

Sea-floor videos and location of bottom video tracklines collected in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 by the U.S. Geological Survey, University of Connecticut, and University of New Haven during field activities 2017-056-FA and 2018-018-FA (MP4 video files and polyline shapefile)

Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

Identification Information:

Citation:

Citation Information:

Originator: U.S. Geological Survey

Publication Date: 11/23/2020

Title:

Sea-floor videos and location of bottom video tracklines collected in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 by the U.S. Geological Survey, University of Connecticut, and University of New Haven during field activities 2017-056-FA and 2018-018-FA (MP4 video files and polyline shapefile)

Edition: 1.0

Geospatial Data Presentation Form: raster and vector digital data

Series Information:

Series Name: data release

Issue Identification: DOI:10.5066/P9GK29NM

Publication Information:

Publication Place: Woods Hole Coastal and Marine Science Center, Woods Hole, Massachusetts

Publisher: U.S. Geological Survey, Coastal and Marine Hazards and Resources Program

Online Linkage: <https://doi.org/10.5066/P9GK29NM>

Online Linkage: <https://www.sciencebase.gov/catalog/item/5de9bc9fe4b02caea0eeda3e>

Larger Work Citation:

Citation Information:

Originator: Seth D. Ackerman
Originator: Emily C. Huntley
Originator: Dann S. Blackwood
Originator: Ivar G. Babb
Originator: Roman N. Zajac
Originator: Christian W. Conroy
Originator: Peter J. Auster
Originator: Courtney L. Schneeberger
Originator: Olivia L. Walton
Publication Date: 2020

Title:

Sea-floor sediment and imagery data collected in Long Island Sound, Connecticut and New York, 2017 and 2018

Edition: 1.0

Series Information:

Series Name: data release

Issue Identification: DOI:10.5066/P9GK29NM

Publication Information:

Publication Place: Reston, VA

Publisher: U.S. Geological Survey

Other Citation Details:

Suggested citation: Ackerman, S.D., Huntley, E.C., Blackwood, D.S., Babb, I.G., Zajac, R.N., Conroy, C.W., Auster, P.J., Schneeberger, C.L., and Walton, O.L., 2020, Sea-floor sediment and imagery data collected in Long Island Sound, Connecticut and New York, 2017 and 2018: U.S. Geological Survey data release, <https://doi.org/10.5066/P9GK29NM>.

Online Linkage: <https://doi.org/10.5066/P9GK29NM>

Online Linkage:

<https://www.sciencebase.gov/catalog/item/5de951a4e4b02caea0eed886>

Description:**Abstract:**

Two marine geological surveys were conducted in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 by the U.S. Geological Survey (USGS), University of Connecticut, and University of New Haven through the Long Island Sound Mapping and Research Collaborative. Sea-floor images and videos were collected at 210 sampling sites within the survey area, and surficial sediment samples were collected at 179 of the sites. The sediment data and the observations from the images and videos are used to identify sediment texture and sea-floor habitats.

Purpose:

This dataset provides access to the sea-floor videos and locations of bottom videos acquired with a Kongsberg Simrad OE1365 video camera on the SEABed Observation and Sampling System (SEABOSS) aboard the Research Vessel (R/V) Connecticut during USGS field activities 2017-056-FA (November 28 to December 3, 2017) and 2018-018-FA (May 8 to 15, 2018). These data were collected to explore the nature of the sea floor and to characterize the seabed by identifying sediment texture. Bottom videos serve as a means to visually classify grain size and identify sea-floor habitats, and they are especially important for sample sites where no physical sediment sample was collected.

Supplemental Information:

See the larger work citation to view the geotagged sea-floor images, location of bottom images, and locations and grain-size analysis results of sediment samples collected during the surveys. For more information about these field activities, see https://cmgds.marine.usgs.gov/fan_info.php?fan=2017-056-FA and https://cmgds.marine.usgs.gov/fan_info.php?fan=2018-018-FA. These data were collected as part of a larger collaborative project, the Long Island Sound Habitat Mapping Initiative; for more information about this project, see <https://lismap.uconn.edu/>.

