

ALAN E. HAGGERTY

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OBJECTIVE

A senior executive position that will fully utilize my experience, training and education in support of national defense.

EXPERIENCE

Vice President and Division Manager, Electromagnetic Research Division of Information Systems Laboratories, Inc., 2005-present. I am responsible for all aspects of performance for a division of 12 PhD-level scientists and engineers, including profit and loss, financial management, business development, day-to-day operations, personnel and recruiting, training and education, and customer relations. Performance of my division has improved substantially under my leadership, as evidenced by an increase in profitability of more than 15% in less than a year, and an increased customer base due to my marketing efforts.

Deputy Director, Human Capital Strategy Working Group, Naval Sea Systems Command 2004-2005. I acted as deputy to a senior executive service principal. I managed development of policy and programs to assure that the Naval Sea Systems Command's human capital strategy will provide personnel adequate to support the command's mission in all aspects of its work, for headquarters activities, PEOs, research and development centers, and naval shipyards.

Major Program Manager, Above Water Sensors, U.S. Navy Program Executive Office for Integrated Warfare Systems, 2000-2004. I created a new organization to meet the radar and sensor needs of the Navy of today and tomorrow, increasing organizational competence while working in an atmosphere of decreasing personnel and reduced total spending. I was responsible for all aspects of program management for all above-water sensors for the surface Navy, including radars and electronic warfare equipment. My responsibilities ranged from maintenance of aging, widely fielded in-service sensors, to new system development, to coordination of technology development to support future service needs. I worked closely with other major program managers, flag-level leadership in the Navy and other services, intelligence agencies, Congressional staffs, the Department of Commerce and the State Department. I dealt frequently with allied naval staffs and technical leadership regarding issues of technology transfer, and spearheaded cooperative development efforts with the United Kingdom, Australia and Japan. I also developed a new ACAT-ID program from scratch to post-milestone B development in less than three years, supporting customers outside the Navy and using non-Navy resources. In the course of the effort, I successfully completed two major acquisition milestones for the program.

System Engineer for Navy Ballistic Missile Defense programs at the AEGIS project, Program Executive Officer, Theater Surface Combatants, 1998-2000. I coordinated all engineering activities associated with development of Navy ballistic missile defense capabilities between the then-Ballistic Missile Defense Organization (now Missile Defense Agency) and Navy engineering offices for the AEGIS system. I conducted testing of advanced radar modifications for the SPY-1 radar, which added significantly to the Navy's missile defense capability. I also conducted briefings to the technical leadership of the Navy of the Republic of Korea, which led to the development of a major Foreign Military Sales project to supply the Aegis system to the ROKN.

Senior Program Integrator for Navy Ballistic Missile Defense Acquisition, Ballistic Missile Defense Organization, 1995-1998. I was responsible for development of Navy, Air Force and Army requirements for advanced technology research in support of missile defense development, as well as monitoring the management and technical performance of all services' BMD acquisition programs. I also conducted research and testing in hypervelocity impact lethality which contributed to the understanding of missile defense system effectiveness.

Advanced Cruise Missile System Engineer for Cruise Missile weapon control systems at the Navy's Cruise Missile Project, 1990-1995. I led a team which transformed wartime lessons learned into system requirements and improvements that will serve the Navy through the 21st Century. I led an effort to define and initiate development of an improved Tomahawk cruise missile, including development of system requirements and complete life cycle cost estimates, and also served on the Source Selection Board for Tomahawk Block IV. I participated in early planning efforts on a cooperative program with the Royal Navy, which led to fielding of the Tomahawk missile system onboard British submarines.

Operations Officer/Overhaul Coordinator, USS Elliot, DD-967, 1987-1990. I was responsible for management of a \$100+ million ship overhaul, the largest and most complicated destroyer overhaul project in memory. The complete overhaul effort included installation of three major new weapon systems, crew training, heavy ship maintenance, and post-overhaul testing. I routinely dealt with commercial shipyard management, and senior naval leadership. I also dealt with the results of a major strike by shipyard workers and completed the overhaul with the ship in outstanding condition.

