



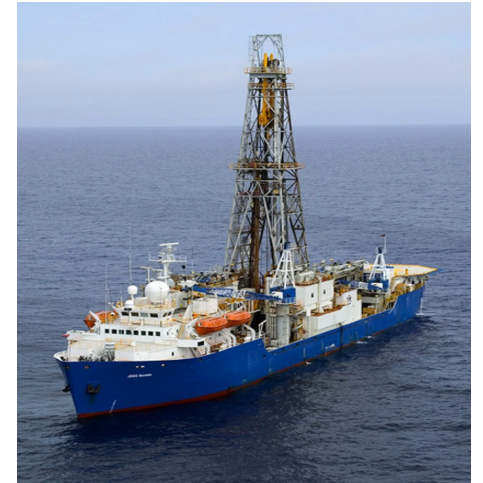
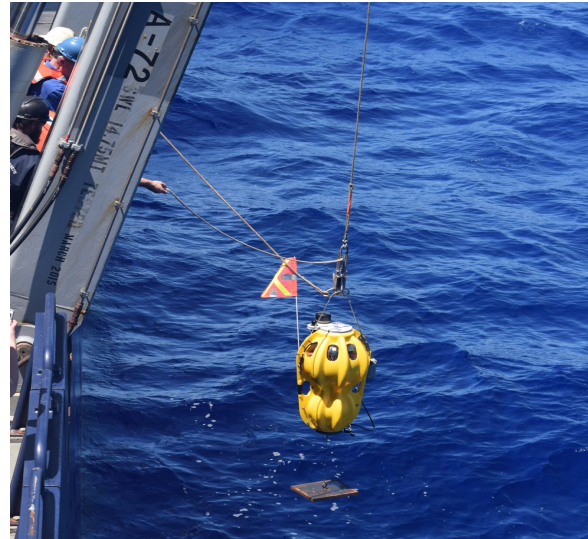
NSF Report
MSROC December
2022

Dr. Gail Christeson
Division of Ocean Sciences
Marine Geology and Geophysics
Program



Brief BIO: Gail Christeson

- BS Texas A&M, PhD MIT/WHOI Joint Program
- Research scientist University of Texas ~28 years
- Research Background: Study crustal structure using coincident seismic reflection and refraction data, integration with drilling data where possible
- Joined NSF as a Program Director in December 2021





Update on NSF Ocean Sciences & MGG

- New Division Director Jim McManus started July 2022. Research background marine chemistry, marine sediments.
- MGG
 - Debbie Smith retired May 2022
 - Active search for a program director with focus on paleoclimate
 - Program Directors:
 - Gail Christeson – geophysics
 - Kevin Johnson – petrology, hydrothermal
 - Dan McCorkle – paleoclimate, paleoceanography
 - Joe Carlin – marine sediments





NSF Marine Geophysics FY22, FY23

Example funded field projects

- Seismic active source (includes high-res) projects: Carolina Trough/Blake Plateau, North Carolina landslides
- Seismic broadband projects: Galapagos triple junction, Cocos Plate, South Pacific subduction initiation
- Seafloor geodesy: Cascadia/Alaska community experiment, North Island NZ, Axial Seamount
- Magnetotelluric: Pacific Haxby lineations
- Magnetics: Jurassic Quiet Zone
- Vents: Axial Seamount (hydrothermal), Puget Sound (methane)



NSF Marine Geophysics FY22, FY23

Example non-field projects

- Vp/Vs model for young oceanic crust from OBS data
- Oceanic plateau formation from magnetic anomalies and machine learning
- Cascadia subduction zone integrated analyses from MCS data

Trends

- Seafloor geodesy (community pool of 48 transponders came online in FY22)
- Multidisciplinary seismic/EM/dredging



Regional Framework Plan

- MSROC establishes a regional plan for operations in order to maximize efficient use of marine seismic facilities (MSROC Terms of Reference)
- Maps out areas of operation several years in advance based on community interest and input
- NSF is accepting proposals to use the R/V Langseth in the Atlantic and adjacent seas in the 2022-2024 timeframe.
- Final schedules are determined collaboratively between the PIs, operators, UNOLS, environmental compliance authorities, and NSF.



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The screenshot shows the NSF Awards Search Results page for the query "gas hydrate". The page displays a list of search results with columns for Award Number, Principal Investigator, Organization, Start Date, Award Amount, and Relevance. The search results are sorted by Relevance. The page also includes filters for "You Searched For", "Active Awards", "Refined by", "State", "Country", "NSF Organization", "Award Amount", and "Award Instrument".

