

Kerry: Here is a link with the reporting requirements and deadlines for all.

<https://www.transportation.gov/grants/smart/grants-management>

1. **Lead Applicant:** Three Affiliated Tribes of the Fort Berthold Reservation
2. **Name of Filer:** Dr. Kerry Hartman
3. **Email address of Filer:** khartman@nhsc.edu
4. **Enter the Federal Award Identification Number (FAIN):** SMARTFY22N1P1G38
5. **Reporting Period End Date:** October 30, 2024

6. Overall Status

Provide an overall status of the project's scope, schedule, and budget.

The *overall status* of the Project is strong with all deliverables *scheduled* for completion by February 15, 2025. The Project's structure includes a division of tasks among four workgroups including the Assessment/Use Case, Implementation, Economic Determinates, and Workforce with a shared network for communications across workgroups and Project personnel assigned based on their expertise.

The *budgeting process* has been rectified so contracts for deliverables are issued with the contract to Thales, who provides support for the Vantis Network, finalized in March 2024 through the University of North Dakota (UND). The budget requests for reimbursement by the subcontractors to Mandan Hidatsa Arikara (MHA) Nation are aligned with the effort and deliverables. UND PI and the Post Award Contract Officer have been working collaboratively with the Manda Hidatsa Arikara (MHA) Nation to ensure reimbursement and report submission. The *budget* is strong with no cost overruns to date.

UND employed Amanda Brandt who has been assigned mostly to the Implementation Team. She is a Retired Air Force Colonel with extensive experience operating Unmanned Aircraft Systems (UAS), and she has expertise in safety and mission operations, along with providing insight and leadership to the Project. Of note, she coordinated the selection of a vendor to serve as a partner to support the use case. Valkyrie UAS Solutions, a company that flies the SwoopAero Kite, was selected. Coordination between the Implementation Team and the Three Affiliated Tribes (TAT) on the exact flight path for the protocol UAS flight is formally underway in a request for a Tribal Resolution submitted in early late March.

MHA Nation and Nueta Hidatsa Sahnish (NHS) College stakeholders visited UND, and the Mission and Network Operations Center (MNOC) located at Grand Sky in March 2024. The focus of the visit was on examining resources to support the Project in the John D. Odegaard School of Aerospace Sciences and at the MNOC. A tour of the College was hosted by Dean Robert Kraus and a tour of the MNOC was hosted by Northern Plains UAS Test Site (NPUASTS)/Vantis. Of note, Vantis can provide support for the medical delivery use case and other use cases identified by Tribal members. This includes surveillance and sensors as well as radios for command and control (C2), a low latency, high reliability backhaul data network, and other services including situational

awareness services commonly supplied by supplemental data service providers (SDSPs) and regulatory guidance for approvals for of several different mission profiles. The Vantis system currently has three operational key sites located in northwestern North Dakota in and around the Watford City, ND, and Williston, ND areas. These key sites are located just outside of MHA Nation's Tribal borders, making the expansion of the current system into Tribal areas an efficient, straightforward approach to providing the services required to expand tribal UAS usage.

7. Significant Activities and Accomplishments

Highlight key activities, accomplishments, and issues during the previous quarter. Report any meetings, audits, and other reviews, design packages submitted, advertisements, awards, construction submittals, construction completion milestones, submittals related to any applicable Recovery Act requirements, media or Congressional inquiries, value engineering/constructability reviews, and other items of significance.

Seven online and in-person (hybrid) listening sessions were hosted on January 22-24, 2024, providing an opportunity for Tribal residents living in the six segments of MHA to contribute their input on the assessment and need for additional UAS use cases. Additional suggestions include identifying Tribal artifacts, protecting Native Site Information, conducting environmental surveillance/environmental protection, continuing efforts to monitor construction sites, expanding the use of emergency services, delivering bison from the Bison Farm, delivering fruits and vegetables from the Native Green Grow project, checking fences, general animal husbandry (counting cattle), and measuring soil coverage and grasslands.

