

Michael J. Hopmeier

President

Unconventional Concepts, Inc.

Michael Hopmeier is the President of Unconventional Concepts, Inc. and has been a technical advisor and operational consultant to numerous governmental and international agencies and organizations, including the DARPA Defense Sciences Office, U.S. Army Medical Research and Materiel Command, United States Surgeon General, the Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense, the World Health Organization and several foreign governments. He was one of the primary developers of the Bioterrorism Preparedness Program at the CDC, served as the Science and Technology Advisor to the USAF Surgeon General, as well as the first S&T Advisor to the United States Marine Corps Chem/Bio Incident Response Force (CBIRF). He has been active in the development and deployment of numerous guidelines and procedures, including guidelines for policy development and operations related to counterterrorism and response, security and public health issues associated with mass gatherings, and preparedness and response programs supporting population response to disasters and critical incidents.

Mr. Hopmeier is an internationally recognized expert on countering suicide terrorism, counter- and anti-terrorism, disaster/crisis response, public health and national security programs, and emergency management and preparedness. He is a founding and current member of the Executive Board of the International Counter-Terrorism Academic Community and an Associate Researcher of the Institute for Counter-Terrorism. He has been a member and/or task force Chair for numerous senior advisory panels including the Defense Science Board and the National Academy of Sciences and chaired the Joint Staff External Red Team for Joint Concepts for the Chairman. He has authored numerous papers and presentations on topics ranging from biological model development and biotechnology research, to emergency response training and suicide bombing. He is also an expert on Federal Acquisition Programs.

In addition, Mr. Hopmeier has supported public health, security and counter terrorism training and operations throughout the world including Thailand, Australia, Canada, the Middle East, South West Asia, Turkey and numerous other countries and regions. He has supported and analyzed events such as the World Youth Day 2008, World and Confederation Cup in South Africa and the 2004 Summer Olympics.

Mr. Hopmeier is a founder of a number of different start-up companies. He has been involved in numerous international programs as a senior or executive manager or advisor, and has supported a number of efforts in the UK, Greece and Israel. His project areas include mass gathering and complex event response, training and preparedness, chemical/biological incident response, combat casualty care and medical support, crisis response and management, unconventional pathogen countermeasure programs, federal agency protective measures, counter-terrorism, terrorist cultural motivation and integrated federal/civilian disaster response.

Mr. Hopmeier developed and was the first to implement the Operational Technology Foraging Program for the Department of Homeland Security Directorate of Science & Technology. He has been a leader in the implementation and development of rapid fielding and prototyping programs for the Homeland and National Security Communities and lead in the development of numerous programs including the RAFAV Firefighting Robot, Tethered UAV, Geoprinting for Disaster Response and Counter-UAV efforts.

Mr. Hopmeier holds bachelors and master's degrees in mechanical engineering from the University of Florida.

Michael J. Hopmeier

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Education

University of Florida

M.S. Mechanical Engineering
• Emphasis on Systems Engineering and Thermal Sciences
B.S. Mechanical Engineering

Work Experience

President

Unconventional Concepts, Inc., Mary Esther, FL

1997-Present

Senior executive and manager of a multi-million dollar engineering consulting firm, serving as technical advisor and operational consultant to numerous governmental agencies and commercial firms. Project areas include homeland security, chemical/biological incident response, combat casualty care, crisis response and management, operational medical support, unconventional pathogen countermeasure programs, counter-terrorism, integrated federal/civilian disaster response, training and preparedness, and Special Operations technology support. In addition, he is deeply involved in Federal Acquisition Policy and Reform.

EXPERT ADVISOR on a wide range of technological and operational issues for government and private industry clients. Identify and analyze operational problems in exploiting new technologies. Employ creative problem-solving strategies to make recommendations to deploy technology more efficiently, effectively, and economically. Advised Centers for Disease Control and Prevention on initial operation plan for Bioterrorism Preparedness and Response Program. Served as Science and Technology Advisor to the United States Air Force Surgeon General and developed first systemic medical surveillance program in the USAF SG office. Technical advisor and consultant to numerous government agencies including the DARPA Defense Sciences Office, U.S. Army Medical Research and Materiel Command, and the Deputy Assistant to the Secretary of Defense for Chemical/Biological Defense. Founding and current member of the Executive Board of the International Counter-Terrorism Academic Community and an Associate Researcher of the Institute for Counter-Terrorism. Contributed expert testimony on the need for understanding and intelligence assessment in bioscience for House Homeland Security Committee, Subcommittee on Prevention of Nuclear and Biological Attack.

SUPERVISION AND TRAINING: Directly supervised four to six employees and manage 10 to 15 additional permanent employees. Manage four to ten consultative projects yearly, employing up to 100 consultants and with budgets ranging from \$500,000 to more than \$50 million. Chair several senior advisory committees and review panels, including two Defense Science Board Study Panels. Trained staff of House Homeland Security Committee on biosciences and threats posed by bioterrorism.

DESIGN, SUPERVISE, AND DIRECT studies of new technology, existing technology deployment programs, and other mission-critical issues in the areas of national security and counterterrorism. Create programs and procedures tailored to organizational culture and limitations. Managed study of cultural motivations and worldviews to develop effective intelligence techniques for Marine Corps Intelligence Agency. Analyzed government procurement methods to develop more flexible procedures to deploy technology to battlefield more effectively and efficiently. Led Defense Science Board study evaluating the medical and public health challenges for Homeland Defense against biological attacks.

STRATEGIC PLANNING: Proactively identify and analyze technical opportunities to assess investment potential. Identify methods of adopting technology in unique ways to address problems in the areas of national security and public health. Create intellectual property and license new technologies; direct production and support of new technologies to spin-off companies. Identify novel funding approaches for new projects, including developing the first Commercial Operations and Support Savings Initiative (COSSI) grant for a medical research project. Identify key stakeholders and initiate partnerships between government, private industry, and non-profit groups to leverage resources to support new technologies.

EVALUATE TECHNICAL PROGRAMS: Evaluate a wide range of technical programs and assess program effectiveness and efficiency. Define strategic objectives of program and recommend measures to meet those objectives. Review test protocols and methodologies for new technologies. Assess and rank new and existing technologies for terrorism threat potential.

SOME KEY ACCOMPLISHMENTS:

- Created eight spin-off companies as a direct result of research created and licensed by UCI.
- Since its founding, UCI has conducted more than \$80 million in contracted work for the U.S. government and raised more than \$20 million in venture capital.
- Developed successful \$8.5 million Commercial Operations and Support Savings Initiative (COSSI) grant to support U.S. Air Force Medical Surveillance Program. First-ever grant of its kind to support medical research.
- Created innovative partnership with Army Medical Research and Materiel Command, the Juvenile Diabetes Research Foundation, the National Institutes of Health and NASA to integrate research into metabolic monitoring technologies, resulting in more than \$20 million in new funded research.

