

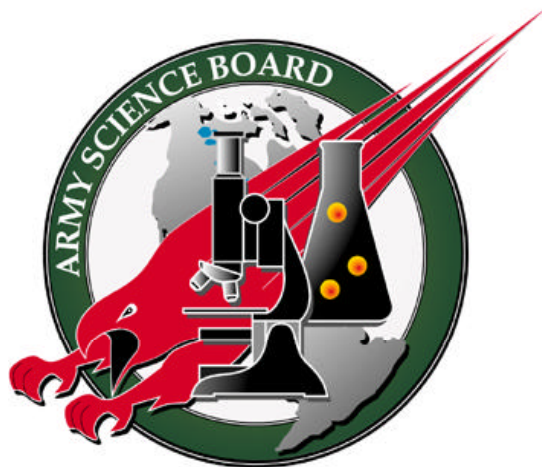


---

# **ARMY SCIENCE BOARD**

## **Biographical Sketch Book May 2001**

**Department of the Army  
Assistant Secretary of the Army  
(Acquisition, Logistics and Technology)  
Washington, DC 20310-0103**



### **Mission and Goals**

The Army Science Board will provide the Army with a resource of world-class scientists, engineers, technologists and operational experts as well as business, policy and managerial specialists who will volunteer their expertise and time to address those critical national security challenges for which the Army's leadership seeks independent and unbiased technical advice. ASB will focus on issues of importance to large segments of the Army, and its "products" will be delivered in a candid, timely and tailored fashion.

---

# ARMY SCIENCE BOARD

**Mr. Michael J. Bayer**  
Chair

**LTC Damian Bianca**  
Executive Secretary

**MAJ Robert Grier**  
Executive Officer

**Mr. Wayne Joyner**  
Administrative Officer

**Ms. Ingrid Brown**  
Secretary

Army Science Board  
2511 Jefferson Davis Highway  
Arlington, VA 22202-3911  
Telephone: (703) 604-7461  
Facsimile: (703) 604-7699

E-Mail: [robert.grier@saalt.army.mil](mailto:robert.grier@saalt.army.mil)  
[www.saalt.army.mil/sard-asb/](http://www.saalt.army.mil/sard-asb/)

---





The Army Science Board (ASB) is a Federal Advisory Committee organized under the Federal Advisory Committee Act. It is the Department of the Army senior scientific advisory body chartered in 1977 to replace the Army Scientific Advisory Panel. The ASB advises and makes recommendations to the Secretary of the Army, the Chief of Staff of the Army, the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA(ALT)), the Army Staff, and major Army commanders on scientific and technological matters of concern to the Army. The Secretary of the Army delegates oversight authority to the ASA(ALT), who functions as the ASB Director.

The ASB is comprised of distinguished individuals from the private sector, academia, retired flag officer ranks, and non-DoD government agencies. Members are appointed to the ASB by the Secretary of the Army for renewable two-year terms. The Secretary of the Army appoints the Chair and the Vice Chair from the ASB membership. The ASB Chair also serves as an ex-officio member of the Defense Science Board. ASB membership is augmented by a small number of consultants who are appointed to one-year terms and who provide specialized input to ASB studies.

The ASB conducts an annual General Membership meeting at selected Army installations. These meetings enable members to review ASB activities, become better educated on Army issues, and provide advice to local Army managers. Typically, one or two Summer Studies are conducted each year focusing on major Army issues. These are one year in length, highlighted by an August brief-out to the Secretary of the Army and the Army Chief of Staff. The Board also conducts special studies during the year that are shorter and focus on a smaller range of issues.

Administrative support for the ASB is accomplished by the ASB Secretariat. The Secretariat consists of the Executive Secretary, staff personnel, and support contractors. The Secretariat provides guidance and long-range direction to the ASB and its interactions with the Army.

For more information, visit the ASB website at [www.saalt.army.mil/sard-asb](http://www.saalt.army.mil/sard-asb)



---

# **ARMY SCIENCE BOARD**

## **MEMBERS**

---

---

## ARMY SCIENCE BOARD MEMBERS

**Bayer, Mr. Michael J.**  
Chair, Army Science Board  
Corporate Consultant

**Akers, Dr. Frank H.**  
BWXT Y-12, L.L.C.

**Atkins, Dr. Walter J.**  
Pacific HiTech Development

**Beck, Mr. Buddy**  
Trans Digital Technologies

**Blair, Dr. John**  
JBX Technologies, Inc.

**Bonder, Dr. Seth**  
Vector Research, Inc.

**Braddock, Dr. Joseph V.**  
The Potomac Foundation

**Brady, Mr. Edward C.**  
Strategic Perspectives, Inc.

**Brauner, Dr. Marygail**  
RAND

**Canavan, Dr. Gregory H.**  
Los Alamos National Laboratory

**Chopra, Dr. Inderjit**  
University of Maryland

**Dickinson, Dr. Philip C.**  
Private Consultant

**Douglas, Dr. Robert E.**  
Lockheed Martin Electronics & Missiles

**Drenz (USA, Ret.), MG Charles F.**  
C.F. Drenz & Associates

**Estrada, Dr. Leobardo F.**  
UCLA

**Ferren, Mr. Bran**  
Applied Minds

**Figueroa, Mr. Francisco**  
Sandia National Laboratories / Lockheed Martin

**Fischer, Mr. Carl B.**  
Aerojet

**Fowler, Mr. David**  
Raytheon Systems Company

**Funk (USA, Ret.), LTG Paul E.**  
General Dynamics Land Systems

**Gabig, Mr. Jerome S. Jr.**  
Time Domain Corporation

**Gref, Dr. Lynn G.**  
Jet Propulsion Laboratory

**Hofmann, Dr. Mark A.**  
COLMAR

**Holzrichter, Dr. John F.**  
Lawrence Livermore National Laboratory

**Hyder, Dr. Anthony K.**  
University of Notre Dame

**Kendall, Mr. Frank**  
Private Consultant

**Kontson, Mr. Kalle R.**  
IIT Research Institute

---



---

**Krause, Dr. Michael D.**  
KRI

**Lau, Ms. Joanna T.**  
Lau Technologies

**Lee, Dr. Peter**  
Carnegie Mellon University

**Martinez, Mr. David**  
MIT Lincoln Laboratory

**McKnight, Dr. Tom**  
American Startech Corporation

**Miller (USA, Ret.), LTG John E.**  
Oracle Corporation

**Morales, Dr. Reynaldo**  
Los Alamos National Laboratory

**Morrison, Dr. L. Warren**  
Carnegie Mellon University

**Musa, Dr. Samuel A.**  
Northwestern University

**Myer, Dr. James A.**  
Photon Research Associates, Inc.

**Nelson, Dr. Gary R.**  
SRA International

**O'Neil, Dr. Harold H.**  
University of Southern California

**Peay (USA, Ret.), GEN J.H. Binford III**  
Allied Research Corporation

**Peden, Dr. Irene C.**  
University of Washington

**Rajagopal, Mr. Raj**  
United Defense L.P.

**Reedy, Dr. Edward K.**  
Georgia Tech Research Institute

**Reese, Mr. John H.**  
Private Consultant

**Robins, Dr. Gabriel**  
University of Virginia

**Salomon (USA, Ret.), GEN Leon E.**  
Logistics Consultant

**Senter, Mr. Alan Z.**  
Senter Associates

**Stuelpnagel, Dr. John C.**  
Consultant

**Wartell, Dr. Michael A.**  
Indiana University-Purdue University, Ft .Wayne

**Weinstein (USA Ret.), LTG Sidney T.**  
Electronic Warfare Associates, Inc.

---



## ***Army Science Board Chair***

***Mr. Michael J. Bayer***

**Corporate Consultant**

**9212 Farnsworth Court**

**Potomac, MD 20854-4503**

**Business Phone: (301) 365-2554**

**Business Fax: (301) 365-3690**

**E-Mail: mbayer@erols.com**

### ***EDUCATION:***

J.D., Corporate Law, Capital University, 1977

M.B.A., Business Administration, Ohio State University, 1974

B.S., International Economics, Ohio State University, 1973

### ***FIELDS OF EXPERTISE:***

Anti-Terrorism

Defense Analyses

Macro Economics

Technology Assessment

Strategic Planning

Industrial Policy

### ***EXPERIENCE:***

Corporate Consultant / Board Member; 1992-Present

Federal Inspector, Alaska Natural Gas Transportation System; 1990-1992

Counselor, The President's Commission on Aviation Security and Terrorism; 1990

Manager, Federal Relations, Panhandle Eastern Corporation; 1985-1990

Counselor, The United States Synthetic Fuels Corporation; 1984-1985

Associate Deputy Secretary of Commerce; 1982-1984

Deputy Assistant Secretary, Department of Energy; 1981-1982

Counsel and Executive Assistant, U.S. House of Representatives; 1977-1981

### ***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Member, John Carroll Society;

Member, Board of the American Heart Association (Nation's Capital Affiliate); 1990-1998

Member, Board of the Association of the United States Army; 1993-Present

Member, Secretary's Defense Reform Task Force; 1997

Member, Army Science Board; 1990-1992

Member, Board of the Potomac Community Theater; 1992-1993

Trustee, Washington's Source Theater; 1985-1991 (Chairman, 1989-1991)

Member, Board of Visitors of the United States Military Academy; 1986-1988



***Dr. Frank H. Akers, Jr.***  
**Director, Advanced Technologies**  
**BWXT Y-12, L.L.C.**  
**1099 Commerce Park Drive**  
**Oak Ridge, TN 37830**  
**Business Phone: (865) 241-3830**  
**Business Fax: (865) 241-9523**  
**E-Mail: fhk@y12.doe.gov**

***EDUCATION:***

Ph.D., History, Duke University, 1975  
A.M., History, Duke University, 1975  
M.M.A.S., Operational Art, U.S. Army Command and General Staff College  
B.S., Engineering, U.S. Naval Academy, 1966  
Graduate, Strategy/Policy, U.S. Army War College, 1985  
Graduate, National Security, Industrial College of the Armed Forces, 1970  
Program for Senior Executives, University of Michigan, 1986  
Program for Senior Executives, Harvard, 1995  
Lockheed Martin Senior Leadership Institute, 1998

***FIELDS OF EXPERTISE:***

Technology Applications  
Operational Art  
Program Management  
C4 Systems  
Leadership

***EXPERIENCE:***

Director, Advanced Technologies, BWXT Y-12, L.L.C., 2000-Present  
Vice President, Advanced Technologies, Lockheed Martin Energy Systems, 1999-2000  
Director, Advanced Technologies, Lockheed Martin Energy Systems, 1997-1999  
Director, National Security Operations, Lockheed Martin Energy Systems, 1996-1997  
United States Army (Brigadier General), 1966-1996

***AWARDS / HONORS:***

Distinguished Service Medal  
Defense Superior Service Medal (2)  
Legion of Merit (3)  
Bronze Star (6)  
Purple Heart (2)



***Dr. Walter J. Atkins***  
**President**  
**Pacific HiTech Development**  
**1305 Kamehame Dr.**  
**Honolulu, HI 96825-3508**  
**Business Phone: (808) 396-1360**  
**Business Fax: (808) 396-1370**  
**E-Mail: [WaltAtkins@hawaii.rr.com](mailto:WaltAtkins@hawaii.rr.com)**  
**[WaltAtkins@aol.com](mailto:WaltAtkins@aol.com)**

***EDUCATION:***

Ph.D., Electrical Engineering, University of Illinois, 1977  
M.S., Electrical Engineering, University of Illinois, 1971  
B.S., Electrical Engineering, Howard University, 1965

***FIELDS OF EXPERTISE:***

Strategic and Tactical Command and Control Communications Systems, Design, Manufacturing, Implementation and Operations  
Satellite Communications Systems – Architecture, Design, Development, Manufacturing, and Operations  
RF Systems Design and Operations  
Analog and Digital Communications Theory  
Computer Systems Design and Operations  
Total Quality Management Systems

***EXPERIENCE:***

President, Pacific HiTech Development, 2000-Present  
Hughes Space and Communications, General Manager and Business Unit Leader, 1994-2000;  
Director, Product Assurance and Total Quality, 1992-1994  
Director, Continuous Measurable Improvement, 1991  
Program Manager, Milstar Program, 1990-1991  
Program Manager, Defense Satellite Communications Systems, 1988-1990  
Chief Scientist, Advanced Government Programs, 1987-1988  
Tracor Applied Sciences, Division Director/Chief Engineer 1986-1987

