



James H. Williams, Jr.

MIT: Room 3-360
77 Massachusetts Avenue
Cambridge, MA 02139

Phone & voice mail: 617-253-2221

E-mail: jhwill@mit.edu

About Professor Williams: James H. Williams, Jr. (S.B. and S.M. -- Massachusetts Institute of Technology; Ph.D. -- Trinity College, Cambridge University) is the School of Engineering Professor of Teaching Excellence, Charles F. Hopewell Faculty Fellow, and Professor of Applied Mechanics in the [Mechanical Engineering Department](#) at the Massachusetts Institute of Technology. He is also Professor of [Writing and Humanistic Studies](#) in the School of Humanities, Arts, and Social Sciences. He has received many awards and published numerous papers and reports in conjunction with his teaching, consulting, and research in the mechanical characterization of advanced fiber reinforced composites; wave propagation in large space structures; in-process and post-process quality control; reliability; dynamic fracture; nondestructive evaluation with emphasis on acoustic emission, thermal, and ultrasonic responses of composites; dynamic behavior of structures subjected to seismic excitation; and the development of computerized data base systems for composite materials selection. He has been interviewed, cited, or featured in hundreds of newspaper, magazine, and broadcast media pieces. Formerly, as a senior design engineer at the Newport News Shipbuilding and Dry Dock Company, he performed a broad range of mechanics calculations on both industrial and governmental systems including, for example, stress and dynamical analyses of catapults, turbines, and propulsion shafting on nuclear-powered aircraft carriers such as the USS Nimitz (CVN-68), as well as overall ship accelerations and turning radii under various loading conditions. He has also conducted dozens of major multi-year consultations for the US government and international corporations involving a multiplicity of structural systems on high-performance aircraft, automobiles, rockets, offshore oil platforms, and hydroelectric power generation stations. If unavailable at his office, he can likely be found *attempting* to hit a 200-yard three-iron to an elevated green somewhere in the Boston area.

Selected Non-Technical Articles:

- [Flight 587](#): published as "Closer Inspection of a Flight Risk," *The Baltimore Sun*, May 6, 2002. See also Guest Column in *Air Safety Week*, "Crash Should Prompt a Change in Composite Inspection Philosophy," July 29, 2002. [Related Broadcast & Print Items: *WNBC-TV Evening News*, "Materials Used May Have Caused Crash --- Airbus: Visual Inspection Flaw?," February 7, 2002; *MIT Tech Talk*, "Flight risk of Airbus's A300-600 jet needs closer inspection, says prof," May 8, 2002; *Air Safety Week*, June 17, 2002; *The Boston Globe*, Letters to the Editor, "Inspection of Aircraft Parts," July 3, 2002; *ABC World News Tonight with Peter Jennings*, "Airbus' Fatal Flaws?," August 5, 2002; *ABC World News Now*, August 6, 2002; Numerous citations on network television news outlets, including *CBS*, *CNBC*, *CNN* and *NBC*, August 2002; Invited to appear before the *New York City Council* on behalf of Resolution 100 to the United States House of Representatives ("Flight 587" was inserted into the record.), September 5, 2002; *Vanity Fair*, "Pilot Terror" by David Rose, September 2002.] As of March 24, 2006, the National Transportation Safety Board appears to acknowledge the error of its previous disposition concerning the inspection of Airbus A300 composite rudders by virtue of its "urgent recommendation" and "immediate release" of Safety Recommendations A-06-27 and A-06-28: "NTSB Urges Inspections of Certain Airbus A300 Rudders."
- [Golf Courses and The Wall of Slavery](#), *The MIT Faculty Newsletter*, Vol. XIII : No. 3, January/February, 2001.
- [Harvard's Fantasies](#): published as "Gates and Jive Talkin' 101 at Harvard," *Boston Herald*, April 23, 1998. (Also, see *MIT Tech Talk*, April 29, 1998.)
- [Does MIT Have a Leading Role to Play?](#), *The MIT Faculty Newsletter*, Vol. X : No. 4, January/February, 1998.
- [Dilemmas, Colonialism, and Protest](#), *The MIT Faculty Newsletter*, Vol III : No. 5, March, 1991. (Numerous international, national and local print articles and broadcast stories reporting fasting sit-in protest.)

Book:

- [Fundamentals of Applied Dynamics](#), 854 pp., John Wiley & Sons, Inc., New York, New York, 1996.

Non-Technical Web Projects:

- [Mechanical Engineering Graduate Writing Survey](#), MIT, January, 2001.
- [Mechanical Engineering Graduate Writing Survey: Results](#), MIT, March, 2001.
(Note: Access to detailed survey results is limited to MIT on-campus network.)

Thirty (30) Technical Publications:

(Professor Williams has several hundred publications in refereed journals, conferences, and major reports to industrial and governmental agencies.)