

Dr. Thomas Broderick Chief Scientist and Technical Advisor for Advanced Manufacturing and Materials



Dr. Thomas Broderick is the Chief Scientist and Technical Advisor (CSTA) for Advanced Manufacturing and Materials in the Office of Senior Technical Experts (AIR-20). In his role, he works to identify and mitigate aerospace safety risks related to advanced manufacturing processes and materials, and their corresponding effects on the performance, reliability, and overall behavior of aerospace products and their components. He also supports the technical development of our workforce in these areas and guides the related FAA research.

Dr. Broderick's present experience spans over 40 years, working advanced manufacturing and materials application issues for private industry and the United

States Air Force (USAF) as a civil servant. His experience extends from a foundation as a titanium metallurgist, but with time and broadened responsibilities has worked and led teams in the development, manufacture, application and repair of many materials used to make aircraft structures and gas turbine jet engine components. His participation in formulation of associated technology development roadmaps has informed on the competitive materials selection and use of candidate polymeric, metallic and intermetallic materials, in their monolithic and composite forms, including application of protective coatings to provide required capabilities.

Throughout his career, Dr. Broderick has demonstrated his commitment to technical knowledge sharing through more than 40 publications, presentations, and patents in his area of expertise. He earned his Bachelor's (Wright State University, 1982) and Master's (University of Dayton, 1987) degrees in Materials Science and Engineering, and two decades later, fulfilled a long-term personal and professional interest by completing his Ph.D. in Materials Science and Engineering from The Ohio State University.