



Mr. ERIC BOYER, Ph. D.

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Eric Boyer received his B.S. in Aerospace Engineering from Princeton University in 1993, and a Ph.D. in Mechanical Engineering from the Pennsylvania State University in 2005. He currently holds a research faculty position at Penn State's University Park campus and is the Assistant Director of the High Pressure Combustion Laboratory (HPCL), one of the premiere university combustion and propulsion research facilities in the nation. He is also the Safety Officer of the HPCL. In this position, he played a key role in developing and safely implementing the Outdoor Test Facility at the HPCL. This facility contains two test stands allowing the safe operation of solid rocket motors with up to 20 lbs. of propellant, a rarity among university rocket test facilities. He has taught classes in thermodynamics, fluid dynamics, heat transfer, aerospace propulsion, and combustion modeling.

Dr. Boyer's research interests encompass both modeling and experimental studies of combustion and propulsion systems. Previous topics of research have included detailed combustion and burning rate characterization of liquid, gel, hybrid, and solid rocket propellant formulations for government and industrial sponsors. He has also participated in safety investigations and research for the U. S. Army, and the energy and automotive industries. Dr. Boyer has published over 50 technical articles, co-authored a chapter in the recent American Institute of Aeronautics and Astronautics (AIAA) *Progress in Astronautics and Aeronautics Series* book entitled "Fundamentals of Hybrid Rocket Combustion and Propulsion," and two of his co-authored papers were named "Best Paper" by the AIAA Hybrid Rocket Technical Committee.

Activities include working with the NASA University Student Launch Initiative (USLI) propulsion team at Penn State, and assisting with and organizing PSU Engineering graduate student volunteer participation in the State College Area School District Galaxy Explorers and Moon Base 1 summer day camps.

Dr. Boyer serves as the Academic representative on the National Warheads and Energetics Consortium (NWECC) Executive Committee, representing the interests of academic and university members. He is also a member of the Defense Ordnance Technology Consortium (DOTC) Executive Committee.