

*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:**

2006-2007 false color infrared orthophotos covering the islands of Puerto Rico, Culebra, Vieques, St. Thomas, St. John, and St. Croix

### **1.2. Summary description of the data:**

This file is from a collection of GeoTIFF format natural color and false color infrared orthophotos covering the islands of Puerto Rico, Culebra, Vieques, St. Thomas, St. John, and St. Croix (USVI). An orthophoto is remotely sensed image data in which displacement of features in the image caused by terrain relief and sensor orientation have been mathematically removed. Orthophotography combines the image characteristics of a photograph with the geometric qualities of a map. Each orthophoto provides imagery for a standard USGS 1/16th quadrangle map. False color infrared imagery was only generated for those 1/16th quadrangle maps falling within one kilometer of the coast line. The source imagery was obtained from November 2006 through March 2007 and used to produce orthophotos with a one foot ground sample distance (GSD). Imagery was acquired at 0.9 foot GSD resolution. Flight height maintained during mission was 8,650 feet AGL. The imagery was captured at 12-bit radiometric resolution and converted to 8-bit radiometric resolution during post processing. The imagery was captured with 30% sidelap between all adjacent flight lines. The PRVI project area was divided into 20 flight blocks due to necessary base station and flight line length requirements. The imagery was obtained and processed by all digital means beginning with data acquisition using an ADS40 digital sensor. The orthophotos are available in GeoTIFF form. The projected coordinate system is State Plane Puerto Rico / US Virgin Islands (Zone 5200), NAD 83, GRS 80, Units Meters.

Original contact information:

Contact Org: U.S. Army Corps of Engineers

Phone: 314-331-8385

Email: Robert.D.Mesko@mvs02.usace.army.mil

### **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:**

2007-10-31

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

W: -67.338055, E: -64.473611, N: 18.626111, S: 17.591666

**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:

- 2008-02-17 00:00:00 - Ground control consisted of photo identifiable surveyed points. The imagery was collected at an altitude of 8650 ft using an ADS40 digital sensor. Image quality was verified during the post flight review phase. Factors considered during this review included but were not limited to the presence of smoke and/or cloud cover, contrails, light conditions and sun glint. The triangulated strips were rectified with a recent DEM of the area provided by 3001, Inc. The vertical accuracy of the DEM varies based on the elevation postings and is generally estimated at 30-45cm. The red, green and blue bands were combined to generate a final natural color orthophoto, and the near - infrared, red and green bands were combined to generate a final false color infrared orthophoto. The ADS40 sensor collects twelve bit image data which requires radiometric adjustment for output in standard eight bit image channels. Converting to eight bit results in a reduction of the color range from 4096 to 256 - thus loss of radiometric detail is inevitable. The extra dynamic range of the sensor permits greater object differentiation in shadows and in bright areas. The sixteen bit dynamic range permitted the imagery to be more effectively color balanced than is possible with eight bit imagery. This was accomplished by performing tonal enhancements immediately prior to the reduction from sixteen bit to eight bit data. In addition to color balancing these eight bit images were adjusted to create seamless imagery to the highest extent practically achievable. The imagery was mosaicked using a combination of automated and manual seamlines generation. Project specified tiles were extracted from the mosaic. Final image tiles were reviewed for artifacts and anomalies and adjusted as part of quality control procedures. When necessary, local corrections to the imagery were performed to minimize such effects. (Citation: Digital Aerial Imagery for 2006-2007 PRVI Orthophotography)

##### **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/49576>

**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=393>

[https://coast.noaa.gov/htdata/raster1/imagery/PuertoRico\\_CIR\\_2007\\_393](https://coast.noaa.gov/htdata/raster1/imagery/PuertoRico_CIR_2007_393)

### 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.*