

---TITLE: Passive acoustic recording data from the Alaskan Beaufort Sea, data collected as part of Collaborative Proposal: An Interdisciplinary Monitoring Mooring in the Western Arctic Boundary Current: Climatic Forcing and Ecosystem Response NSF-ARC 0856244

---AUTHOR(S):

Passive acoustic data PI: Kathleen M. Stafford

Mailing address: Applied Physics Laboratory, University of Washington, 1013 NE 40th St, Seattle WA 98105

Phone number: 1-206-685-8617

Email: Stafford@apl.washington.edu

www.apl.washington.edu

Overall project PI: Dr Robert S Pickart, WHOI, Woods Hole MA 02543 rpickart@whoi.edu, 1-508-289-2858

---FUNDING SOURCE AND GRANT NUMBER:

Collaborative Proposal: An Interdisciplinary Monitoring Mooring in the Western Arctic Boundary Current: Climatic Forcing and Ecosystem Response NSF-ARC 0856244

---DATA SET OVERVIEW:

These data form part of an interdisciplinary mooring that includes measuring the water masses and currents, ice-thickness and ice-velocity, nutrients, dissolved oxygen, turbidity, ph, chlorophyll fluorescence (phytoplankton), acoustic backscatter (zooplankton), and marine mammal calls. The data here present the marine mammal call data. The data are acoustic wav files from an instrument moored in the Alaskan Beaufort Sea.

-Time period covered by the data: 9/25/2010 – 8/31/2013

-Physical location of the measurement or platform:

71.412N, 152.006 W in the western Beaufort Sea

-Any World Wide Web address references (i.e. additional documentation such as Project WWW site)

---INSTRUMENT DESCRIPTION:

-The instrument used was a Multi-electronique Aural M2 (<http://multi-electronique.com/pages/auralm2en.htm>), with 128 batteries.

-Figures (or links), if applicable

- Specifications: http://multi-electronique.com/files/AURAL/AURALspecsheel_EN.pdf

---DATA COLLECTION and PROCESSING:

For the 2010 deployment, the Aural sampled at 16384 Hz and data were collected on a 25% duty cycle with acoustic data recorded during the first 15 minutes of every hour and half-hour. Data resolution was 2 bytes.

For the 2011 deployment, the Aural sampled at 8192 Hz and data were collected on a 30% duty cycle with acoustic data recorded during the first 10 minutes of every 30 minutes on the hour and half-hour. Data resolution was 2 bytes.

For the 2012 deployment, the Aural sampled at 8192 Hz and data were collected on a 30% duty cycle with acoustic data recorded during the first 10 minutes of every 30 minutes on the hour and half-hour. Data resolution was 2 bytes.

For each acoustic data file, in situ temperature and pressure were reported.

Data files were renamed from their native format to wav files such that each file name is date and time stamped: YYYYMMDD_HHMMSS_instrumentID.wav

Filenames, temperature, pressure, sample rate, bit depth and start and end times for each file are given in the spreadsheets: Stafford_MetadataforAON2010-2011.xlsx and Stafford_MetadataforAON2011-2012.xlsx

---DATA REMARKS:

-There are no missing data periods and overall the data are good quality. There is some self noise in data files that occur during high currents in the area which can be seen when the pressure measurements increase

-Software compatibility: There are numerous software packages available to read and display the data. Three of the most common are:

Ishmael (<http://www.bioacoustics.us/ishmael.html>)

Raven (<http://www.birds.cornell.edu/brp/raven/RavenOverview.html>)

XBAT (<http://www.birds.cornell.edu/brp/software/xbat-introduction>)