Brian A. McDonald

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Gloyer-Taylor Laboratories

Tullahoma, TN

To whom it may concern:

Please accept my resume for your consideration for the available Aerospace/Mechanical Engineer III position. I am approaching 30 years of experience in propulsion engineering spread across both the private sector and the US Army’s Aviation and Missile Research, Development, and Engineering Command. My experience has been focused along multiple engineering disciplines to include thermal, fluids, structural analysis, and the development of performance and design codes. I have extensive experience in the design and analysis of solid and liquid propulsion systems with an emphasis in combustion, ballistics and thermal/fluids. I have developed a fully transient interior ballistics code targeted for short action time tactical missiles. Continuing my PhD work on erosive burning of solid propellants, I worked to develop an erosive burning model for the Space Shuttle SRM while employed at UAH’s Center for Modeling, Simulation, and Analysis. I have also developed ramjet performance and cycle analysis tools with particular emphasis on off design performance, and have significant experience in solid fuel ramjet fuel development. I have had the opportunity to work extensively with the Missile Defense Agency as a propulsion SME working liquid thruster FRB’s and design efforts for EKV and RKV. In addition to my analytical experience, I have considerable laboratory experience in fuel and propellant testing using DSC, TGA, DMA, and subscale ramjet fuel combustors. As Vice-President and Technical Director for Stone Engineering Company, I conducted technical views for reports and publications as well as planned the company’s technical focus. Beginning in 2006 through 2015, I served as a part-time lecturer in the School of Mechanical and Aerospace Engineering at UAH teaching air breathing propulsion, aerodynamics, and gas dynamics at the graduate level.

I have included a list of publications for your review, as well as a summary of the propulsion related activities and special assignments that I have had the opportunity to serve in for both the Army and MDA. Please consider my qualifications for the available position and let me know if I can provide further details that you may require. I look forward to hearing from you soon.

Sincerely,

Brian A. McDonald, Ph.D., PE

Weapons Development and Integration Directorate

RDMR-WDP-M

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