**Biographical Sketch**

Dale N. Chayes

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**Education:**

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

2009: Honorary Doctor of Science, St. Lawrence University, Canton, NY.

**Professional Experience:**

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| 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:**

Ex-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)

Life Member, American Geophysical Union

***Oceanographic Cruises:***

Participation well over a one hundred fifty oceanographic cruises and on-ice field programs in support of scientific research programs on ships and submarines operated by U.S. and foreign academic, private, government, and military organizations in a broad range of roles from technician to chief scientist. In the Arctic, the Antarctic and all latitudes in between.

**Related Publications:**

W. M. Smethie, P. Schlosser, D. N. Chayes, and R. S. Perry, A Lightweight Vertical Rosette for Deployment in Ice Covered Waters, Deep Sea Research, Vol 58, pp. 460-467, 2011.

Chayes, D. N., A. D. Chave, et al. (2006). Concept Design for a Cabled Seafloor Observatory at Barrow, Alaska, Scientific Seafloor Cables 2006, IEEE Oceanic Engineering Soc. Dublin, Ireland.

Chayes, D. N., Roberts, S. D., Perron, P.J., Beaudoin, J, Arko, R.A., Perry, R.S., (2010), A new multibeam swath mapping echosounder for USCGC Healy: Eos Trans. AGU.

Brumley, K., L. A. Mayer, E. L. Miller, S. Roberts, B. Coakely, and D. Chayes, 2010, 3D Visualization of Arctic Ocean Multibeam Bathymetric Data and the Constraints it Offers to Tectonic Reconstruction Models, GSA, 2010 Meeting Paper 172-3.

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

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**Other significant publications:**

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).

Anderson, R. M., D. Chayes, et al. (2003). "Seafloor Sounding in Polar and Remote Regions, Abstract OS42A-0831." Eos Trans. AGU, Fall Meet. Suppl. 84(47).

Chayes, D. N., R. M. Anderson, et al. (1999). Seafloor Characterization and Mapping Pods (SCAMP): submarine-mounted geophysical mapping. OCEANS '99, DOI: 10.1109/OCEANS.1999.800224

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

Caress, D. W. and D. N. Chayes (1995), New Software for Processing Sidescan Data from Sidescan-Capable Multibeam Sonars, IEEE Oceans '95, San Diego, CA., IEEE.

**Synergistic Activities:**

Design, upgrade, management and operational support of science systems on the US Coast Guard Icebreaker Healy (WAGB20) including a new multibeam and integration of UHDAS for ADCP data.

System engineering for the Seafloor Sounding in Polar And Remote Regions (SSPARR) autonomous bathymetric sounding system.

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

Installation and integration of POS/MV inertially aided GNSS attitude, heading and position systems on research vessels 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.

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.

**Collaborators (last 48 months):**

R.M. Anderson (SAIC), S. Carbotte (LDEO), D. Caress (MBARI), B.J. Coakley (UAF), K. A. Kastens (LDEO), C. Lee (UW) , L. Mayer (UNH/CCOM), W.B.F. Ryan (LDEO), P. Schlosser (LDEO), W. Smethie (LDEO), M. Steele (UW)