



BIOGRAPHY

UNITED STATES AIR FORCE

DR. DALE R. CARLSON

Dale R. Carlson, a member of the Senior Executive Service, is Technical Advisor Propulsion, Engineering Directorate, Air Force Life Cycle Management Center, Wright-Patterson Air Force Base, Ohio. The directorate provides leadership and support at senior government and industry levels in aerodynamic and structural design, propulsion safety, durability, and engine certification.

Dr. Carlson has more than 35 years of US government and industrial experience in developing and leading propulsion system design, research, development, and applications across a broad range of speed regimes. As a trained aerodynamicist and computational fluid dynamics specialist, he has taught, developed, and applied state of the art computational methodologies to numerous multi-disciplinary problems. These include subsonic, transonic and hypersonic flows, unsteady turbomachinery flowpath simulations, aerothermochemistry, and thermal response of structures, laser-material interaction, hydrodynamic stability, aerodynamics, thermal radiation, and geometrical optics of missile sensor windows. Dr. Carlson is an expert (Six Sigma certified Master Black Belt) in applying statistical tools and probabilistic methodologies for the solution of complex engineering design, manufacturing, and business problems. He has also extensive systems engineering experience and has lead several major engine qualification and development programs.



Dr. Carlson has extensive experience in propulsion technology strategy and as a technology spokesperson at numerous conferences and venues across the globe. Leveraging his extensive industrial experience, he has advised numerous US Government agencies on international trends and developments in science and technology for the aerospace sciences.

EDUCATION

1978 BS, Mechanical Engineering (with Distinction), University of Oklahoma, Norman, OK
1981 MS, Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, MA
1981 MS, Mathematics, Massachusetts Institute of Technology, Cambridge, MA
1983 PhD, Aeronautics and Astronautics Massachusetts Institute of Technology, Cambridge, MA

ASSIGNMENTS

1. 1971-1974, Enlisted (E4), Electronics & Communications, US Air Force (USAFE)
2. 1983-1987, Officer (O3), Assistant Professor AFIT, US Air Force, Wright-Patterson AFB, OH
3. 1987-1988, Aerospace Engineer, Flight Controls, Wright Laboratories, Wright-Patterson AFB, OH
4. 1988-1995, Head, Aerosciences Division, SAIC, Dayton, OH
5. 1995-1996, Staff Engineer, Heat Transfer, GE Aircraft Engines, Cincinnati, OH
6. 1996-1997, Staff Engineer, Turbine Aerodynamics and Cooling Technology, GE Aircraft Engines, Cincinnati, OH
7. 1997-1998, Six Sigma Black Belt, GE Aircraft Engines, Cincinnati, OH
8. 1998-1999, Six Sigma Master Black Belt, GE Aircraft Engines, Cincinnati, OH

9. 1999-2004, Qualification Leader, F110-GE-132 Engine Program, GE Aircraft Engines, Cincinnati, OH
10. 2004-2004, JSF F136 Technical Proposal Manager, GE Aircraft Engines, Cincinnati, OH
11. 2004-2005, Operations Manager, Military Engines Systems Design Integration (MESDI), GE Aviation, Cincinnati, OH
12. 2005-2013, General Manager, Technology Strategy, GE Aviation, Cincinnati, OH

MAJOR AWARDS AND DECORATIONS

Numerous teaching, program performance, and presentation awards throughout Dr. Carlson's career.

OTHER ACHIEVEMENTS

2013 Future of NASA Aeronautics, National Academy of Sciences, Panel Participant,
2012 White House Roundtable Discussion on Accelerating Aeronautics Innovation and Technology Transfer, Panel Participant
2012 China Advanced Propulsion Technology Summit, GE Commercial Technology Presentation

EFFECTIVE DATES OF PROMOTION

SL, 4/2014