

Tom A. Stefanick, Ph.D.

Visiting Fellow - Brookings Institution

Policy Research, Technology Management, Business Development

Accomplished analyst and writer in defense technology and policy, with a 30-year career in Government R&D consulting, business development, and managing highly technical staff.

Core Competencies

- ❖ Research and Writing in Defense Technology and Operational Analysis
 - ❖ Communicating with Government and Industry Leaders
 - ❖ Marketing, Sales and Financial Management
 - ❖ Building and Leading Defense-related Analytics Consulting Businesses
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Technology Leadership and Development

- Initiated numerous technical efforts in machine learning, autonomous planning, physical sensor modeling, optimization, and simulation modeling of military operations.
- Independently researched and wrote the book Strategic Antisubmarine Warfare and Naval Strategy, Lexington Books, 1987. This book was a runner-up for the Furniss Award from the Mershon Center for International Security Studies at Ohio State University.
- Hired and managed a staff of over 30 people, about half of whom held Ph.D. degrees in physics, mathematics, or engineering.
- Led projects that applied advanced statistical methods to assess foreign nation attitudes toward Cooperative Security Exercises conducted by the US, using specially conducted surveys as well as social media data.

Business Growth and Management

- Founded a new division in 2005 and grew it to \$10.7M with over 30 technical staff by 2012.
 - Developed and executed an integrated strategy to expand business, manage recruiting for highly technical talent, and manage operations to meet financial targets.
 - Maintained close communications with Navy clients within the Pentagon, System Commands, and Warfare Centers on a combination of R&D and Operations Analysis technical tasks.
 - Led Metron's Congressional engagement efforts with House and Senate Staff.
 - Served on the Metron Board of Directors (2009-2018), and as Corporate Treasurer (2015-2018).
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Career Chronology

Metron, Inc. October 1988 to July 2018, Reston, VA

Metron is a scientific consulting company dedicated solving challenging analytics problems for national defense using applied mathematics, statistics, computer science and physics.

Senior Vice President: January 2016 to July 2018

- Assisted in overall corporate governance with CEO and COO, including legal and regulatory responsibilities.
- Oversaw planning and execution of corporate Cybersecurity Improvements in order to meet new NIST 800-171 and other Cybersecurity requirements for unclassified networks.
- Participated with CEO in restructuring of stock ownership to move Metron to a 100% ESOP-owned Company.

Group Manager: January 2011 to December 2015

- Exercised management oversight over four of the five divisions of Metron, representing approximately 75% of the technical staff, and over 60% of company revenues.
- Continued to run my own division during this period.
- Supported the creation of a new West Coast division working directly with the new Division Vice President.

Vice President/Division Manager of Systems and Analysis Division: January 2005 to December 2015

- In 2005, I launched the first new sustained Division in the Company since 1990. By 2010, the Systems and Analysis Division was the second largest of the three Metron Divisions in existence at the time.
- Provided expertise in statistics and machine learning technologies, and trained new technical staff on applications of these technologies.
- Hired and developed a deputy, who eventually grew his own business into a new division.

Senior Manager: January 2003 to December 2004

- Started an independent technical business area around machine learning and automatic image recognition for electro-optic imaging systems.
- Formulated technical approaches to autonomous command and control of undersea mine countermeasures (MCM), and collaborated on a large-scale simulation used to support Navy MCM planning.

Senior Analyst: October 1988 to December 2002

- Applied methods of machine learning, including neural networks, to image recognition problems.
- Developed rigorous statistical methods for use in test and evaluation of electro-optical sensors and machine learning algorithms, and led a teams of analysts in applying these methods.

Prior Experience

House Armed Services Committee Science Fellow: September 1987 to October 1988

- Awarded a Fellowship by the American Association for the Advancement of Science
- Wrote issue papers for Mr. Aspin's staff related to strategic forces and Soviet submarine and anti-submarine developments
- Published article in Scientific American on "Non-acoustic Detection of Submarines"

Federation of American Scientists: March 1986 to September 1987

Institute for Defense and Disarmament Studies: 1981 to 1986

MIT Shakespeare Ensemble, Co-Director and Manager: 1980 to 1981

Woods Hole Oceanographic Institution: 1979 to 1980

Education

M.S. Statistics Colorado State University, 2012

Ph.D. Mechanical Engineering (Radiative Transfer), George Washington University, 2002

M.S. Civil Engineering (Coastal Engineering), MIT, 1979

B.S. Civil Engineering (Water Resources), MIT, 1978

Patents Granted

US5233541 "Automatic Target Detection Process", Granted 1993-08-03. With Dr. Thomas Corwin (P.I.) and others.

US5276632A "Method and Apparatus for Improved Visual Display of a Target Viewed by an Imaging Sensor Device", Granted 1994-01-04. With Dr. Thomas Corwin (P.I.) and others.

Selected Commendations

- 2005 Certificate of Excellence for Outstanding Contributions to ALMDS program. From Christine Stelloh-Garner, Dept. of the Navy Acquisition Reform Executive.
 - 1997 Certificate of Excellence in Acquisition from John W. Douglas, Asst. Secretary of the Navy for Research, Development, and Acquisition.
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