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Member, AFCEA  
Senior Member, IEEE  
Member, American Institute of Aeronautics and Astronautics (AIAA)

***AWARDS / HONORS:***

*Who's Who Among Black Americans*, 1975  
*Who's Who in the West*, 1976  
*International Men of Achievement*, 1978  
Air Force Meritorious Service Medals, 1982, 1984  
Defense Meritorious Service Medal, 1986  
Black Engineer of the Year Award in Professional Achievement Category, 1991



***Mr. Buddy Beck***  
**President and CEO**  
**Trans Digital Technologies**  
**1215 Jefferson Davis Highway**  
**Suite 1105**  
**Arlington, VA 22202-4344**  
**Business Phone: (703) 414-5800**  
**Business Fax: (703) 414-5835**  
**E-Mail: [beck@transdigital.com](mailto:beck@transdigital.com)**

***EDUCATION:***

Fellow, The Brookings Institution  
M.S., Systems Management, University of Southern California  
B.S., Chemistry, Arkansas State University

***FIELDS OF EXPERTISE:***

Systems Engineering  
Technology Development/Privatization  
Energy and Environment

***EXPERIENCE:***

President and CEO, Trans Digital Technologies, 2000-Present  
President and CEO, Thermo Digital Technologies, 1997-2000  
President, Thermo Washington, Thermo Electron Corporation, 1996-2000  
Corporate Vice President, Coleman Research Corporation, 1990-1996  
CEO and President, Atlantic Systems Research & Engineering Corporation, 1984-1989

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

American Institute of Aeronautics & Astronautics  
American Institute of Chemical Engineers  
Armed Forces Communications and Electronics Association  
American Nuclear Society  
Association of the United States Army  
American Defense Preparedness Association



***Dr. John Blair***  
**Principal**  
**JBX Technologies, Inc.**  
**25 Moore Road**  
**Wayland, MA 01778**  
**Business Phone: (508) 358-7568**  
**Business Fax: (508) 358-7568**  
**E-Mail: john.blair3@verizon.net**

***EDUCATION:***

B.S., M.S., Sc.D., Electrical Engineering, Massachusetts Institute of Technology, 1954, 1955, 1960

***FIELDS OF EXPERTISE:***

Sensors and Sensor Based Systems  
Solid State Electronics/Semiconductors/Devices  
Materials Engineering

***EXPERIENCE:***

JBX Technologies, Inc., Principal, 1994-Present  
Raytheon Company, Director of Corporate Research, 1966-1994  
Massachusetts Institute of Technology, Faculty, 1957-1966  
Ramo-Wooldridge/PSI, Physicist, 1955-1957

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Senior Life Member, IEEE  
Sigma Xi

***AWARDS / HONORS:***

Citation for Patriotic Civilian Service, Secretary of the Army  
Ford Foundation Post-doctoral Fellow



***Dr. Seth Bonder***  
**Chairman and CEO**  
**Vector Research, Inc.**  
**P.O. Box 1506**  
**Ann Arbor, MI 48106-1506**  
**Business Phone: (734) 973-9210**  
**Business Fax: (734) 973-7845**  
**E-Mail: [bonders@vrinet.com](mailto:bonders@vrinet.com)**

***EDUCATION:***

Ph.D., Industrial Engineering, Ohio State University, 1965  
B.S., Mechanical Engineering, University of Maryland, 1960

***FIELDS OF EXPERTISE:***

Defense Policy	Strategy
Force Structure	Force Design
Material Acquisition	Doctrine and Operational Concepts
Military Health	Systems Reengineering
Combat Operations	Logistics
Intelligence	Command and Control
Mobility	Manpower

***EXPERIENCE:***

Vector Research, Inc., Chairman and CEO, 2000 to Present  
Vector Research, Inc., President and CEO, 1969 to 2000

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES***

International Federation of Operations Research Societies  
Military Operations Research Society  
American Association for the Advancement of Science  
American Telemedicine Association  
International Institute for Strategic Studies

***AWARDS/HONORS***

Member, National Academy of Engineering, 2000  
Steinhardt Award Recipient, 1999  
Kimball Award, Operations Research Society of America, 1993  
Award for Patriotic Civilian Service, June 1990  
The Vance R. Wanner Memorial Award, The Military Operations Research Society (MORS), 24 June 1986  
The Distinguished Alumnus, College of Engineering, The Ohio State University, 1979



***Dr. Joseph V. Braddock***

**Director**

**The Potomac Foundation**

**1311 Dolley Madison Blvd.**

**Suite 2A**

**McLean, VA 22101**

**Business Phone: (703) 506-1790**

**Business Fax: (703) 506-8085**

**E-Mail: [jvbtpf@aol.com](mailto:jvbtpf@aol.com)**

***EDUCATION:***

Ph.D., Physics, Fordham University, 1958

M.S., Physics, Fordham University, 1952

B.S., Physics, St. Peter's College, 1951

***FIELDS OF EXPERTISE:***

Management

Studies and Assessments

Operational Experiments

Weapons of Mass Destruction

***EXPERIENCE:***

The Potomac Foundation, Director, 1988-Present

BDM International, Inc., Founder, and Past Member, 1959-1988

Board of Directors and various Corporate/Management positions, 1959-1993

Iona College, Assistant Professor of Physics, 1958-1960

Fordham University, Instructor in Physics, 1952-1958

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Defense Science Board

National Security Agency Scientific Advisory Board

Defense Nuclear Agency Scientific Advisory Group on Effects

Association of the United States Army

National Advisory Security Panel (NASP), Sandia National Laboratories

American Physical Society

Institute of Electrical and Electronics Engineers

American Defense Preparedness Association

Armed Forces Communications and Electronics Association

***AWARDS / HONORS:***

Exceptional Public Service Medal, Defense Nuclear Agency

Distinguished Service Award, Association of the United States Army

The Eugene G. Fubini Award





***Mr. Edward C. Brady***  
**Certified Management Consultant**  
**Strategic Perspectives, Inc.**  
**7704 Lakeloft Court**  
**Fairfax Station, VA 22039-2956**  
**Business Phone: (703) 250-6338**  
**Business Fax: (703) 764-2699**  
**E-Mail: bradyspi@worldnet.att.net**

***EDUCATION:***

Ph.D., (ABD), Mathematical Economics, Georgetown University, 1981  
M.S., Foreign Service Georgetown University, 1976  
M.S., Management Science, American University, 1984  
B.S., Electrical Engineering, U.S. Naval Academy 1963  
Executive Program, Mergers and Acquisitions, The Wharton School, 1996

***FIELDS OF EXPERTISE:***

Information Systems Design and Development  
Advanced Distributed Simulation System Design and Development  
Systems Architecture and Engineering  
Analysis, Test and Evaluation  
Corporate Strategic Planning and Implementation  
Corporate Mergers and Acquisitions

***EXPERIENCE:***

Strategic Perspectives, Inc. Certified Management Consultant, 1991-Present  
The MITRE Corporation, Member of the Technical Staff and Group Vice President and General Manager,  
1974-1991  
U.S. Army Tactical Unit Commander, Special Operations and Intelligence, 1963-1974

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Fellow and Past VP-Standards, American Institute of Aeronautical and Astronautics, 1997  
Fellow and Past President, Military Operations Research Society  
Honorary Trustee and Past President, Association of Unmanned Vehicle Systems  
Founding Chairman, Advisory Board, Virginia Modeling Analysis and Simulation Center, Old Dominion  
University, 1997-Present  
Director's Advisory Committee, Lawrence Livermore National Laboratory, 1995-Present  
Chairman, IEEE/AFCEA Military Communications Conference Board, 1992-1997  
Board of Trustees, Georgia Tech Research Corporation, 1991-1995  
Advisory Committee, School of Engineering, University of Virginia, 1991-1995  
Scientific Advisory Group, Defense Information Systems Agency, 1992-1994

***AWARDS / HONORS:***

Citation for Patriotic Civilian Service, Army Science Board  
DOD Civilian Service Medal  
Vance R. Wanner Memorial Medal, Military Operations Research Society  
Dean's Award for Academic Achievement, Georgetown University  
Six Military Awards for Personal Valor while serving in the U.S. Army  
Listed in *American Men and Women of Science*, 20<sup>th</sup> Edition



***Dr. Marygail Brauner***  
**Operations Research Analyst**  
**RAND**  
**1700 Main Street, P.O. Box 2138**  
**Santa Monica, CA 90407-2138**  
**Business Phone: (310) 393-0411 ext. 7738**  
**Business Fax: (310) 393-4818**  
**E-Mail: [marygail@rand.org](mailto:marygail@rand.org)**

***EDUCATION:***

Ph.D., Engineering (Operations Research), UCLA, 1986  
M.A., Mathematics, UCLA, 1970  
B.A., Mathematics, UCLA, 1969

***FIELDS OF EXPERTISE:***

Mathematics  
Mathematical Modeling  
Operations Research  
Military Logistics  
Military Manpower

***EXPERIENCE:***

RAND, Operations Research Analyst, 1984-Present  
California State University, Northridge, Professor of Management Science, 1981-1984  
Ventura College, Mathematics Instructor, 1978-1981  
Pierce College, Mathematics Instructor, 1975-1981  
Van Nuys Adult School, Mathematics Instructor, 1972-1975

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

IFORMS, The Institute for Operations Research and Management Sciences



***Dr. Gregory H. Canavan***  
**Senior Scientific Advisor**  
**Los Alamos National Laboratory**  
**Mail Stop D434**  
**Los Alamos, NM 87545-0001**  
**Business Phone: (505) 667-3104**  
**Business Fax: (505) 665-8520**  
**E-Mail: gcanavan@lanl.gov**

***EDUCATION:***

M.B.A., Energy Economics, Auburn University, 1975  
Dist. Grad., Management, USAF Air Command & General Staff College, 1975  
Ph.D., Applied Science, University of California, Davis/Livermore, 1969  
M.A., Applied Science, University of California, Davis/Livermore, 1967  
B.S., Mathematics, USAF Academy, 1965

***FIELDS OF EXPERTISE:***

Remote Sensing	Nonlinear Operators
High Energy Lasers	Fluid Turbulence
Missile Defense	Astrophysics
Crisis Stability	Biochemistry

***EXPERIENCE:***

Los Alamos National Laboratory, 1981-Present  
Senior Scientific Advisor, 1986-Present  
Assistant Physics Division Leader, 1983-1986  
Associate Physics Division Leader for Fusion Programs, 1981-1983  
DoD Defense Policy Board, 1990-1992  
White House Science Council Defense Technology Panel, 1982-1988  
Commission on "Discriminate Deterrence," 1985-1987  
SDIO Strategic Defense Advisory Committee Directed Energy Panel, 1983-1990  
Director, Office of Inertial Fusion, Department of Energy, 1979-1981  
Deputy Chief, Staff Group to the Chief of Staff, U.S. Air Force, 1978-1979  
White House Fellow assigned to Department of Energy, Special Assistant to the Secretary, DOE, 1977-78  
Program Manager for Advanced Laser and Sensor Research, Defense Advanced Research Projects Agency, 1975-1977  
Air Force Weapons Laboratory, 1969-1974 (laser, nuclear weapons and weapons effects research)

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Fellow, American Physical Society  
American Association for the Advancement of Science  
Board Chairman of the Hertz Foundation

***AWARDS / HONORS:***

White House Fellow, 1987-1988  
Hertz Foundation Award for Outstanding Technical Contribution to Applied Science, 1977



***Dr. Inderjit Chopra***  
**Alfred Gessow Professor and Director**  
**Alfred Gessow Rotorcraft Center**  
**University of Maryland**  
**Aerospace Engineering**  
**3168 Engineering Classroom Building**  
**College Park, MD 20742-3015**  
**Business Phone: (301) 405-1122**  
**Business Fax: (301) 314-9001**  
**E-Mail: chopra@eng.umd.edu**

***EDUCATION:***

Sc.D., Aero & Astro, Massachusetts Institute of Technology, 1977  
M.E. Aero Engineering, Indian Institute of Science, 1968

***FIELDS OF EXPERTISE:***

Rotorcraft Dynamics and Smart Structures

***EXPERIENCE:***

University of Maryland, Faculty, 1981-Present  
Stanford University, Senior Researcher, 1978-1981  
NASA Ames Research Center, NRC Researcher, 1977-1978

