

Knox T. Millsaps, Ph.D.

Acting Head, Naval Air Warfare and Weapons

Dr. Knox Millsaps is the acting head of the Naval Air Warfare and Weapons Department (Code 35) at the Office of Naval Research. This department has three divisions reporting to him: 1) [Aerospace Sciences](#) (351); 2) [Air Warfare and Naval Weapons Applications](#)(352); and 3) SBIR and Special Programs (353), which includes Technology Transfer and Rapid Innovation Funds.

Millsaps is responsible for the Navy's science and technology (S&T) investment in fixed- and rotary-wing air platforms; kinetic weapons, including air- and surface-launched missiles and other munitions; and directed-energy weapons like lasers and high-powered microwave weapons. The department leads ONR in several technical areas, including energetic materials for munitions and solid-rocket propulsion, hypersonics and the Science of Autonomy interdepartmental group. Millsaps also serves as the Navy's representative on the Office of the Secretary of Defense Reliance Air Platforms Panel.

He entered the Senior Executive Service in September 2015 as the director of the Division of Aerospace Sciences, and became the acting head of Code 35 in January 2018.

From 1992 to 2015, Millsaps was a tenured full professor in the department of mechanical and aerospace engineering at the Naval Postgraduate School (NPS) in Monterey, California. He was the department chairman (2008-2014), associate provost for academic affairs (2005-2006) and associate provost for institutional development (2006-2008). He currently is a professor and chairman emeritus at NPS. He was the founding DoD Executive Agent for the Science, Mathematics and Research for Transformation (SMART) Scholarship-for-Service Program (2005-2012). He also was a congressional fellow and then staff in the office of Rep. John M. Spratt and on the House Armed Services Committee (1999-2001).

Millsaps has industrial experience with Pratt and Whitney's military and rocket propulsion division in West Palm Beach, Florida (1983-1984), and commercial engines division (1986-1988) in East Hartford, Connecticut. He has also consulted for several groups such as the Electric Power Research Institute.

He has published research in aerodynamics, aero-elasticity, heat transfer and rotor-dynamics of turbomachinery; unsteady aerodynamics and signal-processing for rotating and reciprocating machinery condition-based maintenance; advanced thermodynamics of power plants, gas turbines, diesels and steam turbines; combustion of bio- and syn-fuels; and advanced propulsion and power concepts. He is a member of the American Society of Mechanical Engineers and the American Institute of Aeronautics and Astronautics, as well as an associate editor for several of their journals. He was on the board of directors, and the chairman of the board, of the International Gas Turbine Institute.

Millsaps holds a bachelor's degree with highest honors in engineering science from the University of Florida, and master's and doctorate degrees in aerospace engineering from the Massachusetts Institute of Technology (MIT)—with a minor in finance and international economics from the Sloan School at MIT and the Harvard Business School. He was named an outstanding alumnus by the University of Florida in 2007.