1996-1997

Chief, Innovative and Unconventional Concepts

Decision Sciences, Inc., Shalimar, FL

Provided technical advice, input and reviews on a variety of technologies. Served as technical and operational liaison for the U.S. Army Medical Research and Materiel Command, USAF Wright Laboratory, USAF 59 MDW, USMC Combat Development Center, U.S. Navy Amphibious Warfare Program, EOD Program, DARPA and Federal Emergency Management Agency.

1988-1996

Chief, Innovative and Unconventional Concepts

Sverdrup Technology, Inc., TEAS Group, Eglin AFB, FL

Concurrent Positions

Appointed multiple times as an Adjunct Professor, **Vanderbilt University School of Nursing**, started July 2010

Associate Researcher, Institute for Counter-Terrorism (ICT). 2003-current

Security Clearance

Multiple Agency Active Top Secret, SCI Qualified, DHS Active Suitability

Past Projects and Roles with:

National Academy of Sciences

Chapter Lead, **Seeing Photons: Progress and Limits of Visible and Infrared Sensor Arrays**, National Academy of Sciences, August 2010

Appointed Member, **National Research Council Committee on Emerging Sensor Technologies**, National Academy of Science, NOV 2009

Member, National Academy of Sciences, **National Research Council's Standing Committee on Research, Development and Acquisition Options for Special Operations Command (SOCOM)**, 2007- 2009

Invited Participant, Institute of Medicine of the National Academies, Board on Health Science Policy, **Workshop on Assessing Medical Preparedness for a Nuclear Event, Committee on Medical Preparedness for a Terrorist Nuclear Attack**, 26-27 June 2008

Appointed a **Member of the National Academies of Sciences, Division on Earth and Life Sciences, Committee on Test and Evaluation of Biological Standoff Detection Systems**, 2007

Red Teams

Chaired, **Joint Concept for Electromagnetic Spectrum Operations (JCEMSO) Red Team Review**, FEB 2014

Chaired, **Joint Concept for Rapid Aggregation (JCRA) Red Team Review**, JAN 2014

Chaired, **Joint Concept for Joint Aerial Layer Network (JALN) Red Team Review**, MAY 2013

Chaired, **Operational Contract Support (OCS) Red Team Review**, Joint Staff, APRIL 2013

Chaired, **Joint Concept for Entry Operations (JCEO) Red Team Review**, Joint Staff, JAN 2013

Chaired, **External Special Operations Command Red Team Critique of SOF Distributed Employment Concept of Operations**, Joint Staff, DEC 2011

Chaired, **External Defense Threat Reduction Agency Red Team Discussion on Metagenomics**, Joint Staff, OCT 2011

Chaired, **External Defense Threat Reduction Agency Red Team Meeting to Discuss Application of Automation to Lab Operations**, Joint Staff, OCT 2011

Chaired, **External Defense Threat Reduction Agency Red Team Discussion on Low-Signature Agents**, Joint Staff, OCT 2011

Chaired, **External Special Operations Command Red Team Review of SOF Cultural Engagement Future Concept (CEFC)**, Joint Staff, OCT 2011

Chaired, **External Defense Threat Reduction Agency Red Team Discussion on Encountering “True Unknowns” and LRN Capabilities**, Joint Staff, OCT 2011

Chaired, **External Defense Threat Reduction Agency Bioinformatics and Knowledge Management Workshop**, Joint Staff, SEPT 2011

Chaired, **External Defense Threat Reduction Agency Red Team Discussion of Joint Concepts for Capability Projection for CBRNE (+) Missions**, Joint Staff, SEPT 2011

Chaired, **External Joint Staff Red Team Review for the Joint Operational Access Concept**, Joint Staff, MAR 2011

Chaired, **External Joint Staff Red Team Review for the Joint Concept for Cyberspace**, Joint Staff, MAR 2011

Chaired, **External Joint Staff Red Team Review for the Deterrence Operations Joint Operating Concept**, Joint Staff, MAY 2010

Chaired, **External Joint Staff Red Team Review for the Joint Security Concept**, Joint Staff, APR 2010

Chaired, **External Joint Staff Red Team Review for the Joint Relief and Reconstruction Concept**, Joint Staff, APR 2010

Chaired, **External Joint Staff Red Team Review for the Joint Combat Concept**, Joint Staff, APR 2010

Chaired, **External Joint Staff Red Team Review for the Joint Engagement Concept**, Joint Staff, APR 2010

Chaired, **External Joint Staff Red Team Review for Irregular Warfare Joint Operating Concept**, Joint Staff, SEP 2009

Chaired, **External Joint Staff Red Team Review for Joint Supply Joint Integrating Concept**, Joint Staff, JUN 2009

Chaired, **External Joint Staff Red Team Review for the Joint Logistics White Paper**, Joint Staff, APR 2009

Chaired, **External Joint Staff Review Red Team for the Foreign Internal Defense/Counter Insurgency Joint Integrating Concept (FID/COIN JIC)**, J7 Joint Staff, DEC, 2008

Chaired, **External Joint Staff Review Red Team for the Unconventional Warfare Joint Integrating Concept (UW JIC)**, J7 Joint Staff, DEC, 2008

Chaired, **External Joint Staff Review Red Team for the Maritime Domain Awareness Joint**

Integrating Concept (MDA JIC), J7 Joint Staff, DEC, 2008

Chaired, **External Joint Staff Review Red Team for the Capstone Concept for Joint Operations (CCJO)**, J7 Joint Staff, August, 2008

Principal Investigator, **Red Team Vignette Analysis of Anbar Province**, Marine Corps Intelligence Agency (MCIA), October 2007

Principal Investigator, **Red Team Analysis of Terrorist Motivations**, Irregular Warfare Support (IWSG)/Technical Support Working Group (TSWG), 2005-2006

World Health Organization

World Health Organization **Virtual Advisory Group (ViAG) for Mass Gathering Planning and Operation**, Epidemic and Pandemic Alert and Response, Health Security and Environment, WHO, 2008- 2010

Principal Consultant, **World Health Organization Mission To South Africa to Review Security and Health Preparation for the 2010 World Cup**, November 2009, Direct Invitation from South Africa National Department of Health.

