

# Boster, Kobayashi & Associates

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59 Rickenbacker Circle  
P.O. Box 2049  
Livermore, CA 94551-2049

Office: (925) 447-6495  
Fax: (925) 447-6589

## PAUL T. HERMAN, Ph.D.

### Curriculum Vitae

#### **FORMAL EDUCATION:**

B.S. Physics, Muhlenberg College, 1960  
M.S., Physics, Lehigh University, 1962  
Ph.D., Physics, Lehigh University, 1966

#### **PRESENT POSITION:**

Boster, Kobayashi & Associates, a consulting firm specializing in the technical aspects of accident reconstruction, failure analysis, highway design, and injury causation. Typical assignments involve application of physics and principles of engineering to vehicular accident reconstruction and product design/defect analysis.

#### **PREVIOUS POSITIONS:**

##### September 1992 - July 2001

Lawrence Livermore National Laboratory - Deputy Program Leader for the Proliferation Prevention and Arms Control Program. Formulated and executed technical activities, developed long range plans, and administered personnel activities. Primary technical focus was helping to establish commercially viable, non-weapons related, technically challenging employment for scientists and engineers formerly employed in the Former Soviet Union nuclear weapons institutes. For example, facilitated the transfer of a state-of-the-art accident reconstruction simulation to former employees of a Russian nuclear weapons design institute to permit them to have employment reconstructing domestic Russian transportation accidents. Goal was to mitigate the probability that former weapons scientists and engineers would sell their expertise to nations and other groups of proliferation concern to the United States. Also responsible for Environmental, Safety, and Health issues in the Program.

##### June 1981 - September 1992

Lawrence Livermore National Laboratory - Group Leader of the Theater Applications Group. Responsible for allocation of resources, establishment of standards, and providing scientific leadership for a technical group that conducted systems analyses pertinent to non-strategic weapons systems and also developed item level battlefield computer simulations for the US military community. Provided technical advice to the Department of Defense and other US Government agencies with respect to all matters relating to non-strategic nuclear and conventional weapons systems. Duties included responsibility for safety and health issues for the entire Division.

**PREVIOUS POSITIONS:** (continued)

September 1979 - June 1981

Lawrence Livermore National Laboratory - On assignment to the Office of the Secretary of Defense in the Pentagon, Washington, D.C. as a Staff Analyst for Strategic Arms Assessment. Responsible for technical development and analytic evaluations of strategic nuclear arms limitations options on which formulation of US Government approaches to strategic arms limitations were made. Responsible for development of Office of Secretary of Defense position on future Special Nuclear Material requirements and preparation of interagency paper for Presidential Decision on this issue. Provided expert advice to the White House on matters related to nuclear weapons, including safety aspects of the stockpile.

November 1977 - September 1979

Lawrence Livermore National Laboratory - Project Manager for Air Force/Air Carried Weapons in the Military Requirements Office. Responsible for all Lawrence Livermore National Laboratory pre-engineering nuclear weapons development activities related to air carried systems. Responsible for marshalling best efforts of the Lawrence Livermore National Laboratory weapons program in developing data for conceptual systems for submission to the US Air Force. Represented Lawrence Livermore National Laboratory to the Department of Defense, their contractors, and other Department of Energy laboratories and offices. Participated in interagency working groups that addressed the safety requirements of weapons systems.

April 1976 - November 1977

Lawrence Livermore National Laboratory - W70 Project Manager. Responsible for all research and development activities necessary to prepare the W70-3 nuclear warhead for production. Responsible for ensuring the warhead satisfied military requirements, including the satisfaction of safety requirements for the entire lifetime of the weapon system, such as during transportation in benign and hostile environments. Represented Lawrence Livermore National Laboratory to the US Army, other Department of Energy installations, and all other agencies and contractors in all matters relative to the W70. Concurrently, responsible for the W70-3 nuclear design and conduction of necessary nuclear tests.

August 1972 - April 1976

Lawrence Livermore National Laboratory - Nuclear weapons design Group Leader. Responsible for specific nuclear weapons designs and calculations of the output of weapons. Designed warheads for several US nuclear weapons systems, and participated in design of warheads for other systems. Participated in numerous interagency working groups.

September 1968 - August 1972

Lawrence Livermore National Laboratory - Theoretical Physicist. Worked on specific basic problems in statistical mechanics, plasma physics, and laser effects. Concurrently performed calculations relevant to specific nuclear weapons designs.

October 1966 - September 1968

University of Maryland Institute for Fluid Dynamics and Applied Mathematics - Research Associate. Conducted basic research in theoretical physics.

**PROFESSIONAL SOCIETY MEMBERSHIP:**

American Physical Society  
Society of Automotive Engineers

**SPECIALIZED TRAINING AND EXPERIENCE:**

Certified English Machine Tribometrist – June 2006

SAE 2006 World Congress – April 2006  
Detroit, MI

Completed Training Program:  
- Commercial Vehicle Braking Systems Professional Development Program

SAE 2005 World Congress – April 2005  
Detroit, MI

Completed Training Programs:  
- Tire and Wheel Safety Issues Professional Development Program  
- The Tire as a Vehicle Component Professional Development Program

PC-Crash Advanced Training Workshop – March 2005

HVE Forum – May 2004

HVE-2D (**H**uman-**V**ehicle-**E**nvironment) is a computer simulation for studying interactions between vehicles and their environments. HVE-2D allows the user to create models of vehicles and environments and study their interaction using HVE-2D compatible reconstruction and simulation models. Workshops attended:

HVE & HVE – 2D System Overview

Using EDCRASH (**E**ngineering **D**ynamics **C**orporation **R**econstruction of **A**ccident **S**peeds on the **H**ighway)

Using EDSMAC/EDSMAC-1 (**E**ngineering **D**ynamics **C**orporation **S**imulation **M**odel of **A**utomotive **C**ollisions)

Using EDSVS & EDVIS (**E**ngineering **D**ynamics **C**orporation **S**ingle **V**ehicle **S**imulation and **V**ehicle **T**ruck **S**imulation)

HVE – 2D Users Group

EDVDS Tractor-Trailer Simulation

EDSMAC-4 – Model Overview

HVE Brake Designer and ABS Model

PC-Crash /PC-RECT Training Workshop – January 2004

Trained in the use of 2D/3D accident reconstruction simulation software (PC-CRASH) and photogrammetry software (PC-RECT).