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MEMORANDUM

TO:	Legislative Audit Committee Members
FROM:	Hunter McClure, Senior Information Systems Auditor
CC:	Greg Gianforte, Governor, Governor's Office
	Anita Milanovich, General Counsel, Governor's Office
	Kreh Germaine, CIO, Department of Natural Resource & Conservation
DATE:	April 2022
RE:	Information Systems Audit Follow-Up 21SP-10: *Unmanned Aircraft Systems Deployment and Oversight* (orig. 17DP-05)
ATTACHMENTS:	Original Information Audit Summary

Introduction

The *Unmanned Aircraft Systems Deployment and Oversight* (orig. 17DP-05) report was issued to the Legislative Audit Committee in June 2019. The audit included five recommendations to the Governor's Office. Starting in October 2020, we started follow-up work to assess implementation of the report recommendations. This memorandum summarizes the results of our follow-up work.

Overview

Our audit presented information about Montana state agencies' unmanned aircraft systems (UAS) use. Our audit focused on identifying what agencies use UAS, if they follow federal guidelines and best practices when operating, and if there is a statewide coordinated effort for UAS implementation. Due to the dispersed nature of UAS use across state agencies, we used the Governor's Office as the main point of contact and issued recommendations to them. The audit included recommendations for improving direction, guidance, and policy, requiring cost benefit analysis, and working with State Information Technology Services Division (SITSD) to address IT Risks. The Governor's Office concurred with all recommendations and on July 29, 2019, Governor Steve Bullock established the Montana Unmanned Aerial Systems Advisory Council (council) via Executive Order to provide guidance on how to implement these recommendations. Progress on the recommendations has been slow over the past two years as the council is still crafting the MT UAS Plan. In addition, in 2021, there was a change in administration within the Governor's Office since our initial report was issued. The current Governor's Office has not given a definitive timeline for completion and it is unclear when the recommendations will be implemented. The follow-up work we were able to conduct found that all five recommendations are in the process of being implemented.

Background

A UAS is an aircraft without a human pilot onboard; instead, it is controlled from an operator on the ground. At the time of review, the Department of Environmental Quality; Department of Natural Resources and Conservation; Department of Justice; Department of Fish, Wildlife & Parks; Department

of Livestock; Department of Transportation; Montana State University; and the University of Montana were using or planned on using UAS. We found that between these eight agencies there were 51 UAS being used by the State of Montana to monitor construction sites, observe wildlife, investigate vehicle crashes, and contribute to academic research, among other uses. By incorporating unmanned aircraft into their operations, agencies may reduce both operating and personnel services costs and increase performance of their operations. However, launching an unmanned aircraft program is not without its challenges, including initial cost of equipment, training pilots, developing policy, and complying with Federal Aviation Administration (FAA) regulations.

Our original audit had three objectives. We wanted to determine:

- The potential benefits and risks of Montana state government agencies using unmanned aircrafts in their operations,

- If state agencies comply with FAA regulations and Montana state law to own and operate an unmanned aircraft, and

- Evaluate Montana agency unmanned aircraft programs and determine if clear guidance is provided at the statewide level to ensure proper use and transparency.

Our audit work identified that Montana does not coordinate efforts when it comes to agency UAS implementation. Agencies are following federal regulations but lack oversight and guidance when adhering to best practices. Agencies are duplicating effort when it comes to policy creation and are missing key aspects of a complete unmanned aircraft policy. Based on our review, a central resource would improve consistency, provide guidance to agencies, help keep regulatory compliance, provide informational sessions to local government and other state agencies, and provide information to the public on state government UAS use.

Audit Follow-Up Results

On July 29, 2019, Governor Steve Bullock established the Montana Unmanned Aerial Systems Advisory Council (council) via Executive Order to provide guidance on how to implement the audit recommendations. Progress on the recommendations has been slow over the past two years as the council is still crafting the MT UAS Plan. The council has only provided the Governor's Office with a memo for Recommendation #1 and is still developing information for the others. During these two years, we have been interviewing the chair of the UAS advisory council, having discussions with the former and current Governor's Office, and reviewing UAS memos and guidance distributed by the Governor's Office. The following sections summarize the progress toward implementation of the report recommendations.

RECOMMENDATION #1

We recommend the Governor's Office require a cost-benefit analysis be performed before the procurement of an unmanned aircraft by state agencies.

Implementation Status – *Being Implemented*

The purpose of this recommendation is to ensure that agencies have a proper business need when acquiring a UAS. At the time of the audit, we found agencies did not have a uniform approach to UAS acquisition. When starting UAS programs, agencies also did not have established goals for the devices.

In the former Governor's Office's response, they note the establishment of the council who, in December 2020, issued a recommendation memo for the review and approval of acquisition and/or development of UAS programs and resources. While the council has provided the information that would satisfy our audit recommendation, the current Governor's Office has not implemented the council's recommendation.

The council's recommendation breaks down a UAS into four main components:

1) An airframe/power plant

2) Remote sensing devices that attach to the airframe

3) A flight control mechanism

4) Data

The council recommends that airframe/power plant follow normal state procurements rules. The procurement of remote sensing devices attached to the airframe and flight control mechanism should also follow standard state procurement laws, rules, and policies. If a device is intended to connect to the state network to retrieve the data collected by the device, an Information Technology Procurement Request should be filed with SITSD. Information collected, processed, transmitted, or stored by the State must meet State IT Policy requirements for the handling of state data in accordance with applicable law. Each device should be assessed regarding best practices, and state and federal law.

