

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:** *April 15, 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 deliveries on schedule for completion by February 15, 2025. The effort of the project is divided into four task groups including the Assessment/Use Case Needs, Implementation, Economic Determinates, and Workforce Groups. The groups are largely on *schedule* for completion by the project's end as outlined in the submission of the proposal. The *budgeting process* has been rectified so contracts for deliverables are all issued effective March 2024. The requests for reimbursement by the sub-contractors to MHA Nation are aligned with the effort and deliverables in the submission to the Grants and Planning Office of MHA Nation. The University of North Dakota (UND) PI and Post Award Contact have been working collaboratively with MHA Nation to ensure reimbursement. The budget is strong with no cost overruns to date.

Additional status updates include:

-UND has assigned to the grant a new hire, Amanda Brandt, who has been assigned mostly to the implementation of the use case. A Retired Air Force Colonel with extensive experience operating Unmanned Aircraft Systems (UAS), who also brings expertise in safety and mission operations, has already brought great insight and leadership into the project.

-MHA Nation Drone Project staff visited the University of North Dakota campus and the MNOC Center located at Grand Sky in March 2024 for a face-to-face two-day event. The focus of the visit was on examining resources to support the project with the John D. Odegaard School of Aero Space Sciences faculty describing workforce capacity to partner and a tour of facilities hosted by Dean Robert Kraus.

Can someone write about the MNOC tour here and Vantis and why that was important – Landon?

- The implementation team, along with other members of the project team, reviewed and edited the Program Management Timeline. This effort identified all critical steps needed to meet the objectives of the grant, as well as set up milestone dates on when critical actions needed to be achieved to keep the timeline on track. 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.

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.

The *activities and significant* accomplishments are structured within the four teams of the MHA Drone Project” Planning and Protocol Development who have workgroup leads that meet weekly. UND and Nueta Hidatsa Sahnish College (NHS College) PI’s (Hartman and Heitkamp) work collaboratively with MHA Nation to achieve the goals and ensure communication is robust across workgroups and between sub-contractors and MHA Nation. They also host a local advisory board including Tribal elders and leaders that meets monthly to secure input and updates. An all-team meeting for all staff employed with the project is also held monthly to provide updates to all working on the project with a shared TEAMS link available. Three project leads meet on a bi-weekly basis with the FAA with an advisory board member (Lisa Lone Flight) also attending to provide a cultural context to efforts. The focus is on planning and protocol development to expand capacity including efforts that focus on government-to-government partnerships that are unique to this SMART grant.

Below is an update on the work of the various sub-committees:

Assessment/Use Case:

Sheila to include the listening sessions. A short paragraph with maybe the findings of the listening sessions. Completion of seven hybrid listening sessions providing face-to-face and online options. These sessions enabled all residents living in the six segments of MHA to have an opportunity to provide input on the assessment and additional UAS use cases.

Implementation:

The implementation team has identified all critical tasks and no-later-than dates during the implementation phase to reach grant objectives. As mentioned earlier, a Program Management Timeline has been included in this report for further details on those actions, milestones, and dates.

The team also submitted a response to the USDOT feedback on the 15 December 2023 quarterly report. Based on this feedback, the team reached out to Old Dominion for a collaborative meeting, sharing useful data and techniques on each of their SMART grants. An after-action report on the takeaways from that meeting is attached to this report for USDOT review.

Additionally, regarding the feedback, a clearly defined use case has been established for the SMART grant going forward. The MHA Tribes' use case 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. More specifically 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.

A significant positive movement in platform selection for the MHA Nation use case was selected through identifying key requirements and selecting a vendor that was significantly qualified to meet or exceed these requirements. The implementation team researched many options and narrowed it down to 3 possible UAS vendors. The 3 were then analyzed and ranked across multiple criteria and a vendor has been selected to move forward with the grant.

Valkyrie UAS Solutions, flying the SwoopAero Kite is capable of operating 100+ miles with 5.5 lbs payload under the FAA Part 107 regulatory framework. The selection was made based on this vendor's 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. The team will be meeting with the vendor on 15 April 2024 for a final vetting meeting to ensure all the necessary capabilities and requirements given in the proposal are attainable within the timeline the MHA Nation has given.

Another critical step in the implementation process was initiated during this quarter. Coordination between the implementation team and the Three Tribes on the exact flight path for the protocol UAS flight has formally begun. The implementation team wants to avoid 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 are transpiring to ensure encroachment does not happen. A formal resolution, along with a letter of request and an identified flight corridor, has been authored and submitted to the Three Tribes for approval. These products have also been attached for US DOT review. With the selected UAS vendor and this route approval, implementation will be moving aggressively forward to meet a mid-September protocol flight.

Based on comments I made (Amanda); we will need to attach the Management Plan Timeline, Old Dominion After Action Report, Resolution on GIS, Flight Route Request Letter and Flight Route PowerPoint, and Spreadsheet on Vendor selection.