Invited Speaker, **2010 FIFA WORLD CUP COMMUNICABLE DISEASE CONTROL WORKSHOP**, “Exercises vs. Kabuki Dances; Why Demonstrations are Not Sufficient” in support of World Health Organization, Johannesburg, South Africa, NOV 2009

Invited Presentation, **2nd HEALTH AND MEDICAL SERVICES GROUP PREPARATIONS WORK GROUP: 2010 FIFA WORLD CUP**, “Mass Gatherings; Working with the Media” in support of World Health Organization, Capetown, South Africa, NOV 2009

Facilitator and member, Virtual Advisory Group (ViAG) and Organizing Committee, **World Health Organization (WHO) Global Forum on Mass Gatherings**, Rome, Italy, OCT 2009

Senior Consultant and Leader, Systems Sub-team, United Nations/WHO **Field Assessment and Security Support Team, 2009 FIFA Confederation Cup, South Africa, JUN 2009**

Invited Presenter, **Australian Department of Foreign Affairs and Trade Global Initiative to Combat Nuclear Terrorism (GICNT) Seminar and DISCEX ‘BLUE GLOW’ presentation on Radiation Emergency Preparedness and Assistance Network (REMPAN)** representing World Health Organization/UN, 7-8 May 2009, Canberra, Australia

Member, World Health Organization Review of **Public Health Preparedness and Response to Presidential Inauguration**, Feb 2009

Author of Invited Presentation, **12th Coordination and Planning Meeting of the WHO REMPAN Collaborating Centers and Liaison Institutions**, Management of Mass Casualty Incidents, OCT 2008, Buenos Aires, Argentina

Member, World Health Organization **Field Assessment and Security Support Team, Guidelines for Communicable Disease Alert and Response for Mass Gatherings**, World Youth Day, Sydney Australia, July 2008

Facilitator and Operational Representative, 1st Meeting on **Global Biodosimetry Network**, World Health Organization (WHO); Geneva, Switzerland, December 2007

Member, WHO consultation team, **Angola Unexplained Neurologic Illness**, November 2007

Member, **World Health Organization Working Group on Stockpile for Countering Radiological Disasters**, Feb 2007

Member, **WHO Radiation Disaster Stockpile Planning Committee**, January, 2007

Principal Consultant and Participant, **World Health Organization (WHO) Assessment of National Health Preparedness, Mitigation, and Response to the Deliberate Use of Biological and Chemical Agents**, Ottawa, Canada, November 20 – December 7, 2004.

Defense Science Board

Panel Member and/or Section Chair on Defense Science Board (DSB) Studies:

- Transnational Threats
- Logistics Transformation
- R&D for the 21st Century
- Biological Warfare Defense for the Homeland
- Chemical Warfare Defense for the Homeland

Special Advisory Roles

Member of multiple review panels through current date including:

Member, Business Executives for National Security (BENS), support panel to **Camp Shelby Joint Forces Training Center and Port of Gulfport**, Gulfport and Biloxi, Mississippi, to discuss logistics, recruitment, unmanned aerial vehicles and related joint business/national security issues, 23-24 JUNE 2014

Member, Business Executives for National Security (BENS), support panel to the **5th Bomb Wing and 91st Missile Wing, Air Force Global Strike Command**, Minot Air Force Base, ND, to discuss the future of the nuclear enterprise and related joint business/national security issues, 9-10 JUNE 2014

Member, Business Executives for National Security (BENS), support panel to the **US Naval Strike and Air Warfare Center (TOP GUN), Fallon, NV** to discuss improved recruiting and professional transition and related joint business/national security issues, 14-15 NOV 2013

Scientist Reviewer, **Military Relevance Panel for the DOD Peer Reviewed Congressionally Directed Medical Research Program Post Traumatic Stress Disorder/Traumatic Brain Injury (psychological health) Clinical Trial Award program**, DEC 2008

Invited Reviewer, **American Institute of Biological Sciences Panel on Integrated Tissue Hypoxia Monitoring**, 21-23 Sept 2008

Invited member and panel participant, **NATO/ESF (North Atlantic Treaty Organization/European Science Foundation) SAFE: Security – Advancing a Framework for Enquiries workshop**, Istanbul, Turkey, May 21-23 2008

Scientific Advisor, **Project Looking Glass Analytical Collaboration Exercise**, January 2008

Senior Advisor, **Israeli Defense Force Surgeon General**, 2000-2004

Special Advisor to the U.S. Surgeon General, WMD and Homeland Security, 2002-2006.

Special Advisor to the Commanding General and the Principal Deputy for Research and Development, **U.S. Army Medical Research and Materiel Command**, 1998 – 2011.

Sr. Science Advisor to the **Deputy Assistant to the Secretary of Defense, Chemical/Biological Defense**,

Senior Military Technology Advisor, **NASA Sensors 2000 Program**. 2000-2004

Senior Technical Advisor, **U.S. Army National Protection Center**. 2000-2006

Senior Technical Advisor, **Director, Natick Army Soldier Systems Center**. 2002-2004

Sr. Technical Advisor to the U.S. Fire Administrator, **Department of Homeland Security**.

Special Advisor to the Director, **DARPA/Defense Sciences Office**. 1999-2004

Expert Scientific Reviewer, **Health Protection Research Initiative Mentored Research Scientist Development Award (K01)**, Center for Disease Control, August 2004.

Technical Advisor, **Commanding General, Israeli Defense Force Homefront Command**, 2001 – 2003.

Science and Technology Advisor, **USAF Surgeon General**, 1999 – 2002

Science, Technology, and Policy Adviser, **USMC Chem/Bio Incident Response Force (CBIRF)**, 1998 – 2001.

Special Advisor to the Director, **Office of the Deputy Undersecretary of Defense for Science and Technology, Sensor Systems**.

Defense Technical Advisor, **Assistive Technology Research Center, National Rehabilitative Hospital**.

Special Advisor to the **Senior Medical Advisor for Terrorism and Emergencies & Special Liaison to Secretary of HHS and Director of CDC, Office of Homeland Security**, 2003-2004.

Advisor, **Weapons of Mass Destruction Training Program (WMDTP) Curriculum Development Conference**. Federal Law Enforcement Training Center, Department of the Treasury, 2002.