Time Period of Content:***Time Period Information:******Range of Dates/Times:******Beginning Date:*** 11/28/2017***Ending Date:*** 05/15/2018***Currentness Reference:***

Data were collected on the following dates: 20171128-20171203 and 20180508-20180515

Status:***Progress:***

Complete

Maintenance and Update Frequency: None planned***Spatial Domain:******Description of Geographic Extent:******Bounding Coordinates:******West Bounding Coordinate:*** -72.430183***East Bounding Coordinate:*** -71.866847***North Bounding Coordinate:*** 41.324710***South Bounding Coordinate:*** 41.193187***Keywords:******Theme:******Theme Keyword Thesaurus:*** None***Theme Keyword:*** U.S. Geological Survey***Theme Keyword:*** USGS***Theme Keyword:*** Coastal and Marine Hazards and Resources Program***Theme Keyword:*** CMHRP***Theme Keyword:*** Woods Hole Coastal and Marine Science Center***Theme Keyword:*** WHCMSC***Theme Keyword:*** University of Connecticut***Theme Keyword:*** UConn***Theme Keyword:*** Northeast Underwater Research, Technology and Education Center***Theme Keyword:*** NURTEC***Theme Keyword:*** University of New Haven***Theme Keyword:*** Long Island Sound Habitat Mapping***Theme Keyword:*** Long Island Sound Mapping and Research Collaborative***Theme Keyword:*** LISMaRC***Theme Keyword:*** ground-truth***Theme Keyword:*** bottom video***Theme Keyword:*** seabed video

Theme Keyword: videos
Theme Keyword: stations
Theme Keyword: seafloor
Theme Keyword: sea floor
Theme Keyword: marine geology
Theme Keyword: sediments
Theme Keyword: SEABOSS
Theme Keyword: SEABed Observation and Sampling System
Theme Keyword: Kongsberg Simrad OE1365
Theme Keyword: shapefile
Theme Keyword: MP4
Theme Keyword: field activity 2017-056-FA
Theme Keyword: field activity 2018-018-FA
Theme Keyword: R/V Connecticut

Theme:

Theme Keyword Thesaurus: USGS Thesaurus
Theme Keyword: videography
Theme Keyword: video monitoring
Theme Keyword: videos
Theme Keyword: navigational data
Theme Keyword: marine geology
Theme Keyword: sea-floor characteristics

Theme:

Theme Keyword Thesaurus: ISO 19115 Topic Category
Theme Keyword: oceans
Theme Keyword: geoscientificInformation
Theme Keyword: location

Theme:

Theme Keyword Thesaurus: Marine Realms Information Bank (MRIB) keywords
Theme Keyword: marine geology
Theme Keyword: video observation
Theme Keyword: continental shelf
Theme Keyword: sound

Theme:

Theme Keyword Thesaurus: USGS Metadata Identifier
Theme Keyword: USGS:5de9bc9fe4b02caea0eeda3e

Place:

Place Keyword Thesaurus: None
Place Keyword: North America
Place Keyword: United States
Place Keyword: Atlantic Ocean
Place Keyword: Connecticut
Place Keyword: New York
Place Keyword: Long Island Sound
Place Keyword: Fishers Island
Place Keyword: Fishers Island Sound

Stratum:

Stratum Keyword Thesaurus: None

Stratum Keyword: sea floor

Stratum Keyword: seafloor

Stratum Keyword: seabed

Temporal:

Temporal Keyword Thesaurus: None

Temporal Keyword: 2017

Temporal Keyword: 2018

Access Constraints: None

Use Constraints:

Public domain data from the U.S. Government are freely redistributable with proper metadata and source attribution. Please recognize the U.S. Geological Survey as the originator of the dataset.

Point of Contact:

Contact Information:

Contact Person Primary:

Contact Person: Seth Ackerman

Contact Organization: U.S. Geological Survey

Contact Position: Geologist

Contact Address:

Address Type: mailing and physical address

Address: 384 Woods Hole Rd.

City: Woods Hole

State or Province: MA

Postal Code: 02543-1598

Country: USA

Contact Voice Telephone: 508-548-8700 x2315

Contact Facsimile Telephone: 508-457-2310

Contact Electronic Mail Address: sackerman@usgs.gov

Browse Graphic:

Browse Graphic File Name: [https://www.sciencebase.gov/catalog/file/get/5de9bc9fe4b02caea0eeda3e/?name=2017-056-FA and 2018-018-FA videos browse.jpg](https://www.sciencebase.gov/catalog/file/get/5de9bc9fe4b02caea0eeda3e/?name=2017-056-FA%20and%202018-018-FA%20videos%20browse.jpg)

Browse Graphic File Description:

Map of sea-floor video tracklines in the survey area in Long Island Sound, Connecticut and New York.

Browse Graphic File Type: JPEG

[Back to Top](#)

Data Quality Information:

Attribute Accuracy:

Attribute Accuracy Report:

The end time of the video drift used to map the bottom video tracklines (field ENDTIME in the shapefile) was calculated using the video start time and duration. This end time may be off by up to 2 seconds and was not assessed for accuracy by comparing it with the Global Positioning System

(GPS) time overlay on the video's last frame (the videos have an overlay of the GPS time, date, latitude, and longitude).