Chief Engineer/Main Propulsion Assistant, USS Chandler, DDG-996, 1982-1984. I trained a new division of more than 30 engineers on a newly-commissioned ship. I brought the team to a high level of operational competence, completing all training and readiness tasks in a time line compressed by shipyard delays, with perfect results as rated by the Pacific Fleet Propulsion Examining Board.

Navigator/Communications Officer, USS Vancouver, LPD-2, 1978-1982. I served as Navigator, Communications Officer, Top Secret Control Officer, cryptographic materials system custodian, and amphibious operations boat group officer.

EDUCATION

M.S. Weapons System Engineering Naval Postgraduate School, Monterey, CA	1986
B.S. General Science, Oregon State University, Corvallis, OR, 97330	1978
High School Diploma, South Salem H.S., Salem, OR, 97302	1974

TRAINING

Defense Systems Management College Program Manager Course (530 Hours)	1995
Defense Systems Management College Advanced Systems Planning, Research, Development and Engineering Course (72 hours)	2000
Carnegie-Mellon University Software Quality Improvement Course (72 hours)	1992

AWARDS

Department of the Navy Fiscal Year 2004 Competition and Procurement Excellence Award for leadership of the Cobra Judy Replacement Program	2005
Legion of Merit	2004
Meritorious Service Medal (2 awards)	1995-2001
Defense Meritorious Service	1998
Navy Commendation Medal	1990
Navy League Award - Top Academic Achievement in Surface Warfare	1987
Department Head Course (First in a class of eighty-eight)	

PROFESSIONAL

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DAWIA Level III, Program Management	1999
DAWIA Level III, System Planning, Research, and Development	2000
Member, Acquisition Professional Community	2000

PUBLICATIONS

Haggerty, A.E., Van Wyck, D., May, T., Barker, P., Wood, R.L., Brown, J., et al. (2004) COBRA JUDY Replacement: A shipboard S- & X-band solid-state radar system for the collection of ballistic missile signatures. *Proceedings of the 2004 Military Sensing Tri-Service Radar Symposium* (classified).

Haggerty, A. E., & Wood, R. L. (1987). Return of the Naval Airship. *United States Naval Institute Proceedings*. 113(2), 48-50.

Haggerty, A. E., & Wood, R. L. (1985). The New Faces [of Amphibious Warfare]. *United States Naval Institute Proceedings*. 111(11), 37-40.

Haggerty, A. E., & Wood, R. L. (1984). Comment and discussion: Balancing the Nuclear Attack. *United States Naval Institute Proceedings*. 110(12), 19-22.

REFERENCES

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“ ... One of the very best senior officers I have ever observed... He has the knowledge, experience, integrity, fairness and vision to excel at the highest levels...” - from Officer Evaluation, 2003



James D. Hall



Jim Hall is Acting Assistant Deputy Under Secretary of Defense for Logistics Plans and Programs and Director, Studies and Analysis for Logistics and Material Readiness. He is a member of the Senior Executive Service.

Appointed to the department in 2004, he is leading initiatives to incorporate lean principles into the DoD supply chain, streamlining material flow through regional inventory and materials management, improving inventory performance through collaboration on common challenges, and coordinating supply base efforts through commodity management. He is Executive Coordinator of the Business Transformation Investment Review Boards for Weapons Systems Life Cycle Management and Material Supply and Service Management. He also serves on the Joint Cross Service Supply and Storage Advisory Board, guiding implementation of Distribution Realignment and Procurement Consolidation.

Before joining the department, Jim addressed a range of supply chain management and operations issues in multiple industries as a management consultant. While a Vice President or Partner of Cleveland Consulting Associates, ATKearney and Deloitte Consulting he assisted executives of Borden, Delphi, GM, Kraft, Safeway, Sears, and other major firms. He focused on establishing cross-enterprise collaboration, globalizing business processes, creating synergy among multiple business units, and improving operations performance.

As a line manager for American Hospital Supply, the leading medical products distributor, he was responsible for logistics operations, costs, and assets in a major geographic area. He has managed the order to cash process, tiered inventory, customer service, multiple distribution centers, transportation, and financial functions.

He has been a speaker at several Council of Logistics Management annual conferences and is the author of the chapter "Supply Chain Management" in McGraw-Hill's Distribution Management Handbook.

