

# MIT MECH E

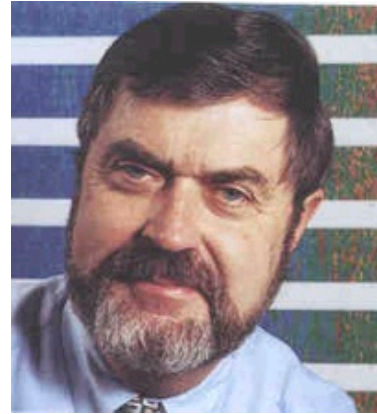
[News + Events](#) [People](#) [Academic Programs](#) [Research](#) [Prospective Students](#) [MechE Life](#)

[Home](#) > [People](#)

## Arthur B. Baggeroer

*Professor of Mechanical, Ocean, and Electrical Engineering  
Ford Professor of Engineering, Emeritus*

Room 5-206A  
Massachusetts Institute of Technology  
77 Massachusetts Avenue  
Cambridge MA 02139-4307  
Phone: 617-253-4336  
Fax: 617-253-2350  
Email: [abb@boreas.mit.edu](mailto:abb@boreas.mit.edu)



### Administrative Contact:

Geoff Fox  
Room 5-204  
Phone: 617-253-9344  
Email: [gfox@mit.edu](mailto:gfox@mit.edu)

### Research Interests

Ocean Seismo-Acoustics Laboratory

### Teaching Interests

2.163J (13.741J) /6.455J/12.518J - Sonar, Radar, & Seismic Signal Processing  
2.164J (13.742J) /6.456J/12.519J - Array Processing  
6.432 - Stochastic Processes, Detection, and Estimation

### Education

Purdue University B.S.E.E. w/ Highest Distinction 1963  
M.I.T. (NSF Fellow) S.M. & E.E. 1965  
M.I.T. Sc.D. 1968 Doctoral thesis: State Variables, Fredholm Theory and Optimal Communications

### Honors and Awards

National Science Foundation Fellow, 1963 - 1967  
Cecil and Ida Green Scholar, Scripps Institution Oceanography, 1990  
Chair, Ford Professor of Engineering, MIT, 1991 - present  
IEEE Oceanic Engineering Society, 1992 Distinguished Technical Achievement Award  
National Academy of Engineering, elected 1995

### Memberships

I.E.E.E. (Inst. of Electronic and Electrical Engineers), Acoustics, Speech and Signal Processing Group  
Technical Committee on Multidimensional Signal Processing (1981-1986)  
Information Theory Group  
Program Committee (1974)  
Best Paper Award Committee (1975)  
Communications Group



### People

FACULTY  
EMERITUS FACULTY  
ADMIN STAFF  
TEACHING STAFF  
LECTURERS  
RESEARCH STAFF  
TECHNICAL STAFF  
SUPPORT STAFF  
POSTDOCS  
VISITORS  
FACULTY CLOUD

Oceanic Engineering Group  
Associate Editor (1976 - present)  
Treasurer (1979 - 1982)  
Fellow (1988)  
Acoustical Society of America  
Chairman, Technical Committee on Underwater Acoustics (1986 - 1989)  
Medals and Awards Committee (1990 - present)  
Executive Council (elected) (1994 - present)  
Fellow (1986)  
A.G.U. (American Geophysical Union)  
Tau Beta Pi (engineering honorary)  
Eta Kappa Nu (electrical engineering honorary)  
Sigma Xi (academic honorary)  
National Academy of Engineering  
American Institute of Physics, Editorial Board, AIP Series in Modern Acoustics  
and Signal Processing

### **Government Committees and Service**

Purdue University Visiting Committee 2006  
Member, Naval Studies Board 2000  
Member, Ocean Studies Board 2000  
Acoustic Observatory Working Group 1999 - present  
Office of Naval Research  
Visiting Committee Member 1999  
Scripps Institution of Oceanography  
Undersea Weapons and Science and Technology 1999  
Naval Studies Board  
Technology for Future Naval Forces 1995 - 1997  
Undersea Warfare Technology Working Group, Naval Studies Board  
Submarine Superiority Technology Advisory Working Group 1995 - present  
Joint US-Russian Working Group on Acoustic 1995 - present  
Thermometry in the Arctic (ACOUS)  
Co-chief Scientist for United States - Russian 1994  
Transarctic Propagation (TAP) Experiment  
Joint Oceanographic Institutions Panel on the 1994  
Dual Use of the Integrated Undersea Surveillance System (IUSS)  
Air Force (AFTAC) Review Panel for the Hydroacoustics 1994  
Research on the Comprehensive Test Ban Treaty  
Naval Studies Board, National Research Council 1993  
Panel for Technical Review of Shallow Water Acoustic and Non-Acoustic R&D  
Programs  
Co-chief Scientist, R/V Cory Chouest, ONR 1991, 1993  
Special Research Program on Acoustic Reverberation  
Ocean Studies Board, National Research Council 1992  
Research Opportunities in Ocean Acoustics (Chairman)  
Scientific Committee on Ocean Research (SCOR) 1991 - present  
Working Group (96) on Acoustic Monitoring of Ocean Climate  
National Science Foundation Fellowship Panel 1990, 1993  
Ocean Studies Board, National Research Council 1990  
Panel on Facilities for Oceanographic Research  
Naval Studies Board, National Research Council Opportunities in Underwater  
Acoustics 1990  
Chief Scientist for Acoustics, ONR CEAREX Expt. 1988 - 1989  
ONR Board of Visitors, Arctic, Acoustics & Geophysics 1988- 1990  
Visiting Committee Member, Scripps Institution of Oceanography 1988  
Chief Scientist for ARAMP Experiment 1987  
MIZEX Executive Committee for Acoustics 1983 - 1987

Chief Scientist for Acoustics, ONR Marginal Ice Zone Experiment (MIZEX) 1983,  
1984  
Polar Oceans Climate Panel, National Academy of Science 1984 - 1988  
National Research Council Panel on Navy Long 1981 - 1982  
Range, Deep Ocean Technology  
Chief Scientist for ONR Fram II and Fram IV 1 Ice Stations 1980, 1982  
NSF/IDOE Workshop on Multichannel Systems in Oceanographic Institutes 1973  
Town of Westwood, MA - Finance Committee 1976 - 1977  
Town of Westwood, MA - School Committee 1977 - 1989 (elected for four terms)

Chairman 1979 - 1980, 1982 - 1983

[back to top](#)

[About MechE](#) | [Contact Info](#) | [Site Map](#)



Massachusetts Institute of Technology | Department of Mechanical Engineering  
77 Massachusetts Avenue, Room 3-173 | Cambridge, Massachusetts 02139