Logical Consistency Report:

All bottom videos were acquired using a Kongsberg Simrad OE1365 video camera on the SEABOSS. Five sites occupied in spring 2018 (sites 2018-018-009, 2018-018-037, 2018-018-066, 2018-018-067, and 2018-018-089) have more than one video clip and trackline. Each deployment of the SEABOSS is generally considered a unique site, so most of these sites have multiple videos from the same deployment due to an error with the video recorder. At one site (site 2018-018-089), however, the videos are from two separate deployments; an oyster shell was stuck in the grab sampler jaws after the first deployment's sediment grab attempt, so the sampler was redeployed and not given a new site number. Gaps in sequential clip numbers exist because calibration videos and videos less than 1 second were not mapped. The clip numbers are not necessarily in chronological order; in fall 2017, the video recorder froze when recording clip 494 at site NB65, so the backup video was later used to generate clip 498 for this site. For the spring 2018 survey, the University of Connecticut's Northeast Underwater Research, Technology and Education Center (NURTEC) assigned different names to the sites, which are available in the comments field (COMMENTS). Some USGS site numbers (FIELD_NO) have the same NURTEC site name (e.g., sites 2018-018-011 and 2018-018-012 are both NURTEC site NB64-T) because the NURTEC site names are based on the target sampling site names. The tracklines may self-intersect or self-overlap; at times the ship was moving so slowly that the resolution of the GPS makes a trackline appear to double back on itself.

Completeness Report:

This dataset includes bottom videos in MP4 format and a trackline shapefile of the location of the ship for the duration of the video collected during field activities 2017-056-FA and 2018-018-FA. Two hundred ten sites were occupied within the study area, and bottom videos were acquired at all 210 sites. Five videos acquired in fall 2017 are not included in this publication: two of these videos were less than 1 second (clips 424 and 494) and three were used for camera calibration (clips 418, 443, and 451). Each deployment of the SEABOSS is generally considered a unique site. However, five sites (sites SB64_2, 2018-018-024, 2018-018-089, 2018-018-094, and 2018-018-104) had two separate deployments because a sediment grab was not successfully collected during the first deployment; video was not acquired during the second grab attempt at four of these sites (sites SB64_2, 2018-018-024, 2018-018-094, and 2018-018-104). The videos for two sites occupied in fall 2017 (clip 431 from site NB42 and clip 460 from site SB53) were left on once the SEABOSS was recovered, so the videos were clipped to the duration that the camera was within view of the sea floor. The other videos may include up to a minute of sampler retrieval once the SEABOSS was lifted off the sea floor. This dataset includes 218 videos with a total duration of 48 hours 30 minutes and 218 video tracklines with a total length of 41.4 kilometers.

Positional Accuracy:

Horizontal Positional Accuracy:

Horizontal Positional Accuracy Report:

Sources of horizontal inaccuracy may be due to the video end time used to create the shapefile or the navigation data. The end time of the video drift used to map the bottom video tracklines (field ENDTIME in the shapefile) was calculated using the video start time and duration, rather than using the GPS time overlay on the video's last frame. The calculated end time may be off by up to 2 seconds and accounts for +/- 1 meter of horizontal uncertainty. Navigation for field activities 2017-056-FA and 2018-018-FA used Wide Area Augmentation System (WAAS)-enabled GPS. The GPS was set to receive fixes at a 2-second interval in geographic coordinates (World Geodetic System of 1984 [WGS 84]), so videos were geolocated using the closest available fix. The recorded position of each point along the video trackline is the position of the GPS antenna on the survey vessel, located on the aft port side of the R/V Connecticut, not the location of the SEABOSS. The antenna was located approximately 5 meters from the SEABOSS deployment location in fall 2017 and 3 meters in spring 2018. No layback or offset was applied to the recorded position. In addition, the SEABOSS may drift away from the survey vessel when deployed to the sea floor. Based on the various sources of horizontal offsets, a conservative estimate of the horizontal accuracy of the video trackline locations is 10 meters. At times the ship was moving so slowly that the resolution of the GPS

makes a trackline appear to double back on itself. In fall 2017, the navigation dropped out for 154 seconds on Julian day 333 (November 29) at site NB32 when acquiring video clip 448, so the missing navigation was interpolated using the last and first known fixes around this gap (between GPS times 22:49:38 and 22:52:12).

Lineage:

Process Step:

Process Description:

Step 1: Collected data.