Jim served in the Navy as a surface warfare officer aboard a DDG participating in combat operations. He graduated with distinction from the Naval Academy and has an MBA from Drexel University.

Cleveland Consulting Associates

Vice President

1985-1992

- Determined the operations practices and roll out strategy for a new business venture of HEB to meet service objectives at targeted cost. Opportunities yielding a cost structure 25% below anticipated levels were identified.
- Redesigned Safeway's store order process reducing cycle time 50%, eliminating over 30% of applicable inventory and increasing profits over 5%
- Developed long range facility strategies for multiple Safeway divisions
- Developed a revised distribution infrastructure and processes to respond to changing channels to the consumer for Pennzoil, providing service to the new channels and an overall 7% reduction in distribution costs
- Created the long-range, time-phased distribution strategy and \$235 million capital investment plan for Mervyn's to support geographic expansion
- Conducted network evaluations and site selection analysis, developed conceptual distribution center designs and material handling concepts to achieve service and cost objectives in a variety of industries
- Council of Logistics Management Track Chair and speaker at three annual conferences

Selected other clients include Kraft, 3M, Scottish & Newcastle Breweries

American Hospital Supply

Area Operations Manager

1978-1985

Responsible for customer service, operating costs and working assets for one of five major areas with ten profit centers. Managed area customer service and financial center, multi-distribution center network, multi-echelon inventory, local delivery and over-the-road fleets

- Consolidated order to payment functions and process of 3 separate divisions within a six state, ten profit center area, reducing operating costs while maintaining service
- Stabilized and then improved operations in the Cleveland regional office

U. S. Navy

Lieutenant

1972-1978

- Received personal and unit commendations for performance during combat operations in Southeast Asia in 1972 and 1975

EDUCATION

MBA

Drexel University 1978

Beta Gamma Sigma Academic Honor Society

BS, With Distinction

U. S. Naval Academy 1972

SELECTED PUBLICATIONS AND PRESENTATIONS

"Supply Chain Challenges" Supply Chain Council Annual Conference 2001

Collaborative Commerce in the Automotive Industry, Deloitte Research, Spring 2002

"Asset Productivity for Shareholders: Finding Hidden Value", Executive Agenda, Q4, 1998

Supply Chain Management" The Distribution Management Handbook; McGraw, Hill, 1993

KATHLEEN LYN HARGER

Ms. Kathleen Harger is the founder, President and Chief Executive Officer of Research Analysis and Engineering, LLC (RAE), established in March 2000. RAE's objective is to accelerate the application of relevant technology to acquisition programs and products through technology search, business case analyses, brokering, and technology roadmapping. Primary clients include the U.S. Navy and the Chemical Biological Radiological Technology Alliance, where RAE serves as one of the thirteen co-primers organized to influence commercial and dual use technology development with an emphasis on meeting national security and defense technology needs.

Ms. Harger has provided technical leadership to the office of the Navy's Chief Technology Officer (CTO), now Commercial Technology Transition Office (CTTO), since its inception in 1999. The CTTO, reporting directly to the Navy's Service Acquisition Executive and to the Chief of Naval Research, is responsible for the transition of technology into acquisition systems to meet operational requirements. Ms. Harger's ability to translate operational requirements and needs into technology solutions where appropriate, aggressiveness in leading a team of people to accomplishment of program objectives, and energetic manner in maintaining customer satisfaction through her technical and business contacts in government and industry have been her greatest strengths in garnering success for the CTTO. She built the team that provides to the CTTO the professional technology, acquisition and business support enjoyed today.

Prior to founding RAE, Ms. Harger was the Vice President for Technical Operations at the Potomac Institute for Policy Studies, a non-profit, non-partisan organization focused on technology issues as they impact public policy. Her expertise in organizational management was sought as the company began to grow to bring to the corporation organizational discipline and robust business practices, as well as a working understanding of naval operations. She was responsible for the financial, contractual (government, grants, donations, consultants), facilities, and human resource aspects of the four-year-old, \$4M organization. Because of her technical and business contacts in government and industry, she was also instrumental to the Institute's success in influencing opinion/legislation concerning commercialization in space, dual use technologies for the military, the U.S. shipbuilding industry, alternatives to the use of antipersonnel land mines, missile defense and biological terrorism.

