



Curriculum Vitae of

TODD A. REEDER, PE, M.S.C., ACTAR-4976, CFEI, CVFI, HCI

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SYNOPSIS

Having spent more than eight years in the solid rocket and aerospace industry prior to joining Palmer Engineering and Forensics in 2020, Mr. Reeder has a demonstrated proficiency in heat transfer, combustion, fluid flow, mechanical design, and manufacturing methods. Mr. Reeder participated in a variety of failure investigations and root cause analyses prior to joining Palmer Engineering and Forensics and has been the lead engineer on more than 300 cases since his arrival. Typical cases include vehicle accident reconstruction, structure and vehicle fires, explosions, plumbing and appliance failures, fuel gas system malfunctions, residential and commercial roof inspections, and water ingress damage, among others. Mr. Reeder possesses a Master of Science degree in mechanical engineering. His graduate research was in the field of combustion—measuring and understanding the exhaust gas species of multiple combustible materials under different stoichiometric conditions. Related to this effort, he also developed expertise in radiative heat transfer, diffusion and premixed flames, and spectral measurements of gas species. Mr. Reeder has authored or coauthored five journal and conference publications. Mr. Reeder is a professionally licensed engineer (PE) in Arizona, California, Colorado, Idaho, Montana, Nevada, Utah, and Wyoming. In addition, Mr. Reeder holds multiple certifications from various organizations, including in vehicle accident reconstruction (VAR) from the Accreditation Commission for Traffic Accident Reconstruction (ACTAR), Certified Fire and Explosion Investigator (CFEI), Certified Vehicle Fire Investigator (CVFI), and Haag Certified Inspector (HCI) for both residential and commercial roofs.

EDUCATION

Brigham Young University	
M.S. Mechanical Engineering	2010
<i>Thesis: Corrosion-related Gas Measurements and Analysis for a Suite of Coals in Staged Pulverized Coal Combustion</i>	
Brigham Young University	
B.S. Mechanical Engineering	2008
<i>Thermal Fluids Emphasis</i>	

REGISTRATION

Registered Professional Engineer in: AZ, CA, CO, ID, MT, NV, UT, WY
Accreditation Commission for Traffic Accident Reconstruction (ACTAR), No. 4976
Certified Fire and Explosion Investigator, CFEI (NAFI)
Certified Vehicle Fire Investigator, CVFI (NAFI)

Certified Roof Inspector, Residential and Commercial (Haag Engineering)

EXPERIENCE

Palmer Engineering and Forensics, LLC, North Salt Lake, Utah	
Vice President	2024 – Pres
Sr. Engineer	2020 – 2024
Northrop Grumman Propulsion Systems, Promontory, Utah	
Sr. Principal Energetics Manufacturing Engineer, Project Manager	2018 – 2021
Principal Energetics Manufacturing Engineer, Project Manager	2017 – 2018
Sr. Energetics Manufacturing Engineer	2017 – 2017
Sr. Engineer, Project Engineering	2015 – 2017
Sr. Engineer, Aerothermal Analysis	2015 – 2015
Engineer, Aerothermal Analysis	2013 – 2015
Utah State University, Brigham City, Utah	
Adjunct Instructor – Mechanical Engineering Department	2015 – 2015
<i>Numerical Methods for Engineers</i>	
University of California, Merced, Merced, California	
Research Assistant – Mechanical Engineering Department	2010 – 2012
Brigham Young University, Provo, Utah	
Research Assistant – Mechanical Engineering Department	2007 – 2010

SOFTWARE PROFICIENCY

NX, NX Thermal
 HyperMesh
 FEMBuilder (Northrop Grumman In-house code)
 Matlab
 Excel/VBA

PROFESSIONAL AFFILIATIONS

ACTAR – Accreditation Commission for Traffic Accident Reconstruction
 NAFI – National Association of Fire Investigators
 Haag Engineering