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Fellow, American Institute of Aeronautics and Astronautics  
Fellow, American Helicopter Society  
Fellow, Aeronautical Society of India  
Associate Editor, *Journal of the American Helicopter Society*, 1987-1991  
Associate Editor, *AIAA Journal of Aircraft*, 1987-Present  
Associate Editor, *Journal of Intelligent Materials and Systems*, 1997-Present  
Member Editorial Advisory Board, VERTICA, 1987-1991  
Member Editorial Advisory Board, Smart Materials and Structures, 1994-Present  
Chairman Rotorcraft Dynamics Committee, American Helicopter Society, 1993-1995  
Chairman Education Committee, American Helicopter Society, 1995-1997  
Chairman, Adaptive Structures and Materials Committee, ASME, 1998-2000  
Executive Chair, SPIE Symposium on Smart Structures and Materials, 1997-1999  
General Chair, AIAA Adaptive Structures Forum, 1997

***AWARDS / HONORS:***

AIAA/ASME Best Paper Award, 1996  
University Distinguished Research Professorship, 1993  
UM's Presidential Award for Outstanding Service to Schools, 1995  
Minta-Martin Research Professor, 1996-1999  
Alfred Gessow Rotorcraft Chair Professor, 1998-Present  
Bisplinghoff-Mar-Pian Distinguished Lectureship at MIT, 1993



***Dr. Philip C. Dickinson***  
**Private Consultant**  
**3799 Center Way**  
**Fairfax, VA 22033**  
**Business Phone: (703) 591-1622**  
**Business Fax: (703) 591-1622**  
**E-Mail: [pcdickinson@worldnet.att.net](mailto:pcdickinson@worldnet.att.net)**

***EDUCATION:***

Ph.D.E.E., E.E./Math, University of Florida, 1966  
M.S.E.E., E.E./Math, University of Florida, 1959 - 4.0 GPA  
B.S.E.E., E.E., University of Maryland, 1957

***FIELDS OF EXPERTISE:***

Command, Control, Communications and Intelligence Processing  
Operational Test and Evaluation  
Environmental Monitoring  
Modeling and Simulation

***EXPERIENCE:***

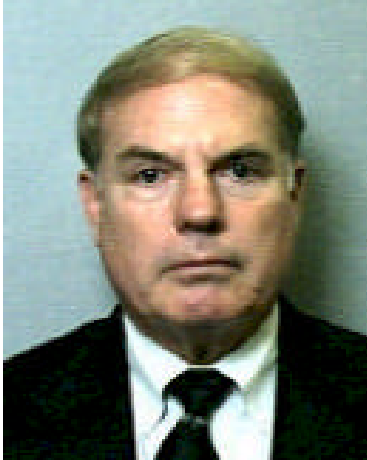
Consultant, 1994-Present  
Director, Army Studies and Analysis, E-SYSTEMS, CAPA, 1987-1994  
Acting Deputy Assistant Secretary of the Army - DASA(RP), OSA, 1986-1987  
Technical Director, U.S. Army OTEA, 1981-1986  
Director, BETA Joint Program Office, 1978-1981  
Deputy Director, Battlefield Systems Integration, AMC, 1976-1977  
Science Advisor, Headquarters MASSTER, U.S. Army TRADOC, 1970-1976  
Consultant to MACV Science Advisor (MACSA), 1968  
Electronic Technician, Electronic Engineering Supervisor, HDL AMC, 1950-1967, 1969

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Honorary, Phi Kappa Phi  
Senior Member, ITEA  
Senior Member, AIAA  
Member, ADPA  
Member, EIA

***AWARDS / HONORS:***

Harry Diamond Radio Research Fellowship, 1958-1963  
Special Accomplishment Award for SEA, 1970  
Outstanding Performance and QSI, 1972  
Meritorious Civilian Service Award, from General William Depuy, Cmdr TRADOC, 1976  
SES Performance of Excellence Awards, 1981, 1982, 1984  
Exceptional Civilian Service Award, from John Marsh, Secretary of the Army, 1987



***Dr. Robert E. Douglas***  
**Director, Systems Analysis**  
**Lockheed Martin Electronics & Missiles**  
**5600 Sand Lake Road, MP211**  
**Orlando, FL 32819-8907**  
**Business Phone: (407) 356-3186**  
**Business Fax: (407) 356-7170**  
**E-Mail: robert.e.douglas@lmco.com**

***EDUCATION:***

Ph.D., Operations Analysis, University of Central Florida, 1993  
M.S., Operations Analysis, U.S. Naval Postgraduate School, 1972  
B.S., Military Engineering, U.S. Military Academy, 1962

***FIELDS OF EXPERTISE:***

Military Operations Analysis

***EXPERIENCE:***

Lockheed Martin, Director, Systems Analysis, 1985-Present  
Under SEC AF (SPACE SYSTEMS), Analysis Coordinator, 1980-1982  
U.S. Army CDEC, Chief Computer Division, 1977-1980  
JCS (SAGA), Analyst, 1973-1976

***AWARDS / HONORS:***

Advisory Board, Dean of Engineering, University of Central Florida  
Chairman, Advisory Committee to University of Central Florida Industrial Engineering Dept.  
Chairman, Science Advisory Committee, Valencia Community College  
Phi Kappa Phi  
Alpha Pi Mu



***MG Charles F. Drenz (USA, Ret.)***

**Consultant**

**C.F. Drenz & Associates**

**5855 Midnight Pass Road**

**Suite 420**

**Sarasota, FL 34242-2190**

**Business Phone: (941) 349-3273**

**Business Phone: (703) 352-0390**

**Business Fax: (941) 349-3273**

**Business Fax: (703) 352-0810**

**E-Mail: 74072.2410@compuserve.com**

***EDUCATION:***

Executive Management Program, University of Pittsburgh, 1980

M.S., Acquisition Management, Florida Institute of Technology, 1973

B.S., Business Administration, Gannon University, 1953

***FIELDS OF EXPERTISE:***

Acquisition Management, to include:

R&D

T&E

Procurement

Production

Logistics

Program Management

Aviation Operations

***EXPERIENCE:***

C.F. Drenz & Associates, Consultant, 1989-Present

Orlando Technology, Inc., Chairman, 1990-1998

Army Aviation Association of America, President, 1991-1993

U.S. Army, Commanding General, USA Test & Evaluation Command, 1986-1988

Advanced Attack Helicopter Program (AH-64 Apache), Program Manager, 1983-1986

Defense Logistics Agency, Deputy Director, 1980-1983

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Association of the United States Army

Army Aviation Association of America

American Helicopter Society

The Retired Officers Association

International Test and Evaluation Association

***AWARDS / HONORS:***

Doctorate of Law (Honorary), Gannon University

Distinguished Alumni Award, Gannon University

Numerous Military Awards, to include:

Distinguished Service Medal

Defense Superior Service Medal

Legion of Merit (3)

Bronze Star Medal

Air Medal (9)

Master Aviation Badge



***Dr. Leobardo F. Estrada***

**Associate Professor of Urban Planning  
School of Public Policy and Social Research  
UCLA**

**Los Angeles, CA 90095-1656**

**Business Phone: (310) 825-6574**

**Business Fax: (310) 206-5566**

**E-Mail: leobard@ucla.edu**

***EDUCATION:***

Ph.D., Sociology/Demography, Florida State University, 1970

M.S., Sociology, Florida State University, 1968

B.S., Sociology, Baylor University, 1966

***FIELDS OF EXPERTISE:***

Demography and Urbanization

Statistics and Research Methods

Demographic Analysis

Hispanic Population of the U.S.

Geographic Information Systems

***EXPERIENCE:***

UCLA, Associate Professor, 1977-Present

NuStats, Senior Consultant, 1995-1997

U.S. Census Bureau, Staff Assistant, 1979-1980

U.S. Census Bureau, Special Assistant, 1975-1977

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

American Planning Association

American Association of Schools in Planning

Population Association of America

American Statistical Association

American Sociological Association

Rural Sociological Association

Association of Borderland Scholars

***AWARDS / HONORS:***

Kellogg National Fellowship, 1984-1987

McGovern Lecturer in Allied Health, University of Texas at Houston, 1988

Hixson Lecturer, Baylor University

Community Service Award, MALDEF, 1991





***Mr. Bran Ferren***

**Co-Chairman and CCO**

**Applied Minds, Inc.**

**1209 Grand Central Avenue**

**Glendale, CA 91201**

**Business Phone: (818) 545-1400**

**Business Fax: (818) 244-0204**

**E-Mail: [bran@appliedminds.net](mailto:bran@appliedminds.net)**

**[bran@ferren.com](mailto:bran@ferren.com)**

***EDUCATION:***

Massachusetts Institute of Technology, 1970

***FIELDS OF EXPERTISE:***

Systems Design

Machine Vision

Robotics

Electro-optics

Audio-acoustics

Control Systems

Special Effects

Virtual Reality

CGI

Simulation

INFOSEC

Imaging

Live Theater

Industrial Design

Art/Design Background

Human Interface

Knowledge Management

Motion Picture Production & Direction

***EXPERIENCE:***

Applied Minds, Inc., Co-Chairman and Chief Creative Officer, 2000-Present

Walt Disney Imagineering, left as President, Creative Technology/R&D, 1993-2000

Associates & Ferren, President, 1978-1993

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Board of Directors, International Design Conference in Aspen, 1992-Present

Member, NYU-Center for Advanced Technology (CAT) External/Industrial Advisory Committee

Member, Academy of Motion Picture Arts and Sciences

Member, Academy of Television Arts and Sciences

Member, Theatrical Sound Designers Association

Member, National Security Agency Advisory Board

Member, Securities and Exchange Commission Advisory Committee on Technology

Member, Defense Science Board

Member, Federal Communications Commission Technological Advisory Committee

Member, Senate Select Committee on Intelligence, Technical Advisory Group

Member, National Reconnaissance Office Technical Advisory Group

***AWARDS / HONORS:***

2000 Kilby Award for significant contributions to society

LDI 1998 Wally Russell Lifetime Achievement Award in Entertainment Technology

Special Gold Jury Award, Houston Film Festival, 1989

Academy of Motion Picture Arts and Sciences, Science and Engineering Award for the Advanced Concept Digital Optical Printer, 1987

Academy of Motion Picture Arts and Sciences, Technical Achievement Awards: for Laser Synchro-Cue System, 1987; for Computer-Controlled Lightning Effects System, 1983

Academy of Motion Picture Arts and Sciences, Oscar Nominee for Best Visual Effects, *Little Shop of Horrors*, 1987

New York Drama Desk Award, 1984

Maharam Foundation Annual Theater Design Award, 1984

Los Angeles Critics Circle Award, 1980

Drama-Logue Critics Outstanding Achievement in Theater, 1980



***Mr. Francisco A. Figueroa***  
**Vice President of Business Management  
and Chief Financial Officer**  
**Sandia National Laboratories**  
**Lockheed-Martin**  
**P.O. Box 5800, MS-0112**  
**Albuquerque, NM 87145-0112**  
**Business Phone: (505) 844-4663**  
**Business Fax: (505) 844-6339**  
**E-Mail: [fafigue@sandia.gov](mailto:fafigue@sandia.gov)**

***EDUCATION:***

M.S., Systems Management, University of Southern California, 1972  
M.S., Astronautics, Air Force Institute of Technology, 1969  
B.S., Electronic Engineering, Texas Technological University, 1967

***FIELDS OF EXPERTISE:***

Technology  
Strategy Development  
Information Systems  
Finance  
Economic Analysis  
Futuristic Thinking

***EXPERIENCE:***

Sandia National Laboratories, CFO, VP, 1997-Present  
Lockheed Martin Energy Systems, CFO, VP, 1994-1997  
Martin Marietta Astronautics, Business Manager, 1987-1994  
U.S. Air Force, retired at rank of Lt. Colonel, served 1967-1987

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

American Institute of Certified Public Accountants; Institute of Certified Financial Planners;  
National Contract Managers Association; National Property Managers Association;  
Society of Cost Estimating and Analysis; Federal Executives Institute  
New Mexico Hispanic Culture Foundation Board of Trustees  
Wells Fargo Bank Leadership Council; Energy Facilities Contractors Group  
University of Colorado Graduate School Advisory Council  
University of Colorado Minority Engineering Program Advisory Council  
New Mexico State University School of Business Advisory Council  
Department of Energy Small Business Committee

***AWARDS / HONORS:***

Leadership New Mexico  
Eta Kappa Nu  
Tau Beta Pi



***Mr. Carl B. Fischer***  
**President**  
**Aerojet**  
**A GenCorp Company**  
**P.O. Box 13222 (Bldg 2019/ Dept 0101)**  
**Sacramento, CA 95813-6000**  
**Business Phone: (916) 355-2001**  
**Business Fax: (916) 351-8608**  
**E-Mail: Carl.Fischer@Aerojet.com**