Two marine geological surveys were conducted in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018. The R/V Connecticut occupied one of the target sites and the SEABOSS was deployed off the vessel's A-frame on the stern of the ship. The SEABOSS was equipped with a modified Van Veen grab sampler, a Nikon D300 digital still camera with a Photosea strobe, two video cameras (one forward-looking so that a shipboard operator could monitor for proper tow depth and obstacles, and one downward-looking, a Kongsberg Simrad OE1365 in this setup, that overlapped with the field of view of the still camera) with a topside feed, a GoPro HERO4 Black camera recording backup video, and lights to illuminate the sea floor for video and photograph collection. The elements of this particular SEABOSS were held within a stainless-steel frame that measured 1.15 x 1.15 meters. The frame had a stabilizer fin that oriented the system as it drifted over the seabed. Two red lasers were set 20 centimeters apart (both as they are mounted on the SEABOSS frame and as seen in photographs and video on the seabed) for scale measurements. The red laser dots can usually be seen in the sea-floor images and videos depending on the bottom type and distance to the sea floor. A third laser is positioned at an angle so that when it intersects the other lasers, the SEABOSS is at the optimum height (approximately 75 centimeters) off the bottom for a photograph. The winch operator lowered the SEABOSS until the sea floor was observed in the topside live video feed. For those sites that were primarily targeted for a sediment grab, the vessel and SEABOSS then drifted with wind and current for up to a few minutes to ensure a decent image with a clear view of the sea floor was acquired; for those sites that were targeted for both a video transect of the sea floor and a sediment grab, the vessel was navigated along a planned transect for up to an hour. A scientist monitored the real-time bottom video and acquired bottom photographs at points of interest by remotely triggering the Nikon camera shutter. Bottom video was also recorded during the drift from the downward-looking Kongsberg video camera directly to hard drives using an Odyssey7 video recorder. Then, at most sites the winch operator lowered the Van Veen grab sampler until it rested on the sea floor. When the system was raised, the Van Veen grab sampler closed and collected a sample as it was lifted off the sea floor. The sampler was recovered to the deck of the survey vessel where a subsample was taken for grain-size analysis at the sediment laboratory at the USGS Woods Hole Coastal and Marine Science Center. A total of 210 sites were occupied aboard the R/V Connecticut with the SEABOSS: 93 sites were occupied in fall 2017 during field activity 2017-056-FA, and 117 sites were occupied in spring 2018 during field activity 2018-018-FA. Bottom videos were acquired at all 210 sites.

Process Date: 05/15/2018

Source Produced Citation Abbreviation:

Original bottom video

Process Contact:

Contact Information:

Contact Person Primary:

Contact Person: Seth Ackerman

Contact Organization: U.S. Geological Survey

Contact Position: Geologist

Contact Address:

Address Type: mailing and physical address

Address: 384 Woods Hole Rd.

City: Woods Hole

State or Province: MA

Postal Code: 02543-1598

Country: USA

Contact Voice Telephone: 508-548-8700 x2315

Contact Facsimile Telephone: 508-457-2310

Contact Electronic Mail Address: sackerman@usgs.gov

Process Step:

Process Description:

Step 2: Acquired and processed navigation.

During the surveys, WAAS-enabled GPS navigation from a Garmin GPSMAP 76C receiver was logged through a DataBridge data logger and ArcMap GPS. The GPS was set to receive fixes at a 2-second interval in geographic coordinates (WGS 84). Dates and times were recorded in Coordinated Universal Time (UTC). Log files were saved for each Julian day in text format. An AWK script (parse_gprmc17056.awk for the fall 2017 log files and parse_gprmc18018.awk for the spring 2018 log files) was used to parse the GPRMC navigation string from the log files for each survey and create ASCII Comma Separated Values (CSV) text files. The output files were merged for each survey and then reformatted using an AWK script (nav_time_reformat.awk), creating a processed navigation CSV text file for each sampling survey.

Process Date: 09/2018

Source Produced Citation Abbreviation:

Processed DataBridge navigation files

Process Contact:

Contact Information:

Contact Person Primary:

Contact Person: Seth Ackerman

Contact Organization: U.S. Geological Survey

Contact Position: Geologist

Contact Address:

Address Type: mailing and physical address

Address: 384 Woods Hole Rd.

City: Woods Hole

State or Province: MA

Postal Code: 02543-1598

Country: USA

Contact Voice Telephone: 508-548-8700 x2315

Contact Facsimile Telephone: 508-457-2310

Contact Electronic Mail Address: sackerman@usgs.gov

Process Step:

Process Description:

Step 3: Processed video files.

A shell script (do_concat_and_TCBurn.sda) was run on the original video files to join the video clips for each site (the Odyssey7 splits clips into less than 4 GB segments) and transcode the video from MOV to MP4 format. The script also created a text file for each survey with the date, start time, and duration of each video recording. The timecode from the videos used to create the text files was unreliable, so the start times in the text files were checked and modified using the GPS time overlay from each video's first frame. The videos were renamed to include LISMaRC (which stands for Long Island Sound Mapping and Research Collaborative), season, year, and date and start time in the ISO 8601 standard (YYYYMMDD T [time separator] HHMMSS Z [Zulu/UTC time]) in the filename.

