VITA

Dr. Warren Vaneman has worked in wide range of systems engineering assignments with the U.S. Department of Defense. His experience spans the entire life-cycle of the system. His first systems engineering related job was defining system requirements and developing concepts of operations for a production system that produces electronic hydrographic data. He later served on the development teams for two hydrographic data production systems, and was directly responsible for reliability and maintainability, system security, and modeling and simulation issues.

During a two-year period beginning in 1997, Dr. Vaneman was the project manager for the Department of Defense's HydroVision Initiative. The thrust of this initiative was to propel the hydrographic community into the digital realm. Until that time, the hydrographic community was producing paper products (e.g. paper nautical charts and publications) that were used for navigation at sea. However, with modern shipboard navigation systems being computerized, digital nautical charts were becoming in high demand. The process to produce the digital nautical chart was well defined, but there was no easy mechanism to update the data once produced. The team lead by Dr. Vaneman developed a process for updating this crucial data using object-oriented technology. This technology was introduced into the production environment and is now the standard for hydrographic data production.

While Dr. Vaneman has extensive experience in systems development, he also has a solid background in systems engineering during the operational phase. He was the lead systems engineer for six critical systems for more than three years. During this period he was responsible for implementation of system upgrades, system maintenance, and the disposal of old production systems.

Dr. Vaneman is currently the lead systems engineer responsible for modeling and simulation of future system architectures. In this role he evaluates the performance and cost associated with future production architectures.

Dr. Vaneman has an A.S. in Science from Camden County College, Blackwood, New Jersey, a B.S. in meteorology and oceanography from the State University of New York Maritime College at Fort Schuyler, Bronx, New York, a M.S. in Systems

Engineering, and a Ph. D. in Industrial and Systems Engineering from Virginia Polytechnic Institute and State University. Dr. Vaneman also maintains an U.S. Merchant Marine Officers License as master of vessels not greater than 1,600 gross tons, and second mate of ocean-going vessels of any size.

Warren Vaneman is also a commander in the United States Naval Reserve. Dr. Vaneman was commissioned as an ensign in 1987 through the Naval Reserve – Merchant Marine Program. Desiring to become surface warfare qualified, he volunteered to be recalled. He graduated from the Surface Warfare Officers School – Division Officers Course, Newport, Rhode Island in April 1989. In May, he graduated from Gunnery Officers School, and reported to USS BIDDLE (CG-34). Aboard USS BIDDLE he was the Electronics Warfare Officer, First Lieutenant, and Navigator. During his assignment aboard USS BIDDLE, the ship deployed to the Red Sea with the USS SARATOGA Battle Group during Desert Shield and Desert Storm. The ship also deployed to the Caribbean many times during his tour to support counter-drug operations.

Dr. Vaneman left the active navy in May 1992, and immediately affiliated with the Naval Reserve. He was a Strategic Plans Officer and Unit Training Officer in Commander in Chief Atlantic Fleet Detachment 206 from 1992 until 1996. In 1996, he became the first executive officer of Assault Craft Unit Four Detachment 1 – a unit whose mission is to support maintenance for the Landing Craft Air Cushion (LCAC). In October 1998, Lieutenant Commander Vaneman assumed command of Assault Craft Unit Four Detachment 1. During his first command tour his unit was able to make procedural changes which effected the way LCAC maintenance was conducted worldwide. For their efforts, the unit won the Leo V. Bilger Award (for unit excellence) twice, and Lieutenant Commander Vaneman was awarded the Naval Reserve Readiness Command Mid-Atlantic Peer Leadership Award. In October 2000, Lieutenant Commander Vaneman reported to Commander Second Fleet Detachment 113 aboard the USS MOUNT WHITNEY (LCC-20). During this period, he served as a Maritime Operations Officer and was the department head responsible for training. In October 2001, Lieutenant Commander Vaneman assumed command of Strategic Allied Command Atlantic Detachment 107.

Dr. Warren Vaneman currently resides in Prince William County with his wife Robin, and sons Wyatt (4) and Noah (1).

The following is a list of major papers, and a presentation Dr. Vaneman authored, or was the primary co-author:

Vaneman, Warren K. (1997). *The Effect of Implementing New Technology into an Existing Production Process.* Unpublished master's degree thesis. Virginia Polytechnic Institute and State University, Blacksburg, VA.

Vaneman, Warren K. and Kostas Triantis (1999). *Defining, Evaluating and Controlling the Implementation Phase of a Systems Life-cycle.* Proceedings of the American Society for Engineering Management National Conference, Virginia Beach, VA. Invited technical paper and presentation, October 21-23, 1999.

Vaneman, Warren K., and Kostas Triantis (2000). *System Dynamics and DEA: The Foundation for Future Integration.* Invited presentation for the North American Productivity Workshop, June 15-17, 2000.

Vaneman, Warren K., Kostas Triantis, Pavander Monga, and Wassanna Siangdung (2000). *The Effects of New Technologies on Ship Systems: A System Dynamic-Data Envelopment Analysis Approach.* Invited presentation for the Office of Naval Research Affordability Measurement and Cost Prediction Conference, August 22-24, 2000.

Vaneman, Warren K., Kostas Triantis and Elias Carayannis (2000). *Embedding Data Envelopment Analysis Into a System Dynamics Framework.* Proceedings of the American Society for Engineering Management National Conference, Washington, D.C. Invited technical paper and presentation, October 4-7, 2000

Vaneman, Warren K. and Kostas Triantis (2001). *Planning for Technology Implementation: An SD(DEA) Approach.* Proceedings of the Portland International

Conference on Management of Engineering and Technology, Portland, OR. Invited technical paper and presentation to be presented July 29 – August 2, 2001.

Vaneman, Warren K. and Kostas Triantis (2001). *Planning for Technology Implementation: An SD(DEA) Approach.* In Technology Management in the Knowledge Era (D.F. Kocaoglu and T.R. Anderson). Portland, OR: PICMET. (pp. 375-383). Technical paper selected for publication in this book.

Vaneman, Warren K. and Kostas Triantis (2003). *The Dynamic Production Axioms and System Dynamics Behaviors: The Foundation for Future Integration.* Journal of Productivity Analysis, 19(1).

Vaneman, Warren K. (2002). *Evaluating System Performance in a Complex Dynamic Environment.* . Unpublished Doctor of Philosophy Dissertation. Virginia Polytechnic Institute and State University, Blacksburg, VA..