

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:

2002/2003 IfSAR data for Southern California: Digital Elevation Model (NAVD88)

1.2. Summary description of the data:

This metadata document describes the collection and processing of topographic elevation point data derived from Interferometric Synthetic Aperture Radar (IfSAR) measurement for coastal Southern California. Collection consists of topographic elevations from the California counties of Santa Barbara, Ventura, Los Angeles, Orange, and San Diego, and the hydrologic units within those counties that drain to the Pacific Ocean along with offshore islands within the Channel Islands. The resulting data available for download, include the Digital Elevation Model (DEM), and the Raw magnitude radar reflectance data. Height Variance data is available upon request from NOAA OCM. The elevation data is first surface return (vegetation is in the dataset) X-band IfSAR with three meter point spacing and approximately one meter vertical accuracy in non-vegetated areas. The elevation data is available in NAVD88 vertical datum.

Original contact information:

Contact Org: NOAA Office for Coastal Management

Phone: 843-740-1202

Email: coastal.info@noaa.gov

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:

2002-01-01 to 2003-01-01

1.5. Actual or planned geographic coverage of the data:

W: -118.00415, E: -115.973179, N: 33.631677, S: 32.489551

1.6. Type(s) of data:

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

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:

- 2004-01-01 00:00:00 - EarthData has developed an in depth production process for processing GeoSAR data to meet NOAA's specifications. The following outlines the GeoSAR acquisition and processing workflow that was designed to produce the final product deliverables. 1. PROJECT PLANNING. The success of this project depended on effective management of all components of the project. To support this effort EarthData identified an experienced management team to oversee all aspects of the project. This team was responsible for ensuring that all project requirements outlined in the SOW and any subsequent amendments were met and that an open communication/reporting line was maintained with all participants. 2. GeoSAR ACQUISITION AND PROCESSING WORKFLOW. This section describes the general workflow for the GeoSAR system for the planning, collection, processing, and mosaicking of GeoSAR dual band IFSAR products. 2.1 Collection & Processing Requirements Production Steps Six major activities take place in this production step. A. Ground Control requirements are derived from the Project accuracy and QC specification in combination with the data take flight lines. The need for in situ corner reflectors, kinematic GPS profiles, and mosaicking control drive this task. B. Kinematic GPS is routinely specified for collection (where cost effective) to provide an independent means of quickly verifying the end mosaic product. This is an important part of the overall QA process, since this data is sequestered from the mosaicking staff until after the mosaic is completed. Kinematic GPS data is frequently collected prior to deployment in conjunction with the site survey (see item-D, below). C. GPS Base Station Location candidate sites are selected from the existing High Accuracy Regional Networks (HARN) in the project area, and the High Precision Geodetic Net (HPGN) in California. One or more such locations are usually occupied as the base stations during the flight mission. If such a station is not available within or close to the project site, then either an existing HPGN densification station is used or a new station is established through static GPS survey connected to HPGN stations and meeting the FGCS Order-C, Class-I relative positioning standard. D. Site Surveys are usually conducted several weeks to several months prior to deployment to identify reflector ground control locations, identify and resolve deployment issues (obtain permission or permits), and to verify that the GPS base station receives a high quality signal at the selected primary and backup locations. Kinematic dGPS traces are frequently obtained at this time using one of the base station locations. E. Detailed Acquisition Planning generates a complete acquisition plan including final notched frequency waveforms based upon coordination with the Army Spectrum Office. Flight lines

are fully specified and the associated run-time data packets finalized and checked by the Project Manager and the Radar Operators for accuracy and completeness. F. Sortie Packing is the final planning step prior to initiating the Deployment & Acquisition of the raw radar data. In this step the various data take lines are bundled into a flight (sortie) and the corresponding logistical support requirements are determined (e.g., ground control, media, contingency supplies, etc.). The sortie schedule is specified, crews hired, personnel reserved, suppliers hired, and support material inventoried.

2.2 Deployment & Acquisition of Raw Data Production Steps

Three major activities take place in this production step. A. Mobilization initiates the acquisition process. If the aircraft requires alternate basing, then it is moved to this base. The aircrew, the Radar operators, and the In-field Acquisition Manager secure local lodging and prepare for the initial sortie. (Citation: GeoSAR Mapping of Southern California)

- 2004-01-01 00:00:00 - Data was received in ellipsoid, and two other data sets (NAVD88 and NGVD29) were also created. NOAA Coastal Service Center converted the binary raster grid file to xyz points. The xyz points were projected from UTM zone 11 meters to geographic coordinates using the General Cartographic Transformation Package (GCTP) software. The NGS geoid03 model was used to convert elevations referencing the GRS80 ellipsoid to NAVD88. The coordinates were projected back to UTM zone 11 meters and the xyz points were converted to a binary raster file. In-house routines that used the GDAL open source library converted the floating point raster data sets into Environmental Research System Institute (ESRI) Arc Grids. These grids were then loaded into a single raster data set within ArcSDE using a utility developed with ESRI ArcObjects.

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:

- 1.6. Type(s) of data
- 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
- 7.4. 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/48381>

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:**

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=244>

https://coast.noaa.gov/htdata/raster2/elevation/California_IfSAR_DEM_2002_244

7.3. Data access methods or services offered:

This data can be obtained on-line at the following URL: <https://coast.noaa.gov/digitalcoast/data/coastalifsar/index.html>;

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.