Source Used Citation Abbreviation:

Original bottom video

Process Date: 12/2018

Source Produced Citation Abbreviation:

Final bottom video

Source Produced Citation Abbreviation:

Start times/durations text files

Process Contact:

Contact Information:

Contact Person Primary:

Contact Person: Seth Ackerman

Contact Organization: U.S. Geological Survey

Contact Position: Geologist

Contact Address:

Address Type: mailing and physical address

Address: 384 Woods Hole Rd.

City: Woods Hole

State or Province: MA

Postal Code: 02543-1598

Country: USA

Contact Voice Telephone: 508-548-8700 x2315

Contact Facsimile Telephone: 508-457-2310

Contact Electronic Mail Address: sackerman@usgs.gov

Process Step:

Process Description:

Step 4: Prepared navigation for video trackline script.

Before creating the video tracklines shapefile, the navigation files were checked for erroneous and missing fixes and prepared for the video trackline script. To prepare the navigation data, first, a column of the original source filename was deleted from each processed navigation CSV text file (DataBridgeNav_GPRMC_ALL.csv for fall 2017 and 2018018_AllDataBridgeNav_parsed.csv for spring 2018) and the time field was formatted to a fixed-length number with six digits in Microsoft Excel 2016 for Mac, which added leading zeros as necessary. Rows with no coordinates were then deleted, and typos in the time and date were corrected as needed. Next, shapefiles were created from each CSV file in Esri ArcGIS (version 10.3.1) and used to identify erroneous fixes, which were deleted from the CSV text files. The shapefiles were also used to identify gaps in the navigation. For the fall 2017 data, missing navigation was interpolated in Esri ArcGIS to get 2-second navigation for site NB32 (clip 448) where the navigation dropped out for 154 seconds on Julian day 333. To do this, a line segment was created between the last and first known fixes around this gap (between GPS times 22:49:38 and 22:52:12). The Construct Points editing tool was used to create 153 evenly spaced points along the line segment so that a point was created

for each second. The coordinates of the points were calculated using the Calculate Geometry tool (Property=X Coordinate of Point and Y Coordinate of Point; Use coordinate system of the data source=WGS 1984; Unit=Decimal Degrees). The interpolated points with even seconds were selected and exported as a CSV file (points with even seconds were extracted so that the navigation was interpolated at a 2-second interval), the coordinates were rounded to seven decimal places in Microsoft Excel 2016 for Mac, and the points were added to the processed navigation CSV text file. For the spring 2018 survey, the navigation was also logged using ArcMap GPS, so shapefiles of the ArcMap GPS logs were used to fill in gaps. Any feature from the ArcMap GPS logs not within 0.1 meters of the original navigation was selected, exported, and added to the navigation CSV file. Concurrent fixes were deleted, and any gaps 6 seconds or larger were filled in using data from the ArcMap GPS logs if available (these points intersect other fixes and were not originally exported). Finally, the fields in the navigation CSV text files (now named DataBridgeNav_GPRMC_ALL_for_videos.csv for fall 2017 and 2018018_AllDataBridgeNav_parsed_w_ArcMap_GPS_Logs_for_videos.csv for spring 2018) were reordered and formatted to be used with the video trackline script. This process step and the subsequent process steps were performed by the same person, Emily Huntley.

Source Used Citation Abbreviation:

Processed DataBridge navigation files

Source Used Citation Abbreviation:

ArcMap GPS navigation files

Process Date: 03/2019

Source Produced Citation Abbreviation:

Final navigation files

Process Contact:

Contact Information:

Contact Person Primary:

Contact Person: Emily Huntley

Contact Organization: U.S. Geological Survey

Contact Position: Geographer/Database Specialist

Contact Address:

Address Type: mailing and physical address

Address: 384 Woods Hole Rd.

City: Woods Hole

State or Province: MA

Postal Code: 02543-1598

Country: USA

Contact Voice Telephone: 508-548-8700

Contact Facsimile Telephone: 508-457-2310

Contact Electronic Mail Address: ehuntley@contractor.usgs.gov

Process Step:

Process Description:

Step 5: Created a CSV file of the bottom video trackline points.

A Jupyter Notebook Python script (Video_trackline_prep_WORKING_v2.ipynb) was run for each survey to create a CSV file of the bottom video trackline points by extracting the navigation data for each video drift using information from the start times/durations text files. The script reads the video start time and duration from the text files, calculates the video end time, extracts the navigation points that fall within those start and end times, and exports the navigation points to a CSV file.

