

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:**

Light Attenuation Kd490

1.2. Summary description of the data:

This dataset represents monthly and annual mean summaries for Kd490 for the time period from 2000/2001 to 2017/2018, depending on the month and data available (see processing steps). Kd (490) is the diffuse attenuation coefficient at 490 nm. The diffuse attenuation coefficient in water indicates how strongly light intensity at a specified wavelength is attenuated within the water column. This parameter has wide applicability in ocean optics, as it is directly related to the presence of scattering particles in the water column, either organic or inorganic, and thus is an indication of water clarity. The diffuse attenuation coefficient at 490 nm (Kd490) indicates the turbidity of the water column -- how visible light in the blue to green region of the spectrum penetrates within the water column. The value of Kd490 (m⁻¹) represents the rate at which light at 490 nm is attenuated with depth. For example, a Kd490 of 0.1/meter means that light intensity will be reduced one natural log within 10 meters of water. Thus, for a Kd490 of 0.1, one attenuation length is 10 meters. Higher Kd490 value means smaller attenuation depth and lower clarity of ocean water.

1.3. Is this a one-time data collection, or an ongoing series of measurements?**1.4. Actual or planned temporal coverage of the data:****1.5. Actual or planned geographic coverage of the data:**

W: -179.999989, E: 179.999996, N: 74.710722, S: -17.584128

1.6. Type(s) of data:

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

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

2.5. Phone number:

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:

- 2018-08-01 00:00:00 - (1) Downloaded the Level-3 Standard Mapped Image (SMI) for Kd490 data from MODIS for each monthly climatology (summary) and the entire mission composite at 4km resolution.* Additionally all Level-3 SMIs that were used to create the monthly climatology and entire mission composite were downloaded for descriptive statistic calculations. (2) R was used to create Geotiffs of each dataset (GCS WGS 1984). (3) Geotiffs converted to point features – X and Y coordinate field calculated - for the point dataset conversion (not relevant to raster dataset). (4) Point features were clipped by U.S. Economic Exclusion Zone and State waters. (5) All point features were combined into a single feature class. (6) Single point feature class and raster projected into WGS 1984 World Mercator. Temporal resolution for each monthly and annual mean: Kd 490 (m-1) January monthly mean 2001-2018 Kd 490 (m-1) February monthly mean 2000-2018 Kd 490 (m-1) March monthly mean 2000-2018 Kd 490 (m-1) April monthly mean 2000-2018 Kd 490 (m-1) May monthly mean 2000-2018 Kd 490 (m-1) June monthly mean 2000-2017 Kd 490 (m-1) July monthly mean 2000-2017 Kd 490 (m-1) August monthly mean 2000-2017 Kd 490 (m-1) September monthly mean 2000-2017 Kd 490 (m-1) October monthly mean 2000-2017 Kd 490 (m-1) November monthly mean 2000-2017 Kd 490 (m-1) December monthly mean 2000-2017 Kd 490 (m-1) Cumulative mean of entire mission (Annual means 2000-2017 with monthly means from Jan. to May 2018)

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:

- 1.3. Is this a one-time data collection, or an ongoing series of measurements?
- 1.4. Actual or planned temporal coverage of the data
- 1.7. Data collection method(s)

- 2.1. Point of Contact Name
- 2.4. Point of Contact Email
- 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
- 7.2. Name of organization of facility providing data access
 - 7.2.1. If data hosting service is needed, please indicate
- 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
- 8.2. Data storage facility prior to being sent to an archive facility
- 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/66147>

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:

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

7.2.2. URL of data access service, if known:

<https://marinecadastre.gov/data/>

<https://marinecadastre.gov/downloads/data/mc/LightAttenuationKd490.zip>

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):

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.