19 April 2026

Honorable David Greenwood
Administrative Law Judge
NYS Department of Environmental Conservation
Office of Hearing and Mediation Services
625 Broadway, First Floor
Albany, NY 12233-1550

Reference: APA Project 2021-0276

Dear Judge Greenwood,

I respectfully submit the following information for your consideration regarding Mr. Mike Hopmeier and his Unconventional Concepts, Incorporated (UCI) facility near Lewis, NY.

For 20 years, I served in the U.S. Army as an officer, retiring as a lieutenant colonel. For my first 10 years, I worked primarily with operational armored cavalry units – which included armored reconnaissance vehicles, tanks, heavy mortars, and large self-propelled artillery vehicles. My second 10 years involved technical support of Army research and development programs as well as teaching mechanical systems engineering at the U.S. Military Academy. After retiring, I spent 33 years as a contractor supporting DoD research, development, experimentation, and test programs. During my 43 years of technical work, I designed and directed numerous experiments and tests for various organizations within the Department of Defense (DoD) as well as for the Department of Justice. Most notably, one of my experiments at Fort Benning, GA was highlighted broadcast as a Fox News Special. In addition, as a military officer and as a contractor, I have served as a nationally recognized expert in a number of technical and military operations areas. Over that last 25 years, I have participated as an unpaid volunteer on many boards and committees within the National Academies of Sciences, Engineering, and Medicine (NASEM). This included serving as chair of a NASEM study committee addressing counter-drone technologies for small unit military operations. The final report for this study was one of the most “downloaded” reports in NASEM history. For two years, I also served as board Chair for the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)). As a paid contractor, I have served on many committees and assessment teams within the DoD – especially efforts related to test and experimentation. I also developed and taught a class on “Prototyping and Experimentation” at the DoD National Defense University. For many years, I was a technical consultant supporting the DoD Test Resource Management Center in areas of developmental testing (DT) – i.e., testing the technical performance of military technologies and systems – and operational testing (OT) – i.e., testing the mission effectiveness of operational systems. According to Academia.com and as of 4/4/2026, more than 5,440 papers cite my work.

Before addressing the need for the UCI facility as a national asset, I want to discuss Mike Hopmeier. In 1999, I first met Mike at an experiment I designed and directed/executed in Fort Benning, GA. Since then, I have worked with Mike on a variety of experiment and test efforts. Mike is an extremely competent, technical professional and a person of unwavering integrity and deep patriotism, whose honesty, trustworthiness, and steadfast commitment to the security of the United States and the men and women of our military are beyond question. He has always acted in the best interests of the government. Most importantly, Mike is a highly disciplined, technical professional who consistently placed "safety" at the forefront of every test and experiment we have worked together, ensuring risks were understood, mitigated, and rigorously controlled. As a professional, I have greatly benefited from working with Mike. I have learned a tremendous amount from him.

Experimentation and testing has changed dramatically over the last 30 years. Testing U.S. military systems today is orders of magnitude more complex than it was 30 years ago because the systems themselves—and the battlefields they must survive—have fundamentally changed. Military warfighting systems are more connected, more software-defined, more contested, and more interdependent, which makes proving technical performance and mission effectiveness vastly harder. In an attachment, I have provided a "not all inclusive" list of comparisons that highlight how testing has changed significantly, becoming extremely complex. The increase in complexity in both military technology/system/system-of-systems performance and test/experiment methodologies, has impacted DoD's ability to assess new warfighting systems and systems-of-systems in a number of ways, including:

1. Placing a tremendous strain on the availability of DoD test resources – availability of ranges, instrumentation, test personnel, time, etc. -- within its test base, known as the DoD Major Range and Test Facility Base (MRTFB).
2. Finding the time and resources needed to develop a well thought out and detailed test/experiment plan
3. Drastically increasing the time needed to thoroughly implement a test/experiment plan

In addition, the increase in complexity has significantly increased the need to develop prototype systems and systems-of-systems and to experiment with them on operational ranges. Prototyping and experimentation adds a significant burden onto DoD ranges and often cannot gain range access over higher priority DT and OT events. Finally, the complexity has also generated more of need for integrating the user (i.e., warfighter) much earlier into the development, experimentation, and testing (i.e., more user-system assessments in DT). Early user involvement increases the time needed to collect and assess data, especially the "qualitative" data of the user.

