Dr. Peter Highnam is the Principal Deputy Assistant Secretary of Defense for Critical Technologies. Office of the Secretary of Defense for Research and Engineering (OUSD(R&E)).

Before joining OUSD(R&E), Dr. Highnam was the Deputy Director of the Advanced Research Projects Agency (DARPA) from February 2018 to October 2022. From January 2020 to September 2020, and from January 2021 to March 2021, he served as the DARPA acting director.

Dr. Highnam was the director of research at the National Geospatial-Intelligence Agency (NGA), on assignment from the Office of the Director of National Intelligence (ODNI), for two and a half years. Prior to that assignment, he served six years at the ODNI's Intelligence Advanced Research Projects Activity (IARPA), initially as an office director, and then as director.

Dr. Highnam worked from 2003 until 2009 in the U.S. Department of Health and Human Services (HHS). Initially as a senior advisor in the National Institutes of Health (NIH), with responsibilities in areas where high-performance computing intersects with biomedicine and public health, including computational epidemiology. Subsequently, he served as senior advisor to the director of the Biomedical Advanced Research and Development Authority (BARDA), where he produced analyses in support of public health decision-making related to chemical, biological, radiological, and nuclear events, as well as influenza and other naturally occurring diseases.

From 1999 to 2003, Dr. Highnam was a DARPA program manager working in electronic warfare and airborne communications. His research in electronic warfare focused on inexpensive approaches to rapidly and accurately target enemy air defense radars from greater standoff distances. Dr. Highnam also investigated technology for high-performance, flexible, and secure networked communication between tactical aircraft, enabling plans to move away from systems such as Link 16.

Dr. Highnam worked for more than a decade in applied research at Schlumberger Limited, where he implemented industry-changing commercial seismic data analytics on massively parallel computers. He also served as a director of a successful biomedical imaging startup company.

Dr. Highnam holds a Doctor of Philosophy in computer science from Carnegie Mellon University, a Master of Science in mathematical logic and the foundations of mathematics from the University of Bristol (United Kingdom), and a Bachelor of Science in computer science from the University of Manchester (United Kingdom).

Dr. Highnam has received the Office of the Secretary of Defense Exceptional Civilian Service Award, the NGA Distinguished Civilian Service Award, the Department of Health and Human Services Secretary's Distinguished Service Award, and the Office of the Secretary of Defense Medal for Exceptional Public Service. He is a co-inventor on three patents related to commercial seismic exploration.