

Daniel Wise, Ph.D., P.E.
Captain, USN (Ret)

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Education:

PhD, Mechanical Engineering Colorado State University
Awarded: May 2013 Fort Collins, Colorado
Studies Emphasis: *Thermal-Fluids, Heat Transfer, Energy Conversion*

Executive Master of International Business Saint Louis University
Awarded: August 2013 St Louis, Missouri

Master of Science, Mechanical Engineering Oklahoma State University
Stillwater, Oklahoma
Thesis Topic: *Geothermal Heat Pump Modeling and Simulation*

Bachelor of Science, Mechanical & Aerospace Engineering Oklahoma State University
Stillwater, Oklahoma

Summary:

- Highly experienced professional engineer able to relate applications addressed in coursework to actual hardware and real-world problems solved throughout a diverse and successful professional engineering career.
- Thermal sciences instructor in the mechanical engineering department at Colorado State University. Enthusiastic and positive assessment by students and faculty.
- Extensive applied engineering and design experience as well as technical program and project management experience associated with maintenance and modernization of surface ship and submarine systems. Extensive operational fleet experience as well as “hands on” engineering experience at industrial shore activity, shipyard, afloat maintenance activity assignments.
- Marketing, business development, and technical sales experience with Siemens Corporation Government Technologies Office addressing technical product introduction to the federal government in general and US Naval markets in particular.
- Chief Engineer heading the engineering program for DRS Technologies Marlo Coil Division,

an HVAC&R systems manufacturer, responsible for overall product development as well as the professional development of engineering and project management staff.

Experience:

- **Teaching Professor, Mechanical Engineering Department, Colorado State University.** January 2020 – Present. Senior instructor position in the mechanical engineering department teaching a variety of undergraduate courses to include Introduction to Mechanical Engineering (MECH 103), Internal Combustion Engines (MECH 437), Thermodynamics (MECH 337), Mechanics and Thermodynamics of Flow Processes (MECH 342), Energy Engineering (MECH 303/MECH 403).
- **Director, Federal Marine Programs, Siemens Government Technologies.** June 2014 – December 2019. Providing guidance and assistance to Siemens Industry entities pursuing business opportunities related to marine propulsion and power systems with the US Navy, US Coast Guard, and other federal agencies operating marine programs.
- **Instructor, Mechanical Engineering Department, Colorado State University.** June 2011 – May 2014: Taught undergraduate courses in thermodynamics (MECH 237 and 337), energy engineering (MECH 303), thermal sciences laboratory (MECH 338), and building energy systems (MECH 463). Developed new, original, course for Engineering Maintenance and Material Management.
- **PhD Student and Graduate Researcher, Colorado State University.** January 2010 – May 2013: Returned to an academic environment to refresh technical knowledge and skills and revive credentials as a professional engineer and technical manager. Specializing in power generation and energy systems. Ph.D. degree conferred 17 May 2013.
- **Consulting,** January 2010 – August 2013. Engaged with Colorado State University Ventures working with Siemens Corporation to develop PEM fuel cell solutions for the US Navy Office of Naval Research and US Special Operations Command submersibles programs. Performed the feasibility study evaluating applicability of the Siemens PEM fuel cell systems developed for the German navy to US submersibles programs in terms of power delivery to match mission profile and well as weight, space, moment, and stability evaluations for proposed applications.
- **Vice President, Engineering, DRS Technologies, Marlo Coil.** July 2007 – November 2009. Senior engineer for a DRS Technologies division engaged in the design and manufacture of heat exchangers, chiller plants, and firefighting systems for marine applications and custom industrial applications.
- **Senior Director, Business Development, Siemens Government Business Office.** September 2004 – June 2007: Supporting Siemens operating companies pursuing business

opportunities in the US federal market. Specific emphasis in support of Siemens operating companies pursuing opportunities with the US Navy and Coast Guard, other Department of Defense agencies, State Department, and various other federal agencies.

US Navy Career

- **Commanding Officer, Crane Division, Naval Surface Warfare Center.** Providing engineering and industrial base support in the areas of electronic systems development, electronic warfare systems, and ordnance engineering. Workforce of over 3200 civilian and military personnel, 1000 support contractors, \$1.3 Billion annual business operations.
- **SIXTH Fleet Maintenance Officer, Naples, Italy.** Providing maintenance and logistics support to US and allied ships and operational fleet units throughout Europe and the Middle East. Responsibilities included immediate response and recovery efforts from catastrophic events such as the grounding of USS UNDERWOOD (FFG 36) and USS SHREVEPORT (LPD 12), and the bombing of USS COLE (DDG 67). Specifically responsible for supervisory technical review of all hull, mechanical, and electrical repair and modifications necessary to facilitate recovery. Responsible for on-sight engineering support for deployed ships and for the US SIXTH Fleet command ship, USS LaSALLE (AGF 3), including all modernization and extended work package development.
- **Business Officer, Portsmouth Naval Shipyard, Portsmouth, New Hampshire.** Responsible for strategic planning, workload forecasting and leveling, and business operations to include budgeting, pricing, and business development.
- **Submarine Force Repair Officer at Commander, Submarine Forces, U.S. Pacific Fleet, Pearl Harbor, Hawaii.** Principal point of contact for all submarine maintenance organizations in the Pacific theater, responsible for oversight of force-wide technical education, capital equipment procurement, and quality assurance programs.
- **Submarine Tender Repair Officer, USS SIMON LAKE (AS 33), LaMaddelena, Italy.** Chief engineer and technical authority for surface ship and submarine work executed at the forward deployed site. A “Shipyard Afloat” with 850 craftsmen and full range of marine industrial capability engaged in all manner of sophisticated repair and modernization in both nuclear and non-nuclear areas requiring extensive and exacting analysis, design evaluation, and quality assurance.
- **Auxiliaries and Electrical Inspector, Submarine Board, President, Board of Inspection and Survey (INSURV).** Responsible for evaluation and assessment of operational capability, maintenance adequacy, and specification adherence for all auxiliary equipment ranging from emergency diesel generators, high pressure air compressors, hydraulic plants, atmospheric control equipment and the ship’s AC and DC electrical distribution systems.

