

Biographical Sketch

Dale N. Chayes

Senior Staff Associate

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Education:

1973: B.S. (Geology) St. Lawrence University, Canton, NY.

Professional Experience:

- 2002 – Present Lamont Research Engineer, Lamont-Doherty Earth Observatory of Columbia University
- 1988 to 2002 Senior Staff Associate, Lamont-Doherty Earth Observatory of Columbia University
- 1980 to 1988 Staff associate, Lamont–Doherty Geological Observatory (LDGO)
- 1977 to 1980 Research Staff Engineer, LDGO
- 1973 to 1976 Research Assistant, LDGO

Professional Activities:

Chair, UNOLS Research Vessel Technical Enhancement Committee and Member, UNOLS Council (2000-2004)

Member, Institute of Electrical and Electronic Engineers (Oceanic Engineering and Communications Societies)

Member, American Geophysical Union

Oceanographic Cruises:

Participation in more than one hundred oceanographic cruises in support of scientific research programs on ships and submarines operated by U.S. and foreign academic, private, government, and military organizations.

Selected Publications:

Arko, R. A., S. M. Carbotte, et al. (2004). "An Integrated Data Management System for Marine Geoscience Research." Eos Trans. AGU **85**(46 Fall Meet. Suppl.): SF31A-0706.

Caress, D. W. and D. N. Chayes (1996). "Improved Processing of Hydrosweep Multibeam Data on the R/V Maurice Ewing." Marine Geophysical Researches **18**: 631-650.

Caress, D. W. and D. N. Chayes (2002). "Processing, Archiving, and Disseminating Large Swath Mapping Datasets Using MB-System." Eos Trans. AGU Fall Meet. Suppl., Abstract OS61C-07 **83**(47).

Caress, D. W., Chayes, D.N (2001). "Improved Management of Large Swath Mapping Datasets in MB-System Version 5, Abstract OS11B-0373." Eos Trans. Fall Meet. Suppl. **82**(47).

Chayes, D. N. and R. A. Arko (2002). "Real-time Metadata Capture Implementations." Eos Trans. AGU Fall Meet. Suppl., Abstract OS62B-0251 **83**(47).

Chayes, D. N., N. Tervalon, et al. (2001). Ice Profiling Sonars: a Comparison of Error Budgets. Oceans 2001, Honolulu, HI, IEEE Ocean. Eng.

Chayes, D. N., R. A. Arko, et al. (2004). "Data Management for the Ridge 2000 Program." Eos Trans. AGU **85**(47): Fall Meet. Suppl.

Synergistic Activities:

Development MB-System, an open source swath bathymetry software system with Dave Caress at MBARI and the MB-System Cookbook with Val Schmidt at LDEO.

System engineering for development of database and software in support of community review system of Digital Library for Earth System Education (DLESE), the RIDGE2000 and Margins Data Management Systems, underway metadata capture for Healy and Ewing.

Installation and integration of POS/MV inertially aided GPS attitude, heading and position systems on R/V Knorr, Thompson, Ewing and Healy and development of enhanced real-time navigation on the R/V Knorr to support dynamic positioning while drilling in shallow water.

Technical lead for development of survey technology and techniques for very shallow water swath and sub-bottom mapping, as well as for SCAMP, a swath mapping and sub-bottom profiler for use on submarines in the Arctic.

Senior engineer for support of the Hydrosweep DS2 multibeam system on the Ewing,

Collaborators (last 48 months):

R.M. Anderson (SAIC), J.A. Ardai (LDEO), R. Bell (LDEO), S. Carbotte (LDEO), D. Caress (MBARI), B.J. Coakley (UAF), A. Protushinsky (WHOI), M. Cormier (LDEO), J. Diebold (LDEO), M. Edwards (UH/SOEST), K. Kastens (LDEO), A. Maffei (WHOI), L. Mayer (UNH/CCOM), J. Mutter (LDEO), M. Rognstad, W.B.F. Ryan (LDEO), N. Tervalon (MBARI).