Source Used Citation Abbreviation:

Final navigation files

Source Used Citation Abbreviation:

Start times/durations text files

Process Date: 03/2019**Source Produced Citation Abbreviation:**

Bottom video trackline points CSV files

Process Step:**Process Description:**

Step 6: Created the final bottom video tracklines shapefile.

Point shapefiles were created for each survey using the bottom video trackline points CSV files in Esri ArcGIS (version 10.3.1). The Points to Line tool was then run for each survey with the video trackline points as the input features and the video filenames as the line field to create a polyline shapefile of the video tracklines. Two videos acquired in fall 2017 (clips 424 and 494) were less than 1 second and were not mapped. XTools Pro (version 12.0) for Esri ArcGIS was used to rename, reorganize, and add new fields (Table Operations - Table Restructure) to the polyline shapefiles, including an attribute for the site number of the video trackline (FIELD_NO), start time of the bottom video drift in UTC (STARTTIME), end time of the video drift in UTC (ENDTIME), Julian day of collection (JD), date of collection (DATE), year of collection (YEAR), trackline length in meters (LENGTH_M), camera used (CAMERA), survey ID (FA_ID), sampling device used to collect the video (DEVICE_ID), survey vessel (VEHICLE_ID), and University of Connecticut's NURTEC site name for the spring 2018 survey (COMMENTS). XTools Pro changed some of the bottom video trackline features from singlepart to multipart features if they overlapped or intersected themselves. To correct this, the Spatial Join tool was run for each survey with the original bottom video tracklines shapefile as the input features and the updated tracklines shapefile as the join features using the intersect match option to add the updated attributes to the original singlepart features. Unnecessary fields created when running the Spatial Join tool were deleted (i.e., Join_Count and TARGET_FID). Next, the bottom video tracklines shapefiles for each survey were joined with the trackline points shapefiles to add the start and end times of the video drifts (STARTTIME and ENDTIME, respectively), Julian day of collection (JD), and date of collection (DATE). Then, the trackline length (LENGTH_M) was calculated using the Calculate Geometry tool (Property=Length; Use coordinate system of the data frame=WGS 1984 UTM Zone 18N; Unit=Meters). The bottom video tracklines shapefiles for each survey were then joined with the survey logs to assign the site number (FIELD_NO) of each video trackline and, for the spring 2018 data, NURTEC site name (COMMENTS). Three tracklines from fall 2017 were for videos used for camera calibration (clips 418, 443, and 451) and were removed. The trackline shapefiles for each survey were combined using the Merge tool and reordered using the Sort tool to sort the video tracklines in chronological order (YEAR, JD, and STARTTIME sort fields in ascending order). Finally, the bottom video line names (LINENAME) were updated to match the new video filenames, which include LISMaRC (which stands for Long Island Sound Mapping and Research Collaborative), season, year, and date and start time in the ISO 8601 standard in the filename.

Source Used Citation Abbreviation:

Bottom video trackline points CSV files

Source Used Citation Abbreviation:

Survey logs

Process Date: 09/2019**Source Produced Citation Abbreviation:**

Final bottom video tracklines shapefile

[Back to Top](#)**Spatial Data Organization Information:****Direct Spatial Reference Method:**

Vector

Point and Vector Object Information:

SDTS Terms Description:

SDTS Point and Vector Object Type: String

Point and Vector Object Count: 218

[Back to Top](#)

Spatial Reference Information:

Horizontal Coordinate System Definition:

Geographic:

Latitude Resolution: 0.00000001

Longitude Resolution: 0.00000001

Geographic Coordinate Units: Decimal degrees

Geodetic Model:

Horizontal Datum Name: D_WGS_1984

Ellipsoid Name: WGS_1984

Semi-major Axis: 6378137.000000

Denominator of Flattening Ratio: 298.257224

[Back to Top](#)

Entity and Attribute Information:

Detailed Description:

Entity Type:

Entity Type Label: 2017-056-FA_and_2018-018-FA_videos

Entity Type Definition:

Bottom video tracklines and bottom videos collected in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 during USGS field activities 2017-056-FA and 2018-018-FA.

Entity Type Definition Source:

U.S. Geological Survey

Attribute:

Attribute Label: FID

Attribute Definition:

Internal feature number.

Attribute Definition Source:

Esri

Attribute Domain Values:

Unrepresentable Domain:

Sequential unique whole numbers that are automatically generated.

Attribute:**Attribute Label:** Shape**Attribute Definition:**

Feature geometry.

Attribute Definition Source:

Esri

Attribute Domain Values:**Unrepresentable Domain:**

Coordinates defining the features.

Attribute:**Attribute Label:** FIELD_NO**Attribute Definition:**

Site number as assigned in the field.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:**Unrepresentable Domain:**

String used to distinguish site numbers.