The council recommends that all state agencies seeking to establish a UAS program shall conduct an analysis to consider the expenses (costs) and savings (benefits) pursuant to the establishment and operation of a UAS program within their agency rather than on a per-device basis. The council suggests that procurement of UAS or UAS services from an authorized service provider that are in excess of five thousand dollars ($5,000) should be reviewed to ensure it fits within the cost and benefit analysis for the program.

The cost-benefit analysis should include, at a minimum, a consideration of:

a) Business need justification

b) Goals & objectives

c) Outline of options

d) Options analysis

e) Recommendation and justification

f) Authorizing signature (if appropriate)

The current Governor's Office has not implemented the council's recommendation and is waiting on the final MT UAS Plan with information that addresses all of our audit recommendations. The timeline for finalization of this recommendation is unclear.

RECOMMENDATION #2
We recommend the Governor's Office designate a central unmanned aircraft resource to provide oversight and coordinate statewide unmanned aircraft efforts and ensure agencies report on unmanned aircraft numbers and usage.

Implementation Status – *Being Implemented*

The purpose of this recommendation was to ensure that UAS use at the State of Montana is consistent, transparent, and follows state and federal rules. Our audit identified that Montana has no central resource providing oversight of unmanned aircraft use by state government agencies which led to inconsistent UAS policies between agencies.

As mentioned above, the council was established to provide information and strategies for the use of UAS in the state of Montana. It consists of representatives from:

- Department of Environmental Quality

- Department of Natural Resources and Conservation

- Department of Fish, Wildlife & Parks

- Montana Department of Transportation

- Department of Livestock

- Department of Justice

- Montana University System

- Three stakeholders from other state, county, or local governments, and/or private industry.

In the former Governor's Office's response, they note that due to delays caused by the COVID-19 pandemic, the council began operating in July 2020, which has delayed recommendation implementation. Ultimately, it is up to the Governor's Office to determine the best way to centralize oversight and control of UAS and how to provide information to agencies, local governments, and the public on UAS use.

Our follow-up work found that the current Governor's Office is awaiting the MT UAS Plan from the council, and the timeline for finalization of this recommendation is unclear.

RECOMMENDATION #3
We recommend the Governor's Office ensure information is available to state agencies, the public, local government, and legislators on the application, viability, regulations, and best practices of unmanned aircraft.

Implementation Status – *Being Implemented*

This recommendation's purpose is to ensure Montana agency UAS use is transparent, and that proper resources/information are made available to those seeking to operate UAS in Montana. Our audit identified that no public or governmental information to identify which state agencies operate unmanned aircraft is available in Montana.

The former Governor's Office tasked the council with assessing options for creating a central resource for UAS application, viability, regulations, requirements, and best practices. The council is gathering information on training resources and is developing Montana training and certification standards for UAS operators. Upon receipt of the council's information, the Governor's Office will establish a framework (likely a website managed by a state agency) for appropriate dissemination of UAS information and resources between agencies, local governments, and the general public, which will include a process and/or system for Montana citizens to register complaints, comments, and concerns about state government UAS use.

Our follow-up work found that the current Governor's Office is awaiting the MT UAS Plan from the council, and the timeline for finalization of this recommendation is unclear.

RECOMMENDATION #4
We recommend the Governor's Office develop statewide unmanned aircraft policy that ensures regulatory compliance is met at the state and federal level.

Implementation Status – *Being Implemented*

The purpose of this recommendation is to ensure agencies continued compliance with state and federal level regulations on the operation of a UAS. Our work identified duplication of efforts and policy gaps within each agency's policy.

The former Governor's Office tasked the council with developing the UAS Plan (Plan) to establish formal policy and processes of ensuring continued compliance. The UAS council indicated the Plan will outline strategies and processes for:

1. How to best establish centralized oversight and control of state agency UAS, and

2. How state use of UAS will interact with Montana citizens.

The Governor's Office's response indicated that the long-term oversight and management of UAS in state government may require the creation of UAS specialist positions and continued oversight committee designated to assume those responsibilities.

Our follow-up work found that the current Governor's Office is awaiting the MT UAS Plan from the council, and the timeline for finalization of this recommendation is unclear.

RECOMMENDATION #5
We recommend the Governor's Office work with State Information Technology Services Division to develop statewide policy addressing IT risks on unmanned aircraft data standardization, privacy, security and risk management, procurement, and asset management.

Implementation Status – *Being Implemented*

UAS are used for a large variety of reasons. This includes monitoring construction sites, observing wildlife, and investigating vehicle crashes. This recommendation's purpose is to ensure that state data collected via UAS is secure. During our audit we found agencies incorporated some aspects of IT best practices into their policy but were still missing key aspects, and policy requirements were inconsistent between agencies.

In the former Governor's Office's follow-up response, they note that the council has determined operational risk, procurement, and asset management of UAS are not functions of SITSD but fall under other areas of Department of Administration guidance or agency management (Procurement Bureau, Risk Management & Tort Defense, etc.). A representative of SITSD serves on the council to assist with the integration of statewide policy that addresses IT risks on data, privacy, security, and risk management. This integration will outline the mitigation of IT risks and provide data-handling guidelines to ensure the security of state data and information related to UAS use, as well as public transparency in UAS operations.

Our follow-up work found that the current Governor's Office is awaiting the MT UAS Plan from the council, and the timeline for finalization of this recommendation is unclear.