Special Advisor to the **Director, Bioterrorism Preparedness and Response Program**, Centers for Disease Control. 1998-2002

Technical Advisor, **Air Force Materiel Command Technology Transfer Office**. 1995-1998

Chair/ Panel Leadership Positions

Chairman, **STEM Round Table Discussion**, Department of Homeland Security, S&T Directorate, 22 JAN 2014, Washington, DC

Chairman, **Protection vs. Detection Discussion**, Department of Homeland Security, S&T Directorate, 18-19 DEC 2012, Washington, DC

Chairman, **Policy Implications of Digital Fabrication: 3D Printing and Beyond**, Department of Homeland Security, S&T Directorate and Combatting Terrorism Technical Support Office/Irregular Warfare Support Program, 26 JULY 2012, Washington, DC

Chairman, **Health Security and Engagement Conference**, Combatting Terrorism Technical Support Office/Irregular Warfare Support Program, 17-19 JULY 2012, Garmisch, Germany.

Chairman, **Countering Violent Extremism/Radicalization Conference**, Combatting Terrorism Technical Support Office/Irregular Warfare Support Program, 27 JAN 2012, Ballston, VA

Chairman, **Countering Violent Extremism/Radicalization Conference**, Combatting terrorism Technical Support Office/Irregular Warfare Support Program, 2 DEC 2011, Ballston, VA

Chairman, **Countering Violent Extremism/Radicalization Conference**, Combatting terrorism Technical Support Office/Irregular Warfare Support Program, 22 - 24 JUN 2011, Secaucus, NJ.

Chairman, **Countering Violent Extremism/Radicalization Conference**, Combatting terrorism Technical Support Office/Irregular Warfare Support Program, 23 FEB 2011, Ballston, VA

Chairman, **Countering Violent Extremism/Radicalization Conference**, Combatting terrorism Technical Support Office/Irregular Warfare Support Program, 5-7 OCT 2010, Crystal City, VA

Chair, Combating Terrorism Technical Support Office Irregular Warfare Support Program Working Group On **Health Diplomacy: A Key Component of Soft Power**, 28 JUL 2009

Facilitator, **A Seminar on the Intersection of the Intelligence Community and the Biosciences, U.S. House of Representatives, Committee on Homeland Security**. Topic: Intersection of the Intelligence Community and the Biosciences to Support National Security. Washington, DC. January 27, 2006.

Facilitator, **Exploration Atmospheres Workshop, Center for Advanced Space Studies**. Topic: Space Radiation Shielding. Houston, TX. November 1-3, 2005.

Chair, **Workshop on Nano-Technology Applications to Chemical and Biological Defense and Homeland Security, Nano-Day**. Dulles, VA. September 20-21, 2005.

Chair, **Temporary Negative Pressure Isolation Consensus Meeting**. Arlington, VA. August 29-30, 2005.

Chair, **Technologies for Metabolic Monitoring**. Topic: Technical Program Review for Technologies for Metabolic Monitoring Related Clinical Research. San Antonio, TX. August 26, 2005.

Session Chair, **NATO Workshop on Risk Assessment and Risk Communication Related to Bioterrorism**, Topic: Risk Communication and Psychological Impact; Technological and Operational Methods of Mitigation. Ein Gedi, Dead Sea, Israel, June 8-11, 2005

Chair, **Broad Area Biological Decontamination**, DARPA Workshop, Arlington, VA, February 9-10, 2005.

Chair, **Homeland Defense Medical Intelligence Meeting**, The Armed Forces Medical Intelligence Center, February 4, 2005.

Chair, **Lessons Learned from Israeli Population Preparation for Operation Iraqi Freedom**, a reception hosted by Cerberus Enterprises, LLC, Arlington, VA, November 1, 2004.

Chair, **Fire Fighter Equipment Requirements Panel Workshop**, Arlington, VA, September 1-2, 2004.

Chair, **DOD Joint Staff/DARPA Improvised Explosive Device Collaboration Group**, 2004.

Chair, **Health Care Incentivization Working Group**, Chartered by the U.S. Senate, 2004.

Panel Chair and Sponsor, **International Terrorist Threats to the Olympic Games – The International Counter-Terrorism Academic Community Perspective**, Athens, Greece, 2004.

Chair, **Annual International Aero Sense Symposium**, Topic: Potential Warning Signs and Indicators Associated with Preparation for and Execution of a Suicide Attack. Orlando, Florida, 2003 (Paper published in symposium proceedings).

Panel Co-Chair, **American Medical Informatics Association**, Topic: Emerging Techniques and Concepts in Public Health and Disease Surveillance, Washington, DC, 2003.

Chair, **Drug Information Association 39th Annual Meeting: Clinical and Regulatory Aspects in the Development of Agents for Bioterrorism**, Topic: **Issues Associated with the Shortage of Acceptable Non-Human Primates for BWD Experimentation**, San Antonio, TX, 2003.

Chair and Sponsor, **Joint Israeli/U.S. Working Group On A Systems Approach To Understanding And Countering Suicide Attacks**, August, 2002.

Chair, **Homeland Security Task Force**, National Guard Bureau, 2002.

Chair, **Panel on use of respirators/PPE for civilian populations**, Centers for Disease Control and Prevention, January, 2002.

Chair, **Joint Medical Surveillance Technical Advisory Group**, 2002.

Chairman and Senior Advisor, **Jane's Information Group, Chem/Bio Program**, 1999.

Chair, **Advanced Technology Applications to Combat Casualty Care Annual Conference (ATACCC 2 - 6)** 1996, 1997, 1998, 1999, 2000, 2001.

Chief Engineer, **Smart Sensor Web Program**, 1999-2001.

Director, **Defense Alliance for Advanced Medical Technology**. 1998-2001

Instructor, **Counter-terrorism Technology, International Law Enforcement Academy**, Bangkok, Thailand, 2001.

Chair, **Joint Avionics, Weapons, and Systems (JAWS) Conferences**, Advanced Technology Concepts, 1997, 1998, 1999, 2000

Chair, **Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Advanced Technology Session**, 1995, 1996, 1997, 1998.

Principal and Chair, **Technology Applications for Emergency Management**, Federal Emergency Management Agency, November, 1996.

Chair, **Applications of Multi-Spectral/Thermal/Imaging and Display/Processing Technology to Military Medicine Conference**, 1996.

Initiated and Chaired, **Army Special Operations Command Joint Capabilities and Integration Laboratory Joint Technical Advisory Group**, 1994-95.

Chair, **Special Operations/Low Intensity Conflict Working Group**, 1993.

Panel Memberships

Member, **3D Printing: The Good, the Bad, and the Science Panel Discussion**, American Association for the Advancement of Science, SEPT 2013

Member, **Countering Violent Extremism – Radicalization**, Virginia Tech Applied Research Corp., JULY 2013, Arlington, VA

Member, **Past, Present, and Future of Technology Insertion Conference**, OCT 2012, Washington, DC.