Attribute:**Attribute Label:** LINENAME**Attribute Definition:**

Name of bottom video used to uniquely identify between surveys and video files: e.g., LISMaRC_Fall2017_20171128T125443Z_CLIP0000414.mp4 where LISMaRC_Fall2017 refers to the Long Island Sound Mapping and Research Collaborative survey season and year, 20171128T125443Z refers to the date and start time in the ISO 8601 standard (YYYYMMDD T [time separator] HHMMSS Z [Zulu/UTC time]), and CLIP0000414.mp4 refers to the sequential video number assigned to the video by the camera.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:**Unrepresentable Domain:**

String used to distinguish bottom videos.

Attribute:**Attribute Label:** STARTTIME**Attribute Definition:**

Start time of the bottom video drift in UTC in the format HH:MM:SS.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to distinguish UTC start times of the bottom video.

Attribute:

Attribute Label: ENDTIME

Attribute Definition:

End time of the bottom video drift in UTC in the format HH:MM:SS.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to distinguish UTC end times of the bottom video.

Attribute:

Attribute Label: JD

Attribute Definition:

Julian day that the bottom video was collected based on UTC time; Julian day is the integer number representing the interval of time in days since January 1 of the year.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Range Domain:

Range Domain Minimum: 128

Range Domain Maximum: 337

Attribute Units of Measure: Julian days

Attribute Measurement Resolution: 1

Attribute:

Attribute Label: DATE

Attribute Definition:

Date based on UTC time that the bottom video was collected in the format YYYYMMDD.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to distinguish dates.

Attribute:

Attribute Label: YEAR

Attribute Definition:

Year that the bottom video was collected.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:***Range Domain:******Range Domain Minimum:*** 2017***Range Domain Maximum:*** 2018***Attribute Units of Measure:*** years***Attribute Measurement Resolution:*** 1***Attribute:******Attribute Label:*** LENGTH_M***Attribute Definition:***

Length in meters of the bottom video trackline. Length was calculated in WGS 84 UTM Zone 18N.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:***Range Domain:******Range Domain Minimum:*** 0.3***Range Domain Maximum:*** 627.5***Attribute Units of Measure:*** meters***Attribute Measurement Resolution:*** 0.1***Attribute:******Attribute Label:*** CAMERA***Attribute Definition:***

Camera used to collect bottom video.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:***Unrepresentable Domain:***

String used to distinguish between different camera models mounted on the sampling system; however, for these surveys, only one camera was used to collect bottom video.

Attribute:***Attribute Label:*** FA_ID***Attribute Definition:***

Serial number assigned to the field activity during which the bottom video was collected. This value is in the format YYYY-XXX-FA where YYYY is the survey year, XXX is the number assigned to the activity within that year, and FA indicates Field Activity.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to distinguish field activities by year and ID number.

Attribute:

Attribute Label: DEVICE_ID

Attribute Definition:

Sampling device used to collect the bottom video.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to identify the sampling configuration used during the survey.

Attribute:

Attribute Label: VEHICLE_ID

Attribute Definition:

Vehicle (ship) used to collect data during the field activity.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to identify the survey vessel.

Attribute:

Attribute Label: COMMENTS

Attribute Definition:

Comments field with the USGS site number and University of Connecticut's Northeast Underwater Research, Technology and Education Center (NURTEC) site name for the spring 2018 survey.

Attribute Definition Source:

U.S. Geological Survey

Attribute Domain Values:

Unrepresentable Domain:

String used to distinguish NURTEC site names for the spring 2018 survey.

[Back to Top](#)

Distribution Information:

Distributor:

Contact Information:

Contact Organization Primary:

Contact Organization: U.S. Geological Survey - ScienceBase

Contact Address:

Address Type: mailing and physical address

Address: Denver Federal Center, Building 810, Mail Stop 302

City: Denver

State or Province: CO

Postal Code: 80225

Country: USA

Contact Voice Telephone: 1-888-275-8747

Contact Electronic Mail Address: sciencebase@usgs.gov

Resource Description: Sea-floor videos and location of bottom video tracklines collected in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 by the U.S. Geological Survey, University of Connecticut, and University of New Haven during field activities 2017-056-FA and 2018-018-FA. This dataset contains the following files: a shapefile of the bottom video trackline locations (2017-056-FA_and_2018-018-FA_videos.shp); 218 bottom videos from the Kongsberg Simrad OE1365 video camera in eight zip files (mp4_20171128-20171130.zip, mp4_20171201-20171202.zip, mp4_20171203.zip, mp4_20180508.zip, mp4_20180509.zip, mp4_20180510-20180511.zip, mp4_20180512-20180513.zip, and mp4_20180514-20180515.zip); a browse graphic of bottom video trackline locations (2017-056-FA_and_2018-018-FA_videos_browse.jpg); and a Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) metadata file (2017-056-FA_and_2018-018-FA_videos_meta.xml).

