

William H. McDonough Jr., P.E.
bill@mcdonoughconsultingservices.com
267 252 1906m
926 Copes Lane, West Chester PA 19380

HIGHLIGHTS OF QUALIFICATIONS

- Experienced program manager and consultant with over 30 years applying risk management and engineering principles to systems (material and organizational) in defense, maritime, transportation, energy and manufacturing industries.
- Leveraged standards, best practices, and lessons learned from industries and organizations, and tailored to specific customer/stakeholder needs.
- Proven integration skills across multiple engineering and scientific disciplines
- Systematically applied engineering fundamentals for systems and subsystems:
 - Requirements identification and analysis
 - Assessment of current solutions, shortcomings, and impacts if not addressed
 - Alternative analysis and solution assessment
 - Design of experiments and scenarios based on operational criteria for success
 - Testing and Evaluation to assess solution outcomes
 - Solution iteration to understand impacts, costs and risks earlier in solution process
- Practiced in business development processes (preliminary solution analysis, proposal development, and management of planning, execution and feedback).

WORK HISTORY

McDonough Consulting Services, Inc

September 2021 – Present, Principal/Owner

Provided consulting for organizations and systems to identify and review initial problem sets, assess alternatives, and evaluate and iterate solutions.

Augustine Consulting Inc.

December 2018 – September 2021, Technical Director

- Provided program management, systems engineering, and technical assessments for requirements identification and cost benefit analysis in support of PEO Soldier offices (Assistant PEO Soldier Futures & Integration, and Program Manager Integrated Visual Augmentation Systems/IVAS). Integration effort included:
 - Developed experimentation objectives and plans
 - Conducted operational analysis (doctrine, prior research)
 - Conducted experimentation analysis for Measures of Performance (MOP), metrics, and comparison to potential Measures of Effectives (MOE)
 - Evaluated results to facilitate design, test, evaluate iterations

McDonough Consulting Services, Inc.

October 2012 – December 2018, Principal/Owner

- Provided program management, systems and mechanical engineering, organizational and technical assessments that enabled:(i) requirements identification and (ii) benefit analysis for U.S. Army Program Managers (Expeditionary Energy and Sustainment Systems, and Soldier Warrior) for emerging programs/programs of record.
- Provided input to collaborative Army team for defining metrics and measures associated with small team/squad performance for future solution sets.
- Performed analysis for Department of Defense (Manufacturing Technology Program) to identify U.S. advanced manufacturing challenges and opportunities for manufacturing capabilities. Emphasized improving awareness, leveraging industry lessons learned, and applying to DoD Science and Technology portfolio

William H. McDonough Jr., P.E.
bill@mcdonoughconsultingservices.com
267 252 1906m
926 Copes Lane, West Chester PA 19380

- Provided organizational assessments, studies and analysis as needed for U.S. Army Soldier Initiatives (Natick Soldier Research Development Engineering Center)
- Performed maritime failure investigations for global shipping companies
- Provided leadership and training methodology to support improved institutionalized training for military cultural and consensus building applications.

The Wexford Group International, a CACI Company

September 2005 – October 2012, Managing Engineer and Senior Consultant

- Provided program management, engineering, technical and organizational support
- Enabled organizational and system analysis. Led or made vital contributions (team 2-4 members) to support clients with process, analysis, and collaboration networks for:
 - International Oil and Gas company third party assessments (2012)
 - U.S. Army Research Institute (ARI) leadership efforts (2010-2012)
 - U.S. Army Special Operations Command (USASOC) Combat Development Directive planning and resourcing processes (2009-2010)
 - U.S. Special Operations Command team operating guidelines (2009-2010)
 - U.S. Special Operations Command (USSOCOM) National To Theater Transition for product development (2008)
 - U.S. Tank and Automotive Research Design and Engineering Center TARDEC (2007) preliminary user evaluations
- Technology design and development support to clients: U.S. Army Program Executive Office Soldier, Sensors and Lasers (2008) New York City Fire Department (FDNY) Operations Center QA and protective equipment (2006)
- Provided Program Manager assistance: proposals, execution, and reporting (Joint Improvised Explosives Defeat Organization and Army Asymmetric Warfare Office).
- Coordinated development of consulting guidelines for new employees.