The MHA Nation's use case for this Project is to explore UAS technology in furtherance of delivering life-saving medical supplies and other beneficial health materials to members of the Three Affiliated Tribes (TAT) to conduct a proof-of-concept protocol flight simulating the transportation of time-critical medication between New Town, ND's Elbowoods Memorial Health Center (EMHC), and Twin Buttes, ND medical clinic. The Implementation Team has identified all critical tasks and no later than dates to achieve this objective. A program management timeline with further details on those actions, milestones, and dates is available. A scoring matrix was developed for identifying key requirements for the selection of a vendor for the use case that was significantly qualified to meet or exceed these requirements after examining many options. Valkyrie UAS Solutions was selected because of its unique UAS experience and capabilities to support the testing, experimentation, and implementation process. The vendor has numerous examples of flying BVLOS, including being successful in applying for and receiving an approved 4-year, 134-mile BVLOS corridor in West Texas in support of medical supply transportation.

Of note, the MHA Drone team is cognizant of avoiding overflight on any areas of cultural significance, sacred sites, or sensitive areas of the MHA Nation and has taken steps to ensure open communication and approval. To this end, a draft Tribal resolution, to be reviewed by the MHA Nation Natural Resources Committee, has been submitted. Updated information is provided to the Council by the Grants and Planning Department at MHA.

MHA Nation continues to work with sub-contractors on the Project to develop accurate models for the impact of UAS introduction to the MHA Nation economy. When implementation is finalized, the Team will parameterize the model with economic costs and work collaboratively to ensure transparent information is shared.

Plans are underway to establish a certificate program between Nueta Hidatsa Sahnish (NHS) College and UND to advance the capacity in the application of drones. Additionally, UND is exploring options for providing a one-day Visual Observer course to the MHA Nation youths, targeting high school and college-age students. The team will work on a plan with results anticipated in the 3rd quarter report. The Workforce Team has established a date for the Second Annual Drone Camp to occur on July 17 and 18 at the Earth Lodge Village in New Town, ND with extensive planning underway.

8. Unresolved and Significant Issues

Describe any highly significant or sensitive issues requiring action and direction to resolve. Provide a progress update on issues previously reported. Include administrative items and outstanding issues that could have a significant or adverse effect on the project's scope, schedule, or budget and for each item or issue, provide a status, responsible person(s), and due dates.

Be sure to address progress towards compliance and issues related to the National Environmental Policy Act (NEPA), the Build America Buy America Act, and the high labor standards prioritized in Executive Order 14052, "Implementation of the Infrastructure Investments and Jobs Act."

Please note: To request any significant scope or budget changes, please contact your Grants Management Specialist.

No *changes in the budget* are requested at this time and there are *no issues with compliance*. Significant action steps and directions for next quarter are:

- The Project is developing a website to provide information about the Project to the public. The collaboration includes the Tribes, NHS College, and UND with an effort to ensure public information about this Project is available and public input is secured. The various partners and their relationships need to be considered in public information releases. Critical to the success of the Project is that Sovereign Government relationships are adhered to among all working on the Project.
- Efforts remain to ensure the payment of subcontractors for efforts. UND, as a sub-contractor, has worked collaboratively with MHA Nation to ensure the submission of paperwork and offered guidance in federal reporting.
- The data management plan (DMP) was uploaded on December 15, 2024; however, it was not successfully submitted for feedback. The DMP was revised and resubmitted using the correct template with feedback requested on April 10, 2024. Additional feedback was requested by DOT relative to data sovereignty that will be addressed in the upcoming week.
- The Implementation Team, along with other members of the Project Team, reviewed and edited the Program Management Timeline. The Program Management Timeline is a living document that will be updated weekly as more detailed tasks are added by subcontractors, and/or dates are modified due to new information being presented or unforeseen circumstances taking place.
- To support the economic case for UAS usage within MHA Nation, the Implementation Team has also been working in conjunction with the Assessment Team to identify the top 5 desired use cases from MHA to "stack" the use cases when considering where to place infrastructure within MHA. The medical delivery use case that has been prioritized will require the implementation of several "key sites" including radar surveillance and solutions for C2. The selected key sites can be used to cover the use case for medical delivery while

additionally covering operational volumes of other Tribal areas allowing for a more efficient use of infrastructure and facilitating a better return on investment for MHA Nation.

