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CANDIDATE INFORMATION

Name	Logan McLeod
Title	Chief Technology Officer
Organization	NTS Technical Systems dba Element US Space & Defense
Organization Type	Large Business
Address	
Email	
Phone	

CANDIDATE STATEMENTS

Explain how your background, training, experience and/or personal qualities support your candidacy to assume a governance position on the Executive Committee. Provide resume as a separate attachment.

My background is strongly aligned with the governance, strategic, technical, and member-advocacy responsibilities of the NAC Executive Committee. I have been directly involved in the execution of OTA/DOTC efforts at Element U.S. Space & Defense and its predecessor organization (National Technical Systems) since joining the company in 2010, with organizational participation in DOTC-related work dating back to 2007. Over that period, I have served in roles spanning responsible engineer, program manager, proposal development lead, and principal investigator, including on JIMTP/JEMTP efforts involving medium-caliber ammunition and prototype test technologies supporting extended-range artillery development.

I currently serve as Chief Technology Officer for Element U.S. Space & Defense and am a member of the company's senior leadership team. In that role, I help set and execute the company's technology roadmap, align capital investments with evolving customer needs, and regularly brief and participate in meetings of the Board of Directors. This provides direct experience in the same kind of governance, strategic planning, fiscal discipline, and "tone at the top" responsibilities expected of NAC Executive Committee members.

My responsibilities also include leading the Engineering and Strategic Programs organization, which brings together senior business development personnel, proposal writers, and chief engineers across our primary technical disciplines. This structure gives me a practical understanding of how to identify high-priority growth opportunities, develop technically credible and compelling proposals, and execute complex RDT&E and test programs in a way that supports both government objectives and member-company business realities.

In addition, I serve as the primary liaison with our Washington, D.C. government relations firm. This includes direct engagement with congressional offices, development of policy and appropriations strategies, and coordination of requests tied to industrial base investment and technology development priorities. That experience is directly relevant to NAC's role as a bridge between government, industry, and academia, particularly as OTA mechanisms become increasingly important to acquisition reform, industrial-base resilience, and rapid fielding of capability.

Element U.S. Space & Defense also occupies a unique position within the NAC community: we are a large business due to our corporate ownership structure, but we also qualify as a non-traditional defense contractor. That dual perspective gives me firsthand understanding of both the value and complexity of the OTA model. I understand how OTAs can open access to

non-traditional performers, enable early government-industry engagement, and support faster movement from prototype to transition-while also recognizing the governance and policy discipline required to ensure the model remains competitive, credible, and effective for all member classes.

If elected, I would bring a combination of technical credibility, program execution experience, proposal and capture leadership, governance exposure, congressional engagement, and practical OTA experience. I would approach the role with a focus on stewardship: protecting the collective interests of NAC members, supporting fair and effective consortium processes, and helping guide the NAC through a period of significant transformation in both OTA utilization and defense acquisition policy. My objective would be to ensure that the Consortium continues to evolve alongside changing government priorities, acquisition strategies, and industrial base needs while remaining focused on delivering value to its members and accelerating capability to the warfighter.

Supporting Attachment(s)

What do you see as the most significant challenge(s) facing the business type you will represent and how would you propose to address those challenges if elected?

The most significant challenge facing large businesses in the NAC is adapting to a rapidly evolving acquisition landscape which is increasingly shifting away from the traditional reliance on past performance, incumbency, and established relationships as primary indicators of value and risk mitigation. The emerging defense acquisition environment places a growing emphasis on innovation, speed, technical relevance, collaboration, rapid execution, and the ability to transition new technologies into operational capability. This evolution creates both challenges and opportunities for large businesses. While established organizations must adapt to a faster and more dynamic ecosystem, they also possess capabilities that remain essential to the successful transition of technology from prototype to production and ultimately to the warfighter.

The OTA model is becoming an increasingly important component of acquisition reform efforts focused on accelerating technology development, expanding participation in the defense industrial base, and reducing barriers to entry for nontraditional performers. At the same time, the Department is placing greater emphasis on industrial base resilience, manufacturing capacity, production scalability, and rapid transition pathways. In this environment, large businesses can provide significant value through mature quality systems, production capabilities, program management expertise, supply chain depth, qualification infrastructure, and the ability to scale successful technologies.