***EDUCATION:***

M.S., Management Science (MSMS), Operations Research, University of Southern California, 1978  
M.B.A., Finance, University of Southern California, 1975  
B.S., Engineering, California State University, Northridge, 1964

***FIELDS OF EXPERTISE:***

General Management  
Program Management  
Systems Engineering  
Operations Research  
Mission Area Analysis - Utility Studies  
Mechanical Engineering  
Spacecraft Design, Development and Production  
Weapon Systems Design, Development and Production

***EXPERIENCE:***

Aerojet President, 1999-Present  
Aerojet, Senior Vice President, Electronic and Weapon Systems, 1997-1999  
Aerojet, Senior Vice President, Space Surveillance, 1995-1997  
Aerojet, Executive Vice President, Marketing and Programs, 1994-1995  
Aerojet, President, Aerojet Electronic Systems Division, 1993-1994  
Aerojet, Vice President and General Manager, Tactical Programs Division, 1982-1993

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Omega Rho - National Operations Research Honor Society  
Beta Gamma Sigma - National Business Honor Society

***AWARDS / HONORS:***

ADPA Firepower Award



***Mr. David L. Fowler***  
**Vice President (Legal), Washington Operations**  
**Raytheon Company**  
**1100 Wilson Boulevard, Suite 2000**  
**Arlington, VA 22209-2297**  
**Business Phone: (703) 284-4349**  
**Business Fax: (703) 528-3706**  
**E-Mail: [dlfowler1@west.raytheon.com](mailto:dlfowler1@west.raytheon.com)**

***EDUCATION:***

LLM (equiv.), Military Law, Judge Advocate General's School of the Army, 1986  
J.D., Law, Georgetown University Law Center, 1981  
B.S., Engineering, U.S. Military Academy, 1974

***FIELDS OF EXPERTISE:***

Government Contracts  
Procurement Law

***EXPERIENCE:***

Raytheon Company, Vice President (Legal) Washington Operations, 2000-Present  
Raytheon Systems Company, Vice President and Deputy General Counsel, 1998-1999  
Hughes Aircraft Company, Assistant General Counsel, 1995-1998  
Hughes Aircraft Company, Senior Segment Counsel, 1993-1995  
U.S. Army, 1974-1989

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES***

Public Contract Law Section, ABA  
National Contract Management Association  
Board of Governors, Boards of Contract Appeals Bar Association

***AWARDS / HONORS:***

Meritorious Service Medal (2)  
Army Commendation Award (2)



***LTG Paul E. Funk (USA, Ret.)***  
**Vice President, Customer Service and Support Company**  
**General Dynamics Land Systems**  
**Sterling Heights Complex**  
**38500 Mound Road**  
**Sterling Heights, MI 48310-3200**  
**Business Phone: (810) 825-7800**  
**Home Phone: (254) 248-1915**  
**USA Business Fax: (810) 825-7121**  
**E-Mail: [funkp@gdls.com](mailto:funkp@gdls.com)**

***EDUCATION:***

Ed.D., Education/Training, Montana State University, 1973

***FIELDS OF EXPERTISE:***

Training

***EXPERIENCE:***

Command of units from platoon through corps  
Commanded 3d Armored Division in Operation Desert Storm  
Commanded an Air Cavalry Troop in Vietnam  
Commander, U.S. Army Armor Center  
Commander, National Training Center



***Mr. Jerome S. Gabig, Jr.***

**General Counsel**

**Time Domain Corporation**

**6700 Odyssey Drive**

**Huntsville, AL 35806**

**Business Phone: (256) 922-9229**

**Business Fax: (256) 922-9658**

**E-mail: [jerry.gabig@tdsi.com](mailto:jerry.gabig@tdsi.com)  
[gabigs@erols.com](mailto:gabigs@erols.com)**

***EDUCATION:***

C.S.S., Management, Harvard University, 1986

J.D., Law, University of California, 1977

B.S., Engineering, U.S. Military Academy, 1972

***FIELDS OF EXPERTISE:***

Federal Acquisition Law

Management of Software Development

Intellectual Property Law

***EXPERIENCE:***

Venable, Baetjer et al., Attorney, 1992-Present

USAF Electronic Systems Center, Deputy SJA, 1990-1992

USAF Armament Division, Director of Contract Law, 1987-1990

USAF Computer Acquisition Center, SJA, 1983-1987

USAF Communications Command, Director of Telecommunication Law, 1980-1983

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Public Contract Law Section, American Bar Association

National Contract Management Association

***AWARDS / HONORS***

Delaney Award, National Contract Management Association, 1993

Outstanding Young Military Lawyer in Air Force, 1985



***Dr. Lynn G. Gref***  
**Co-Manager**  
**Defense and Civil Program Office**  
**Jet Propulsion Laboratory**  
**4800 Oak Grove Drive**  
**Mail Stop 156-244**  
**Pasadena, CA 91109**  
**Business Phone: (818) 354-7240**  
**Business Fax: (818) 393-3780**  
**E-Mail: [lynn.g.gref@jpl.nasa.gov](mailto:lynn.g.gref@jpl.nasa.gov)**

***EDUCATION:***

Ph.D., Mathematics, University of California, Riverside, 1966  
M.A., Mathematics, University of California, Riverside, 1964  
B.A., Mathematics, University of California, Riverside, 1963

***FIELDS OF EXPERTISE:***

Systems Engineering  
C<sup>4</sup>ISR Systems  
Information/Software Systems Development  
Surveillance/Sensor Systems  
Ballistic Missile Defense  
Simulation  
Program Management

***EXPERIENCE:***

Jet Propulsion Laboratory, Program Manager, 1989-Present  
R&D Associates, Chief Engineer, 1972-1989  
Aerospace Corporation, Associate Director, 1967-1972  
University of Missouri, Assistant Professor of Mathematics, 1966-1967

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

National Academy of Sciences, Naval Review Board, 1994  
Ballistic Missile Defense Program Office, Quick Deployment Evaluation Panel, 1978  
Ballistic Missile Defense Systems Command, M-X Defense Concept Study Panel, 1977



***Dr. Mark A. Hofmann***

**President**

**COLMAR**

**3200 Summit Court**

**Newburgh, IN 47630**

**Business Phone: (812) 853-6546**

**Business Fax: (812) 853-0416**

**E-Mail: hofmannm@aol.com**

***EDUCATION:***

M.S., Systems Management, University of Southern California, 1972

Ph.D./M.A., Human Factors, University of South Dakota, 1968

B.A., Psychology, Heidelberg College, 1964

***FIELDS OF EXPERTISE:***

Management/Organization

R&D

Human Interface

Aviation

***EXPERIENCE:***

Private Consultant, 1996-Present

Visiting Assistant Professor, University of Southern Indiana, 1998-1999

Federal Aviation Administration, Chief Scientific & Technical Advisor for Human Factors, 1992-1996

Department of the Army, 1971-1992

Associate Director, U.S. Army Human Engineering Laboratory, 1980-1992

Human Engineering Representative to AVRADCOM and Ft. Rucker, 1976-1980

Chief, Aviation Psychology Division, U.S. Army Aeromedical Research Laboratory, 1971-1976

U.S. Army, 1967-1971

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Sigma Xi

American Society for Quality

American Statistical Association

Association for Computing Machinery

Army Aviation Association

***AWARDS / HONORS:***

Distinguished Career Service Award, 1996

Federal Aviation Administration Research and Acquisition Director's Award, 1996

Federal Aviation Administration Superior Accomplishment Award, 1995

U.S. Army Materiel Command Commander's Award, 1991

Meritorious Civilian Award, 1976

U.S. Army Commendation Medal, 1972





***Dr. John F. Holzrichter***

**Assistant to the Director**

**Lawrence Livermore National Laboratory**

**7000 East Avenue**

**P.O. Box 808, L-001**

**Livermore, CA 94551**

**Business Phone: (925) 423-7454**

**Business Fax: (925) 424-4846**

**E-Mail: [holzrichter1@llnl.gov](mailto:holzrichter1@llnl.gov)**

***EDUCATION:***

Ph.D., Physics, Stanford University, 1971

M.S., Physics, Stanford University, 1966

B.S., Applied Mathematics and Engineering Physics, University of Wisconsin, 1964

***FIELDS OF EXPERTISE:***

R&D Investment and R&D Project Management

Lasers, Linear and Nonlinear Optics

Plasmas/Inertial Fusion

Low Power Radar Measurements

Nano-structures

***EXPERIENCE:***

LLNL, Assistant to the Director, 2000-Present

Director, Laboratory Science and Technology Office, 1987-2000

Director of Inertial Fusion Program, 1980-1984

Director, Solid State Laser Program, 1976-1980 and 1984-1986

NRL, Laser R&D, 1971-1972

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

APS, AAAS, IEEE, Sigma Xi

Review Board, College of Science and Engineering, SF State University

***AWARDS / HONORS:***

45 Reviewed Papers and Lectures

3 Patents, 15 Disclosures

Hertz Foundation Fellow

A.E. Sloan Fellowship

Fulbright Fellow, Germany

Stanford Fellowship



***Dr. Anthony K. Hyder***  
**Professor of Physics and Associate Vice President**  
**Graduate Studies and Research**  
**University of Notre Dame**  
**501 Main Building**  
**University of Notre Dame**  
**Notre Dame, IN 46556**  
**Business Phone: (219) 631-8591**  
**Business Fax: (219) 631-6630**  
**E-Mail: [ahyder@nd.edu](mailto:ahyder@nd.edu)**

***EDUCATION:***

Ph.D., Nuclear Physics, AFIT, 1971  
M.S., Space Physics, AFIT, 1964  
B.Sci., Physics, University of Notre Dame, 1964

***FIELDS OF EXPERTISE:***

Sensors and Sensor Materials  
Space Systems  
Power Systems  
Directed Energy Weapons

***EXPERIENCE:***

University of Notre Dame, Professor of Physics, Associate Vice President,  
Graduate Studies and Research, 1991-Present  
Auburn University, Director, Space Power Institute, Associate Vice President, Research 1982-1991  
Office of the Under Secretary of Defense, Research and Advanced Technology, Scientific Advisor, 1989-1990  
Air Force Office of Scientific Research, 1989-1991

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

IEEE (Senior Member)  
AIAA (Senior Member)  
Tau Beta Pi (Engineering)  
Sigma Pi Sigma (Physics)  
Defense Intelligence Agency Science and Technology Advisory Board  
NATO Research and Technology Agency, Sensors and Electronic Materials Panel

***AWARDS / HONORS:***

Air Force Research and Development Award  
Air Force Institute of Technology Ph.D. Fellow



***Mr. Frank Kendall***  
**Private Consultant**  
**168 Rees Place**  
**Falls Church, VA 22046**  
**Business Phone: (703) 534-6181**  
**Business Fax: (703) 534-6180**  
**E-Mail: frnkkendl@aol.com**

***EDUCATION:***

M.B.A., Business, Long Island University, 1980  
M.S., A.E., Engineering, California Institute of Technology, 1973  
B.S., Engineering, U.S. Military Academy, 1971

***FIELDS OF EXPERTISE:***

Aeronautical Engineering  
Program Management  
Systems Engineering  
Systems Analysis

***EXPERIENCE:***

Private Consultant, 1996-Present  
Raytheon Company, Vice President, Engineering, 1994-1996  
Department of Defense, Director, Tactical Warfare Programs, 1989-1994  
Assistant Deputy Under Secretary of Defense (Strategic Defense), 1986-1989

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Phi Kappa Phi  
Sigma Xi  
Licensed Professional Engineer

***AWARDS / HONORS:***

Secretary of Defense Distinguished Civilian Service Award  
Secretary of Defense Meritorious Civilian Service Award (3)  
Presidential Distinguished Senior Executive  
Presidential Meritorious Senior Executive  
Army Meritorious Service Medal (2)



***Mr. Kalle R. Kontson***  
**Vice President and Chief Scientist**  
**IIT Research Institute**  
**8100 Corporate Drive**  
**Lanham, MD 20785-2231**  
**Business Phone: (301) 918-1531**  
**Business Fax: (301) 918-1544**  
**E-Mail: [kkontson@iitri.org](mailto:kkontson@iitri.org)**