Exponent Failure Analysis Associates

March 1999 – August 2005, Managing Engineer

- Engineering consultant, mechanical and marine engineering systems, responsible for individual projects and support to teams on larger projects.
- Directed and managed major failure analysis (>\$1M efforts) for shipboard fires, construction crane accidents, as well as numerous investigations for industrial marine and mechanical applications. (Boat/yacht investigations, shipboard investigations, industrial propulsion and auxiliary system analyses).
- Product design and development support for individual protective clothing efforts:
 - Project Manager to U.S. Army PM Clothing and Individual Equipment (CIE) Advanced Combat Uniform Concept Technology Demonstration (2000-2002).
 - Task lead for U.S. Army Objective Force Warrior for Soldier related technologies. Performed technology review, assessment, integration, prototyping, field tests, and delivery of multiple capabilities across 5 partner companies.

United States Coast Guard

March 1996 to May 1999 Technical Manager, U.S.C.G. Buoy Tender Replacement

- Directed technical support for a 12 vessel, \$300M shipboard acquisition
- Provided engineering support, integrated input from training, operational, engineering and logistics, and acquisition elements for all change proposals and testing (1996-99)
- Led and directed the development, government involvement and acceptance of a

William H. McDonough Jr., P.E.
bill@mcdonoughconsultingservices.com
267 252 1906m

926 Copes Lane, West Chester PA 19380

\$10M Land Based Support Facility – integrated bridge control and monitoring
June 1994 – June 1996 U.S. Coast Guard Cutter DURABLE Engineering Officer

- Directed operation and maintenance of a 35 year old, 210 foot, 1100 ton ship. Managed 30 shipboard engineers for all shipboard systems. \$1M/year operational budget for all maintenance, shipboard training, and leadership/mentoring of crew.
- Managed completion of an \$800k/6 week shipyard availability project.

June 1990-June 1992 U.S. Coast Guard Cutter MUNRO Assistant Engineering Officer

- Served as Assistant Engineering officer responsible for electrical and damage control/repair divisions of 378 foot, 3300 ton vessel.
- Responsible for annual budgets of approximately \$250k each, execution of preventive and corrective maintenance, training for all ship and direct reports of 10 individuals.

Technology Assessment and Evaluation Experience

- Supported Squad performance evaluations, analysis, and comparison to published research for individual and collective performance tasks
- Analysis of emerging tactical electrical power solutions for U.S. Army: benefits, return on investment, operational and financial costs to make informed decisions
- Multiple concept proposals for existing task orders, broad agency announcement and solicitations for primary government customers to include technology and organizational components (2007-2011)
- Thermal Sensors technology evaluation (2007-2008) assessing technology improvements and design decision tradeoffs for weight versus range performance.
- Analysis of capabilities for lightweight vehicle improvements (2006-07) including system attributes and initial performance requirements for product specifications
- Natick Solider Center Information Management Assessment (2005-2006) review of existing information management, alternative analysis and recommendations
- USMC bullet proof (SAPI) plate enhancements (2004) technology application and prototypes submitted for required government testing
- Commercial ballistic protection vests (2004-2005), evaluation and assessment of aged products, impact on performance, in addition to testing and evaluation of a range of fabrics/materials used and impact on (accelerated) wear testing.
- Objective Force Warrior (2002-2003) Evaluation of technologies for: soldier power (direct methanol fuel cells, battery alternatives), bullet proof plates, resistant materials, clothing, chemical/biological protection, load carriage, joint protection, headgear, eyewear, footwear.
- Advanced Combat Uniform (2000-2003) soldier protective equipment, technology evaluation, prototype and limited user evaluations (Soldiers)
- Multiple industrial investigations (failure analysis) covering marine shipboard recreational boating, industrial power and pump equipment, and heavy lift cranes.

EDUCATION

1990 B.S. Civil Engineering, U.S. Coast Guard Academy

1994 M.S.E. Naval Architecture/Marine Engineering, University of Michigan

SPECIAL QUALIFICATIONS

Licensed Mechanical Engineer: Pennsylvania - PE080498; California - M31560

National Fire Protection Agency (NFPA) 1925 Marine Fire Fighting Vessels

Top Secret/Sensitive Compartmented Information Security Clearance