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:

Bering Sea Helicopter Surveys for Ice-Associated Seals (2007-08)

1.2. Summary description of the data:

In the spring of 2007 and 2008, researchers from the Alaska Fisheries Science Center conducted aerial surveys for ribbon, bearded, and spotted seals in the US sector of the Bering Sea. The surveys were conducted from helicopters based aboard the US Coast Guard icebreakers Healy and Polar Sea. Line transect surveys were conducted between approximately 09:00 and 16:00 (local solar time), which corresponds to the timing of peak seal haul-out probability. By local solar time, we mean that for each 15° of latitude west of 0 degrees longitude, one hour was subtracted; thus, we used UTC minus 11 h for Bering Sea observations which puts the sun overhead at approximately noon at these coordinates. Each flight had two to three observers and was flown at a target altitude of 118m (400 ft) at speeds of 80–95 knots. Only seals hauled out on ice were observed and recorded. The distance from each seal to the helicopter's track line was calculated using a sighting bar mounted on each observer's window. In all, 2214 seals were observed during approximately 73 h of survey effort covering 11819 km of survey line on 63 flights. Because ice conditions decayed markedly toward the end of the 2007 surveys, our analysis used only the first 27 flights. The number of ringed seal sightings was low, possibly due to a combination of a preponderance of survey effort away from nearshore areas favored by ringed seals and a greater tendency for ringed seals to be disturbed into the water by the helicopter, and therefore to be missed by observers.

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:

2008-04-06 to 2008-04-27, 2007-04-10 to 2007-05-12, 2007-05-16 to 2007-06-18

1.5. Actual or planned geographic coverage of the data:

W: -180, E: -165, N: 66, S: 55 Bering Sea sea ice habitat

1.6. Type(s) of data:

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

Stacie Koslovsky

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

stacie.koslovsky@noaa.gov

2.5. Phone number:

206-526-6433

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:

Stacie Koslovsky

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?

No

4.2. Approximate percentage of the budget for these data devoted to data management (

specify percentage or "unknown"):

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):

Lineage Statement:

All observers recorded information on the species, group size, and distance from the helicopter track line for each sighting via audio recording. Audio recordings were transcribed and sightings were time-synced and geo-referenced to a GPS track from each flight.

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):

This dataset has been the foundation of at least one peer-reviewed and published study. As such, the data have been subjected quality control and quality assurance procedures associated with the statistical analysis and both internal and external review processes.

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?

Nο

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

Missing/invalid information:

- 1.7. Data collection method(s)

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/17354

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?

No

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:

The data set is in the process of being archived with the NOAA National Centers for Environmental Information. Once the archival process is complete and verified, the data set will be publicly available.

7.2. Name of organization of facility providing data access:

Alaska Fisheries Science Center (AFSC)

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

not needed, planned for NCEI

7.2.2. URL of data access service, if known:

http://www.esapubs.org/archive/ecol/E094/239/suppl-1.php

7.3. Data access methods or services offered:

The data set is in the process of being archived with the NOAA National Centers for Environmental Information. Once the archival process is complete and verified, the data set will be publicly available.

7.4. Approximate delay between data collection and dissemination:

unknown

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

data were not automatically processed

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) NCEI MD

- 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):** Alaska Fisheries Science Center Seattle, WA
- **8.3.** Approximate delay between data collection and submission to an archive facility: unknown
- 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

IT Security and Contingency Plan for the system establishes procedures and applies to the functions, operations, and resources necessary to recover and restore data as hosted in the Western Regional Support Center in Seattle, Washington, following a disruption.

9. Additional Line Office or Staff Office Questions

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