photography a completely natural look. Production Process for ADS40 LEICA DIGITAL IMAGERY Data processing of ADS40 imagery and metadata is a streamlined digital workflow process utilizing commercial softcopy photogrammetric software including Applanix POSPAC, Leica GPro, ORIMA, SOCET SET and Orthovista. The ADS40 sensor GPS/IMU position and attitude data is directly processed through three separate but continuous steps: Applanix POSPAC for data extracting, POSGPS for data orientation, and POSProc for creating a Smoothed Best Estimate of Trajectory (SBET) for each flight lift. The post-processed GPS data output is displayed onto the flight profile plot, which clearly shows the RMS values of the combined forward and reverse run separations, C/A Code and Carrier Phase. The output IMU data is also verified by a PDOP plot and its value compared to an acceptable threshold range. The processing of ADS40 images is run on Leica GPRO and ORIMA for bundle adjustment. The image is linked to the local coordinate system through the corresponding GPS/IMU SBET data with correct position and orientation. The residual of the tie-points are displayed instantly to reflect the accuracy of the processed data. After the bundle adjustment, ORIMA automatically displays the unit weight standard deviation, the RMS of tie points and the accuracy of the sensor position and orientation. The iteration process on the bundle adjustment is based on the selected parameters to ensure the data integrity and accuracy is within the

project specification. The software also provides the measurement of reliability for variance and co-variance component analysis. This ensures the processed data is statistically satisfied on the application demand. The triangulation process involves automatic measurement of tie points. All operations are performed using the graphical working environment of ORIMA. For automatic tie point measurement, the Auto Point Measurement (APM) from Orima, using a very dense point measuring algorithm adapted for the ADS40, is called directly. Highest quality orientation results are obtained by a combined bundle adjustment. The Combined Adjustment Program CAP-A has been extended to handle all types of observations

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
 - 7.1.1. If data are not available or has limitations, has a Waiver been filed?
 - 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

<https://www.fisheries.noaa.gov/inport/item/49578>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

<http://maps.coast.noaa.gov/dataviewer/#/imagery/search/where:ID=349>

https://coast.noaa.gov/htdata/raster1/imagery/AerialsExpressSE_2006_349

7.3. Data access methods or services offered:

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.