Senior Research Fellow, **Behavioral Informatics & Technological Enterprise Studies (BITES) Program**, SEPT 2012

Member, **2012 Fab Lab Conference and Public Academic Symposium**, AUG 2012, Wellington, NZ.

Member, **Team Blackbox, IARPA Tools for Recognizing Unconscious Signals of Trustworthiness (TRUST) Program**, SEPT 2009, Arlington, VA

Executive Board Member, **International Counter-Terrorism Academic Community (ICTAC)**. 2004- 2009

Invited Participant, **Air Force Office of Scientific Research Socio-Cultural Modeling and Cognition & Decision, Human Systems Interface Joint Program Review**, JAN 2009

Scientist Reviewer for U.S. Army Congressionally Directed Medical Research Program (CDMRP); **Breast Cancer, Neurofibromatosis and Prostate Clinical Trial Proposals**. Aug 20, 2007

Member of Special Emphasis Panel, **Improved Public Health Practice through Translational Research**, Centers for Disease Control and Prevention, Atlanta, GA June 24-26, 2007

Scientific Reviewer, **Peer Reviewed Medical Research Program**, American Institute of Biological Sciences Topic: **ANTIRADIOLOGIC PANEL**, Chantilly, VA
July 13-14, 2006

Scientific Reviewer, **Peer Reviewed Medical Research Program**, American Institute of Biological Sciences Topic: **Vision Panel**, Chantilly, VA July 12, 2006

Scientific Reviewer / member, Scientific Review Committee, **Juvenile Diabetes Research Foundation Artificial Pancreas Project Review 2006**. Washington, DC.
June 19, 2006.

Scientific Reviewer, **Peer Review Support for the National Institute for Occupational Safety and Health (NIOSH)**, Topic: Intramural National Occupational Research Agenda (NORA) FY06: Program Project Small NORA, Online review, June 2005.

Scientific Reviewer, **Peer Reviewed Medical Research Program**, American Institute of Biological Sciences Topic: Anti-Radiation Drug Development/Tungsten, Arlington, VA, 2004, 2005.

Member, **Editorial Board of the International Society of Disaster Medicine**, 2004

Panel Member, **Innovator Awards Assessment Panel and Concept Programmatic Review**, U.S. Army Medical Research and Materiel Command Breast Cancer Research Program, 2001, 2002, 2003, 2004.

Member, **National Defense Executive Reserve**, FEMA, 1994 – 1998.

Member, **Juvenile Diabetes Research Foundation Medical Science and Review Committee**, 2003

Panel Member, **Memorial Institute for the Prevention of Terrorism Project Responder Technology workshop**, Boston, MA, 2003.

Member, **Senior Study Review Panel, Future Force Warrior**, U.S. Army Natick Soldier Center

Panel Member, **DARPA/Japanese National Institute for Defense Studies Technology Exchange Meeting**, 2002.

Member, **Army Medical Research and Materiel Command Science and Technology Senior Review Working Group Panel**, 2000.

Panel Member, **Modeling & Simulation in Medicine: Towards an Integrated Framework**, National Library of Medicine and National Institutes of Health, July 2000

Panel Member, **Advanced Distributed Learning in 2012**, Advanced Distributed Learning, Science and Technology, Department of Defense, October, 1999.

Panel Member, **Army Medical Science and Technology Objective Review Board**, 1999.

Member, **Senior Council, Phoenix Military-Political Simulation and RAID Team Development Group**, 1998.

Faculty Member, **10th Annual Trauma Anesthesia and Critical Care Symposium and World Exposition**, May, 1997.

Member, **Federal Multi-Agency Consortium on Imaging Technologies to Improve Women's Health**, 1996.

Panel Member, **After Globalization: Future Security in a Technology Rich World Senior Policy and Strategy Panel**, Lawrence Livermore National Laboratory.

Commercial Positions

Founder and President, Unconventional Concepts, Inc., a multi-million dollar consulting firm specializing in policy consulting and crisis management.

Founder, Officer and Director, Argose, Inc., a non-invasive glucose monitoring development company. At time of departure helped lead Argose through three rounds of financing and was completing a fourth, totaling more than \$17 million.

Founder and Principal, Cerberus LLC, a preparedness consulting firm and a joint venture with former Israeli Senior Officers.

Founder and Principal, Sea-Curity, a counterterrorism firm specializing in petro-chemical platform security. Company is a joint venture with a premier expert in high threat gas exploration and production, and a former head of physical security for foreign special forces.

Founder and Director, HyperMed Inc., a biotechnology developmental firm, raising more than \$11 million, focusing on applications of hyper spectral technology to medical needs

Selected Honors

IC Analyst, **I&A Private Sector Program: 3D Printing and Rapid Prototyping**, Department of Homeland Security, April 2014

Invited participant, **SCICAST Project: Advanced Manufacturing**, George Mason University, March 2014

Invited participant, **Effects of Corruption and Information Operations in Irregular Warfare**, Center for Technology and National Security Policy, National Defense University, May 2010

Appointed Member, **National Research Council Committee on Emerging Sensor Technologies**, NOV 2009

Member, **Northrop Grumman Board of Visitors for Integrated Air, Space and Missile Defense Program**, 2007, 2008 and 2009.

Appointed as a **Member of the Editorial Board, Journal of Homeland Security and Emergency Management**, June 2007 – June 2012

Witness, Congressional Testimony for the Subcommittee on **Prevention of Nuclear and Biological Attack. Topic: "Bioscience and the Intelligence Community"**. Washington, DC, November 3, 2005.

First U.S. Graduate, Israel Homefront Command Search and Rescue Course, Israel, 2003.

Special Commendation, Air Force Materiel Command and Air Mobility Command, support to JCS Program.

