

**Dataset Originator:** *Frank O. Nitsche*

**Publication Date:** *2019-11-01*

**Dataset Title:** *LIS phase 2 subbottom SEGY data*

**Online Linkage:** *<http://www.marine-geo.org/portals/lis/>*

**Abstract:** *Subbottom Chirp data from the Eastern Long Island Sound acquired using an EdgeTech Chirp 424 system (4-24kHz sweep frequency). The data are in standard SEGY format. Survey has been broken up in individual north-south or east- west trending lines.*

**Dataset purpose:** *The subbottom data have been collected to guide subsequent sediment coring. No systematic survey was conducted. Therefore, the lines cross areas with potential for softer sediments as indicated, e.g. by low backscatter in previously collected acoustic data.*

**Time period of content:** *2018-04-02 to 2018-04-11*

**Dataset Status:** *complete*

**Update Frequency:** *'none planned'*

**Theme Keywords:** *Long Island Sound, seismic, subbottom*

**Access Constraints:** *none*

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Data are provided with the express understanding that they will not be sold to third parties or included in commercial databases.

Users are strongly encouraged to contact the original investigators responsible for data made available on this site. Where appropriate, researchers are also encouraged to consider collaboration and/or co-authorship with original investigators.

Data should not be used for navigation purposes.

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**Dataset Credit:** *LIS mapping project, Frank O. Nitsche*

**Data Quality Considerations:** These are minimally processed data.

**Attribute accuracy:** Location is based on DGPS. Vertical axis is two-way-travel time. Accurate depth would depend on sound velocity of the water. Vertical offset could be up to a meter but should usually be of the order of 10 cm.

**Completeness:** The dataset is complete.

**Positional accuracy:** Location is based on DGPS using the ship GPS antenna. Lateral offset between antenna and towed fish has been corrected. Resulting absolute uncertainty could be of the order of 1-2 m, but relative error inside the line is less.

**Process Steps:** The original Chirp data have been corrected for layback and tides. A basic swell filter was applied. The processing was done using EdgeTech Discovery software and Chesapeake SonarWIZ.

**Attributes:** The data show the amplitude of the subbottom return with time.

**Metadata reference:** Frank Nitsche, Lamont-Doherty Earth Observatory of Columbia University, [fnitsche@ldeo.columbia.edu](mailto:fnitsche@ldeo.columbia.edu)