***EDUCATION:***

J.D., Law, University of Baltimore School of Law, 1987  
M.S., Electrical Engineering, Rensselaer Polytechnic Institute, 1973  
B.S., Electrical Engineering, Rensselaer Polytechnic Institute, 1972

***FIELDS OF EXPERTISE:***

C4ISR  
Electromagnetic Compatibility  
Spectrum Management  
Digital Communications  
Modeling and Simulation  
Wireless Systems

***EXPERIENCE:***

IIT Research Institute, Center for Electromagnetic Science, Vice President/Operations Manager,  
1994-Present  
IIT Research Institute, Joint Spectrum Center, Director of Research / Division Manager,  
1984-1994  
IIT Research Institute, Manager of Research/Engineer, 1973-1984

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

AFCEA  
IEEE



***Dr. Michael D. Krause***

**President**

**KRI**

**Washington, DC 20024-3602**

**Business Phone: (202) 863-0038**

**Business Fax: (202) 554-7909**

**E-Mail: mdetlefk@aol.com**

***EDUCATION:***

Graduate, Strategy/Policy, National War College, 1985  
Graduate, Military Art, U.S. Army Command and General Staff College, 1978  
Graduate, National Security, Industrial College of the Armed Forces, 1974  
Ph.D., Modern European Diplomatic History, Georgetown University, 1968  
M.A., Modern History, Georgetown University, 1966  
B.A., History, Norwich University, 1964

***FIELDS OF EXPERTISE:***

Logistics  
Strategy and Policy  
Military History  
Operational Art

***EXPERIENCE:***

Freightdesk.com, Chief Logistics Officer, 1999-2000  
Amazon.com, Director, Operations Support Services, 1998-1999  
KRI, President, 1990-Present  
CACI, Inc., Strategic Planner, 1992-1999  
Department of Justice, Strategic Planner, 1994-1995  
Institute for Defense Analysis, Strategic Planner, 1994-1995  
Naval War College, Professor, 1992-Present  
American Military University, Professor, 1992-1998  
U.S. Army, 1964-1992  
Strategic Planner; Commander and Staff Officer  
Teacher; Logistician; Military Historian

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

U.S. Army Operations Research  
International Commission on Military History  
Research Fellow, Korean Institute for Defense Analysis

***AWARDS / HONORS:***

Legion of Merit  
Bronze Star



***Ms. Joanna T. Lau***  
**President and Chairman of the Board**  
**Lau Technologies**  
**30 Porter Road**  
**Littleton, MA 01460**  
**Business Phone: (978) 952-2010**  
**Business Fax: (978) 952-2003**  
**E-Mail: [jtl@lautechnologies.com](mailto:jtl@lautechnologies.com)**

***EDUCATION:***

M.B.A., Business and Operations, Boston University, 1991  
M.S., Computer Engineering, Old Dominion University, 1985  
B.S., Computer Science and Applied Mathematics, SUNY at Stony Brook

***FIELDS OF EXPERTISE:***

Anti-Terrorism and High-Tech	Computer Security
Imaging and Targeting	Intelligence Activities
Manpower and Personnel Planning	National Security
Unexploded Ordnance	Network Access Security

***EXPERIENCE:***

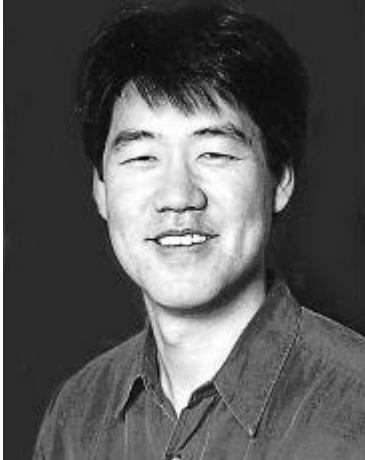
LAU Acquisition Corp. / LAU Technologies, President, 1990-Present  
Digital Equipment Corporation, Supervisor of Manufacturing Engineering, 1989-1990  
General Electric, Aircraft Engine Business Group, CIM Project Manager, 1986-1989  
Consumer Electronics Operation, Systems Engineer, 1983-1985  
Aerospace Control Systems Department, Software Engineer, 1981-1983

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Kennedy Library Foundation  
Young President's Organization  
International Women's Forum  
Committee of 200  
Association of the United States Army  
National Defense Industrial Association

***AWARDS / HONORS***

Honorary Doctorate Degree from Suffolk University, 1999  
Honorary Doctorate Degree from Bentley College, 1998  
Honorary Doctorate Degree from Bryant College, 1997  
Pinnacle Award from the Greater Boston Chamber of Commerce, 1997  
National Turnaround Entrepreneur of the Year, 1995  
8(a) Small Business Person of the Year for Massachusetts, 1995  
Leadership Award to Women in Business from New England Council  
Young Engineering Award (GE Aircraft Engine Group)



***Dr. Peter Lee***

**Professor and Associate Dean**

**School of Computer Science**

**Carnegie Mellon University**

**Pittsburgh, PA 15213-3891**

**Business Phone: (412) 268-3049**

**Business Fax: (412) 268-5577**

**E-Mail: [petel@cs.cmu.edu](mailto:petel@cs.cmu.edu)**

***EDUCATION:***

Ph.D., Computer and Communication Sciences, University of Michigan, 1987

M.S., Computer and Communication Sciences, University of Michigan, 1982

B.S., Computer and Communication Sciences, University of Michigan, 1982

B.S., Mathematics, University of Michigan, 1982

***FIELDS OF EXPERTISE:***

Computer Science

Programming Languages

Networks

Operating Systems

Computer Security

***EXPERIENCE:***

Cedilla Systems, Inc., President, during sabbatical, 1998-1999

Carnegie Mellon University, Associate Professor, Computer Science Department, 1987-Present

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Association for Computing Machinery

***AWARDS / HONORS:***

1997 Allen Newell Award for Research Excellence in Computer Science

1994 Herbert A. Simon Award for Teaching Excellence in Computer Science

1990 Presidential Young Investigator, National Science Foundation



***Mr. David R. Martinez***  
**Associate Division Head**  
**Massachusetts Institute of Technology**  
**Lincoln Laboratory**  
**244 Wood Street**  
**Lexington, MA 02420-9108**  
**Business Phone: (781) 981-1002**  
**Business Fax: (781) 981-2517**  
**E-Mail: [dmartinez@ll.mit.edu](mailto:dmartinez@ll.mit.edu)**

***EDUCATION:***

M.B.A., Business Administration, Southern Methodist University, 1986  
E.E., Electrical Engineering, MIT / Woods Hole Oceanographic Institution, 1979  
M.S., Electrical Engineering, MIT, 1979  
B.S., Electrical Engineering, New Mexico State University, 1976

***FIELDS OF EXPERTISE:***

Sensor System Architectures  
Information Systems  
Signal Processing  
High Performance Embedded Computing  
VLSI Signal Processing  
Embedded Microprocessors

***EXPERIENCE:***

MIT Lincoln Laboratory, Associate Division Head, 1999-Present  
MIT Lincoln Laboratory, Group Leader, 1995-1999  
MIT Lincoln Laboratory, Associate Group Leader, 1994-1995  
MIT Lincoln Laboratory, Assistant Group Leader, 1992-1994  
MIT Lincoln Laboratory, Staff Member, 1988-1992  
Atlantic Richfield Co., Principal Research Engineer, 1979-1988

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Senior Member of IEEE  
Association for Computing Machinery  
Invited Keynote Speaker to Several International Conferences

***AWARDS / HONORS***

ARCO Special Achievement Award  
Three U.S. Patents





***Dr. Tom McKnight***  
**President**  
**American Startech Corp.**  
**14024 Northwyn Drive**  
**Silver Spring, MD 20904-5926**  
**Business Phone: (301) 384-7509**  
**Business Fax: (301) 384-3920**  
**E-Mail: tommym@ix.netcom.com**

***EDUCATION:***

Ph.D., Mechanical Engineering, University of Maryland, 1970  
M.S., Mechanical Engineering, University of Maryland, 1964  
B.S., Mechanical Engineering, University of Maryland, 1959  
Registered Professional Engineer, State of Maryland (No. 7720)

***FIELDS OF EXPERTISE:***

Thermodynamics, Energy Conversion, Weapon System Guidance and Control, Warheads and Fusing, Auxiliary Power, Command/Control/Communications, Amphibious Warfare, Guns and Guided Projectiles, Target Detection/Classification/Localization, Autonomous/Remotely Piloted Vehicles, Mines, Global Positioning Systems, Acoustics, Laser/Optical Systems, Bioengineering, Machine Vision, Robotics, Automation, Manufacturing, Advanced Computers and Software Systems, Man/Machine Interfaces, Virtual Prototyping, Simulation, Visual/Audio Effects for Entertainment Applications, Vehicle Systems for Entertainment Applications, Secure Voice and Data Communication, Logistics Information Systems, Physical Security, R&D Management, Museum Exhibit/Display Design, Hand-held/Wearable Computers

***EXPERIENCE:***

American Startech Corporation, President, 1986-Present  
Nike, Inc., Manager, Manufacturing Research, 1991-1999  
Walt Disney Imagineering, Research Scientist, 1990-Present  
Associates & Ferren, Research Scientist 1989-1990  
Naval Surface Warfare Center, Research Engineer, 1958-1989  
U.S. Army, 1952-1955

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

ASME, IEEE

***AWARDS / HONORS:***

Navy Meritorious Civilian Service Award



***LTG John E. Miller (USA, Ret.)***  
**Executive Director, Learning Solutions**  
**Oracle Corporation**  
**1910 Oracle Way**  
**Reston, VA 20190**  
**Business Phone: (703) 364-2161**  
**Business Fax: (703) 318-6341**  
**E-Mail: [jomiller@us.oracle.com](mailto:jomiller@us.oracle.com)**

***EDUCATION:***

M.S., Operations Research, Georgia Tech, 1971  
B.S., Mathematics, Southwest Missouri State University  
Post-Graduate Certificate, Yale University

***FIELDS OF EXPERTISE:***

Training and Education  
Distance Learning  
Simulations  
Tactical Operations  
Information Technology

***EXPERIENCE:***

Oracle Corporation, Executive Director, Learning Solutions and Knowledge Management, 1997-Present  
U.S. Army, 1963-1997  
Deputy Commander, TRADOC, (last duty) 1995 - 1997

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Executive Board, National Academies, Board on Army Science and Technology

***AWARDS / HONORS:***

Distinguished Service Medal (2 awards), U.S. Army  
Outstanding Alumni, 1993, Southwest Missouri State University



***Dr. Reynaldo Morales***  
**Physicist**  
**Los Alamos National Laboratory**  
**P.O Box 1663, MS M722**  
**Los Alamos, NM 87545**  
**Business Phone: (505) 665-4989**  
**Business Fax: (505) 665-6837**  
**E-Mail: morales\_r@lanl.gov**

***EDUCATION:***

Ph.D., Physics, University of Texas at Austin, 1967  
M.A., Physics, University of Texas at Austin, 1962  
B.S., Physics, St. Mary's University, San Antonio, TX, 1959

***FIELDS OF EXPERTISE:***

Nuclear Physics  
Arms Control  
R&D Management  
Strategic Planning  
Foreign Affairs

***EXPERIENCE:***

Los Alamos National Laboratories, Physicist, 1997-Present  
DoD/ATSD/NCB, Physicist, 1996-1997  
ACDA, Foreign Affairs Specialist, 1995-1996  
Los Alamos National Laboratories, Physicist, 1987-1995  
State Department, Science Counselor, 1985-1986  
Los Alamos National Laboratories, Physicist, 1966-1985

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

American Physical Society  
American Association for the Advancement of Science  
Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)  
Society of Hispanic Professional Engineers



***Dr. L. Warren Morrison***  
**Visiting Scientist**  
**Software Engineering Institute**  
**Carnegie Mellon University**  
**4301 Wilson Boulevard, Suite 902**  
**Arlington, VA 22203-4191**  
**Business Phone: (703) 908-8209**  
**Business Fax: (810) 592-8195**  
**E-Mail: [lwm@sei.cmu.edu](mailto:lwm@sei.cmu.edu)**  
**[lwm.knowledge@verizon.net](mailto:lwm.knowledge@verizon.net)**

***EDUCATION:***

Ph.D., Electrical Engineering, University of Southern California, 1969  
M.S. Studies, Medical and Industrial Electronics, Brooklyn Polytechnical Institute, 1951-1952  
B.S., Electrical Engineering, The City College of New York, 1951