Selected Research

Principal Investigator, **DHS Interagency Technology Foraging Project**, June 2011

Principal Investigator, **DOD Analysis of Applied Health Operations (Health Diplomacy and Engagement) in Support of Irregular Warfare Mission**, May 2010

Principal Investigator, US Government Sponsored Study on **Novel and Unconventional Sources of Information of Research in the Biological Sciences**, ISB, July 2008

Selected Professional Presentations

Invited Speaker, **Issues Associate with Population Protection from Disaster and Infectious Disease and the Role of Public Health**, Stanford University School of Medicine, May 2014

Invited Speaker, **Inside 3D Printing Conference & Expo**, MediaBistro/Cornell University, March 2014

Invited Speaker, **EU Secure Societies Discussion**. Topic: The Potential Impact of Advanced Technology on Recruitment and Radicalization. Brussels, BE March 2013

Invited Speaker, **NATO Advanced Research Workshop**; Building Inter-Agency Information Sharing Plans for Homeland Security. Topic: Information Sharing Planning for Global Public Health Emergencies. Brussels, BE April 4-6, 2011

Invited Speaker, **NATO Advanced Research Workshop**; Internet-Based Intelligence for Public Health Emergencies and Disease Outbreak: Technical, Medical and Regulatory Issues. Topic: Public Health, Intelligence and National Security: An Approach for the 21st Century. Haifa, IL, March 13-15, 2011

Invited Speaker, **10th World Summit on Counter-terrorism**, Radicalization, Moore's Law and the Rise of the Cyber-Messiah, Herzliya, Israel, 14 SEPT 2010

Speaker, **Aligning Policy, Strategy and Technology**; Network Centric Homeland Security, Ronald Reagan Building and International Trade Center in Washington DC, June 26-28, 2007

Speaker, **Triangle Lecture Series, Center for Public Health Preparedness (CPHPR), The Rollins School of Public Health of Emory University, and the Department of Emergency Medicine, Emory University School of Medicine**. Topic: Issues Associated with Population Protection from Disaster and Infectious Disease and the Role of Public Health. Atlanta, GA. March 22, 2006

Speaker, **Connecticut Department of Emergency Management and Homeland Security Conference on Suicide Bombings/Bombers**. Topic: Potential Warning Signs and Indicators Associated with Preparation for and Execution of a Suicide Attack, Rocky Hill, CT March 8, 2006.

Speaker, **Stinson Morrison Hecker Dinner American Royal**. Topic: Some *Unconventional* Thoughts on Agro-Terrorism and It's Place in the World. Kansas City, MO. October 19, 2005.

Speaker, **Civil-Military Strategy for Internal Development (CMSID) Course**. Topic: Governmental Considerations in a Dynamic Civil / Military Environment. Joint Special Operations University, United States Special Operations Command, Department of Defense, Hurlburt Field, FL. September 14, 2005.

Speaker, **International Conference on Counter-bioterrorism**, Topic: Health and National Security in the United States of America. Korean Centers for Disease Control, Busan City, South Korea, July 14, 2005.

Invited Speaker, **National Biological Counter-Terrorism Seminar: Integrating Intelligence, Policing and Health**, Topic: Public Health as Intelligence for National Security. NATO sponsored conference. Ottawa, Canada, June 2005.

Invited Speaker, **NATO Workshop on Risk Assessment and Risk Communication Related to Bioterrorism**, Topic: Risk Communication and Psychological Impact; Technological and Operational Methods of Mitigation. Ein Gedi, Dead Sea, Israel, June 8-11, 2005.

Speaker, **World Congress on Disaster and Emergency Medicine**, Topic: Demystifying Bioterrorism: Misinformation and Misperceptions. Edinburgh, Scotland, May 2005.

Speaker, **World Congress on Disaster and Emergency Medicine**, Topic: Great Questions in Public Health. Edinburgh, Scotland, May 2005.

Speaker, **World Congress on Disaster and Emergency Medicine**, Topic: Casualty and Damage Estimation; Accuracy and what effects it. Edinburgh, Scotland, May 2005.

Poster Presenter, **World Congress on Disaster and Emergency Medicine**, Topic: Metrics for Measuring Disaster Preparedness. Edinburgh, Scotland, May 2005.

Poster Presenter, **World Congress on Disaster and Emergency Medicine**, Topic: Systems Approach to Optimizing Disaster Response. Edinburgh, Scotland, May 2005.

Poster Presenter, **World Congress on Disaster and Emergency Medicine**, Topic: Getting Beyond the Physician-Centric Response to Biological Warfare and Infectious Disease: Physicians are not the only “first responders”. Edinburgh, Scotland, May 2005.

Invited Speaker, **AFCEA 2005 Joint C4ISR Symposium Implementing the Global Enterprise**, Topic: Initiatives and Technology Trends. San Diego, CA, April 2005.

Poster Co-author, **Nineteenth Annual Scientific Meeting of Eastern Association for the Surgery of Trauma (EAST)**. Topic: Use of Near-Infrared Medical Hyper spectral Imaging (MHSI) In the Evaluation of Hemodynamic Compromise in Human Subjects. Orlando, FL January 10-14, 2005.

Speaker, **Marriott Hotel Senior Management**, Topic: When Disaster Strikes: Dealing with the Real Issues. New York, NY, December 2004.

Invited Speaker, **ICT 4th International Conference: The Global Impact of Terrorism**, Topic: Unconventional Threats, Herzliya, Israel, September 2004.

Invited Speaker, **International Conference on Bio-terrorism Korean Centers for Disease Control of the Republic of Korea**, Topic: Health and National Security Issues in the U.S., August 6, 2004.

Invited Speaker, **29th Annual Hazards Research and Applications Workshop**, Topic: Disaster Mental Health: Research and Practice. Boulder, CO, July 2004.

Co-Author and Speaker, **International Conference on Medical Consequences of Terrorism**, Topic: Does Practice Make Perfect?: Improving Medical Preparedness by Applying Metrics and Standards to Disaster Exercises. Tel Aviv, Israel, June 2004.

Invited Speaker, **Harvard Medical School Grand Rounds**, Topic: Current Status of U.S. Preparedness Initiatives: Major Issues in Current Efforts, June, 2004.

Invited Speaker, **Center for Biosecurity of the University of Pittsburgh Medical Center**, Topic: The Bomb and the Bug: Public Health as a National Strategic Priority, May, 2004.

Invited Speaker, **ICT 3rd International Conference: Post-Modern Terrorism: Trends, Scenarios, and Future Threats**, September, 2003.

Super-course Contributing Lecturer, **University of Pittsburgh, Spring 2003**.

Invited Keynote Speaker, **European Union IT Needs for Crisis Response Conference**, Topic: The Dynamic Impact of 9/11 on Security Policies, Practices, and Technology for Homeland Security, Warsaw, Poland, 2003.

Invited Speaker, **Defense Technical Information Center 2003 Annual User's Meeting and Training Conference**, Topic: Scientific Openness and National Security, Arlington, Virginia, 2003.

Co-Author and Invited Speaker, **13th World Congress on Disaster & Emergency Medicine**, Topic: The Mundane to the Critical: The Need for Transition from Individual Care to Population Health Maintenance, Melbourne, Australia, 2003.

Invited Speaker, **European Conference on Scientific Advice, Crisis Management, and Media, Plenary Session on the Social Impact of Crisis**, Topic: Psychological Impact and Risk Communication, Athens, Greece, 2003.