If elected, I would advocate for NAC policies and practices that encourage strong collaboration across the consortium while preserving opportunities for organizations of all sizes. Large businesses should not be viewed simply as incumbents competing for awards, but as partners that can help accelerate the transition of innovative technologies into fielded capability. NAC is uniquely positioned to foster these relationships by creating opportunities for small businesses, nontraditional contractors, academia, and larger organizations to combine complementary strengths in pursuit of common objectives.

A second challenge is balancing the speed and flexibility demanded by the current acquisition environment with the governance, safety, quality, cybersecurity, and financial disciplines required for responsible execution. Large organizations often carry more complex internal processes, but success will depend on finding ways to maintain rigor while increasing responsiveness. I would support initiatives that improve communication of government priorities, increase transparency into emerging requirements, promote effective teaming, and help members better position themselves for rapid execution opportunities.

Another significant opportunity for the large-business community is the growing focus on defense industrial base investment and production expansion. As the government seeks innovative mechanisms to increase domestic capacity and accelerate deployment of critical capabilities, large businesses can contribute valuable infrastructure, manufacturing expertise, test and evaluation capacity, and transition-to-production experience. NAC can play an important role in facilitating those discussions and ensuring that prototype development efforts are connected to credible pathways for production and fielding.

I believe large businesses can make their greatest contribution not by relying on historical advantages, but by serving as enablers of innovation, transition partners for emerging technologies, and responsible stewards of the broader defense industrial base. As the acquisition environment continues to evolve, NAC has an opportunity to remain at the forefront of that transformation, and I would welcome the opportunity to help guide that effort.

Please describe the importance of the NAC to your organization and provide a synopsis of the participation in NAC/DOTC since becoming a member (e.g., number of proposal submissions, awards, industry days and membership meeting attended).

The National Armaments Consortium (NAC) is strategically important to Element U.S. Space & Defense because it serves as a critical bridge between government requirements, technology developers, prime contractors, academia, and the broader defense industrial base. As a company focused on test, evaluation, qualification, and technical services supporting armaments, energetics, aerospace, and defense systems, our participation in NAC provides unique opportunities to engage with emerging technologies and future capability requirements at their earliest stages.

Element US Space & Defense and its predecessor organization, National Technical Systems, has been actively involved in the NAC for over 20 years, with our first DOTC contract award in 2007. Our work has supported a broad range of armaments and energetics programs, including insensitive munitions, energetic materials research and development, fuze and sensor systems, pyrotechnics, warhead systems, and weapon-system performance evaluation. Participation has included multiple awards as well as regular engagement in collaboration events, industry days, technical interchange meetings, reverse industry events, proposal activities, and one-on-one meetings with government stakeholders.

Unlike many NAC members, our role within the defense ecosystem does not always lend itself directly to bidding on and receiving OTA awards. As an independent test and evaluation organization, our greatest value is often realized in supporting the successful development, maturation, qualification, and transition of prototype technologies developed by other consortium members. Test and evaluation is a critical component of every successful prototype effort, providing the objective data required to characterize performance, reduce technical risk, validate design intent, and ultimately support transition into production and fielding.

For that reason, the networking, collaboration, and teaming opportunities created through NAC are every bit as important to our organization as direct contract awards. Relationships established through NAC frequently evolve into technical partnerships supporting prototype development efforts, production-transition activities, qualification programs, and industrial base expansion initiatives. Many of our most valuable opportunities arise from supporting fellow consortium members as they advance technologies from concept through demonstration, validation, and eventual deployment.

WILLINGNESS TO SERVE CERTIFICATION

Signature



Date

07/17/2026

Logan S. McLeod, Ph.D., P.E.

Key Qualifications

- Licensed Professional Mechanical Engineer in the state of California (Lic.# M35761)
- Active Secret Clearance
- Extensive experience with testing of energetic materials, thermal design and dynamic structural analysis of complex systems

Work Experience

Chief Technology Officer Element U.S. Space & Defense Oct. 2024-Present

- Lead organization technology positioning, inclusive of developing new technologies and capabilities, integration of technology into operations, and engaging industry to demonstrate technology leadership.

Vice President, Engineering Element U.S. Space & Defense May 2023-Oct 2024

- Manage and lead a corporate engineering and strategic development team, including chief engineers, centralized engineering analysis team, and identification/pursuit of large USG programs.

