

Will America lose its competitive edge? Can we afford to? Think it can't happen?

Office of Health, Safety and Security Visiting Speaker Program Event

The U.S. Industrial Base is the total manufacturing capability of all U.S. Industry and has long held the distinction of leading the world in technological and industrial development.

Since the 1980's American companies have moved their manufacturing overseas at alarming rates. Losing vital industries weakens our economy and threatens our national security.

- An Italian company is purchasing an American shipbuilding company while also actively being involved in the design of a new class of Russian submarines.
- R&D centers (many owned by tech companies such as Cisco, Motorola, GE, and HP) in India alone have risen from 180 in 2000 to 594 in 2008.
- Intel and Microsoft are actively spending millions to recruit Chinese engineers.
- The total cost of employing a full-time Indian engineer—including wages and benefits, facilities, telecom, travel, and administrative support—ranges from \$35,000 to \$55,000. The cost of an American engineer is three times this amount.

Moving manufacturing from the U.S. places America at great risk economically as well as to our energy and national security.

**On Monday, January 12, 2009
Our panel of experts discusses the status of the U.S.
Industrial Base and what can be done to ensure our
industrial capability**

U.S. Department of Energy
Forrestal Building
1000 Independence Avenue, SW
Washington, DC
12:45 p.m. – 4:15 p.m.

**Please contact Rosemary Hazard at
rosemary.hazard@hq.doe.gov
to reserve your place at this event**



Mr. Ron Ault, President
Metal Trades Department
AFL-CIO
PANEL MEMBER



Dr. Eugene Arthurs
Executive Director
SPIE
PANEL MEMBER



Mr. Jeffrey Q. Palombo
Sector Vice President
Northrop Grumman Corporation
PANEL MEMBER



Mr. Eric Mittelstadt
Chief Executive Officer
National Council for Advanced
Manufacturing
PANEL MEMBER



Mr. Edward A. Morris
Director, Hardware and
Manufacturing
Lockheed Martin Corporation
PANEL MEMBER



Frank P. DiGiammarino
Vice President, Strategic Initiatives
National Academy of Public
Administration
PANEL MODERATOR





Eugene G. Arthurs joined SPIE staff as Executive Director in November 1999. Prior to this he was President and CEO of Cleveland Crystals Inc. (CCI) He joined CCI, a closely held company, in 1997 and after reorganizing the company he marketed and sold it at the end of 1998. He joined the Board of Gooch & Housego, PLC (G&H), the acquiring company, after the sale and oversaw CCI and Optronics Laboratories Inc., G&H's U.S. subsidiaries.

From 1983 to 1997, Eugene was with Oriel Corporation in Connecticut, initially as Vice President of Technology and Marketing and from 1991, as President. Oriel, originally a privately held corporation, was acquired

by a venture capital company in 1987. He changed the business of Oriel to emphasize systems and instruments and in 1996 ThermoElectron Corp. acquired an increasingly profitable Oriel. Eugene became involved in Thermo's growth-by-acquisition activities. During his time at Oriel, he played an active role on the Boards of Oriel Scientific Ltd., (London, UK), LOT Oriel GmbH, (Darmstadt, Germany) and he was a founder of Andor Technology Ltd. (Belfast, N.Ireland) a company initially owned mostly by Oriel.

From 1980 - 1983, he was with Quantronix Corp., Smithtown, NY. He joined Quantronix as Applications Manager, developing medical and industrial laser applications and systems. In 1992, he took responsibility for Quantronix's dominant business segment, systems for semiconductor lithography and micromachining.

From 1975-1980, he was with Barr & Stroud Ltd. in Glasgow, Scotland. He established and led Barr & Stroud's Laser Group which designed and manufactured solid state lasers for medical applications and gas and dye lasers for scientific and industrial applications. After the acquisition of Barr & Stroud by Pilkington PLC, he worked extensively with Pilkington senior management on strategic planning. He was Research Associate at Imperial College London from 1973-1975, developing UV and gas lasers (for U.S. Air Force and UK Atomic Energy Authority contracts) and frequency conversion techniques.

Eugene received his B.Sc. (1st class honours) in 1972 in Physics, and his Ph.D. in 1975 in Applied Physics from Queens University Belfast, N.Ireland. His Ph.D. research was in generation and measurement of tunable ultrashort (1-2 ps in those days) pulses. In 1973, he taught the M.Sc. class in optoelectronics at Queens while continuing his research.

An SPIE member from 1972 or so, Eugene has been active in the American Society for Lasers in Medicine of which he was a founding member, the Council for Optical Radiation Measurement, and the OSA at a local and national level. He is currently a member of SPIE, OSA, CORM, CESSE, ASAE and the Advisory Board to the Photochemical Research Center at Bowling Green State University. A former Congressional District Organizer, he remains active in Bread for the World, an educational and public policy organization working on the basic causes of world hunger.