Invited Speaker, **European Union First Civil Protection Forum**, Brussels, Belgium, November, 2002 (*one of only 2 Americans invited*).

Invited Speaker, **Unified Science & Technology for Reducing Biological Threats & Countering Terrorism 2nd Annual Conference**. Topic: LEADERS-MAGIC Global Situational Awareness Program (Overview). University of New Mexico: Albuquerque, New Mexico, 2002.

Invited Speaker, **Test and Evaluation, Science and Technology (T&E/S&T) Workshop**. Topic: Homeland Defense, March, 2002.

Invited Guest, **Juvenile Diabetes Research Foundation** Annual Meeting, 2002.

Invited Speaker, **Berkeley Biodefense Meeting**. Topic: An Unconventional View of Biological Incident Response, 2001.

Invited Participant, **1st International Meeting on Hospital Preparedness for Emergency Scenarios**. IDF Home Front Command, Tel Aviv Israel, 2001.

Invited Speaker, **SPIE: 1st Conference on Technologies, Systems and Architectures for Trans-National Defense**, 2001.

Invited Speaker, **Technology Transfer/Transition-A Changing Paradigm for a Changing World**, U.S. Army Medical Research and Materiel Command's Acquisition, Logistics and Technology Conference, Supporting the Warfighter of the 21st Century Building Alliances, 2001.

Keynote Speaker, **330th Medical Brigade Conference on Emergency Medical Response to Weapons of Mass Destruction**, Topic: Weapons of Mass Destruction and Terrorism, Fort McCoy, WI, 2001.

Invited Speaker, **DoD Corporate Fellows Program**, Topic: Innovative Development Approach to Smart Sensor Web Program; Innovation and Technology in the 21st Century, Arlington, VA July 1999.

Invited Speaker, **International Conference on Enabling First Responders Through WMD Technology**, Honolulu, HI, 1999.

Invited Speaker, **Pacific Medical Technology Symposium**, PACMEDTEK , Honolulu, HI, 1998.

Exercise Controller, **Joint Fire 97-1**, July, 1997.

Invited Speaker, **Test Facility Working Group Conference on Technological Transition and Innovation**, 1995.

Invited Speaker, **International Test and Evaluation Association**, Test Technology Transfer Symposium, 1993.

Invited Speaker, **Terrorism Responders Conference, Terrorism Task Force**. Topic: Terrorism in the 21st Century: Threats, Responses, and Environment. Boise, ID, 1998.

Memberships

Member, **Business Executives for National Security (BENS)**, BENS Southeast, 2013-Present.

Member, **World Association for Disaster and Emergency Medicine (WADEM)**, 2005.

Member, **Association for Professionals in Infection Control and Epidemiology, Inc. (APIC)**, Chapter 104/027, 2000-Present.

Associate Member, **The American Society of Mechanical Engineers (ASME)**, 1998-Present.

Member, **American Association for the Advancement of Science (AAAS)**, 2001-Present.

Member, **The Institute of Electrical and Electronics Engineers, Inc. (IEEE)**, 1998-Present.

Member, **New York Academy of Sciences**, 2001-Present.

Member of Executive Committee and Co-founder, **International Counter-Terrorism Academic Community**, 2004-Present.

Associate Member, **International Policy Institute for Counter-Terrorism**, Interdisciplinary Center, Herzliya, Israel, 2004-Present.

Lifetime Member, **The National Defense Industrial Association (NDIA)**.

Senior Member, **American Institute of Chemical Engineers (AIChE)**

Member, **International Association for Counterterrorism and Security Professionals (IACSP)**

Selected Publications and Invited Reviews

Book Chapter, *Technology Foraging: A Novel Approach to Technology Problem-Solving within the DHS Science & Technology Directorate*, 2012

Co-Author, *Public Health, National Security and Intelligence: An Approach for the 21st Century*, in *Internet-Based Intelligence for Public Health Emergencies and Disease Outbreak: Technical, Medical and Regulatory Issues*, 2012

Reviewer, *How to Respond to Radiological, Biological and Chemical Threats: A guide for the European Front-Line Health Professional*, The ETHREAT Scientific Committee, 2009

Co-Author, *Integrated Modeling, Mapping, and Simulation (IMMS) Framework for Exercise and Response Planning*, MODSIM World Conference, October 2010

Chapter Lead, *Seeing Photons: Progress and Limits of Visible and Infrared Sensor Arrays*, National Academy of Sciences, August 2010

Lead Author, *Reflections on the Initial Multinational Response to the Earthquake in Haiti*, *Population Health Management*, Volume 13, Number 3, Jun 2010

Lead Author, *Some Considerations for Mass Casualty Management in Radiation Emergencies*, *Health Physics*, Jan 2010

Lead Author, *The Bug and the Bomb: Medical Readiness and a National Strategic Priority*, *International Journal of Risk Assessment and Management*, VOL 12, Nos 2/3/4, 2009

Co-author, *MEETING REPORT, WHO 1st Consultation on the Development of a Global Biodosimetry Laboratories Network for Radiation Emergencies (BioDoseNet)*, *Radiation Research* 171, 127-139 (2009)

Invited Reviewer, National Academy of Sciences, National Research Council, Division on Earth and Life Sciences, *Disrupting IED Campaigns: Basic Research Opportunities, A Workshop Report*

Contributor and Author, World Health Organization Guideline for *Communicable Disease Alert and Response for Mass Gatherings*, Jun 2008

Invited Reviewer, *House Oversight and Government Reform Committee Testimony on National Medical Preparedness for Disaster*, May, 2008

Co-author, Initial Test of Emergency Procedure Performance in Temporary Negative-Pressure Isolation by Using Simulation Technologies. *Annals of Emergency Medicine*, June 2007

Contributor and Author, World Health Organization Handbook *Effective Media Communication during Public Health emergencies*, July, 2005

Co-author, *What Does a Suicide Bomber Look Like?* *Homeland Professional Journal*. January/February 2006.

Co-author, *Risk Communication and Psychological Impact: Technological and Operational Methods of Mitigation*. NATO Security through Science Series – A: Chemistry and Biology, Risk Assessment and Risk Communication Strategies in Bioterrorism Preparedness, June 2005

Co-author, *Demystifying Bioterrorism: Misinformation and Misperceptions*. Prehospital and Disaster Medicine. January/February 2005.

Principal Author, *Too Many Germs, Too Few Monkeys: The Shortage of Non-Human Primates, Clinical Research, and Test Infrastructure*. Food and Drug Law Institute Update. March/April, 2004.