- Officer in Charge, Ship Repair Unit, Dubai, U.A.E., Deputy Project Manager for mine damage repair and recovery of USS PRINCETON (CG 59). Served as the US Navy representative at Dubai Drydocks responsible for work package development, maintenance and repair scope definition, and oversight of contracted work for all US Navy ships serviced by the Drydocks and all other repair organizations in the U.A.E.
- Fleet Liaison Officer, Naval Sea Systems Command, Trident Submarine Program Office (PMS 396). Served as the primary point of contact for fleet units (OHIO class submarines) in transition from new construction to full operational rotation at home ports in Bangor, Washington and Kings Bay, Georgia.
- Submarine Overhaul Project Manager, Docking Officer, Submarine Type Desk Officer; Puget Sound Naval Shipyard, Bremerton, Washington. Project manager for complex overhauls of nuclear submarines exceeding 200,000 man days in scope. As docking officer responsible for the technical evaluation, planning, and safe execution of docking and undocking evolutions on all craft in the shipyard, ranging from nuclear powered aircraft carriers, cruisers, destroyers, ballistic missile submarines, attack submarines, and auxiliary craft.
- Various shipboard (destroyer and submarine) and shipyard tours and service schools. Surface Warfare Officer and Submarine Warfare (Engineering Duty) qualified.

Personal/Other:

- Captain, United States Navy, Engineering Duty Officer (Retired)
- DAWIA {Defense Acquisition Workforce Improvement Act} Level III Certification (Manufacturing)
- Professional Engineer (Texas PE # 63079)

Publications/Professional Symposia and Conference Presentations:

- Ronald Wagner and Daniel Wise, "Environmental Sensor Coupled RFID Tracking for Multi-Modal Ordnance Shipment", International RFID Business Symposium, Frankfurt, Germany, October 18-20, 2005
- Thomas Orberger and Daniel Wise, "Hybrid Electric Propulsion Systems for High Speed Small Craft", American Society of Naval Engineers Advanced Propulsion Symposium, Everett, WA, July 2006

- Heinz Waschin and Daniel Wise, “PEM Fuel Cell Development for Air Independent Propulsion of Undersea Vehicles”, American Society of Naval Engineers Advanced Technologies Symposium, Alexandria, VA, October 2006
- Daniel Wise, Daniel Olsen and Arnold Kim, “Development of a Lean Burn Methane Number Measurement Technique for Alternative Gaseous Fuel Evaluation”, ICEF2013-19220, Accepted for ASME 2013 Internal Combustion Engine Fall Technical Conference, October 13-16, 2013
- Daniel Wise, Daniel Olsen and Arnold Kim, “Characterization of Methane Number for Producer Gas Blends”, ICEF2013-19221, Accepted for ASME 2013 Internal Combustion Engine Fall Technical Conference, October 13-16, 2013
- Luke Briant, Daniel Wise, “Getting the Balance Right - Technologies Enabling Safe and Reliable Operation of Platform Support Vessels”, Marine Technology Magazine, Society of Naval Architects and Marine Engineers, October 2017
- Josh Moothart, Daniel Olsen, Daniel Wise, “Diesel Electric Propulsion Fuel Consumption and Emissions Performance: Fixed Speed vs. Variable Speed”, American Society of Naval Engineers Ships Systems and Technologies Conference, Washington DC, July 2018
- Daniel Wise, “Feasibility of Fuel Cell Centric Power Modules for LDUUV and Other Submersibles”, National Defense Industrial Association 2019 Joint Undersea Warfare Conference, Newport RI, September 2019
- Daniel Wise, “Air Independent Emergency Power – A Proposal for U.S. Submarines”, Submarine Technology Symposium 2020 (Virtual), US Navy Submarine League and Johns Hopkins University, July 2020
- Dawson Baucke, Daniel Wise, Robine Bremmer, Daniel Olsen, “Experimental Evaluation of the Methane Number Measurement Procedure for Gaseous Fuel Rating”, Energies-29667606-6-15-2024