

Form Name:National Armaments Consortium (NAC) Executive Committee Member Application Form 2026

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CANDIDATE INFORMATION

Name	Jonathan Christian
Title	Executive Director
Organization	Helicon Chemical Company
Organization Type	Small 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.

I am seeking to serve on the National Armaments Consortium Executive Committee because my career has provided a broad perspective across the government, industry, and academic communities that comprise the defense ecosystem. Throughout my career, I have focused on advancing research and development capabilities while building productive partnerships that accelerate the transition of technology to warfighters.

I began my career with the Department of Energy national laboratory system, where I spent nearly a decade leading multidisciplinary research programs spanning nuclear materials, nonproliferation, energy storage, and advanced materials. During this time, I secured more than \$20 million in competitive federal research funding, managed complex RDT&E programs, and led teams of scientists and engineers in executing technically demanding projects for organizations including the National Nuclear Security Administration and DOE Office of Science. My experience also included supporting small and minority business engagement through DOE's Minority Serving Institutions Partnership Program (MSIPP) and Small Business Innovation Research (SBIR) programs, providing valuable insight into the role that innovative small businesses play in meeting national security objectives.

I transitioned from the national laboratory environment to a small defense technology company to apply that experience from the industry perspective. As Executive Director of Helicon Chemical Company, I have led the company's strategic growth through successful execution of SBIR, OTA, and other government-funded programs while expanding commercial partnerships and private investment. Over the past three years, I have secured more than \$15 million in competitive funding, overseen the development and transition of new energetic materials from laboratory concepts to commercial manufacturing, and helped position the company as a trusted technology partner within the defense industrial base. This experience has given me firsthand knowledge of the opportunities and challenges facing innovative small businesses as they navigate government acquisition processes and consortium-based contracting.

My background aligns well with the NAC Executive Committee's responsibilities in strategic planning, governance, program oversight, and advocacy. I have extensive experience developing research portfolios, managing organizational growth, ensuring compliance with rigorous safety and regulatory requirements, overseeing budgets and program execution, and balancing technical, business, and customer priorities. Equally important, I understand the importance of maintaining trust, transparency, and ethical leadership when representing the interests of diverse

stakeholders.

In addition to my industry and government experience, I have remained actively engaged with academia through research collaborations, more than 35 peer-reviewed publications, and my role as an Affiliated Faculty Member at the University of Notre Dame. This continued engagement helps me maintain awareness of emerging technologies and cultivate connections across the broader research community.

If elected to the Executive Committee, I would bring a balanced perspective informed by experience across government laboratories, academia, and the private sector. I understand both the government's objectives and the realities facing consortium members competing to develop innovative technologies. I believe this perspective, combined with my experience in RDT&E leadership, government contracting, strategic growth, and technology transition, would allow me to contribute effectively to the governance of the National Armaments Consortium and to help ensure the consortium continues to serve the collective interests of its members while supporting the nation's defense mission.

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 greatest challenge facing the small businesses I would represent is the disconnect between the government's desire for rapid innovation and the realities of developing transformative technologies. While the Department of War increasingly recognizes the importance of non-traditional performers and small businesses, many acquisition processes, technical requirements, manufacturing specifications, and transition pathways remain optimized for established technologies and legacy industrial capabilities. This creates barriers for companies attempting to introduce new materials, manufacturing methods, and technologies that have the potential to significantly improve future defense capabilities.

Throughout my career, I have experienced this challenge from multiple perspectives. At the Department of Energy, I worked within government-sponsored research programs and saw firsthand the complexities of transitioning new technologies into operational use. Today, as the Executive Director of a small defense technology company, I experience the challenges faced by innovative businesses navigating SBIR, OTA, and traditional contracting pathways while simultaneously developing novel technologies with limited resources. I understand both the government's need to responsibly manage risk and the realities faced by small businesses attempting to mature breakthrough capabilities.