Ron Ault

President

Metal Trades Department, AFL-CIO

Prior to being elected as the Metal Trades Department's President, Mr. Ault served for four years as a General Representative of the Department. A former organizer with the International Union of Operating Engineers and a former business representative for the International Association of Machinists and Aerospace Workers, Ault is a career Labor Representative with more than 30 years experience.

Mr. Ault served a four-year enlistment with the U.S. Navy, including a tour of duty in Vietnam (1968-69). Mr. Ault went to work at the Norfolk Naval Shipyard in 1971; he was hired as an apprentice Inside Machinist. Graduating as a journeyman Inside Machinist with honors four years later, Ault served in various union positions. From 1980 to 1985, he served as president of the Tidewater Virginia Federal Employees Metal Trades Council and the Chairman of the Conference Committee at NNSY in Portsmouth, Virginia. Ault served as Campaign Coordinator in the Metal Trades Department's successful drive for union recognition at the Avondale Shipyard in New Orleans and was the Chief Negotiator for the historic first union contract at the yard.



Frank P. DiGiammarino

Vice President, Strategic Initiatives
National Academy of Public Administration

Frank P. DiGiammarino serves as Vice President of Strategic Initiatives at the National Academy of Public Administration. In this capacity, Frank supervises the conception and execution of special campaigns and initiatives and is responsible for driving strategic organizational change and opening new lines of business for the National Academy. Frank oversees the National Academy's communications, government relations and business development activities. Frank promotes the National Academy by developing innovative approaches to addressing government's management challenges. He has recently worked on studies for the Administrative Office of the Courts, Army Corps of Engineers, Equal Employment Opportunity Commission, and Immigration and Customs Enforcement.

An author and speaker on how to navigate government leadership transitions, Frank came to the National Academy in 2005 after many years as a senior consultant and strategist. Former positions include Director and DoD Practice Area lead at Touchstone Consulting Group, General Manager and Director of Program Management at Sapient Corporation, and Principal Consultant with the State and Local government practice at American Management Systems.

Career highlights include leading a program to re-engineer a \$6 billion Army department with 15,000 personnel; driving reorganization of an 1100 person consultancy in 6 months with 85% adoption; and leading a 700+ person office that delivered \$120 million in annual revenue. Frank holds a Bachelor of Arts in Political Science from the University of Massachusetts and Master's of Public Administration from The George Washington University. He serves on the Advisory Board for the Commonwealth College of the University of Massachusetts and the Advisory Board of the National Capital Area Chapter of the American Society of Public Administration. He is an advisor to the leadership team of the Young Government Leaders organization and has recently concluded serving as an advisor to the Change and Transformation Initiative at the George Washington University.



Eric Mittelstadt
Chief Executive Officer
National Council for Advanced Manufacturing (NACFAM)

Eric Mittelstadt since January 2005 is the Chief Executive Officer of the National Council for Advanced Manufacturing (NACFAM), a leading industry led think-tank based in Washington, DC. Its mission is to broker the “Intense Collaboration” required to achieve NACFAM’s vision for U.S. manufacturing; i.e., to make it sustainable and globally competitive based upon innovative practices & policies that continue to “Raise the Playing Field”, not just level it. NACFAM does this in a non-partisan, non-lobbying way involving all stakeholders on researching and advancing policies in four focus areas; i.e., manufacturing process technology, workforce learning, supply chain value creation, and sustainable manufacturing.

Mr. Mittelstadt is also Chairman Emeritus of FANUC Robotics America, the leading industrial robotics company in the USA since 1984, and named one of “Michigan’s 11 best companies to work for” in 1999. He headed that organization from its startup as a joint venture between General Motors Corporation and FANUC LTD of Japan in 1982, first as President & Chief Executive Officer through August, 1997, and then as Chairman & CEO through December 1998, leading it to \$370 million in revenue. Before that, his GM positions included Executive Assistant to the Group Vice President in charge of GM Overseas Operations, Managing Director in Uruguay, Truck & Bus Business Planning Director for GM Overseas, Product Planning Director in both Germany and Chevrolet, and various engineering and management positions at Chevrolet Division and the GM Corporate Engineering Staff.

Separately, Mr. Mittelstadt heads his own firm, Mittelstadt Associates, Inc., specializing in top management strategy and implementation consulting, especially concerning customer and employee satisfaction, team building and financial performance. He is a past member of the board of Ellison Technologies, Inc., a leading machine tool distributor, and of its Automated Concepts, Inc. subsidiary, a long time successful integrator of robotic systems for various industries.