Ms. Harger served over five years with The MITRE Corporation as the Technical Lead on many Navy projects -- in both R&D and operational venues. She led the only Industry involvement in a government team that transitioned an R&D project (National satellite technology) in less than two years. Prior to that, she was the Manager of Corporate Planning at a small defense company, responsible for coordinating the company's strategic plan, identifying business opportunities, and developing customer relationships. Her ability to translate requirements into technology solutions, willingness to lead a team

of people to accomplishment of program objectives, and genuine interest in maintaining customer satisfaction were her strengths.

Ms. Harger spent ten years as an active duty Naval Officer, and 19 years in industry, providing technical and program management support for multiple government programs, including Antisubmarine Warfare (ASW) strategy and concept development, mine detection, and tactical exploitation of space. During her active duty service, she was a qualified watch officer at several Integrated Undersea Surveillance System (IUSS) stations; program sponsor managing the overall funding and resources for the IUSS; member of the Navy negotiation team for an international program where she negotiated sale of hardware, technology and concepts of operations to foreign governments in support of undersea surveillance; Deputy Director of oversight for all Navy Special Access Programs (SAPs), during which she became aware of advanced technologies and their applications to military requirements and intimate with the decision-making process for program support.

Ms. Harger retired out of the naval reserve as a Captain, having spent her final four years with the Chief of Naval Operations Executive Panel (CEP). After her retirement, she remained assigned to the CEP as a Special Government Employee, where she served as an advisor to the top-ranking naval officer on topics of personal interest to him as he contemplates the future direction of the United States Navy. Prior to her assignment to the CEP, Captain Harger spent seven years as a reservist in the naval space community, where she stood watches in the Naval Space Command operations center during Desert Storm, interfaced with the NRO for support to the warfighter, and was an integral player in the establishment of the Naval Space Reserve Program to bring formality to the coordination of the space expertise of 250 naval reservists.

Additionally, Ms. Harger was recently accepted as a Special Government Employee consultant to the Army Science Board. She has also served on the Strategic Advisory Board of Dynamics Technology, Inc., a company that provides physics-based modeling, simulation and performance analysis of advanced surveillance and weapons technologies and systems, and currently serves on the Science Advisory Board of Directed Technologies, Inc., founded in 1982 to rapidly mature and exploit emerging high impact technologies.

John A. Hartford Jr. (b)(6)

Summary of Qualifications

Over thirty-three years of diversified leadership, management, and operations experience in positions of substantial authority and responsibility. Created, managed and implemented major systems and programs involving a majority of the organizations in the Executive, Legislative, and Judicial branches of the Federal Government. This also required interaction with State and local government organizations, and extensive engagement with US Industry. Extensive national experience in -- strategic planning and strategies, acquisitions, program and resource management, security and countermeasures, law enforcement, Congressional support, education, contingency and emergency operations, and intelligence/counterintelligence -- activities. Usually an originating member of the designated activity with actions conducted in high stress, accelerated, crisis management environments requiring a constant triage of national priorities and strategies; available resources; operational requirements; and political sensitivities.

Experience

Special Assistant for Policy, Programs, and Resources to the Assistant Director of Central Intelligence for Collection.

Special Advisor to Secretary of Energy Commission on Science and Security.

Professional Staff support to former Senator Howard Baker and Congressman Lee Hamilton's review for and report to the President of the United States and Secretary of Energy on "Science and Security in the Service of the Nation: A review of the security incident involving classified hard drives at Los Alamos National Laboratory."

Professional Staff Member, Congressional/Presidential Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction.

Chief, Strategies and Evaluation Group, DCI Nonproliferation Center and secretariat for DCI's Nonproliferation Advisory Panel.

US Intelligence Planning, Programming, and Resource Management Officer, DCI Nonproliferation Center and Chairman, Resource Investment Subcommittee of DCI's Community Nonproliferation Committee.

Strategic Planning and Evaluation Officer and Chairman of the Arms Control Resource Working Group, Intelligence Community Staff.