In my experience, one of the most significant obstacles is the expectation that small businesses rapidly deliver mature solutions despite working with comparatively limited funding and personnel. Innovation is inherently iterative, particularly when developing technologies that challenge long-standing assumptions or require changes to existing manufacturing approaches. When early technical hurdles are viewed primarily as program failures rather than part of the innovation process, promising technologies can be abandoned before they have an opportunity to mature. The result is often continued reliance on legacy solutions while potential next-generation capabilities fail to reach transition.

If elected to the Executive Committee, I would advocate for strengthening the role of the consortium as a trusted bridge between government and industry. NAC is uniquely positioned to improve communication between government sponsors and consortium members, share best practices for technology transition, encourage realistic expectations for emerging technologies, and promote acquisition approaches that appropriately balance technical risk with long-term capability development. I would also advocate for ensuring that small businesses have a strong voice in consortium discussions,

recognizing that they frequently deliver disproportionate innovation despite representing a relatively small share of overall defense funding.

Ultimately, maintaining the technological advantage of the United States depends upon sustaining a healthy innovation ecosystem. Large defense contractors, government laboratories, universities, and small businesses each play an essential role. My goal as an Executive Committee member would be to help ensure that NAC continues to foster an environment where innovative companies can successfully develop, mature, and transition technologies that strengthen the nation's defense while serving the collective interests of the consortium's membership.

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) has become an important component of our company's growth strategy and technology transition efforts. As a small business focused on developing next-generation energetic materials and propulsion technologies, NAC provides an acquisition pathway that is well suited for innovative technologies requiring close collaboration between government and industry. The OTA consortium model enables meaningful technical dialogue, rapid iteration, and flexible execution throughout project development, creating an environment where promising technologies can mature more efficiently than is often possible through traditional acquisition mechanisms. For our organization, this has significantly improved our ability to align technology development with government priorities while accelerating transition toward operational capability.

Since becoming involved with NAC, our organization has been an active participant in consortium activities. Personally, I have led or supported numerous proposal submissions through the NAC process, while the company has participated in substantially more across its history. We have maintained a strong success rate by focusing on technically rigorous, transition-oriented proposals that address critical customer needs. I have also participated in multiple NAC engagement events, using those opportunities to better understand emerging requirements, build collaborative relationships, and identify opportunities for future technology development.

Recent examples of successful OTA awards that I have led or supported include:

NEST OTA 2026: Project involving boron and solid fuel (~\$7M)
NEST OTA Plus-Up 2025: Project involving advanced nozzle-less booster technologies for enhanced energetic systems(~\$2M)

These awards have enabled my organization to expand manufacturing capabilities, mature technologies toward production, strengthen our workforce, and deliver innovative energetic materials to DoW customers. More importantly, they demonstrate the value of the consortium model in helping small businesses transition promising technologies beyond early-stage research and into capabilities that directly support the warfighter.

As an Executive Committee member, I would bring both the perspective of an active consortium participant and an appreciation for the role NAC plays in strengthening the defense innovation ecosystem. Having benefited directly from the consortium model while also understanding government research and acquisition from previous roles within the national laboratory

system, I believe I can help ensure NAC continues to provide an effective, transparent, and collaborative environment that benefits all member organizations while delivering advanced capabilities to the DoW.

WILLINGNESS TO SERVE CERTIFICATION

Signature

Jonathan Christian

Date

06/29/2026

Jonathan Howard Christian

SUMMARY

Business leader with a track record of securing government, private, and venture capital funding to drive company growth and innovation. Skilled in setting and directing strategic research and innovation agendas aligned with corporate goals, driving organizational expansion, and influencing long-term positioning. Adept at bridging technical excellence with business acumen, forging strong customer relationships, and delivering measurable market impact. Proven record of leading end-to-end product development from lab concept to commercial sales in the defense market, overcoming critical technical and scale-up challenges and leading vertical integration efforts, reducing dependency on subcontractors in core operational areas.