Born in Detroit, Mr. Mittelstadt received a BME from General Motors Institute (now Kettering University) in 1958, an MBA from Wayne State University in 1965, and completed the Tuck Executive Program at Dartmouth College in 1980.

Mr. Mittelstadt has served a number of volunteer organizations. He is a past Chairman of the NACFAM Board, and has been a member of the Board and chair of its Advanced Manufacturing Leadership Forum (AMLF). He has been a member of the Board of Directors of the Manufacturing Skill Standards Council (MSSC), and is currently on the Board of the Doyle Center for Manufacturing Technology in Pittsburgh and the Chicago Manufacturing Center, a part of the Manufacturing Extension Partnership.

Mr. Mittelstadt is listed in Who’s Who in Manufacturing and Who’s Who in Entrepreneurs. In 1992 he won the Joseph F. Engelberger Award for Robotic Industry Leadership. He is past chair of the USA Robotics Industries Association (RIA), the International Federation of Robotics (IFR), the Board of Control of Michigan Technological University, the Board of Trustees of St. Luke’s Episcopal Health Ministries, and the South Oakland County Chamber of Commerce. He is a past member of the Detroit Regional Chamber of Commerce Board of Directors, the Oakland County Executive’s Business Roundtable, Bloomfield Hills City Planning Commission, Cranbrook Schools Board of Governors, the Vestry of Christ Church Cranbrook, and president and board member of the Bloomfield Open Hunt.



Edward (Ed) A. Morris

Director, Hardware and Manufacturing
Corporate Engineering and Technology
Lockheed Martin Corporation

Ed Morris is currently the Director of Hardware and Manufacturing on the Lockheed Martin Corporate Engineering & Technology team. Reporting to the Vice President of Engineering, Ed works with the Lockheed Martin Business Areas to develop technical excellence, as well as a sound strategy for the hardware design and manufacturing communities across the Corporation. His focus is on improving the effectiveness of hardware design processes and methods as they influence the affordability, producibility, and testability of Lockheed Martin's portfolio of products and program execution. He is Vice Chairman of the Lockheed Martin Corporate Production Council. Additionally, Ed is responsible for developing and executing a proactive Lockheed Martin approach for Pb (lead)-Free Electronics.

Ed has a B.S. Degree in Aeronautical Engineering from Purdue University and an MBA from the University of Texas at Arlington. He has 37 years of defense, commercial and international aerospace industry experience with emphasis on program management, engineering, procurement, and manufacturing. Ed is a nationally recognized leader in advanced manufacturing technology.

Ed is the Chairman of the National Defense Industrial Association's Manufacturing Division, and is an active member the Technology Advisory Panel for the Next Generation Manufacturing Technology Initiative, the Penn State Electro-Optics Alliance, the joint industry/government Executive Lead-Free Integrated Process Team, the AIA-AMC-GEIA Lead-free Electronics in Aerospace Project (LEAP) Working Group, and the Missile Defense Agency's Transforming Defense Supply Chains Technical Advisory Board. Ed is a member of the Board of Directors for the National Center for Defense Manufacturing and Machining. He also serves as a member of the Industrial Advisory Boards for the Navy Electronics Manufacturing Productivity Facility, the National Science Foundation Industry/University Cooperative Research Center for Lasers and Plasmas, and the Center for Advanced Life Cycle Engineering (CALCE) Electronic Products and Systems Consortium at the University of Maryland. Ed is a member of the Aerospace Industries Association's (AIA) Engineering Management Committee. He is also an Industry Fellow for the University of Texas at Arlington Automation & Robotics Research Institute and a member of the Beta Gamma Sigma Honor Society.



Jeffrey Q. Palombo

Senior Vice President and Division General Manager,
Land Forces Division, Electronic Systems Sector
Northrop Grumman Corporation

Mr. Palombo has executive responsibility for the overall growth and program activities for the division's diverse business portfolio. The Land Forces Division executes ~\$1B/year in sales. The Land Forces Division is a diverse organization specializing in land forces, communication systems and laser systems programs. The organization is comprised of approximately 1,500 employees based in multiple locations around the United States.

Mr. Palombo served as Vice President of Infrared Countermeasures (IRCM) for the Defense Systems Division with responsibility for the execution of all programs across the IRCM portfolio, including Directional Infrared Countermeasures, Large Aircraft Countermeasures, and the company's Guardian Counter Man-Portable Air Defense Systems, which features the Mini Pointer/Tracker missile detection system. Other activities he has been responsible for within Northrop Grumman include the development of complex laboratory simulation and open-air range simulation training systems for the United States Department of Defense and international customers.

Mr. Palombo earned a Bachelor's degree in Business and Marketing from Adelphi University. In addition, he has completed Hofstra University's Management Program in Government Contracts Administration as well as extensive coursework in Electric Engineering at the Polytechnic Institute of New York.