Dale L. Ball, Ph.D.

Lockheed Martin Senior Fellow

Lockheed Martin Aeronautics Company

Dale Ball has worked in the area of aircraft structural durability and damage tolerance for the past 39 years. He has been directly involved with fatigue spectrum generation methods and software development, fatigue crack initiation and growth analysis methods and software development, and with structural integrity requirements development and certification for air vehicles. Dale has worked in the military aircraft manufacturing industry throughout his career, supporting programs ranging from the B-2 stealth bomber, to the National Aerospace Plane (NASP), to the F-35 Joint Strike Fighter. His current research interests include the development of thermomechanical fatigue analysis methods for reusable hypersonic vehicles, the advancement of metal additive manufacturing technologies, and the modeling of residual stresses and non-linear material response and the impacts that they have on fatigue and fatigue crack growth. Dr. Ball holds a BS in Mechanical Engineering (from Louisiana State University), an MS in Engineering Mechanics and a Ph.D. in Materials Science and Engineering (both from the University of Texas at Arlington), and has authored or co-authored over ninety articles and conference publications. He is currently a Senior Fellow in the area of fatigue, fracture and sustainment methods development and test at Lockheed Martin Aeronautics Company in Fort Worth Texas, where he has been for the past 34 years.