Distribution Liability:

Neither the U.S. Government, the Department of the Interior, nor the USGS, nor any of their employees, contractors, or subcontractors, make any warranty, express or implied, nor assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, nor represent that its use would not infringe on privately owned rights. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the USGS in the use of these data or related materials. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Standard Order Process:**Digital Form:****Digital Transfer Information:**

Format Name: Shapefile

Format Version Number: Esri ArcGIS 10.3.1

Format Specification:

Shapefile

Format Information Content:

This dataset contains a shapefile of bottom video trackline locations and videos of the sea floor collected by the U.S. Geological Survey, University of Connecticut, and University of New Haven in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 and the associated metadata. The transfer size of the shapefile, browse graphic, and associated metadata is 1.4 MB. The MP4 videos are available in eight zip files with a total transfer size of approximately 54.2 GB.

Transfer Size: 54173

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:**Network Resource****Name:**<https://www.sciencebase.gov/catalog/item/5de9bc9fe4b02caea0eeda3e>**Network Resource Name:**<https://doi.org/10.5066/P9GK29NM>**Access Instructions:**

The first link is to the page containing the data. The second link is to the publication landing page. The data page (first link) may have additional data access options, including web services.

Digital Form:**Digital Transfer Information:****Format Name:** MP4**Format Information Content:**

This dataset contains a shapefile of bottom video trackline locations and videos of the sea floor collected by the U.S. Geological Survey, University of Connecticut, and University of New Haven in Long Island Sound, Connecticut and New York, in fall 2017 and spring 2018 and the associated metadata. The transfer size of the shapefile, browse graphic, and associated metadata is 1.4 MB. The MP4 videos are available in the following eight zip files with a total transfer size of approximately 54.2 GB: mp4_20171128-20171130.zip, which contains 50 videos collected on November 28-30, 2017 (Julian days 332-334), and has a file size of 8.6 GB; mp4_20171201-20171202.zip, which contains 30 videos collected on December 1-2, 2017 (Julian days 335-336) and has a file size of 6.1 GB; mp4_20171203.zip, which contains 13 videos collected on December 3, 2017 (Julian day 337), and has a file size of 4.1 GB; mp4_20180508.zip, which contains 20 videos collected on May 8, 2018 (Julian day 128), and has a file size of 6.7 GB; mp4_20180509.zip, which contains 13 videos collected on May 9, 2018 (Julian day 129), and has a file size of 7.6 GB; mp4_20180510-20180511.zip, which contains 33 videos collected on May 10-11, 2018 (Julian days 130-131), and has a file size of 8.8 GB; mp4_20180512-20180513.zip, which contains 38 videos collected on May 12-13, 2018 (Julian days 132-133), and has a file size of 7.9 GB; mp4_20180514-20180515.zip, which contains 21 videos collected on May 14-15, 2018 (Julian days 134-135), and has a file size of 4.3 GB.

File Decompression Technique: Use WinZip, 7-Zip, PeaZip, PKUNZIP, or other uncompressing software**Transfer Size:** 54173**Digital Transfer Option:****Online Option:****Computer Contact Information:****Network Address:****Network Resource****Name:**<https://www.sciencebase.gov/catalog/item/5de9bc9fe4b02caea0eeda3e>**Network Resource Name:**<https://doi.org/10.5066/P9GK29NM>**Access Instructions:**

The first link is to the page containing the data. The second link is to the publication landing page. The data page (first link) may have additional data access options, including web services.

Fees: none

Technical Prerequisites:

This dataset contains data available as a polyline shapefile and MP4 video files. The user must have software capable of reading shapefile format to use the polyline shapefile. A video viewer can be used to see the MP4 video files.

[Back to Top](#)

Metadata Reference Information:

Metadata Date: 11/23/2020

Metadata Contact:

Contact Information:***Contact Person Primary:***

Contact Person: Emily Huntley

Contact Organization: U.S. Geological Survey

Contact Position: Geographer/Database Specialist

Contact Address:

Address Type: mailing and physical address

Address: 384 Woods Hole Rd.

City: Woods Hole

State or Province: MA

Postal Code: 02543-1598

Country: USA

Contact Voice Telephone: 508-548-8700

Contact Facsimile Telephone: 508-457-2310

Contact Electronic Mail Address: ehuntley@contractor.usgs.gov

Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

Metadata Standard Version: FGDC-STD-001-1998

Metadata Time Convention: local time

[Back to Top](#)