EDUCATION

Florida State University – Tallahassee, FL

Doctor of Philosophy, Physical Chemistry

2014

Temple University – Philadelphia, PA

Bachelor of Science, Chemistry

2009

PROFESSIONAL EXPERIENCE

Executive Director - Helicon Chemical Company – Orlando, FL | 2022 – Present

- Secured \$15M+ in competitive research funding from government and private sources in three years, doubling company revenue for three consecutive years
- Led product development lifecycle from lab-scale innovation to pilot production and low-rate commercial manufacturing, successfully entering the defense market
- Supported successful Series A fundraising with solo/micro investors, traditional VCs, and corporate VCs — stabilizing operations, expanding R&D programs, scaling infrastructure, and driving significant valuation growth
- Directed all research activities, leading a multidisciplinary team of PhDs, chemical engineers, and laboratory technicians to deliver innovations with market and customer relevance
- Led development of in-house energetics testing capabilities, implementing rigorous safety and compliance standards for handling of class 1.3 explosives
- Balanced leadership duties and hands-on technical involvement, ensuring operational alignment between scientific priorities, business strategy, and investor expectations
- Served as company representative at technical conferences, industry events, and client meetings, strengthening relationships, securing follow-on contracts, and expanding industry influence
- Oversaw and managed program deliverables to ensure on-time, on-budget completion, maintaining positive customer optics and continuous funding streams
- Directed technology transfer to multiple contract manufacturers, ensuring process reproducibility, quality control, and efficiency

Savannah River National Laboratory – Aiken, SC | 2014 –2022

Principal Scientist | 2021 – 2022

Senior Scientist A | 2017 – 2021

Senior Scientist | 2016 – 2017

Postdoctoral Research Associate (through Oak Ridge Associated Universities) | 2014 – 2016

- Secured \$20M+ in research funding from government sources (S&T, EM, NNSA), enabling significant expansion of R&D capabilities and support infrastructure
- Recognized internationally as a subject matter expert in nuclear fuel science, with specialization in plutonium, uranium, and nuclear forensics for weapons applications and global security
- Served as Project Lead for development of plutonium standards for the International Atomic Energy Agency (IAEA), advancing international nuclear safeguards and verification protocols
- Directed multidisciplinary teams of PhDs, postdoctoral researchers, and laboratory technicians, delivering complex, high-visibility projects on time, on budget, and to rigorous safety and compliance standards.
- Functioned as an Advanced Radiological Worker with extensive hands-on experience operating within high-security nuclear facilities and handling sensitive nuclear material.
- Fostered a strong safety culture through strategic planning, process standardization, and rigorous operational discipline, achieving zero safety incidents under leadership.
- Built a reputation as both a technical authority and people leader, mentoring junior scientists, fostering cross-disciplinary collaboration, and aligning scientific output with organizational goals.

KEY SKILLS & COMPETENCIES

- Executive Leadership & Strategic Planning
- Government & Private Sector Fundraising
- Multidisciplinary Team Leadership (PhDs, Engineers, Technicians)
- Energetic Materials — Propellants, Explosives, Plasticizers
- Polymers and Binders — Polybutadiene (R45M, HTLO), Polyethylene Glycol
- Nuclear Fuel Science — Plutonium, Uranium, Nuclear Forensics
- International Program Development (IAEA Standards)
- Portfolio Management — On-Time/On-Budget Delivery
- Technical & Business Communication — Conferences & Client Relations
- Safety Leadership & Regulatory Compliance in Nuclear and Explosives Facilities
- Innovation Management & R&D Expansion Strategies
- Stakeholder Engagement & Long-Term Relationship Building

Selected Professional Achievements

- Authored and co-authored over 35 peer-reviewed publications, contributing to scientific and commercial advancements in numerous technical areas (<https://orcid.org/0000-0003-1967-4841>)
- Affiliated Faculty Member, University of Notre Dame – Civil & Environmental Engineering & Earth Sciences, contributing to doctoral committee leadership and advancing interdisciplinary graduate research
- Doubled company revenue year-over-year for three consecutive years by executing focused defense-market strategies and strengthening key customer relationships.
- Former Research Assistant at the National High Magnetic Field Laboratory (2009 – 2014)