***FIELDS OF EXPERTISE:***

Modeling and Simulation  
Software Engineering Technology  
Bio-Medical Instrumentation  
Distributed Learning Architecture Design

***EXPERIENCE:***

Software Engineering Institute, Carnegie Mellon University, Visiting Scientist, 1994-Present  
Information Technologies Group, Chief Scientist, 1990-Present  
BDM International, Inc., Assistant Vice President, 1984-1989  
King-Drew Post Graduate Medical Center, Director of Bio-Medical Engineering, 1972-1976  
Direct Data Corporation, President, 1971-1983

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

AUSA  
IEEE  
Etta Kappa Nu  
New York Academy of Sciences

***AWARDS / HONORS:***

Certificate of Appreciation by the Office of the Secretary of Defense, 2001  
Certificate of Appreciation for Patriotic Civilian Service, 1987  
Recognition for Outstanding Performance by the Office of the Deputy Chief of Staff for Operations and Plans, Department of the Army, 1987



***Dr. Samuel A. Musa***  
**Associate Vice President**  
**Strategic Initiative**  
**Northwestern University**  
**1801 Maple Avenue**  
**Evanston, IL 60201**  
**Business Phone: (847) 791-7600**  
**Business Fax: (847) 791-4486**  
**E-Mail: s-musa@northwestern.edu**

***EDUCATION:***

Ph.D., Applied Physics, Harvard University, 1965  
M.S., Applied Physics, Harvard University, 1962  
B.S. and B.A., Electrical Engineering, Rutgers University, 1961

***FIELDS OF EXPERTISE:***

Command, Control, Communications and Intelligence  
Sensors and Displays  
Electronics Systems  
Research and Development

***EXPERIENCE:***

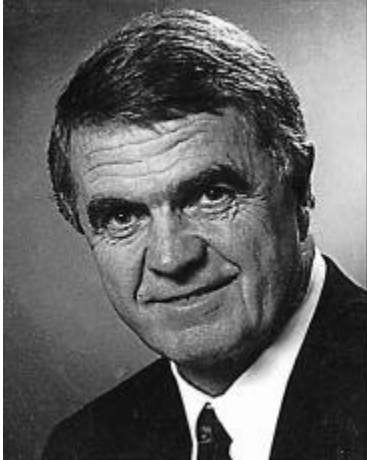
Northwestern University, Associate Vice President and Professor, 1999-Present  
University of Michigan, Executive Director, 1995-1999  
E-Systems, Vice President for Research and Advanced Technology, 1986-1995; Director, 1983-1986  
Office of the Secretary of Defense, Deputy Director, Military Systems Technology, 1982-1983;  
Staff Specialist for EW and Target Acquisition, 1979-1982;  
Deputy Director for C3 Policy, 1978-1979  
Institute for Defense Analyses, Research Staff Member, 1971-1978  
University of Pennsylvania, Assistant Professor, 1966-1971

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Chairman, Panels of DIA Science and Technology Advisory Board and Air Force Scientific Advisory Board; Executive Secretary of Defense Science Board Summer Studies  
Fellow of IEEE, Sigma Xi, Tau Beta Pi and Pi Mu Epsilon  
Society for Information Display, Association of Old Crows

***AWARDS / HONORS:***

Decoration for Exceptional Civilian Service, Secretary of the Air Force



***Dr. James A. Myer***  
**Chairman of the Board**  
**Photon Research Associates, Inc.**  
**5720 Oberlin Drive**  
**San Diego, CA 92121-1723**  
**Business Phone: (858) 455-9741**  
**Business Fax: (858) 455-0658**  
**E-Mail: jam@photon.com**

***EDUCATION:***

Ph.D., Physics and Astronomy, York University, 1968  
M.Sc., Physics, University of Western Ontario, 1966  
B.Sc., Physics, University of Western Ontario, 1964

***FIELDS OF EXPERTISE:***

Atomic and Molecular Physics  
Radiation and Optical Physics  
Systems Applications of Radar and Optical Phenomenologies  
Optical Systems Data Exploitation

***EXPERIENCE:***

Photon Research Associates, Inc., President and CEO, 1976-Present  
Science Applications International Corporation, Remote Sensing Group Manager, 1973-1976  
Avco Everett Research Laboratory, Staff Scientist, 1969-1973  
GCA Technology Division, Senior Scientist, 1968-1969  
Center for Research in the Experimental Space Sciences, York University, Research Scientist, 1965-1968

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Member, Boards of Directors: Moldyn, Inc.; Photon Simulations, Inc.; MultiGen-Paradigm, Inc.;  
Frontec Logistics, Inc.  
Member, AIAA  
Member, American Physical Society  
Member, SPIE

***AWARDS / HONORS:***

National Research Council Fellowship (Canada)  
Inventor/Patentee, Tunable Laser, 1972



***Dr. Gary R. Nelson***  
**Vice Chairman**  
**SRA International, Inc.**  
**4300 Fair Lakes Court**  
**Fairfax, VA 22033-4232**  
**Business Phone: (703) 502-7725**  
**Business Fax: (703) 502-4645**  
**E-Mail: gary\_nelson@sra.com**

***EDUCATION:***

Ph.D., Economics, Rice University, 1972  
A.B., Mathematics, Duke University, 1964

***FIELDS OF EXPERTISE:***

Economics  
Mathematics  
Knowledge and Data Systems  
Defense Manpower  
Transportation and Logistics  
C4I Systems

***EXPERIENCE:***

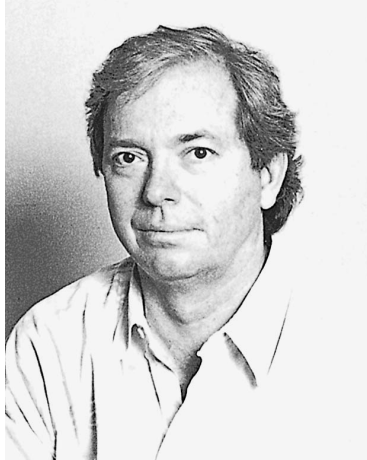
SRA International, Inc., 1982-Present  
Vice Chairman, 1977-Present  
Executive Vice President, 1989-1977  
Senior Vice President, 1985-1989  
U.S. Office of Personnel Management, Associate Director for Compensation, 1979-1981  
Department of Defense, Deputy Assistant Secretary for Requirements, Resources and Analysis, 1977-1979  
Congressional Budget Office, Principal Analyst, 1975-1977  
Rand Corporation, Staff Economist, 1971-1975  
Institute for Defense Analysis, Staff Economist, 1969-1972

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

SRA International, Inc., Board of Directors  
Mail2000 Board of Directors  
International Technology Association of America, Enterprise Solutions Board

***AWARDS / HONORS:***

DoD distinguished civilian service medal  
Charter member, U.S. Senior Executive Service  
National Merit Scholar (Duke)  
Ford Foundation Fellow and Carter Fellow (Rice)



***Dr. Harry O'Neil***  
**Professor of Educational Psychology and  
Technology**  
**School of Education**  
**University of Southern California**  
**15366 Longbow Drive**  
**Sherman Oaks, CA 91403**  
**Business Phone: (818) 501-4004**  
**Business Fax: (818) 907-2760**  
**E-Mail: [honeil@usc.edu](mailto:honeil@usc.edu)**

***EDUCATION:***

Ph.D., Psychology, Florida State University, 1969  
M.S., Psychology, Hollins College, VA, 1966  
A.B., Psychology, Boston College, 1965

***FIELDS OF EXPERTISE:***

Role of Technology in Instruction and Assessment  
Team Training  
Anxiety and Learning  
Teaching and Measurement of Higher-order Thinking Skills

***EXPERIENCE:***

University of Southern California, Professor, Department of Educational Psychology and Technology, 1985-Present  
Advance Design Information, Inc., President, 1985-Present  
University of Southern California, Director, Cognitive Science Laboratory, 1987-Present  
U.S. Army Research Institute for the Behavioral and Social Sciences, Director, Training Research Laboratory, 1982-1985 (SES)  
U.S. Army Research Institute for the Behavioral and Social Sciences, Chief, Team Chief, Basic Skills Instructional Systems Technical Area, 1978-1982  
Advanced Research Projects Agency, Program Manager, Advanced Training Technology, 1975-1978  
University of Texas at Austin, Assistant/Associate Professor (Tenured), Educational Psychology and Computer Sciences, 1971-1976

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Member/fellow of a number of scholarly organizations, including the American Association for Artificial Intelligence, American Educational Research Association, American Psychological Association (Fellow), American Psychological Society (Fellow), Human Factors Society  
American Association of Applied and Preventive Psychology (Fellow)

***AWARDS / HONORS:***

Member, Executive Board, InterService / Industry Training System and Education Conference, 1992-1995  
Member, Cosmos Club, 1987-1994  
Certified, Licensed Psychologist, Texas State Board of Examiners of Psychologists, 1972-1995  
Fellow, American Psychological Association





***GEN J.H. Binford Peay III (USA, Ret.)***  
**Chairman of the Board, President and CEO**  
**Allied Research Corporation**  
**8000 Towers Crescent Drive, Suite 260**  
**Vienna, VA 22182**  
**Business Phone: (703) 847-5268**  
**Business Fax: (703) 847-5334**  
**E-Mail: [jhbp3@gateway.net](mailto:jhbp3@gateway.net)**

***EDUCATION:***

Graduate, Army War College, 1978  
M.A., George Washington University, 1975  
B.S., Civil Engineering, Virginia Military Institute, 1962

***FIELDS OF EXPERTISE:***

Defense Issues  
Persian Gulf and Central Region  
Training, Doctrine and Operational Art

***EXPERIENCE:***

Chairman of the Board, President and CEO, Allied Research Corporation, 2001-Present  
CINC, U.S. Central Command, 1994-1997  
Vice Chief of Staff, U.S. Army 1993-1994  
Deputy Chief of Staff, Operations, DA Staff, 1991-1993  
Commanding General, 101<sup>st</sup> Airborne Division (Air Assault), 1989-1991

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Board of Directors/Trustee:  
United Defense, L.P.  
George C. Marshall Foundation  
National Defense University  
V.M.I. Foundation  
President and CEO, Ft. Campbell Historical Foundation

***AWARDS / HONORS:***

Defense Distinguished Service Medal  
Army Distinguished Service Medal (4 Awards)  
Silver Star  
Legion of Merit (3 Awards)  
Purple Heart



***Dr. Irene C. Peden***  
**Professor Emerita of Electrical Engineering**  
**University of Washington**  
**8752 Sand Point Way N.E.**  
**Seattle, WA 98115-3951**  
**Business Phone: (206) 527-9734**  
**Business Fax: (206) 527-1938**  
**E-Mail: [ipeden@ee.washington.edu](mailto:ipeden@ee.washington.edu)**

***EDUCATION:***

Ph.D., Electrical Engineering, Stanford University, 1962  
M.S., Electrical Engineering, Stanford University, 1958  
B.S., Electrical Engineering, University of Colorado, 1947

***FIELDS OF EXPERTISE:***

Electromagnetic Wave Propagation and Scattering  
Geophysical Subsurface Remote Sensing  
Antennas  
Radioscience  
Education  
Research Administration

***EXPERIENCE:***

University of Washington, Professor, E.E., 1961-1994  
National Science Foundation, Division Director, Electrical and Communications Systems, 1991-1993  
SRI International, Research Engineer, 1949-1957  
Delaware Power and Light, Junior Engineer, 1947-1949

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

National Academy of Engineering  
Fellow, Institute of Electrical and Electronics Engineers  
Fellow, American Association for the Advancement of Science  
Fellow, American Society for Engineering Education  
Fellow, Society of Women Engineers

***AWARDS / HONORS:***

Department of the Army Outstanding Civilian Service Medal  
IEEE Haradan Pratt Award and Medal; IEEE Centennial Medal  
IEEE Third Millennium Medal  
ASEE Engineering Educators Hall of Fame; ASEE Centennial Medallion  
ABET Linton E. Grinter Award and Medal; ABET Fellow  
University of Colorado Distinguished Engineering Alumnus Award  
University of Colorado Centennial Medal  
Society of Women Engineers Award of Achievement  
NSF Engineer of the Year  
Tau Beta Pi  
Mortar Board  
Honorary Doctor of Engineering, Michigan State University  
Honorary Doctor of Science *honoris causa*, Southern Methodist University



