

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:

2016-2017 NOAA NGS 4band Orthoimagery: South Carolina Coast

### 1.2. Summary description of the data:

This data set consists of 0.3-meter pixel resolution, 4-band orthoimages covering the project area. An orthoimage is remotely sensed image data in which displacement of features in the image caused by terrain relief and sensor orientation have been mathematically removed. Orthoimagery combines the image characteristics of a photograph with the geometric qualities of a map. Each orthoimage provides imagery over a 3,000-meter x 3,000-meter block on the ground. There is no image overlap between adjacent files.

### 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:

2016-10-10 to 2017-02-19

### 1.5. Actual or planned geographic coverage of the data:

W: -81.15, E: -79.0544, N: 33.2801, S: 31.8361

### 1.6. Type(s) of data:

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

### 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:

- Digital aerial imagery was obtained using a large format Z/I Digital Mapping Camera system (DMC IIe) equipped with Airborne GPS/IMU covering the AOI. A

total of 34 flight lines with 843 frames were collected in winter/spring of 2016/2017 in multi-spectral (RGB and NIR) 16 bits per band format. The imagery was acquired with a 92 mm focal length at an altitude above mean terrain of 16,175' to yield a raw pixel resolution of 0.30 m. The imagery was collected during leaf off conditions in late 2016/early 2017 under conditions free from clouds and cloud shadows, smoke, fog, haze, light streaks, snow, ice on water bodies, foliage, flooding, and excessive soil moisture. The sun angle threshold was 20 degrees. The imagery consisted of panchromatic, blue, green, red and near infrared bands. The three color bands and near infrared bands have been pan sharpened and archived as frame imagery.

- Ground based photo control points were established throughout the area of interest using a combination of conventional and GPS survey methods in order to support softcopy aerotriangulation and photogrammetric mapping meeting the accuracies specified in this Scope of Work. This control supplemented the exposure station control obtained from the onboard Airborne Global Positioning System (ABGPS) and Inertial Measurement Unit (IMU). Photo control points established for this project have a combined local and network accuracy at 95% confidence of less than or equal to five (5) centimeters horizontally and vertically as determined by the residuals of the network adjustment.

- Utilizing all four bands [blue (B), green (G), red(R) and near infrared (IR)] digital orthorectification was performed using algorithms resulting in a spatial and radiometric transformation of the digital image from line/sample space into UTM Zone 17. The interior and exterior orientation parameters were used to project each pixel into the ground coordinate system, while the ortho grade DEM was used to correct for relief displacement. Radiometric correction software and techniques were used to create orthophoto files that minimize the appearance of image seams and without loss of feature signature. Orthophotos are checked for geometric accuracy, image quality and tonally balanced to produce a uniform contrast and tone across the entire project. The individual overlapping orthophoto frames were mosaicked together and the final tiles were extracted from the image set to a 3,000-meter x 3,000-meter tiling scheme consisting of 544 individual ortho tiles. Delivery included digital ortho photos at a 0.30-meter pixel ground sample distance in 8 bit, 4 band (RGB and NIR) uncompressed GeoTIFF. The ortho photos meet a horizontal accuracy of +/- 0.60 meters or less RMSE<sub>x</sub>/RMSE<sub>y</sub> when compared to higher accuracy check points based on NSSDA testing standards.

**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/53159>

**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](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:**

<https://coast.noaa.gov/dataviewer/#/imagery/search/where:ID=8582>

[https://coastalimagery.blob.core.windows.net/digitalcoast/CoastalSC\\_2017\\_8582/index.html](https://coastalimagery.blob.core.windows.net/digitalcoast/CoastalSC_2017_8582/index.html)

**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.*