

SENIOR FELLOW FOR AIRPOWER STUDIES



Dr. Ray O'Mara, is a Senior Fellow for the Mitchell Institute for Aerospace Studies.

BACKGROUND: Dr. Ray O'Mara previously served in the Department of Defense as a Highly Qualified Expert (HQE), supporting the Assistant Secretary of Defense for Mission Capabilities in the Office of the Undersecretary of Research and Engineering [OUSD(R&E) MC] as the Chief Architect for Capability Transition. In this role, he designed and oversaw the transition of the Assault Breaker II program from DARPA into OUSD(R&E). He was also served as a senior government advisor to the Defense Science Board as Executive Secretary of the 2024 Summer Study and the Strategic Options Permanent Subcommittee.

Prior to his civilian government service, Dr. O'Mara provided Systems Engineering and Technical Assistance (SETA) support to the Assault Breaker II program. During this time, he led the establishment of the Secure Advanced Framework for Simulation and Modeling (SAFE-SiM) program and also led an advanced concept development effort focused on the employment of non-kinetic effects in the period prior to armed conflict. Before arriving at DARPA,

Dr. O'Mara spent time in the civilian technology development sector, first at Aurora Flight Sciences, and then the Humatics Corporation, a high-technology hardware startup, where he was responsible for developing strategic relationships with key aerospace partners as well as directing defense-oriented research and development. During Dr. O'Mara's 29-year Air Force career, he completed several operational and operational test flying assignments, amassing over 2,000 hours in the F-15C aircraft. He also served on the USAF headquarters staff, was the commander of the 83d Fighter Weapons Squadron, where he executed the USAF's air-to-air Weapon System Evaluation Program, and was the Chair of the Strategy Department at the Air War College.

AREAS OF FOCUS: Dr. Ray O'Mara provides multidisciplinary analysis and insight at the operational and strategic levels in support of defense and national security concept development and mission area analysis. He focuses on airpower theory, operations, and the development and integration of technologies and autonomy into human-machine systems.

ACADEMIC AND PROFESSIONAL TITLES: Dr. O'Mara is a retired United States Air Force Colonel and the founder and owner of Fortress Technology Solutions, LLC. He received his commission through the Reserve Officer Training Corps program at Rensselaer Polytechnic Institute and is a graduate of the Air Command and Staff College, the School of Advanced Airpower Studies, and the Air War College, and he completed his Ph.D. studies at MIT in Technology, Policy, and Engineering Systems. In 2022, he published *Rise of the War Machines: The Birth of Precision Bombing in World War II* through the Naval Institute Press.