***Mr. Raj Rajagopal***  
**Vice President, Research and Engineering**  
**United Defense L.P.**  
**P.O. Box 58123**  
**Santa Clara, CA 95052-2619**  
**Business Phone: (408) 289-3752**  
**Business Fax: (408) 289-2988**  
**E-Mail: Raj\_Rajagopal@udlp.com**

***EDUCATION:***

M.S., Mechanical Engineering, Illinois Institute of Technology, 1975  
B.S., Mechanical Engineering, Indian Institute of Technology, 1974  
Executive Development Programs:  
University of Illinois, 1991  
University of Virginia, 1985

***FIELDS OF EXPERTISE:***

Ground Combat Vehicle Survivability  
Materials and Manufacturing Technology  
Advanced Vehicle Concepts  
Armor Protection  
R&D Management

***EXPERIENCE:***

United Defense LP (formerly FMC), VP Research and Engineering, 1990-Present  
Director, Strategic Planning, 1989-1990  
Manager, Armor and Materials, 1984-1989  
IIT Research Institute, Manager, Manufacturing Technology, 1978-1984  
Metallurgist, 1976-1978

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES***

AUSA  
ADPA/NSIA



***Dr. Edward K. Reedy***  
**Vice President and Director**  
**Georgia Institute of Technology**  
**400 10th Street, Room 220**  
**Atlanta, GA 30332-0801**  
**Business Phone: (404) 894-3400**  
**Business Fax: (404) 894-5283**  
**E-Mail: [ed.reedy@gtri.gatech.edu](mailto:ed.reedy@gtri.gatech.edu)**

***EDUCATION:***

Ph.D., Electrical Engineering, University of Tennessee, 1968  
M.S., Electrical Engineering, University of Tennessee, 1964  
B.S., Electrical Engineering, University of Tennessee, 1963

***FIELDS OF EXPERTISE:***

Radar	Acoustics, Sensors and Propagation	EM Scattering
Signature Control	Non-Cooperative Target Identification	
Electronic Counter-Countermeasures		

***EXPERIENCE:***

Georgia Institute of Technology, 1970-Present

Vice President, Georgia Institute of Technology, 1997-Present; Director, Georgia Tech Research Institute, 1997-Present; Associate Director, 1993-1997; Director, Research Operations, 1993-1997; Adjunct Faculty, School of Electrical Engineering, 1987-Present; Principal Research Engineer, 1978-Present; Laboratory Group Director, 1990-1993; Director, Radar and Instrumentation Laboratory, 1977-1990; Chief, Radar Application Division, 1975-1977; Head, Systems Technology Branch, 1974-1975; Manager, Special Programs Office, 1973-1974; Senior Research Engineer, 1973-1978; Research Engineer II

U.S. Army Electronics Command, Project Officer, 1968-1970

Oak Ridge Associated Universities, Fellow, 1966-1968

Bell Telephone Laboratories, Member of Technical Staff, 1963

Eastman Kodak, Engineering Trainee, 1962

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Institute of Electrical and Electronics Engineers: Board of Directors, 1998-2000; Division IX Director, 1998-2000; Finance Committee, 1999; New Financial Model Committee, 1999; Technical Activities Board, 1995-2000

Sigma Xi; American Institute of Aeronautics and Astronautics; Association of Old Crows; American Defense Preparedness Association; Air Force Association; U.S. Army Reserve; Association of Army Officers; Omicron Delta Kappa; Tau Beta Pi, Secretary of Student Chapter; Eta Kappa Nu, President of Student Chapter; Pi Mu Epsilon; Scabbard and Blade; Phi Kappa Phi

***AWARDS / HONORS:***

Millenium Medal, Institute of Electrical and Electronics Engineers; Fellow, Institute of Electrical and Electronics Engineers; Graduate Fellow, National Aeronautics and Space Administration; "With Highest Honors" Graduate, University of Tennessee; Distinguished Military Graduate; Graduate Fellow, Oak Ridge Associated Universities; Outstanding Leadership and Academic Awards, U.S. Army; Senior Scholarship, University of Tennessee; Army Commendation Medal; Meritorious Service



***Mr. John H. Reese***  
**Private Consultant**  
**13869 Lynde Ave.**  
**Saratoga, CA 95070**  
**Business Phone: (408) 867-1604**  
**E-Mail: reesejj@aol.com**  
**John.Reese@gtemail.net**

***EDUCATION:***

B.S., Electrical Engineering, University of Utah, 1962  
Numerous industry management and technical courses

***FIELDS OF EXPERTISE:***

Intelligence Systems and Analysis  
Strategic Planning  
Technology Planning  
New Technology Development  
Telecommunications  
C3CM and Electronic Warfare  
Signal Intelligence  
ISR/C2  
Foreign Weapons Systems Analysis

***EXPERIENCE:***

TRW (Electromagnetic Systems)  
Director, Advanced Technology Systems and Studies  
(Past) Director Special Electronic Systems  
(Past) Director, Strategic Planning  
(Past) Director, Business Development  
GTE  
Senior Technologist, GTE Government Systems, Electronic Defense Sector  
Director, Strategic Planning, GTE Government Systems, Electronic Defense Sector  
Manager, Intelligence Studies and Analysis, GTE Government Systems, Electronic Defense Sector

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Director, National Security Industrial Association  
NSA Scientific Advisory Board

***AWARDS / HONORS:***

Senior Technologist, GTE



***Dr. Gabriel Robins***  
**Professor**  
**University of Virginia**  
**Department of Computer Science**  
**Thornton Hall**  
**Charlottesville, VA 22903**  
**Business Phone: (804) 982-2207**  
**Business Fax: (804) 982-2214**  
**E-Mail: [robins@cs.virginia.edu](mailto:robins@cs.virginia.edu)**

***EDUCATION:***

Ph.D., Computer Science, UCLA, 1992  
M.S., Computer Science, Princeton, 1985  
B.S., Math/Computer Science, UCLA, 1983

***FIELDS OF EXPERTISE:***

Computer Science  
VLSI CAD  
Algorithms  
Optimization  
Computation  
Computer Systems  
Research  
Technology  
Problem Solving

***EXPERIENCE:***

University of Virginia, Professor (Tenured), 1992-Present  
UCLA, Researcher, 1988-1992  
Defense Science Study Group (DSSG), 1994-1996  
Naval Studies Board / NAS, 1996-1997

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

ACM  
IEEE  
SIAM

***AWARDS / HONORS:***

Packard Foundation Fellowship, 1995-2000  
National Science Foundation Young Investigator Award, 1994  
Outstanding Teacher Award, 1995  
Walter N. Munster Endowed Chair



***GEN Leon E. Salomon (USA, Ret.)***

**Logistics Consultant**

**2795 Kipps Colony Dr., #101**

**Gulfport, FL 33707-3972**

**Business Phone: (727) 347-6077**

**Business Fax: (727) 384-4083**

**E-Mail: leesalomon@nvi.net**

**lsalomon@ausa.org**

***EDUCATION:***

M.S. Logistics Management, Air Force Institute of Technology, 1971

B.S. Chemistry and Biology, University of Florida, 1958

***FIELDS OF EXPERTISE:***

Logistics

Procurement

Acquisition

R&D Management

***EXPERIENCE:***

Rubbermaid, Inc., Senior Vice President of Procurement, 1998-2000

Vice President for Purchasing and Logistics, 1996-1998

U.S. Army

Commanding General, Army Materiel Command, 1994-1996

Deputy Chief of Staff for Logistics, 1992-1994

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Association of the United States Army

Ordnance Association

Logistics Council Manufacturers Alliance



***Mr. Alan Z. Senter***  
**Chairman**  
**Senter Associates**  
**2 West 67th St., Suite 10B**  
**New York, NY 10023**  
**Business Phone: (212) 496-7771**  
**Business Fax: (212) 595-5442**  
**E-Mail: [azsenter@aol.com](mailto:azsenter@aol.com)**

***EDUCATION:***

M.B.A., Economics/Finance, Full Fellowship; Graduated with honors, University of Rhode Island, 1965  
B.S. Economics/Political Science, University of Chicago, 1963

***FIELDS OF EXPERTISE:***

Finance  
Economics  
Operations  
Strategic Planning  
Business Development

***EXPERIENCE:***

Senter Associates, Chairman, 1996-Present  
NYNEX Corp., Executive Vice President / Chief Financial Officer / Member of Policy Council, 1994-1995  
GAF/ISP Corporation, Executive Vice President / Chief Financial Officer / Member of Board of Directors  
1992-1994  
Xerox Corporation, 1968-1992  
Vice President of Finance (Senior Financial Officer), 1990-1992  
Vice President Treasurer and Business Development, 1985-1990  
Assistant Controller, Strategic Planning, 1982-1985  
Vice President, Finance, U.S. Operations, 1980-1981  
Vice President, Finance, Latin American Operations, 1978-1979  
Corporate Director, International Finance, 1975-1977  
U.S. Operations, various positions in Finance, Strategy and Planning, 1968-1975  
Uniroyal Corporation, Corporate Planning, 1965-1966

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES***

Phi Kappa Phi

***AWARDS / HONORS***

Bronze Star; Company commander in Vietnam





***Dr. John C. Stuelpnagel***

**Consultant**

**5306 Tilbury Way**

**Baltimore, MD 21212**

**Business Phone: (433) 742-0025**

**E-Mail: Jcstuelp@aol.com**

***EDUCATION:***

Ph.D., Math/Physics, Johns Hopkins University, 1962

B.A., Math/Chemistry, Yankton College, 1955

***FIELDS OF EXPERTISE:***

Technical Management and Applications

Software Development

Program Management

Electronic System Engineering

***EXPERIENCE:***

Northrop Grumman Oceanic Systems, Director, Classified Programs, 1999-2000

Northrop Grumman Electronic Sensors & Systems Division, Director, Science and Technology, 1996-1999

Westinghouse, Director, Research and Development, 1992-1996

Westinghouse, Programs Director, 1964-1992

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Member, American Defense Preparedness Association

***AWARDS / HONORS:***

Post-doctoral Fellow, Research Institute for Advanced Studies, 1962-1964



***Dr. Michael A. Wartell***  
**Chancellor**  
**Indiana University-Purdue University Fort Wayne**  
**2101 East Coliseum Boulevard**  
**Fort Wayne, IN 46805-1499**  
**Business Phone: (219) 481-6103**  
**Business Fax: (219) 481-5773**  
**E-Mail: Wartell@smtplink.ipfw.indiana.edu**

***EDUCATION:***

Ph.D., Physical Chemistry, Yale University, 1971  
M.S., Physical Chemistry, Yale University, 1968  
B.S., Chemistry, University of New Mexico, 1967

***FIELDS OF EXPERTISE:***

Chemistry/Chemical Physics  
Management  
Education  
Weapons of Mass Destruction

***EXPERIENCE:***

Indiana University-Purdue University Fort Wayne, Chancellor and Professor of Chemistry, 1994-Present  
Indiana University-Purdue University Fort Wayne, Vice Chancellor for Academic Affairs and Professor of Chemistry, 1993-1994  
Humboldt State University, Provost and Vice President for Academic Affairs and Professor of Chemistry, 1984-1989  
James Madison University, Dean, College of Letters and Sciences and Professor of Chemistry, 1979-1984  
Slippery Rock State College, Dean, School of Natural Sciences and Mathematics, and Professor of Chemistry, 1978-1979  
Metropolitan State College, Department Chair, Associate Professor of Chemistry, 1975-1978  
Metropolitan State College, Assistant Professor of Chemistry, Department of Chemistry, 1971-1975

***PROFESSIONAL / SCIENTIFIC / HONORARY SOCIETIES:***

Phi Beta Kappa  
Phi Kappa Phi  
Kappa Mu Epsilon  
Sigma Xi  
American Chemical Society  
Danforth Association  
American Academy of Forensic Sciences, Fellow  
American Physical Society



***LTG Sidney T. (Tom) Weinstein (USA, Ret.)***  
**Senior Vice President**  
**Electronic Warfare Associates, Inc.**  
**13873 Park Center Road**  
**Herndon, VA 22071**  
**Business Phone: (703) 904-5002**  
**Business Fax: (703) 904-5776**  
**E-Mail: TWeinste@ewa.com**

***EDUCATION:***

M.S., Business Administration (Systems Analysis), University of Rochester, 1970  
B.S., Military Engineering, U.S. Military Academy, 1956

***FIELDS OF EXPERTISE:***

Intelligence  
Counterintelligence  
C<sup>3</sup>I  
Information Warfare/Operations  
Systems Analysis  
Training and Doctrine  
International Relations  
Foreign Weapons of Mass Destruction

