

TESTIMONY OF
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**BEFORE THE HOUSE APPROPRIATIONS – EDUCATION AND ENVIRONMENT DIVISION
COMMITTEE**

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Senate Bill No. 2018

Chairman Nathe and members of the Committee. My name is Trevor Woods, Executive Director of the Northern Plains UAS Test Site (NPUASTS). I appreciate the opportunity to provide testimony in support of Senate Bill 2018. I will explain how our work in unmanned aviation drives technological innovation, improves public safety, and stimulates economic growth across North Dakota.

Bottom Line Up Front

- **Current Funding in SB2018**
 - **NPUASTS Appropriations:** \$3 Million
 - **Vantis Appropriations:** \$10 Million
- **Executive Proposal**
 - **NPUASTS Appropriations:** \$4 Million
 - **Vantis Appropriations:** \$20 Million

Increasing funding for both NPUASTS and Vantis is essential to sustain our core operations and preserve North Dakota’s national leadership in unmanned aviation. While we recently received \$11 million through HB1038 for the FAA Radar Pathfinder Program, that allocation is limited to specific initiatives and does not support our day-to-day operations.

Who We Are

The Northern Plains UAS Test Site is a state-authorized organization dedicated to advancing the integration and operations of Unmanned Aircraft Systems (UAS) and Advanced Air Mobility (AAM). The NPUASTS was founded in 2013 as an Federal Aviation Administration test site by harnessing North Dakota’s deep-rooted aviation expertise, strong military presence, and proactive government support. Key points about our organization include:

- **Foundational Role:**
 - Built on North Dakota’s aviation legacy and entrepreneurial spirit.

- Operates as a governmental entity, enabling direct engagement with federal agencies and unique funding opportunities.
- **Track Record of Success:**
 - Pioneered FAA approvals for Beyond Visual-Line-of-Sight and advanced safety operations.
 - Every state dollar invested generates up to \$5 in external funding – roughly \$22 million total – and our REMI analysis shows an additional \$2.50 in economic output per state dollar.
- **Strategic Impact:**
 - Serves as a hub for testing, regulatory engagement, and public-private partnerships, that are difficult to obtain anywhere else.
 - Administers complementary programs like Vantis, our statewide UAS infrastructure network, which underpins future technological advancements.

Our Strategic Pillars

Our long-term vision is built on three core pillars that guide our efforts through technology, economic growth, and organizational excellence.

- **Advanced Aviation for North Dakota Impact:** Implement initiatives like Vantis and operationalize other advanced capabilities to support drone demand for local governments, non-profits, and industry.
- **Economic Impacts:** Expand our role as a testing destination for DoD and industry, catalyzing investment, job creation, and external funding.
- **Institutional Evolution:** Enhance our internal governance, strategic partnerships, and operational flexibility to remain agile and effective in an evolving industry.

This strategic framework reinforces our commitment to not only sustain but also expand North Dakota’s leadership in UAS integration.

Why This Matters to North Dakotans

Our work directly benefits the people of North Dakota in several ways:

- **Agriculture Efficiency:**
 - UAS technology has driven exponential growth in precision agriculture: the number of licensed applicators jumped from 2 in 2022 to 21 in 2024, and

acreage treated rose from 6,000 to approximately 69,000 acres – an increase of nearly 1,000% and roughly 3.5 times the acreage of Bismarck.

- This growth improves yield, reduces costs, and positions ND as a leader in agricultural innovation.

- **Public Safety and Emergency Response:**

- Our partnership with local agencies has provided critical data during floods and severe weather, enabling faster, more efficient disaster response, and ensures that communities can recover more quickly and safely from emergencies.
- Our integrated efforts have enabled local companies to secure approvals to pioneer drone-based medical deliveries in North Dakota’s rural “medical deserts,” ensuring timely access to essential healthcare supplies for seniors and underserved communities, supported by Project RuralReach and key partnerships.

- **Workforce Attraction and Economic Growth:**

- The UAS industry attracts highly educated professionals, enriching our local workforce.
- Former NPUASTS employees now play key roles in industry, further boosting North Dakota’s reputation for aviation innovation.

- **Local Industry Support**

- Provide proactive, no-cost advisory support to our local industry partners, helping them access advanced capabilities and seize new opportunities.
- Provide training and consultation to North Dakota government and industry partners.