Director, Engineering National Technical Systems, Inc. Oct. 2019-May 2023

- Manage the technical direction for an engineering organization of 20 staff members
- Coordinate and manage technical expertise across the national engineering organization, inclusive of 27 testing laboratories.

General Manager/Program Manager National Technical Systems, Inc. Sept. 2015-Oct. 2019

- Manage execution of engineering projects including program management, technical leadership, customer interfacing, and resource management for the Dana Point facility.
- Management of DoD energetics test programs, including IM test planning/witnessing/reporting, IHC requests, interfacing with NOSSA and Army IM board members.

Staff Engineer/Engineer IV, National Technical Systems, Inc. Aug. 2014-Sept. 2015

- Act as the technical lead on Ordnance Sciences Division projects, including directly interfacing with key customers to ensure customer satisfaction and timely response to customer concerns
- Work with Application Engineers and the facility manager to develop detailed and accurate proposals for non-standard testing and engineering services quotations
- Train Dana Point Engineering personnel on existing software tools and engineering best practices

Principal Thermal Analyst/Senior Engineer, National Technical Systems, Inc. May 2010-Aug. 2014

- Develop thermal analysis and computational fluid dynamics capabilities for NTS by providing computational modeling expertise and leveraging existing test facilities for model validation
- Develop modeling tools for dynamic structural analysis using implicit and explicit approaches
- Execute engineering projects/activities and writing detailed technical reports

Chief Technology Officer, Snapsportz Media Inc. June 2009-May 2010

- Responsible for all aspects of engineering for a small, technology-driven startup company taking the initial concept and carrying it through two prototype development phases
- Designed and fabricated a prototype system for operation in a harsh, remote environment incorporating solar power, weatherproof housing, low temperature compatibility, and long-range data transmission
- Wrote software to facilitate system integration, data management and data transfer onto a remote server

Education

Georgia Institute of Technology, Atlanta, Georgia

Ph.D. Mechanical Engineering

Dec. 2008

Thesis: Hydrogen Permeation through Microfabricated Pd-Ag Alloy Membranes

University of California Santa Barbara, Santa Barbara, California

M.A. Economics, Business Economics emphasis

June 2003

Graduation with highest honors

B.S. Mechanical Engineering

June 2002

Graduation with high honors and distinction in the major

Journal Publications

1. McLeod, L.S., A.G. Fedorov, and F.L. Degertekin, “Non-ideal absorption effects on hydrogen permeation through palladium-silver alloy membranes”, **Journal of Membrane Science**, 339 (1-2), 109-114, 2009.
2. McLeod, L.S., A.G. Fedorov, and F.L. Degertekin, “Determination of the rate-limiting mechanism for permeation of hydrogen through microfabricated palladium-silver alloy membranes”, **Journal of Membrane Science**, 341 (1-2), 225-232, 2009.
3. McLeod, L.S., A.G. Fedorov, and F.L. Degertekin, “Effect of microstructure on hydrogen permeation through thermally stable, sputtered, palladium-silver alloy membranes”, **Applied Physics Letters**, 90 (26), 261905-261908, 2007.
4. Varady, M.J., **L.S. McLeod**, J.M. Meacham, F.L. Degertekin, and A.G. Fedorov, “Integrated MEMS infrastructure for fuel processing: hydrogen generation and separation for portable power generation”, **Journal of Micromechanics and Microengineering**, 17 (9), S257-S264, 2007.

