



## Dr. Debra L. Emmons

Vice President Chief Technology Officer

Dr. Debra L. Emmons is vice president and chief technology officer (CTO) at The Aerospace Corporation. In this role, she is responsible for providing vital leadership for determining and executing the company's technology strategy and investments. Emmons leads four offices: *eLab*, responsible for setting the technical investment strategy and priorities; *xLab*, responsible for developing, building, and operating prototypes; Commercial Space Futures (CSF) office, responsible for driving the harnessing of commercial solutions for government missions to advance U.S. space; and the new *Solution Accelerator*, responsible for delivering independent and innovative solutions with speed and national impact. She also manages the company's \$60M+ internal research and development program and the Aerospace Technical Fellows program, with the company's top engineers and scientists. Emmons most recently served as chairperson of the CTO Roundtable with federally funded research and development centers (FFRDCs) and university affiliated research centers (UARC)s to develop and maintain relationships with government and other defense-related research laboratories to identify technology priorities, future requirements, and emerging opportunities.

Previously, Emmons was vice president of special studies at Aerospace, responsible for promoting the use of corporate and government resources through horizontal and cross-program integrated planning and engineering. Prior to that, she served as general manager of Aerospace's Communication Technologies and Engineering Division, where she oversaw the communications studies, analysis, and testing products of the division to serve the full range of corporate national security space, civil, and commercial customers, and managed a geographically distributed team of engineers and laboratories.

Earlier in her career, Emmons was integral in the establishment and growth of the NASA and civil space customer lines of business and held various leadership roles. Emmons held the role of principal director, NASA and Civil Programs, serving all science and technology customers. Before joining Aerospace in 2003 as a project engineer, Emmons worked at Hughes Space and Communications Company as a system engineering project manager on commercial telecommunications satellite development.

An experienced aerospace leader with technical, management, and industry experience in the acquisition and development of advanced technology space systems, Emmons has more than 25 years of experience in systems engineering, technical and risk analysis, program management, and communications systems. She was a principal contributor on several key high-level studies and assessments that have informed strategic decisionmaking within the government.

### Education

Emmons earned bachelor's and master's degrees in electrical engineering from Cornell University with a concentration in signal processing and communications theory. She was awarded an MBA from Imperial College Management School, London, UK, with a concentration in entrepreneurship and finance. Emmons earned a Ph.D. in systems engineering from the George Washington University.

### Awards and Honors

Emmons was awarded two Aerospace President's Awards and named Aerospace Woman of the Year. She has received accolades for her contributions to the NASA Hubble Space Telescope Analysis of Alternatives and she was honored for providing technical studies critical to the Augustine Commission's recommendations for future U.S. human spaceflight. Emmons was named a Class of 2024 Associate Fellow by the American Institute of Aeronautics and Astronautics.

### Affiliations

Past and present affiliations include the California State University Autonomy Research Center for STEAHM External Research Advisory Committee; Advanced Space Communications and Navigation Systems Session, International Astronautical Federation; and National Space Club and Foundation, Washington, D.C.

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