- **Federal Recognition and Strategic Partnerships:**

- Recent engagements with senior Department of Defense leaders, along with contractual collaborations with Michigan and Tennessee, underscore our emerging role as a national solution and highlight the critical momentum we must maintain.
- Our work supports key federal initiatives and strengthens our influence in shaping policy and regulation.

Funding Request and Impact

To continue delivering these benefits and to sustain our state and national leadership in UAS technology, we request a base NPUASTS appropriation of **\$4 million**. This investment is not only critical for sustaining our operations, but it also multiplies economic returns across North Dakota. This funding is allocated as follows:

- **Personnel (\$2.8 Million):** Support essential staff in leadership, regulatory affairs, technology, and business development.
- **Strategic Opportunities (\$0.8 Million):** Funds targeting marketing, communications, and outreach to promote North Dakota's leadership and attract additional investments.
- **Operational Support (\$0.4 Million):** Cover essential costs such as insurance, office supplies, and stakeholder engagement initiatives.

A \$7 Million base appropriation budget was approved by the Northern Plains Uncrewed Systems Authority as part of the biennium budgeting process.

Consequences of Reduced Funding

Without sustained investment, North Dakota risks losing its competitive edge in a rapidly evolving UAS industry. The consequences of reduced funding extend beyond the Test Site itself, affecting state-wide economic opportunities and federal partnerships:

- **Loss of National Leadership & Competitive Positioning:** Other states are increasing investment in UAS, and without continued support, North Dakota risks losing its first-mover advantage and continued leadership in unmanned aviation.
- **Diminished Federal & Industry Partnerships:** Critical relationships with the FAA, Department of Defense, and federal agencies could weaken, leading to fewer contracts, limited project funding, and missed opportunities for industry growth. Federal agency opportunities drive private-sector engagement and local economic opportunities.
- **Reduced Ability to Influence Federal Policy & Regulation:** NPUASTS actively shapes FAA rulemaking and DoD strategy by participating in industry standards groups, FAA programs, and key conferences that provide real-time access to decision-makers. Reduced funding would significantly diminish our ability to maintain this critical engagement and influence.
- **Missed Opportunities for Statewide Economic Growth:** The loss of external funding streams and industry partnerships would negatively impact North Dakota's

economy, reducing business expansion, workforce retention, and the ability to attract new high-tech industries to the state.

Vantis: Securing North Dakota's Future in UAS Innovation

The Urgent Need for Full Funding

North Dakota's investment in Vantis has positioned the state as the national leader in UAS integration, but that leadership is now at risk. The current proposal to cut Vantis funding to \$10 million would be devastating—not only halting all planned enhancements and expansions but also forcing the shutdown of critical existing services. Such a decision would erase years of progress, undermine economic development, and compromise public safety.

At a minimum, North Dakota must commit to the \$20 million included in the executive budget to maintain current operations. However, to truly unlock the potential of Vantis and sustain the state's leadership in this rapidly growing industry, the ideal funding level is \$27 million. This investment ensures that Vantis continues expanding, attracting private-sector investment, supporting rural connectivity, and advancing public safety initiatives. Now is the time to act boldly and decisively to preserve North Dakota's status as the leader in UAS innovation.

What Is Vantis?

Vantis is the first-of-its-kind statewide network designed to support Beyond Visual Line of Sight (BVLOS) drone operations. Unlike other transportation infrastructure—such as roads, bridges, and air traffic control systems—the UAS industry has historically lacked a shared-use foundation. Each operator has been forced to develop costly and redundant systems for navigation, communication, and operation, stalling industry growth and integration into the National Airspace System (NAS).

North Dakota addressed this problem early, investing in Vantis as the statewide solution. This network provides a common infrastructure that enables scalable, efficient, and safe UAS operations. As a result, North Dakota has become the model for UAS integration, attracting national attention, business investments, and federal partnerships. Vantis has already demonstrated its immense value, but without sustained and increased funding, these gains will be lost.

Why North Dakota Invested in a Statewide UAS Network

Vantis is more than infrastructure—it is a catalyst for economic growth, public safety, and innovation. The return on investment (ROI) from Vantis is both direct and indirect:

Direct ROI:

- **User Fees:** Vantis generates revenue by enabling commercial operators to access the network.
- **Royalties:** Multiple states have expressed interest in replicating Vantis, creating the potential for North Dakota to generate revenue from licensing and expansion.