Contributor, *Meeting Report- WHO 1st Consultation on the Development of a Global Biodosimetry Laboratories Network for Radiation Emergencies (BioDoseNet)* Radiation Research

Principal Author, *All the World's a Stage*. Fire Chief Magazine. March, 2004.

Principal Author, *There Are No Dangerous Weapons...: Suicide Attacks and Potential Responses*. Journal of Homeland Security, July 2003.

Co-Lead Author, *Understanding Terrorism and Managing the Consequences*. Prentice Hall: Upper Saddle River, New Jersey, 2002. (ISBN 0-13-021229-6).

Principal Author, *The Dynamic Impact of 9/11 on Security Policies, Practices and Technology for Homeland Security*

Online Lectures: Supercourse, University of Pittsburgh

- Health and National Security Issues of the U.S. Army, 2004
- Too Many Germs, Too Few Monkey's: The Need for Artificial Organisms for Testing and Validating Pharmaceuticals
- The Mundane to the Critical: The Need for Transition from Individual Care to Population Health Maintenance
- Psychological Impact and Risk Communication
- Potential Warning Signs and Indicators Associated with Preparation for and Execution of a Suicide Attack
- First Principles for Homeland Security Contingency Planning in a Decentralized Environment, Parts I-III

Patents

U.S. Patents

7.013.172	Hyper spectral imaging calibration device
6,741,884	Infrared Endoscopic Balloon Probes
6,810,279	Hyper spectral imaging calibration device
6,721,582	Non-invasive tissue glucose level monitoring
6,640,132	Forensic hyper spectral instrument
6,640,130	Integrated imaging apparatus (applications are pending in Australia, Canada, Europe and Japan)
6,599,127	System and method for simulated device training

U.S. Patent Applications

2006-0195022	Non-invasive tissue glucose level monitoring
2004-0236229	Integrated Imaging Apparatus
2004-0220477	Forensic hyper spectral instrument
2004-0204651	Infrared Endoscopic Balloon Probes
Not published yet	Device and Method of Balloon Endoscopy (applications are pending in Australia, Canada, China, Europe and Japan)
2007-0016079	Hyper spectral Imaging in Diabetes and Peripheral Vascular Disease
Not published yet	Hyper spectral Imaging in Diabetes and Peripheral Vascular Disease
2007-0038042	Hyper spectral Technology for Assessing and Treating Diabetic Foot and Tissue Disease
2007-0024946	Hyper spectral/Multispectral Imaging in Determination, Assessment and Monitoring of Systemic Physiology and Shock
Not published yet	Hyper spectral Imaging of Angiogenesis
Not published yet	Disposable Calibration-Fiducial Mark for Hyper spectral Imaging
2006-0247514	Medical Hyper spectral Imaging for Evaluation of Tissue and Tumor

International Patent Applications

WO 03010510A3	Adjunct quantitative system and method for non-invasive measurement of in-vivo analytes
WO 02065069A3	Hyper spectral imaging calibration device
WO 0160248A1	Non-invasive tissue glucose level monitoring
WO 0133278A1	Interface medium for tissue surface probe
WO 0103050A1	Imaging apparatus with means for fusing thermal and hyper spectral images
WO 0101854A2	Integrated imaging apparatus
WO 0043973A1	System and method for simulated device training
WO 0013578A1	Infrared endoscopic balloon probes
WO 2006/107947	Hyper spectral Imaging in Diabetes and Peripheral Vascular Disease
WO 2007/022508	Hyper spectral Technology for Assessing and Treating Diabetic Foot and Tissue Disease
WO/2006/058306	Medical Hyper spectral Imaging for Evaluation of Tissue and Tumor
WO 2006/086085	Hyper spectral/Multispectral Imaging in Determination, Assessment and Monitoring of Systemic Physiology and Shock
WO 2007/035597	Disposable Calibration-Fiducial Mark for Hyper spectral Imaging

Licenses/ Training

Long Range shooting 1 & 2 Known and Unknown Distance Shooting 1000 and 2300 meters, Barrett Manufacturing, Inc., SEPT 2012

Marksman Proficiency in multiple weapons classes

Thwarting the Enemy: *Providing Counterintelligence and Threat Awareness Information to the Defense Industrial Base*, DSS Center for Development of Security Excellence

Level 1 Counterterrorism Response/protection Training, DOD

United Nations Department of Safety and Security “Basic Security in the Field, Staff Safety, Health and Welfare”, JUN 2009

United Nations Department of Safety and Security “Advanced Security in the Field”, JUN 2009

Certified COMSEC Custodian, National Security Agency, April 2008

Community Response-Emergency Simulation Training, National Interagency Counterdrug Institute (NICI)

Engineer in Training Certification - Professional Engineer.

Reserve Components National Security Course: National War College, National Defense University, Industrial College of the Armed Forces.

Israeli Senior Officer Search and Rescue Course (*only American to attend*).

Test and Evaluation Management: Defense Systems Management College.

Industrial, Operations, and Communications Security: DOD Security Institute and Others.

Explosives and Demolition’s design, handling, and employment: U.S. Navy School EOD, USAF-AFATL, JFK Special Warfare Center and School.

Small arms and general weapons handling: U.S. Army Infantry School, JFK Special Warfare Center and School.

M2 Cal .50 Machine Gun Armorer’s course: Air Force Special Operations Command.

Nuclear Weapons Employment Concepts and Doctrine: U.S. Army Armor School.

Introduction to Special Operations: Air Force Special Operations School.

Dynamics of International Terrorism: Air Force Special Operations School.

Revolutionary Warfare: Air Force Special Operations School.

Cross-Cultural Communications: Air Force Special Operations School.

Middle-East Orientation: Air Force Special Operations School.

Aerospace Ground Testing Facilities: University of Tennessee Space Institute.

Armor/Anti-armor Combat and Demolitions: U.S. Army Armor School.

Combat Engineering: U.S. Army Engineer’s School.

Air-to-Air Combat Tactics, F-15/16 Avionics and Controls.

Hazardous Materials Operations and Emergency Response: University of Florida, Okaloosa-Walton Junior College.

Arson Investigation and Detection: Okaloosa-Walton Junior College.

Industrial Hygiene and Radiation Safety: University of Florida.

Advanced/Combat First Aid: University of Florida, U.S. Army Academy of Health Sciences.

Crisis Management.

U.S. Government Driver's License (HMMWV M998/1026, 2.5 and 5 ton cargo trucks, M113 Armored Personnel Carrier, all classes light and heavy armored combat vehicles including MIA1 and M60 main battle tanks, multiple items of construction equipment, flight line equipment, etc.).

Commercial Driver's License-Class A Unlimited/Unrestricted.