Director/Program Manager, Security and Countermeasures Program/System for White House/Multi-department, National Special Activities Program related to contingency and emergency activities.

Strategic Planning Officer and Executive Secretary, Critical Intelligence Problems Committee, Intelligence Community Staff.

Group Business Manager, Office of Development and Engineering, Central Intelligence Agency.

Consultant to Undersecretary of Defense for Research and Engineering.

Program Manager, Security and Countermeasures Program/System for Special Acquisition Programs, Undersecretary of Defense for Research and Engineering and Deputy Chief of Staff, Research, Development, and Acquisition, USAF.

Officer/Special Agent--Staff, and Command positions with the Air Force Office of Special Investigations--security, criminal, fraud, and counterintelligence investigations and operations.

Education

- **The George Washington University, Washington DC, Master of Science in Special Studies -- Forensic Sciences & International Relations 1975**
- **University of Southern California, Los Angeles, CA, Bachelor of Science in Business Management**
- **Numerous professional/military management, investigative, and procurement education and training courses**

Publications

Numerous publications created, edited and published throughout government career -- US government directives, manuals and handbooks; management and resource reports and analyses; department/agency organizational reports and studies; reports of investigations; and congressional reports.

Awards

National Intelligence Medal of Achievement; Multiple Exceptional Performance Awards; Two Meritorious Service Medals; Three Air Force Commendation Medals; Directors Distinguished Service Award; Air Force Outstanding Unit Award; Small Arms Expert Marksmanship Award

Travel

Extensive travels in the continental US. Overseas travel includes Turkey (government assignment--2 Years), England, Germany, Austria, Iran, Cyprus, Lebanon, Israel, and Greece.

Congress

Prepared papers and conducted presentations and discussions individually and jointly, with Senate and House members of Congress and their staffs. Successfully established secure channels of communication for Congressional oversight of sensitive programs to include members and staffers of the following committees:

SENATE—Committee on Appropriations (Defense Subcommittee; VA, HUD and Independent Agencies Subcommittee; Commerce, Justice, State, and the Judiciary Subcommittee); Committee on Foreign Affairs; Select Committee on Intelligence; Committee on Armed Services

HOUSE—Committee on Appropriations (Defense Subcommittee; VA, HUD and Independent Agencies Subcommittee; Commerce, Justice, State, the Judiciary, and Related Agencies Subcommittee); Committee on Foreign Relations; Permanent Select Committee on Intelligence; Committee on Armed Services.

DR. JOHN R. HARVEY

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EDUCATION

UNIVERSITY OF ROCHESTER, Rochester, NY
MS, Ph.D in experimental elementary particle physics
Thesis: "Radiative Decays of Vector Mesons"

RUTGERS UNIVERSITY, New Brunswick, NJ
BA in Physics with Departmental Distinction

POSITIONS HELD

2001-present

Director, Policy Planning Staff
National Nuclear Security Administration
Department of Energy

1995-2001

*Deputy Assistant Secretary of Defense for Nuclear Forces
and Missile Defense Policy*
Department of Defense

1989-1995

Director, Science Program
Center for International Security and Arms Control
Stanford University

1988-1989

Deputy Program Leader, START and INF Verification
Lawrence Livermore National Laboratory

1985-1988

Project Manager, Advanced Strategic Missile Systems
Lawrence Livermore National Laboratory

1982-1985

Staff Assistant for Strategic Assessments
Strategic Arms Control Policy Office
Office of the Secretary of Defense, Washington, DC

Fall 1984/Spring 1985

*OSD Representative to the U.S.-USSR Standing
Consultative Commission, Geneva*

June-August 1983

Technical Advisor, U.S. START Delegation, Geneva

1978-1982

Staff Physicist, Special Projects Program (Z-Division)
Lawrence Livermore National Laboratory

AWARDS

Secretary of Defense Medal for Outstanding Public Service
(awarded Sept. 1985, Jan. 1997 and Jan. 2001)

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ADVISORY PANELS

Member, Strategic Command Scientific Advisory Group (1995-2001)

Member, NATO Science Committee Advisory Panel on Disarmament Technologies (1993-1999).