Indirect ROI:

- **Rural Connectivity:** Just as broadband expansion revolutionized rural economies, Vantis ensures that remote areas benefit from cutting-edge UAS services, from medical supply delivery to precision agriculture.
- **Public Safety:** By providing a shared infrastructure, Vantis enables agencies to deploy drones quickly and efficiently for emergency response, disaster recovery, and law enforcement operations.
- **Business Attraction:** The presence of Vantis makes North Dakota a prime location for UAS companies, driving economic growth, job creation, and increased tax revenue.

The Value of Continued Investment

Infrastructure investments provide long-term economic and societal benefits. Vantis follows the same model as traditional transportation infrastructure but at a fraction of the cost. For example, building roadways costs approximately \$1.5 million per mile. North Dakota has invested \$70 million in Vantis to date, creating a system that covers 3,000 square miles—far exceeding the reach of just 45 miles of new roads. The ultimate goal is to expand coverage to 56,000 square miles, leveraging FAA Radar Data, delivering an unparalleled return on investment.

The Critical Funding Breakdown

The current executive budget proposal includes \$20 million in funding for Vantis, which is a critical step in sustaining and growing the nation’s first statewide UAS network. However, an ideal funding level of \$27 million would enable Vantis to achieve its full strategic potential, ensuring North Dakota remains at the forefront of UAS integration.

To sustain and expand Vantis, budget is allocated as follows:

- **Operate: \$13.4M**
 - \$4.3M annually in labor, SaaS, rent, utilities, lifecycle replacements (NPUASTS, NDIT, Thales, Mitre)
 - \$2.4M annually for local infrastructure costs

- **Operate FAA Radar Data: \$3.5M annually** (applicable for 2026-2027 only)
- **Expansion: \$3M**
 - One new radar site, Infrastructure-as-a-Service (IaaS) model
- **Enhance: \$5M**
 - \$325,000 annually for software development, server support, MNOG upgrades
 - \$2.2M annually for engineering labor
- **Other: \$2.9M**
 - Demand generation/marketing: \$950,000 annually
 - Business case/model evolution: \$500,000 annually

While the executive budget allocated \$20 million, reducing funding to \$10 million would be catastrophic. It would not only prevent expansion but also force the shutdown of existing infrastructure, crippling North Dakota's competitive edge and eliminating the economic and public safety benefits Vantis provides.

Vantis Achievements: 2023–2025 Biennium

With \$26 million in funding, Vantis has achieved groundbreaking successes:

- **FAA BVLOS Approvals:** uAvionix and iSight Drone Services received FAA waivers, proving Vantis meets stringent federal safety standards.
- **Industry Recognition:** Showcased at major events like AUVSI Xponential and the Commercial UAV Expo, solidifying North Dakota's leadership in UAS integration.
- **Expansion Planning:** Engaged over three dozen stakeholders to define the next phase of growth and multi-user operations.
- **Public Safety Enhancements:** Grand Forks Fire Department secured a Tactical BVLOS waiver, allowing drones to assist in high-risk emergencies.
- **FAA Approvals for Infrastructure:** FAA validation of Vantis infrastructure as a national model for UAS integration.

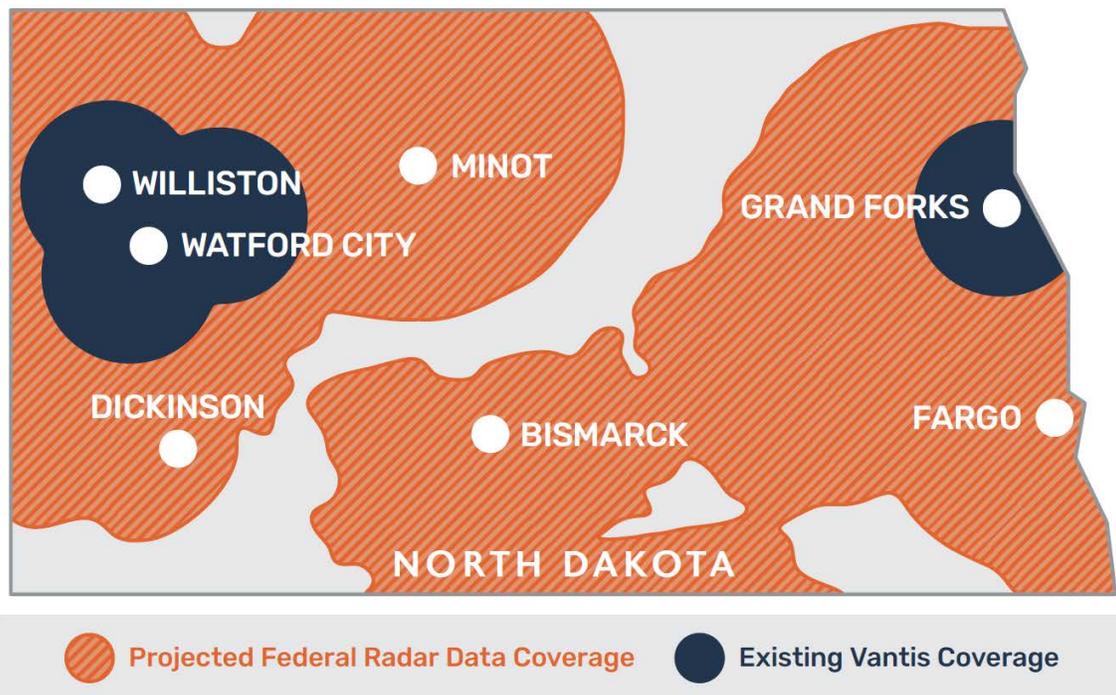
FAA Radar Data Pathfinder Program: A Game-Changer for North Dakota

