SUBMISSION AGREEMENT
BETWEEN
THE BUREAU OF OCEAN ENERGY MANAGEMENT
AND
THE NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION
FOR BUREAU OF OCEAN ENERGY MANAGEMENT VIDEO

2017-10-17

Introduction

This document represents the agreement that the Bureau of Ocean Energy Management (BOEM) (the "Provider") and the National Centers for Environmental Information (NCEI) (the "Archive") have reached for submitting the Provider's data, Bureau of Ocean Energy Management Video, to the Archive for long-term preservation. It represents a joint effort between the Provider and the Archive to accurately document the agreement and the expectations between the two groups.

In order to ensure that the quality and integrity of the archived data is not compromised, the Provider and the Archive agree to maintain this agreement with accurate and up-to-date information through the life of the data submission.

Add comments as needed

Contacts

Persons included in all communications regarding the data submission.

Provider Contacts

Point of Contact, Provider

Jonathan Blythe

Bureau of Ocean Energy Management

Scientific Data Manager

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Archive Contacts

Data Acquisition, Stewardship	Stewardship
Denise DiGiovanni-Gordon	Fred Katz
NOAA National Centers for Environmental Information	NOAA National Centers for Environmental Information
Research Analyst	Scientific Data Manager
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Data Overview

This dataset consists of videographic documentation of hydrocarbon seep communities located in the Gulf of Mexico, acquired over 15 dive seasons from 1988 to 2002. A total of 3,533 clips of 5 minutes duration encoded as MPEG-2 video comprise the dataset, representing a total of 280 hours of bottom time.

During the dives, several different analog video recording formats and resolutions were used, including U-Matic, VHS, and Hi8. The present project was designed to convert these various analog datasets to a common digital format for archiving and make the data more accessible to users. This archive represents 144 submersible dives from 48 different lease block areas. The original analog video data were held at Louisiana State University by researchers who had participated in the study. The original source video were first transferred to AVI format digital video files. These files were then transcoded to mpeg-2 encoded .mpg files, which now form the bulk of the video collection, since only 16 of the AVI files have been made available. A small number of files (12) are in VOB format, which is used in DVD production. .VOB files are functionally equivalent to .MPG, and these .VOB files also use the mpeg-2 encoding format. Finally, 26 files have been encoded as H.264 video and formatted MPEG-4 Layer 14 (MP4) files. MP4 ha is an emerging standard of video accessibility on the internet, as it is universally supported by all browsers supporting the HTML5 standard.

For more detail on data variables, see the spreadsheet DiveIndex.csv

Applicable and Reference Documents

Documents applicable to or referenced from this agreement.

1. "Digital Conversion of Dive Video from Fifteen Dive Seasons," Carney, R.S.; Roberts, H.H (U.S. Department of the Interior, Bureau of Ocean Energy Management, December 2014), https://www.boem.gov/ESPIS/5/5466.pdf.

Submission Scope

Active Submission Period

2017-03-06 - 2017-03-09

Data Types

Below is a summary of the data sizing and submission schedule by data type group. Enter information on at least one data type.

Data Type Name	Data Sizing	Submission Schedule
Video	945 GB total volume. Approximately 3,600 files. Average size 272 MB, max 426 MB	Completed 2017-03-09

Reviews and Testing

Describe the reviewing and testing procedures done by the Archive for the Provider's data, transfer interface, etc., prior to the data submission.

Providing System

Identification of the system providing the data to NCEI.

System Name: /nodc/data/BOEM-Seeps
System Owner: DOC/NOAA/NESDIS/NCEI > National Centers for Environmental
                       Information, NESDIS, NOAA, U.S. Department of Commerce
Physical Location: Room 4701, SSMC-3 NCEI Silver Spring

Additional Information: Data has been delivered to NCEI on a physical hard drive and 6
                            DVD-ROMs.

Transfer Interface

The dataset was submitted in person from Jonathan Blythe, Scientific Data Manager with the Environmental Studies Program at BOEM, to Fred Katz, at NCEI Maryland. Data was provided in the form of one 1 TB capacity portable hard drive and later, an additional 6 DVD-ROM disks. Data was copied over to /nodc/data/BOEM-Seeps by John Relph.

Submission File Inventory

Information on each submitted file type from the Provider. Information on multiple file types can be added below.

File Type Name: Video file

File Name Pattern:

[SubmersibleName]_[DiveLogCode]_[TapeNum]_clip_[ClipNum].[Ext]

File Name Field Definitions:

SubmersibleName The name of the submersible from which video was collected. It will be either ALVIN, JSL, JSL-1, or Pisces.

DiveLogCode the unique 4 or 6 integer code used by the submersible operator to log each dive. Since at most only one dive occurred per day, the DiveLogCode can be a proxy for dive date.