Member, Defense Special Weapons Agency Oversight Board (1995-98)

Member, Senior Advisory Group on Theater Missile Defense, Institute of Foreign Policy Analysis, Cambridge, MA, (1993).

Member, National Academy of Science-Russian Academy of Science joint working group on dual-use technologies and export administration, (1992-93).

WORK EXPERIENCE

Director, Policy Planning Staff, National Nuclear Security Administration (2001-present)

I advise the NNSA Administrator, first Gen. John Gordon, then Amb. Linton Brooks and now Tom D'Agostino, on major policy and program decisions involving nuclear weapons and nuclear threat reduction. Among other things, I am responsible for analysis of program and policy options relating to NSC-directed policy reviews, the work of the Nuclear Weapons Council, external advisory boards, and interagency working groups. Of note, I have been "lead" for NNSA on the President's NSPD-4 Strategic Review, the Nuclear Posture Review and its implementation, the interagency working group that drafted a new Presidential Directive (NSPD-28) on the command and control of U.S. nuclear forces, and the analysis done to support the President's 2004 decision to reduce significantly the size of the U.S. nuclear weapons stockpile. In addition, I have led several "tiger team" efforts that cut across NNSA programmatic boundaries including Department of Energy-wide efforts to facilitate more productive engagement with the IAEA, to determine the disposition path for 200 metric tons of highly-enriched uranium made available from anticipated future warhead dismantlements and to address the problem of attributing nuclear terrorist threats.

Deputy Assistant Secretary of Defense (Nuclear Forces and Missile Defense Policy) (1995-2001)

I ran the Department of Defense organization that oversees all aspects of U.S. policies governing U.S. strategic and theater nuclear forces. This effort included development of U.S. nuclear weapons employment policy, oversight of the SIOP, interactions with allies on nuclear weapons matters including serving on the NATO High Level Group, and direct participation in the programming and budgeting process for U.S. nuclear forces and systems for their command and control. I also served as the Secretary of Defense's

principle advisor and point of contact with the Interagency and Congress on the Comprehensive Test Ban Treaty including the Senate ratification debate in October 1999. I developed and oversaw U.S. policies on national and theater missile defense, provided direction to system developers and users, and led U.S. efforts to provide shared early warning of ballistic missile attack to allies, friends and partners. Finally, I led the U.S. team negotiating with the Russian Federation to establish a jointly-manned ballistic missile early warning center; an agreement was reached in 2000 that was signed by both Presidents.

Director, Science Program, Stanford University CISAC (1989-1995)

As Director of the Science Program, I worked closely with CISAC Center Co-directors William Perry, Michael May and David Holloway in managing a broad technical research program involving both individual and collaborative work in national and international security studies. My research and writing focused on the following areas of U.S. security policy: the proliferation of weapons of mass destruction and advanced delivery systems to the developing world; safety and security of U.S. nuclear weapons systems; the potential for U.S.-Russian cooperation on missile launch detection, early warning and ballistic missile defense; advanced conventional weapons systems and their implications for regional security; the role in national security policy of export controls on weapons systems and dual-use, high-technology items; and U.S. defense restructuring. I lectured on these and related national security issues in the academic program at Stanford. In addition, I served on the NATO Science Committee's Advisory Panel on Disarmament Technologies which funds cooperative research in demilitarization and defense conversion between scientists and engineers in NATO countries and their colleagues in the states of the former Warsaw Pact.

Deputy Program Leader for START and INF Verification, LLNL (1988-1989)

My principle responsibility was to bring technical and policy analysis to bear in resolving key areas of contention in the START negotiations, both within the U.S. government and between the U.S. and the Soviet Union. My main focus was the problem of monitoring and verifying potential START limits on mobile systems, specifically sea-launched cruise missiles and mobile ICBMs. I worked closely with the research teams at Livermore developing new verification technologies (e.g. tags, seals, radiation detection and imaging devices) and assisted in providing guidance and direction to their efforts. In addition, I carried out research on survivable ICBM basing that included a technical assessment of the Carry Hard concept.