***EXPERIENCE:***

Electronic Warfare Associates, Inc., Senior Vice President, 1989-Present  
U.S. Army, 1956-1989  
Deputy Chief of Staff for Intelligence, 1984-1989  
Commander, U.S. Army Intelligence Center and School, 1981-1984  
Deputy Commander, U.S. Army Intelligence and Security Command, 1980-1981

***AWARD/HONORS:***

Several U.S. and Foreign Military Decorations  
Honorary Doctorate, Defense Intelligence College



---

# **CONSULTANT CONTACT INFORMATION**

---

---

DR. DAN E ARVIZU VICE PRESIDENT	CH2M HILL 6060 S. WILLOW DRIVE GREENWOOD VILLAGE, CO 80111-	Phone: (303) 713-2436 Ext: 2639 Fax: E-Mail: DArvizu@CH2M.com
DR. SHELDON BARON CONSULTANT	BARON CONSULTING 7 BIRCH HILL LANE LEXINGTON, MA 02421-	Phone: (781) 862-5974 Fax: (781) 863-1951 E-Mail: baron@bbn.com
DR. PAUL J. BERENSON	36 MADISON LANE SOUTH NEWPORT NEWS, VA 23606-2855	Phone: (757) 599-8351 Fax: E-Mail: berenson3@home.com
MR. ANTHONY J. BRADDOCK PRESIDENT/DIRECTOR	LOCH HARBOUR GROUP INC. 6121 LINCOLNIA ROAD, SUITE 401 ALEXANDRIA, VA 22312-2707	Phone: (703) 642-2380 Fax: (703) 642-2376 E-Mail: lhgtb1@aol.com
DR. MELVYN C. BRANCH PROFESSOR	UNIVERSITY OF COLORADO CAMPUS BOX 423 BOULDER, CO 80309-0423	Phone: (303) 492-3578 Fax: (303) 492-0353 E-Mail: branch@spot.colorado.edu
DR. KA CHAI CHEOK PROFESSOR OF ENGINEERING	OAKLAND UNIVERSITY 120G SEB, ESE DEPARTMENT ROCHESTER, MI 48309-4401	Phone: (248) 370-2232 Fax: (248) 370-4633 E-Mail: cheok@oakland.edu
DR. DEREK CHEUNG VICE PRESIDENT	ROCKWELL SCIENCE CENTER 1049 CAMINO DOS RIOS THOUSAND OAKS, CA 91360-2362	Phone: (805) 373-4269 Fax: (805) 373-4831 E-Mail: dtcheung@rsc.rockwell.com
DR. HERBERT H. DOBBS CHAIRMAN & CEO	TORVEC 448 WEST MARYKNOLL ROAD ROCHESTER HILLS, MI 48309-1952	Phone: (716) 383-8549 Fax: (716) 383-0175 E-Mail: dobbs@oakland.edu
DR. CHARLES B. ENGLE, JR. VICE PRESIDENT, INFORMATION SYSTEMS AND CIO	MEDICAL ARTIFICIAL INTELLIGENCE (MEDAI) 602 COURTLAND STREET, SUITE 400 ORLANDO, FL 32804-1342	Phone: (407) 975-0725 Fax: (407) 644-8175 E-Mail: engle@medai.com
DR. JAMES R. FISHER VICE PRESIDENT AND CHIEF SCIENTIST	DESE RESEARCH INC 315 WYNN DRIVE, SUITE 2 HUNTSVILLE, AL 35805-1960	Phone: (256) 837-8004 Fax: (256) 722-7966 E-Mail: dfisher@dese.com
MR. HERBERT J. GALLAGHER VP, MISSILE DEFENSE PROGRAMS	COMPUTER SCIENCES CORPORATION 1901 N. MOORE STREET SUITE 750 ARLINGTON, VA 22209-1706	Phone: (703) 247-1261 Fax: (703) 247-1026 E-Mail: hgallagh@csc.com
MR. FRANCISCO GARCIA PRESIDENT AND CEO	INTEGRATED INFORMATION TECHNOLOGY CORP. 5600 SOUTH QUEBEC, SUITE 120C GREENWOOD VILLAGE, CO 80111-	Phone: (303) 796-8799 Ext: 17 Fax: (303) 796-9506 E-Mail: francisco_garcia@integrated- info.com
DR. VALERIE J. GAWRON	VERIDIAN 150 NORTH AIRPORT DRIVE BUFFALO, NY 14225-1436	Phone: (716) 631-6916 Fax: (716) 631-6990 E-Mail: vgawron@buffalo.veridian.com
MR. EVERETT D. GREINKE VICE PRESIDENT	GLOBAL MARKETING & DEVELOPMENT SOLUTIONS 2121 EISENHOWER AVENUE, SUITE. 600 ALEXANDRIA, VA 22314-4678	Phone: (703) 299-6649 Fax: (703) 299-9213 E-Mail: greinke@gmdsinc.com

---

---

MR. JOHN H. GULLY VICE PRESIDENT, CORPORATE DEVELOPMENT DEFENSE TECHNOLOGY GROUP	SCIENCE APPLICATIONS INTERNATIONAL CORP. 1410 SPRING HILL ROAD, SUITE 400 McLEAN, VA 22101-3008	Phone: (703) 288-5346 Fax: (703) 288-5404 E-Mail: john.h.gully@cpmx.saic.com
VADM WILLIAM J. HANCOCK (USN, RET.) INDEPENDENT CONSULTANT	HANCOCK ASSOCIATES 5512 ASHLEIGH ROAD FAIRFAX, VA 22030-7241	Phone: (703) 322-0781 Fax: (703) 322-0791 E-Mail: wjhancock@aol.com
MR. GILBERT V. HERRERA DEPUTY DIR., CORPORATE BUSINESS DEVELOPMENT AND PARTNERSHIPS	SANDIA NATIONAL LABORATORIES P.O. BOX 5800-0157 1515 EUBANKS SE, MS0157 ALBUQUERQUE, NM 87185-0157	Phone: (505) 284-6701 Fax: (505) 844-0884 E-Mail: herrergv@sandia.gov
DR. WILLIAM E HOWARD III	1653 QUAIL HOLLOW COURT McLEAN, VA 22101-8975	Phone: (703) 532-8975 Fax: E-Mail: wehoward@earthlink.net
MS. FRIEDA SUZANNE JENNICHES VP & GM, AUTOMATION & INFORMATION SYSTEMS DIVISION	NORTHROP GRUMMAN CORPORATION ELECTRONIC SENSORS & SYSTEMS SECTOR P.O. BOX 17320 BALTIMORE, MD 21203-7320	Phone: (410) 765-2400 Fax: (410) 981-2200 E-Mail: frieda_s_jenniches@md.northgrum. com
MR. THOMAS E. KELLY VICE PRESIDENT FOR BUSINESS DEVELOPMENT	TPL, INC. P.O. BOX 42415 CHEVY CHASE STATION WASHINGTON, DC 20015-0415	Phone: (202) 966-7197 Fax: (202) 237-8662 E-Mail: tkelly3@erols.com
MR. RICHARD LADD PRESIDENT	ROBINSON INTERNATIONAL, INC. ONE MASSAHUSETTS AVE SUITE 880 WASHINGTON, DC 20001-	Phone: (202) 371-1196 Fax: (202) 371-1178 E-Mail: dickladd@aol.com
MS. GINGER E. LEW CEO AND MANAGING DIRECTOR	TELECOMMUNICATIONS DEVELOPMENT FUND 2020 K. ST. NW, SUITE 375 WASHINGTON, DC 20006-1806	Phone: (202) 887-1317 Ext: 237 Fax: (202) 293-8850 E-Mail: ginger.lew@tdfund.com
MR. PAUL LUMPKIN PRESIDENT	PLEXUS SCIENTIFIC 1900 N. BEAUREGARD STREET ALEXANDRIA, VA 22311-	Phone: (703) 845-8492 Ext: 101 Fax: (703) 845-8499 E-Mail: pdlumpkin@plexsci.com
GEN DAVID M. MADDOX (USA, RET.)	2301 FORT SCOTT DRIVE ARLINGTON, VA 22202-	Phone: (703) 979-4279 Fax: (703) 979-4281 E-Mail: dmmadd@aol.com
MR. VELORIS MARSHALL PRESIDENT & CEO	MARSHALL COMMUNICATIONS CORP. 21525 RIDGETOP CIRCLE, SUITE 270 STERLING, VA 20166-	Phone: (703) 406-6080 Fax: (703) 406-6084 E-Mail: sonny@ma-inc.com
LTG CHARLES P. OTSTOTT (USA, RET.) VICE PRESIDENT OF COMMAND AND CONTROL SYSTEMS	GLOBAL INFOTEK, INC 156 E MAPLE AVE VIENNA, VA 22180-5726	Phone: (703) 319-0154 Fax: (703) 319-0814 E-Mail: cotstott@globalinfotek.com

---

---

DR. ROBERTA-DIANE J PERNA CORPORATE LIAISON	MEZZOGIORNO CONSULT/NORWICH UNIVERSITY 7712 MIDDAY LANE ALEXANDRIA, VA 22306-	Phone: (703) 765-6112 Fax: (703) 765-6113 E-Mail: robbiperna@aol.com
DR. T. JOAN ROBINSON DEAN OF THE SCHOOL OF COMPUTER, MATHEMATICAL AND NATURAL SCIENCES	MORGAN STATE UNIVERSITY 1700 EAST COLD SPRING LANE CALLOWAY HALL 217 BALTIMORE, MD 21251-	Phone: (443) 885-4515 Fax: (410) 319-3628 E-Mail: jrobinso@morgan.edu
LTG DANIEL R. SCHROEDER (USA, RET.) PRIVATE CONSULTANT	546 LOBLOLLY DRIVE VASS, NC 28394-8217	Phone: (910) 245-3136 Fax: (910) 245-1756 E-Mail: frigate120@aol.com
MR. ALAN R. SCHWARTZ PRINCIPAL (MANAGER)	POLICY FUTURES LLC 1514 HARDWOOD LANE McLEAN, VA 22101-2514	Phone: (202) 777-6000 Fax: (202) 777-6000 E-Mail: alanschwartz@policyfutures.com
MR. GEORGE T. SINGLEY, III PRESIDENT	HICKS AND ASSOCIATES, INC. 1710 GOODRIDGE DRIVE, SUITE 1300 McLEAN, VA 22102-	Phone: (703) 676-4728 Fax: (703) 676-5813 E-Mail: george.t.singley.III@cpmx.saic.com
DR. STUART H. STARR DIRECTOR OF PLANS	MITRE CORPORATION 1820 DOLLEY MADISON BLVD MCLEAN, VA 22102-3481	Phone: (703) 883-5494 Fax: (703) 883-1373 E-Mail: starr@mitre.org
DR. JAMES S. WHANG CHAIRMAN AND PRESIDENT	AEPCO, INC. 15800 CRABBS BRANCH WAY, SUITE 300 ROCKVILLE, MD 20855-2604	Phone: (301) 670-6770 Fax: (301) 670-1809 E-Mail: whang@aepco.com

---



---

# **HISTORICAL INFORMATION**

---

---

## **Past Army Science Board Chairs**

**Dr. Michael Frankel**  
1996 - 1998

**Dr. Wilson K. Talley**  
1995 - 1996

**Dr. Walter B. LaBerge**  
1992-1995

**Mr. James Jacobs**  
1991 - 1992

**Dr. Duane A. Adams**  
1990 - 1991

**Dr. Dennis Horn**  
1989 - 1990

**Mr. Gilbert F. Decker**  
1987 - 1989

**Dr. Irene C. Peden**  
1986 - 1987

**Dr. Wilson K. Talley**  
1983 - 1986

**Dr. Richard A. Montgomery**  
1981 - 1983

**Dr. J. Ernest Wilkins Jr.**  
1978 - 1981

---

---

## **"ASAP"**

### **The Army Scientific Advisory Panel forerunner of the Army Science Board**

#### **Past Chairs**

**Dr. Frederick L. Hovde**

1956 - 1957

**Mr. Richard S. Morse**

1958 - 1959

**Dr. James W. McRae**

1960

**Dr. Clifford C. Furnas**

1960 - 1961

**Dean Morrrough P. O'Brien**

1961 - 1964

**Dr. Finn J. Larsen**

1965

**Dr. Harold M. Agnew**

1966 - 1970

**Mr. Lawrence H. O'Neill**

1971 - 1975

**Dr. Bruce A. Reese**

1976 - 1977

---