The UCI experiment and test facility near Lewis, NY is a national asset because it offers a significant augmentation to the MRTFB. Its value is not just "extra capacity" – providing a surge capability when the MRTFB is overloaded – but also specialization, agility, and risk-reduction to strengthen the entire DoD test and experimentation enterprise. For example:

1. The MRTFB is finite and heavily scheduled. The UCI facility can provide capacity during program spikes, urgent operational needs, high-priority modernization efforts, etc. This can help minimize bottlenecks and program/test schedule slips.
2. The UCI facility can support early DT as well as prototyping and experimentation, when systems are immature, unstable, and require rapid iteration. This can prevent immature systems from consuming scarce MRTFB range time, enable faster "test-fix-test" cycles, support subsystem-level debugging before full-system integration, and reduce the number of failed or aborted DoD full-scale test events. Thus, by the time a system reaches a DoD range, it is more stable, safer, and more likely to produce meaningful data.
3. The UCI facility can provide a niche, high-fidelity, or proprietary test and experimentation environment that may be too expensive or too narrow for DoD to build and maintain. In particular, the UCI facility can provide hardware-in-the-loop and warfighter-in-the-loop test and

experiment environments – especially for lower-fidelity, but highly important technical performance assessments (e.g., testing the performance of a large caliber gun). In addition, it can provide rapid prototyping, experimentation, and instrumentation capabilities. All of these capabilities – and others -- can expand the technical envelope of what can be tested before a system ever reaches a government range

4. The UCI facility can provide rapid reconfiguration and test/experimentation agility. It can re-instrument quickly, modify test setups in hours or days, support iterative software drops, and tailor environments to specific subsystems.
5. Using the UCI facility for early DT is often far cheaper than using a major DoD range because of its lower overhead, smaller safety footprint, minimal instrumentation complexity, smaller range support crews, and faster iteration (fewer wasted test days). This preserves Program Managers' funding and MRTFB resources for mission-level, high-fidelity testing.
6. The UCI facility can work with the DoD and intelligence community to rapidly provide unique threat capabilities. This can stress systems in ways that government ranges cannot replicate without major investment.
7. Mike Hopmeier and his team have also worked very closely with the Federal Aviation Administration (FAA), Federal Communications Commission (FCC), the Environmental Protection Agency (EPA), and other independent regulatory agencies and commissions to ensure that support from the UCI facility to the DoD, DHS, and other government entities is not hampered – especially in lost support time – by requests for event approval. This also ensures that the community outside of the UCI facility is appropriately protected.

As a side note, I have heard that there is some concern about noise generated from testing of large caliber guns. I know that highly competent individuals are addressing the technical aspects of this issue. I will leave it to them to inform you. Related to this issue, I am reminded of a phrase associated with the U.S. Marine Corps Air Station in Cherry Point, NC. The phrase is **"Pardon our noise, it's the sound of freedom"**. This phrase is displayed on a sign outside the main gate, serving as a popular motto that characterizes the roaring, intense sound of jet aircraft and the base's 80-plus years of active training. Perhaps, the same phrase applies to the UCI facility.

In short, the UCI facility is a **much needed national asset** that helps enhance the survivability of our military personnel in war and supports the freedom of all U.S. citizens.

I hope this information is helpful for your review. I would be glad to provide any additional clarification if needed.

Respectfully,

Albert A. Sciarretta

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Attachment: Comparison of tests in the 1990s versus today.

Dimension	1990s (Legacy Era)	Today (Modern Multi-Domain Era)
Test Ranges	Single-range events often sufficient	Distributed ranges, LVC integration, space and cyber range dependencies
Operational Domains	Air, land, sea tested mostly separately	Air–Land–Sea–Space–Cyber–EW integrated operations; multi-domain mission threads
Interoperability Requirements	Minimal; Service-specific systems	Joint interoperability mandatory – i.e., systems from all Services must work in all domains
System Architecture	Standalone platforms tested largely in isolation	Systems-of-systems requiring integrated operations and validation across Services
Software Complexity	Tens of thousands of lines of code; infrequent updates	Millions of lines; continuous updates; autonomy, AI and machine learning, cloud-connected support systems
Instrumentation	Limited telemetry, analog sensors	High-fidelity digital instrumentation, time-synchronized multi-range data fusion
Data Volume from Instrumentation	Megabytes to gigabytes per event	Terabytes to petabytes per event; complex classification and fusion requirements
Networking and Data Links	Limited networking; point-to-point comms	Highly networked, multi-node data fusion, resilient comms, cross-domain solutions
Analysis Burden	Manual analysis; smaller datasets	Automated analytics, ML-assisted triage, massive regression testing
Threat Environment	Predictable, limited electronic warfare (EW) and cyber threats	Contested electro-magnetic spectrum, advanced jamming, deception, cyber-EW convergence, GPS denial
Threat Systems	Conventional missiles, aircraft, and radars	Threats are faster, stealthier, and more maneuverable, and include drone swarms, long-range precision fires
Adaptation by our Adversaries	Slow, predictable threat evolution	Rapid iteration by near-peer competitors; threat models must be constantly updated
Cyber Requirements	Minimal; cyber not a core test dimension	Mandatory mission-based cyber survivability, red-team penetration, zero-trust validation
Safety and Certification	Traditional MIL-STD safety reviews	Autonomy assurance, software safety, cyber safety, AI behavior validation
Acquisition Oversight	Fewer stakeholders; simpler reporting	DOT&E, GAO, Congress, mission-based cyber, interoperability certification
Test Tempo	Episodic, platform-centric	Continuous, software-driven, iterative, integrated DT/OT, and at the speed of war