TapeNum single digit sequentially-ordered number of the physical tape from which clips are derived. If this code is omitted, it indicates only one tape was used.

ClipNum 2 digit sequentially-ordered clip number

Ext 3 character code representing the video file container format of the clip

Example File Name:

JSL_4414_3_clip_03.mpg

File Format: MPG

File Compression: MPEG-2

File Size Average: 272MB

File Size Range: 11MB to 426MB

File Count (Rate): Total file count is approximately 3800 files

Data Volume (Rate): Total Volume is approximately 954 GB

Submission Schedule: one-time

Additional Information: 12 files in VOB format, which is functionally equivalent to .MPG, with mpeg-2 compression. 26 MP4 files encoded with H.264 compression. 16 AVI files encoded using DV compression.

Descriptive Information Attributes:

None: date/time fields are usually used as descriptive attributes for this file.

Submission Manifest

A submission manifest file with a 32-character MD5 checksum value is required for each submitted file in order to ensure the integrity of the submitted data.

File Content Specification:

A submission manifest file contains a comma delimited list of submitted video clip file names and file metadata and associated md5 checksums for each video file associated with a single dive

File Transmission:

Provider submitted md5 checksums for all submitted files at one time on September 27, 2017.

File Name Pattern:

[SubmersibleName]_[DiveLogCode]_[Ext].md5 is the naming convention for dive folders is the naming convention used for the submission manifest files.

File Name Definitions:

SubmersibleName The name of the submersible from which video was collected. It will be either ALVIN, JSL, or Pisces

DiveLogCode the unique 4 or 6 integer code used by the submersible operator to log each dive. Since at most only one dive occurred per day, the DiveLogCode can be a proxy for dive date.

Ext 3 character code representing the video file container format of the clips in the dive folder

Example File Name:

JSL_2787_MPG.md5

Archive Ingest

Ingest processing steps at the Archive and communication with the Provider.

Receipt Verification:

The Archive will used the provided file names and 32-character MD5 checksum values to verify the integrity of delivered files.

Error Reconciliation:

Validation of the BOEM-provided checksums against the NCEI-created checksums revealed 5 directories which did not match the expected directory name pattern. NCEI checksums were generated for those 5 additional directories. 1 directory, JSL_2787_MPG contained files that had completely broken names. The BOEM-provided checksums had the correct names, but the BOEM-provided files had different names. For example, the BOEM-provided checksums listed a file called "JSL_2787 Clip 01.mpg" but the directory contains a file incorrectly named "LEQSF 2787 Clip 01.mpg". Those files were renamed to match the BOEM-provided checksums.

Otherwise, it appears that all files match their BOEM-provided checksums.

Receipt Confirmation:

Confirmation email was sent to provider on October. 16, 2017.

Quality Assurance:

No quality checks on the submitted data are planned.

Archive File Packaging:

Each dive folder containing all video clips captured on that day's dive will receive a unique 7-digit accession file number. The data/0-data folder associated with that dive folder will contain all the video clips as well as a a submitter-provided metadata spreadsheet whose rows correspond to only those video clips contained in this dive's folder.

Archive Storage

Archive attributes of each archived file type.

Archive File Type Name: Accession Number	
Archive File Attributes/IDs:	

Attribute/ID Type	Value
Archive File ID	7 digits

Archive Updates

One time submission, so no updates will be required

Retention Schedule

The data will be retained in the Archive for long-term preservation in accordance with NOAA data management standards. Information on data usage and archive value may be used for making decisions on continuing the duration of the archive.

(Notional) Disposition: Unknown/TBD

Constraints

No constraints apply or will apply to the archived data.

User Community

Oceanographers, marine biologists, geologists, TV producers, educators, students, the general public.

User Documentation and Metadata

The Provider will supply information to the Archive for writing and maintaining standard archive metadata, which includes data discovery information, references and data archive access links for users. The following published documents and archived items will be referenced from the metadata and made available to users.

Representation Information Items

For data to be useful to users, present and future, its format specification and characteristics must be documented and preserved with the data. Representation Information provides users with syntax (structure) and/or semantics (meaning) to decode the encoded data.

Item	Description
Item name or citation	Item description or intended use

Preservation Descriptive Information Items

"Digital Conversion of Dive Video from Fifteen Dive Seasons," Carney, R.S.; Roberts, H.H (U.S. Department of the Interior, Bureau of Ocean Energy Management, December 2014), https://www.boem.gov/ESPIS/5/5466.pdf. This report provides details on the full process of video digitization, file handling, and formatting.

Item	Description

Item name or citation	Item description or intended use

Access and Dissemination

The Archive will provide access services for the data and supporting information to the designated user community.

Additional Terms

None.