

**TESTIMONY OF
NICHOLAS FLOM
EXECUTIVE DIRECTOR, NORTHERN PLAINS UAS TEST SITE
BEFORE THE
HOUSE APPROPRIATIONS – EDUCATION & ENVIRONMENT DIVISION
MARCH 17, 2021
SENATE BILL NO. 2018**

Mr. Chairman and Members of the Committee:

I am Nicholas Flom, Executive Director of the Northern Plains Unmanned Aircraft Systems Test Site (NPUASTS). I have been the Executive Director since November of 2016 and have been a part of the Test Site since early 2014. I am testifying today in support of the Governor's funding request for Vantis, the state's unmanned aircraft system (UAS) beyond visual line of sight (BVLOS) network, under the Department of Commerce.

The Governor's budget request was for \$20,000,000 in new funding, and currently passed by the North Dakota Senate, is for \$19,000,000 in new funding to support the expansion of Vantis and carryover authority from the 2019-2021 biennium. The 2021-2023 additional funding would allow us to maintain the program office, support operations and maintenance costs of the key site infrastructure, deployment of multiple new sites and operational service areas, and on-boarding of UAS operators with appropriate FAA/government approvals.

Maintaining of the program management office and to continue to facilitate the infrastructure deployment including personnel, subcontractors supporting the network and the continued promotion is budgeted at \$4,200,000. To maintain the deployed network, the SE/SIs have given cost estimates of \$6,000,000. The O&M support plan is developed based on industry best practices for the scale and scope of the Key Site. The Key Site is being deployed with funding from the 2019-2021 biennium. With many foundational components in place, each additional deployed operational area would cost approximately \$5,000,000. Depending on funding available, multiple additional operational areas would be deployed during the 2021-2023 biennium.

CARRYOVER:

- There is an anticipation of approximately \$5,000,000 of unspent dollars that will be used to expand the Vantis network to new operational areas that were not able to be completed during the 2019-2021 biennium.

THE HISTORY

- During the 2019-2021 Biennium, \$28,000,000 was appropriated for the beyond visual line of sight UAS program (now named Vantis).
- The Vantis system architecture was designed and developed, the program was branded, and the Program Office was established.
- Selection of three system integrators was made to Collins Aerospace, L3Harris Technologies and Thales USA.

- Implementation of the Mission and Network Operations Center at Grand Sky, and installation of remote infrastructure in McKenzie and Williams Counties is ongoing.
- Vantis is being broadly supported by the FAA's BEYOND Program.

LEVERAGE STATE ASSETS

- Installations have been made on existing North Dakota Department of Transportation towers.
- The backhaul network of Vantis uses North Dakota Information Technology Department's STAGEnet infrastructure.
- Northern Plains UAS Test Site employees are leveraged to support the Vantis Program Office.

BENEFITS TO THE STATE

- The state's 3% revenue over the first 10 years is estimated at \$3,000,000 with sustained \$700,000 per year after that.
- Estimated revenue from Vantis will cover operating expenses after 2027.
- Estimated revenue from Vantis over the first 10 years is estimated at \$100,000,000.
- Developing public-private partnerships that will enable royalties, funding and cost-share.

JOBS AND TAX REVENUE

- We will be creating hundreds of jobs over the next 4 years and that will transition to thousands of jobs over the next 10 years.
- Vantis is projected to create approximately 6,000 UAS industry direct jobs by 2032 that support operations, data collection/analysis, logistics, manufacturing and engineering.
 - Estimated tax revenue from UAS industry direct jobs over the first 10 years is ~\$270M with sustained yearly tax revenue of \$59M per year after that.
- To directly support Vantis deployment and operations, we project that there will be ~85 jobs in 10 years to support the Mission and Network Operations Center, in-field maintenance and technical support, and additional jobs to support new development and capabilities.
 - Estimated tax revenue from direct jobs supporting Vantis over the first 10 years is ~\$5.6M with sustained yearly tax revenue of \$900K per year after that.