9. What are the top ten milestones for your project? For each milestone, please include the planned completion date and the actual completion date, where applicable.

1. Delineation of resource requirements (coverage area etc.) working collaboratively with the Tribal Council and their representatives (January 1, 2024 – July 31, 2024)
2. Identification of infrastructure locations (launch and recovery, Vantis infrastructure) (January 1, 2024 – July 31, 2024)
3. Economic Cost/Benefit/Economic Feasibility Analysis (January 1, 2024 – July 31, 2024)
4. Implementation Plan Draft including Concept of Operations, Safety Risk Management Document, Economic Cost/Benefit Analysis (September 1, 2024)
5. Final Implementation Plan Written (August 30, 2024)
6. Workforce Development Plan including aeronautics articulation agreements, drone camps, and implementation of training programs (August 15, 2023 – December 31, 2024)
7. Establishing government-to-government relationships (August 15, 2023 – February 15, 2025)
8. Preparation and submission of the Stage II SMART proposal (February 15, 2025)
9. Offer Drone Camp Two at Earth Lodge Village (July 17-18, 2024).
10. Prototype UAS Live Demonstration Flight (September 15, 2024)

11. Future Significant Activities: What significant activities are you planning in the next reporting period?

- Invitations will be extended to all MHA Nation Tribal Council members to serve (or have a representative) on the MHA Drones Project Advisory Board to ensure communications across the six segments of Tribal lands.
- Collaboration with a Tribal Advisory Board including Tribal elders and leaders to support Project's efforts will continue every month. The next advisory board meeting is scheduled for May 14, 2024.
- A Project web page will be established to share Project information with stakeholders and the MHA community at large to ensure strong and transparent communications.
- An articulation agreement between UND and NHS College will be in the final stages to expand workforce capacity at NHS College.
- Collaboration will occur with MHA Nation Public Schools to create a pathway for workforce development. Efforts include providing a drone cage to the high school and Boys and Girls Club of TAT contributed by UND.
- Planning for the MHA Drone Camp 2 in collaboration with the Nature Camp, and partnership with the Boys and Girls Club of TAT, will be complete with anticipated robust publication for recruitment. This camp will be sponsored by the UND, NHS College, the Northern Plains UAS Test Site, and Airspace Link and offered on July 17 and 18 in New Town, ND at the Earth Lodge Village . The model used in October 2023 will be largely replicated with some minor improvements based on feedback from youth participants.
- The development of CONOPS, will proceed in contracting with the industry partner for planning a live demonstration that will occur in September 2024 and recommend initial key

sites for infrastructure placement. Examination of other use cases will occur in addition to the medical delivery use case.

- Confirmation of funding for Valkyrie UAS Solutions to ensure successful use case implementation will be finalized.
- Ongoing meetings with the FAA liaison will continue to work through any regulatory challenges to make progress on this SMART grant. Efforts to determine lessons learned from other SMART grant recipients will continue with selected Project staff attending a large meeting in Cambridge, Massachusetts in July 2024, and a recent meeting with Old Dominion at the suggestion of FAA supporting our efforts.
- Follow-up on the Tribal resolution for the demonstration flight path submitted with anticipated testimony by Pls in May 2024 before the full Tribal Council.
- Continue to examine public perception regarding the use of drones by conducting qualitative interviews. An interview discussion guide was on the April agenda for review by the MHA Nation Health & Human Resource Committee; however, that meeting was postponed. Pending Tribal approval, the Assessment Team will proceed to submit a protocol to the University of North Dakota Institutional Review Board in the next quarter.