

NSE Composites is owned and managed by three principal engineers: D.M. Hoyt, Tom Walker, and Doug Graesser. Together with NSE's engineering staff and consultants, they bring several decades of combined experience to any composite structures application project. Hoyt, Tom, and Doug have been a part of the composites community for over 20 years and have played important roles in the development of composites for use in primary structural applications. Their diverse experience comes from many years of working in the aerospace industry, as well as from participation in the Composites Materials Handbook (CMH-17) working group, through involvement with FAA initiatives and workshops on composites safety, and through contributions to other composites technical committees. They also have a strong history of involvement in multi-functional teams developing cost- and weight-effective structural solutions.

D.M. HOYT, PE

D.M. Hoyt ("Hoyt") has nearly 20 years of experience with aerospace structures and composite material applications. Since forming NSE in 1996, he has served as a project manager and principal investigator for numerous engineering contracts involving structural analysis, testing, design, repair, and certification of composite materials. Projects have included the development and validation of analysis methods and allowables, detailed structural analysis, damage tolerance evaluations, and test program planning. Hoyt's areas of specialization include static and fatigue delamination growth, bolted and bonded joints, progressive damage finite element analysis, and composites failure characterization. Before forming NSE, Hoyt worked at Boeing on the 777 aircraft program in the areas of composite analysis methods and allowables, composite elevator stress analysis, and 777 production line support (structures liaison). Hoyt is a member of ASTM-D30, SAE, SAMPE, ASME, and is an active participant in the Composite Materials Handbook (CHM-17) working group. Hoyt earned his BS in Mechanical Engineering from the University of Washington and is a licensed Professional Engineer in the state of Washington.

TOM WALKER, PE

Tom Walker is an structural analyst with over 25 years of experience with composite aircraft structures. He has been with NSE since 2000, where he manages and serves as principal investigator for a variety of technical contracts, largely related to residual strength and damage tolerance. Prior to joining NSE, Tom spent 20 years in Boeing's Commercial Airplane unit, where he was involved in the development and application of advanced composite concepts to primary structure. He has extensive experience in developing and validating analysis techniques, as well as structural testing. Tom is an industry expert on the residual strength of composite sandwich panels and stiffened laminate structure. He is actively involved in Composites Materials Handbook 17, where he is co-chairman of the Damage Tolerance Task Group. Tom has a BS and MS in Aerospace Engineering, and is a licensed Professional Engineer in the state of Washington.

DOUG GRAESSER, PHD

Doug Graesser has over 20 years of experience in design and analysis with composite materials and aerospace structures. He joined NSE in 2001. His primary responsibilities include project management and lead investigation for technical contracts related to development of software analysis tools for engineering applications. Doug is the chief architect of a structural optimization tool used in the design and analysis of composite panels for fuselage and wingbox structures. Doug also has extensive experience with detailed finite element analysis involving progressive damage simulation, linear and non-linear stability, and non-linear material behavior. Prior to joining NSE, Doug spent 10 years as a structural engineer with the Boeing Company. His experience includes the 747, 767, and 777 airplane programs, and the NASA Advanced Composite Technology (ACT) fuselage development program. Doug has a BS, MS, and PhD in Mechanical Engineering.