Project Manager for Advanced Strategic Missile Systems, LLNL (1985-1988)

I was principle LLNL point-of-contact for the military services, government agencies and contractors for all matters concerning nuclear weapons concepts for advanced ICBM and SLBM systems. I represented Livermore in the joint DoD/DOE weapons system concept and feasibility studies which determined requirements for nuclear warhead effectiveness, safety and security, compatibility with delivery systems, and use of special nuclear materials. Among other things, I:

- Led the LLNL project team that, in competition with Los Alamos, generated several nuclear warhead options for Small ICBM and assisted the Air Force in evaluating them. In November 1986, as a direct result of this effort, DOE assigned the Small ICBM warhead development program to Livermore.
- Coordinated Livermore's analytical efforts in two joint DoD/DOE nuclear weapons concept studies. One study addressed the potential utility of earth-penetrating warheads for targeting deep underground facilities. The other, in response to a directive from the President, examined two specific approaches for holding at risk Soviet strategic relocatable weapons systems.
- Served as project leader for studies addressing: the feasibility, cost effectiveness and military utility of MIRVing Small ICBM, and a safety issue associated with the Trident D-5 SLBM system.
- Assisted the panel commissioned by Larry Woodruff (DUSD(S&TNF)) and chaired by Gen. John Toomay, which examined the technical feasibility and maturity of survivable basing options for the Peacekeeper ICBM.

Staff Assistant for Strategic Assessments, Office of the Secretary of Defense, Strategic Arms Control Policy (1982-1985)

I was assigned, on loan from LLNL, to the Strategic Arms Control Policy Office in OSD where I examined technical and policy issues in support of START, both in the interagency deliberations in Washington and in the negotiations with the Soviets in Geneva. I drafted NSC decision papers on a number of issues including the potential utility of RV weight limits in START, telemetry encryption, ballistic missile "new types" limits, and the problem of mobile ICBM verification. In Summer 1983, I served with the U.S. START Delegation in Geneva as a technical advisor to the Secretary of Defense's Representative to the delegation. In addition, I developed options for raising U.S. concerns about Soviet treaty non-compliance in the U.S.-USSR Standing Consultative Commission (SCC). I helped develop the U.S. position and negotiating strategy on such issues as Soviet telemetry encryption, the SS-25 as a SALT II prohibited "new type" ICBM, the Krasnoyarsk radar and mobile ABM radars. Further, I was the OSD rep to the Fall 1984 and Spring 1985 sessions of the SCC in Geneva. There, I advised the U.S. Commissioner and assisted in developing negotiating tactics for raising compliance concerns with the Soviets, drafting statements for delivery at formal plenary sessions, engaging the Soviets in discussions about specific compliance concerns and mechanisms for their remedy, and preparing reporting cables to Washington summarizing the biweekly meetings. I led efforts to develop and organize the technical arguments responding to Soviet inquiries about specific U.S. treaty-related activities, including ABM systems testing, deployment of early warning radars, and ICBM dismantlement. Finally, I was a major contributor to the 1984 and 1985 Reports of the President to Congress on Soviet Noncompliance with Arms Control Agreements. In September 1985, at the conclusion of my tour in OSD, I was awarded the Secretary of Defense Medal for Outstanding Public Service.

Staff Physicist, Z-Division, LLNL (1978-1982)

I conducted intelligence assessments of the Soviet Union's nuclear weapons research, development, and production complex, and analyzed the nuclear weapon's radiation threat to U.S. military space systems. This work utilized all-source compartmented intelligence information. I published on several topics of interest to the intelligence and policy community including: (1) advanced Soviet nuclear weapons technologies such as capabilities for enhanced radiation warheads, (2) the nuclear ASAT threat, and (3) the Soviet nuclear weapons production complex.

Ph.D. Thesis Research, (1972-1977)

My Ph.D thesis research was in experimental elementary particle physics and was conducted as a member of the University of Rochester group working at the 10 GEV electron accelerator at Cornell University. Specifically, we made the first measurement of the radiative decay rates of certain neutral vector mesons. I participated in the design, construction, testing and calibration of a large experimental apparatus for measuring the energies and momenta of photons resulting from vector meson decays. In addition, I studied the efficiency and resolution of this apparatus using Monte Carlo computer simulation techniques and applied these results to the overall analysis of the experimental data.

REFERENCES

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