Conference Proceedings

1. Granier, J., Mitchell, S., Pirtle, I., and McLeod, L., “Improved Accuracy and Efficiency of Fragment Recovery Data using Photogrammetry”, Energetic Materials Technology Working Group. Boston, Massachusetts, October 2025.
2. Lyon, F., Granier, G., McLeod, L., Northrup, C., Nguyen, D., “Characterization of Rocket Propellant Combustion Behavior Under Extreme Spinning Conditions”, Energetic Materials Technology Working Group. Annapolis, Maryland, October 2024.
3. Siddle-Mitchell, S., McLeod, L., “Shock Response Spectrum Analysis and Data Validation Tool”, 93rd SAVE Shock and Vibration Symposium. Atlanta, Georgia, September 2023.
4. McLeod, L., “Dual Shaker Vibration Testing: Advantage, Challenges, and Analytical Tools”, 69th IEST ESTECH Conference. St. Paul, Minnesota, May 2023.
5. Northrup, C., McLeod, L., Cheng, D., “Finite Element Analysis of Mechanical Impulse Pyroshock Simulator (MIPS) Tests to Predict the Shock Response Spectrum Levels”, 91st SAVE Shock and Vibration Symposium. Orlando, Florida, September 2021.
6. McLeod, L., Siddle-Mitchell, S., Vo, D., and Nguyen, D., “Development of a Test Stand for High Spin Rate Testing of Artillery Rocket Motors”, Ordnance and Ballistics Technology Working Group Meeting. Monterey, California, July 2019.
7. Siddle-Mitchell, S., McLeod, L., and Hill, R., “Development of a Lumped Parameter Code for Prediction of Performance of Aluminized Solid Rocket Motor Performance in Spin Stabilized Projectiles”, 49th Combustion Systems JANNAF Joint Subcommittee Meeting. Dayton, Ohio, June 2019.
8. Hill, R., and McLeod, L., “Analysis of Inter-Chamber Energy and Mass Transport in High-Low Pressure Gun Systems”, 28th International Symposium on Ballistics. Atlanta, GA, September 2014.
9. McLeod, L., and Hill, R., “Methodology for transient thermal analysis of machine gun barrels subjected to burst firing schedules”, 27th International Symposium on Ballistics. Freiburg, Germany, April 2013.
10. McLeod, L.S., S.L. Tatum, “Modeling of ordnance-induced pyrotechnic shock testing”, in *Proceedings of the 83rd Shock and Vibration Symposium*. New Orleans, LA, November 2012.
11. McLeod, L.S., S.L. Tatum, “Explicit finite element modeling of ordnance-induced pyrotechnic shock testing”, in *Spacecraft and Launch Vehicle Dynamic Environments Workshop*. 2012. The Aerospace Corporation, El Segundo, CA.
12. McLeod, L.S., A.G. Fedorov, and F.L. Degertekin, “Energy efficient purification of H₂ for power generation using PEM fuel cells: Microfabricated Pd-Ag Alloy Membranes”, in *Tokyo Institute of Technology Global Center of Excellence International Forum*. 2008. Nikko, Japan.
13. McLeod, L.S., A.G. Fedorov, and F.L. Degertekin, “Grain boundary diffusion of hydrogen in nano-structured Pd/Ag alloy membranes”, in *3rd Energy Nanotechnology International Conference*. 2008. Jacksonville, FL.
14. McLeod, L.S., F.L. Degertekin, and A.G. Fedorov. “Transient behavior of hydrogen permeation through Pd/Ag Micro/Nano membranes”, in *ASME International Mechanical Engineering Congress and Exposition*. 2006. Chicago, IL.
15. McLeod, L.S., F.L. Degertekin, and A.G. Fedorov. “Analysis of hydrogen permeation through sub-micron-thick palladium alloy membranes”, in *ASME Summer Heat Transfer Conference*. 2005. San Francisco, CA.

Honors and Awards

- Recipient of the **Henry Pusey Award** for the “Outstanding paper in the field of shock and vibration”, 2013
- Recipient of Woodruff School of Mechanical Engineering **Presidential Fellowship**, 2003-2008
- Member of **Tau Beta Pi**, the national engineering honor society
- Member of **Pi Tau Sigma**, the national mechanical engineering honor society
- United States Achievement Academy **National Scholar**

- Member of **The Golden Key** National Honor Society
- Member of **The National Society of Collegiate Scholars**
- Recipient of **Harold J. and Mary E. Miller Scholarship** for distinguished undergraduates

Technical Skills

Software: Pro-Engineer/CREO, FloTHERM, Ansys, LS-Dyna, Fluent, Matlab, Python

Fabrication: Standard CNC machining equipment (end mill, lathe, etc.), plasma etching/deposition of metals and dielectrics, chemical etching, lithography, general cleanroom fabrication techniques

Metrology and Analysis: Scanning Electron Microscopy, Energy Dispersive X-ray Spectroscopy, X-ray Diffraction, Quadrupole Mass Spectrometry

References Available Upon Request