

About The Author: Harold J. Breaux

Harold J. Breaux is a native of Louisiana but a long time resident of Maryland. After graduating from Louisiana State University with a degree in Physics and an Army ROTC commission he was assigned to the Ballistic Research Laboratory(BRL) at Aberdeen Proving Ground, MD. He was later to earn a Master of Applied Sciences degree from the University of Delaware. At BRL and its successor organization, the Army Research Laboratory (ARL), Breaux had a 50 year career, two as an Ordnance Project Officer, 33 years as a research mathematician, and 15 years as a consultant on High Performance Computing. Mr. Breaux's primary field of research was in the development of mathematical computer models in various areas of ballistics and laser propagation and laser damage effects. In these areas he applied the combined disciplines of Physics, Mathematics and Computer Science. His career efforts garnered numerous awards including the prestigious R. H. Kent Award at BRL *"for a career of diverse and profound contributions to the science of ballistics."* He received the Army Research and Development Achievement Award for his widely used models in laser effects and propagation. In the nomination letter for this award, the then BRL Director, Dr. Robert Eichelberger, described Mr. Breaux's work as follows: *"The common thread in all his work is his exceptional ability to reduce exact but opaque mathematical descriptions of complex physical phenomena to approximate, but highly accurate, simple forms through his rare combination of physical insight and mathematical ingenuity."*

During the period 1982 to 1996 he served in a research management position whose function was to modernize the Laboratory and Army capability in networking and its quest to acquire and exploit supercomputers. In this capacity he served as Chief of the ARL High Performance Computing Division and Executive Secretary in the Army Supercomputer Functional Coordinating Group chaired by the Army Deputy Assistant Secretary for Research and Technology (DASRT). This effort led to the establishment of three Army Supercomputer Centers, including one at ARL, and the Army Supercomputer Network (ASNET) which provided both classified and unclassified supercomputer access to Army and contract scientists nationwide. After this greatly successful effort the DASRT appointed Mr. Breaux to be the Army Lead in a tri-service Working Group that established a multi-billion dollar DoD wide program called the DoD High Performance Computing Modernization Program. In this effort Mr. Breaux chaired the Early Access Subcommittee whose function was to evaluate the suitability and merits of new but unproven emerging supercomputer technology. In this Working Group Mr. Breaux additionally chaired a crisis "Red Team" whose mission was to fix a stalled effort for developing evaluation 'benchmarks' for scoring competing technology proposals. This program ultimately established five DoD supercomputer centers and a national Defense Research and Engineering Network (DREN) similar to ASNET but servicing DoD as a whole. In 2005 the DoD gave Mr. Breaux a "Hero Award" for his many contributions to this program. Mr. Breaux is a fellow Emeritus of the BRL and the ARL. He has authored over 40 government publications and 12 refereed Journal articles. In 2010 the ARL named its fastest and newest supercomputer the "Harold" in honor of his lifetime contributions to the Laboratory and the Army. See URL <http://www.arl.army.mil/www/?article=523> . In 2012 the Harford County Maryland Cultural Arts Board named Mr. Breaux a "Harford Living Treasure" for his lifetime contributions to the County.