Landon to provide input on Anything Airspace Link and Thales sent (Landon)

Economic Determinates:

David, anything you might wish to include as an update? You might mention your work to establish a working team with economic development and your attendance and discussion about economics during the Tribes visit to UND.

Workforce Development

Prairie Rose/Kerry to add/change/delete as I took an attempt at this. Plans are underway to establish a certificate program between NHS College and UND to advance the capacity in the application of drones. A face-to-face meeting between MHA Drone Project PI and VP Kerry Hartman at NHS College and UND leadership (Dean Robert Kraus, Associate Dean Beth Byerke, and Faculty Member Paul Snyder) occurred on March 19 at the John D. Odegaard School of Aero Space Sciences at UND to examine interest and capacity with a plan moving forward. Discussions and consideration are being given to the capacity to expand the maintenance of drones through NHS College as a model for capacity building with Tribal Colleges and Universities (TCU) across the United States.

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 objectives would be to provide training and certification to the young adults of the MHA Nation, as part of a summer internship initiative where these members will then become a more inclusive part of the grant by being able to participate in the protocol flight as a visual observer. This initiative was introduced by Amanda Brandt, who just joined the grant recently, and is being vetted through the team for logistical considerations and approval. The workforce development concept of having this age group participate more intimately with the grant, with the hopes it will inspire them to continue to want to do more in the field of UAS, in which we hope to have greater offerings at the NHS college in phase II. The team will work on a solid plan to make this possible and have final results in the 3rd quarter report.

The workforce committee 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. This camp will be sponsored by the University of North Dakota, Nueta Hidatsa Sahnish College, the Northern Plains UAS Test Site, and Airspace Link. The model used in October 2023 will be largely used with some tweaks. (Prairie Rose on Nature Camp) Collaboration with NHS College staff and the Boys and Girls Club of TAT will occur

Other items to include:

Our collaborative work with a Tribal advisory board including tribal elders and tribal leaders to support efforts. This quarter an advisory board meeting was held in January, February, and March of 2024. (anything else Sheila and Kerry?)

The MHA Drone Project, Landon Johnson and Prairie Rose Seminole are finalizing a presentation to AUVSI (Association for Uncrewed Vehicle Systems International) in San Diego, CA on April 25, 2024. The presentation will describe the impacts, both technical and cultural, of the project that was selected with the title of the presentation “Transforming Healthcare Access: MHA Nation's Drone Delivery Initiative”. The slides will be downloaded and available to attendees of the conference - Landon do you know if we need a disclaimer?

8. Unresolved and Significant Issues

Describe any highly significant or sensitive issues requiring action and direction in order 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.

The Project is still making plans to host 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 the project is available and public input is secured. The various partners and their relationships need to be considered in public information releases.

Efforts remain to ensure the payment of subcontractors for efforts. UND has worked collaboratively with MHA Nation to ensure the submission of paperwork and offered guidance in federal reporting.

The data management plan was submitted incorrectly but has been resubmitted in the correct portal format effective April 9, 2024.

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.

Here is what we had last time. Lanson and Amanda – can we all add a couple of milestones and include the ones that should remain? It looks like the others might still be applicable.

1. Identification and survey of stakeholders/partners (August 15, 2023 – January 31, 2024)
2. Definition of use cases (August 15, 2023 - June 30, 2024)
3. Delineation of resource requirements (coverage area etc.) (January 1, 2024 – May 31, 2024)
4. Identification of infrastructure locations (launch and recovery, Vantis infrastructure) (January 1, 2024 – May 31, 2024)
5. Cost/benefit/economic feasibility analysis (January 1, 2024 – July 31, 2024)
6. Implementation plan, Concept of Operations (CONOPS) and test flight (January 1, 2024 – November 30, 2024)
7. Safety case development, revision, and approval (January 1, 2024 – November 30, 2024)
8. Workforce development plan including aeronautics articulation agreements, drone camps, and implementation of training programs (August 15, 2023 – December 31, 2024)
9. Establishing government-to-government relationships (August 15, 2023 – February 15, 2025)
10. Preparation and submission of the Stage II SMART proposal (February 15, 2025)

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

- A project web page will be established this quarter to share project information with stakeholders and the MHA community at large to ensure strong communications.
- Finalize an articulation agreement between UND and NHS College to expand workforce capacity at MHA Nation.
- Collaborate with the New Town Public School System to create a pathway for workforce development. Efforts include providing a drone cage to the high school and Boys and Girls Club of TAT.
- State what is best for the implementation plan that fits here.
- The implementation group will begin the development of CONOPS and identify industry partners for a live demonstration – or does that go above?

- Ongoing meetings with the FAA liaison for this project to work through any regulatory challenges to making progress on this SMART grant. Efforts to determine lessons learned from other SMART grant recipients.
- Invitations will be extended to all Tribal Council members to serve (or have a representative) on the MHA Drones Advisory Board.
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