Vantis became the first non-federally sanctioned entity to participate in the FAA Radar Data Pathfinder Program, a groundbreaking effort demonstrating how federal radar data can enhance UAS integration. This program expands Vantis' service area from 3,000 to 56,000 square miles and sets the national standard for integrating FAA radar data into UAS operations.

Key Benefits:

- **Expanding Coverage:** Federal radar data integration will massively increase Vantis' operational footprint.
- **National Leadership:** North Dakota will define federal best practices, solidifying its role as a pioneer in UAS integration.
- **Economic Impact:** Expanded network capabilities will attract private-sector investment and high-paying jobs.

The \$11 million allocated for this program through HB 1038 supports essential activities, including cybersecurity improvements, system integration, safety assessments, and operational testing. This funding ensures that the foundational work required for long-term success is completed during the one-year test program, setting the stage for stable and scalable service in the future.



The 2025–2027 Vision for Vantis

To continue its trajectory, Vantis needs at least \$20 million in funding but ideally \$27 million to fully realize its strategic potential. The additional investment will:

- **Expand Infrastructure:** Deploy new radar sites and maintain critical network components.
- **Enhance Operations:** Upgrade network management, pilot interface tools, and flight safety monitoring.

- **Boost Industry Adoption:** Conduct outreach, education, and regulatory alignment efforts.
- **Secure Regulatory Leadership:** Strengthen collaboration with the FAA to shape future UAS policy.

A Call to Action: Secure North Dakota's Future

The choice is clear—invest in Vantis or risk losing North Dakota's hard-earned investments and leadership in UAS innovation. Cutting funding to \$10 million would reverse years of progress, eliminate economic opportunities, and weaken the state's competitive advantage. At a minimum, \$20 million is required to sustain operations, but to achieve long-term success and economic growth, the ideal investment is \$27 million.

Now is the time to ensure North Dakota remains the national hub for UAS operations. The state has built a world-class system—let's secure its future by making the necessary investment in Vantis today.

Conclusion

Investing in the Northern Plains UAS Test Site and Vantis through Senate Bill 2018 is an investment in the future of North Dakota. The requested funding is the minimum to ensure the NPUASTS and Vantis remains a national leader, attracting opportunities, delivering economic growth, and providing value to all North Dakotans. I respectfully urge you to support a base appropriation of \$4 million, and a Vantis appropriation of \$20 million, to secure our position as North Dakota's enduring hub of UAS innovation, ensuring lasting economic and public safety benefits for our state.

Thank you for your time and thoughtful consideration.

Supplemental Information

Distinction Between Base and Other Funding

- **NPUASTS Appropriation:** Supports core operations of the Northern Plains UAS Test Site including personnel, regulatory engagement, and strategic initiatives essential to sustaining our national leadership. This organization is authorized as part of *NDCC 54-60-28. Uncrewed aircraft systems program.*
- **Vantis Appropriation:** Supports the specific program to establish and administer a beyond visual line of sight uncrewed aircraft system, as part of *NDCC 54-60-29.1 Beyond visual line of sight uncrewed aircraft program.* On-going operations of the State Radar Data Pathfinder Program, after the conclusion of the pathfinder program, are included as part of Vantis budget.
- **State Radar Data Pathfinder Program:** Funding allocated in an emergency in HB1038 that is specific to funding the pathfinder program where costs were incurred during the 23-25 biennium.