

STATE OF MONTANA

JOB DESCRIPTION

Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

Job Title: Unmanned Aircraft Systems Program Manager

Position Number: 80036

Location: Helena Department: Montana Department of Transportation

Division and Bureau: Maintenance / Maintenance Bureau Section and Unit: n/a

Job Overview:

The Unmanned Aircraft Systems Program Manager is responsible for performing the managerial, professional, technical, and administrative work required to build and manage a successful Unmanned Aircraft Systems (UAS) program for the Department. This position leads short and long-range planning, organizing, and managing daily operations, quality assurance, staff development, training, research, fiscal management and oversight, policy and procedure development and oversight, and compliance monitoring and reporting. This position will act as a Drone Pilot and will operate cameras or other equipment the drone carries. Reports to the Maintenance Operations Manager and does not supervise others.

Essential Functions (Major Duties or Responsibilities):

Program Management

60%

- Acts as the drone liaison for the department. Works with stakeholders and coordinates with federal state and local agencies on MDT's UAS program and policy.
- Determines and applies federal, state, local and DOD regulations, statutes, requirements and certificates impacting the departments UAS program. This includes integration into and impact on the National Airspace System Airport/Ground procedures, FAA and International Civil Aviation Organizations regulations and procedures.
- Oversees UAS Certificate of Authorization or Waiver, UAS airworthiness certifications for the fleet.
- Oversees compliance with State and Federal regulations and drone policies.
- Establishes and maintains records required by FAA etc. Assesses compliance with prescribed aviation safety standards and State and Federal Regulations.
- Develops and implements policies and procedures for MDT's UAS program, ensures data quality checks for all types of remote sensing.

- Prepares written correspondence and reports detailing UAS program status, findings of and training; recommends corrective actions, and follow up to assure corrective action implementation.
- Prepares and executes vendor agreements, monitors and manages UAS vendor agreements, recommends the incorporation of new technologies within the UAS program.
- Provide equipment software and workflow recommendations.
- Has final authority on the Departments UAS Program's policies and procedures.
- Has fiscal oversight of the departments UAS program.
- Manage, implement, and conduct the UAS Safety Program.
- Conduct annual analysis of UAS and implementation of lessons learned into the department's specification, policies, operating procedures, contract language, etc.
- Maintains awareness of UAS accidents nationwide and conducts trend analysis. When requested, investigates aircraft accidents when State-owned UAS property are involved.
- Continues development of knowledge, education and trends in UAS operations and safety by attending formal training classes, participating in a variety of aviation conferences, and reading aviation safety materials.

Research and Technical Assistance

25%

- Reviews state-of-the-art accessories, software, hardware, and new unmanned aerial vehicle systems for the departments' disparate uses and makes recommendations for use and purchases.
- Reviews departments business and makes recommendation for UAS usages and potential usages.
- Develops pilot training for the department which will include a basic introductory training, a drone-specific training and an application specific training.
- Provide technical assistance to all divisions within the department which includes UAS fleet management and repair, hardware and software assistance, and other drone related assistance as needed.
- Trouble shoot complex UAS system issues and develop solutions and lessons learn to solve problems.
- Manage and incorporate changes to department processes and procedures to continue process improvements for UAS Program.
- Initiate and champion research projects in cooperation with MDT research section. Develop and direct technical oversight committees. Create and actively participate on multi-disciplinary deployment teams.
- Conduct pilot programs or studies to develop innovations and new technologies in order to optimize resources and support continuous process improvements.
- Regularly inform stakeholders of ongoing research progress and disseminate research results in an appropriate and timely manner.

UAS Piloting

10%

- Check drones before a flight to ensure safe and proper operation.
- Analyze weather forecasts to ensure safe flights.

- Document pre- and post-flight logs.
- Plan drone flight routes and navigates drones along designated paths and ensure compliance with all FAA regulations.
- Perform equipment testing, troubleshooting, and maintenance.
- Conduct flight demonstrations or training.
- Comfortable operating different types of UAS in various weather and light conditions.
- Operate, safely and professionally, Remotely Piloted Aircraft Systems as a Remote Pilot-In-Command at dispersed locations, obtaining project requirement footage or data.
- Consistently executes best solutions as on-site project technician using data and image capturing technologies and effectively operate equipment such as aerial drone systems, flight controllers and associated software and hardware.
- Routinely monitor weather, navigation and airspace limitations to fulfill customer or project requirements.
- Perform compliance checks, airspace reviews, mission planning, mission debriefs and post project data processing and analysis.

Other Duties as Assigned

5%

This position performs a variety of other duties as assigned by the Maintenance Operations Manager or the Maintenance Division Administrator in support of the department mission and divisions objectives including but not limited to providing training to personnel; travelling in and out of state to project locations, conferences, and meetings; repair and maintenance of MDT’s UAS; support of MDT’s mission including emergencies requiring UAS footage, and related duties as assigned.

Supervision

The number of employees supervised is: 0

The position number for each supervised employee is: n/a

Physical and Environmental Demands:

Predominant work is performed in an office and in a field environment. Fieldwork is conducted in all kinds of weather conditions; in and around heavy traffic; in an around construction equipment and facilities with extensive noise, dust, smoke, fumes, high temperatures and hazardous materials. Investigation sites may have unknown and potentially hazardous substances. Work requires travel throughout the state (in excess of 25,000 miles per year) to highway maintenance project locations to oversee multiple sites and may be called out on short notice to investigate or develop solutions within short and inflexible time frames. The field work involves hazards and demands associated with an active road construction site including exposure to asphalt fumes, traffic, weather, loud noises, and overhead construction equipment; traversing rough terrain; and extreme weather and driving conditions. Work requires walking and standing on uneven ground and structures under various stages of construction; involves contentious situations regarding enforcement of policies, procedures and standards. Documentation in the field may be performed in a field office environment or with a mobile device such as a portable computer.

Knowledge, Skills and Abilities (Behaviors):

Knowledge

Knowledge in state and federal rules and regulations governing unmanned operations in the national airspace system. Ability to interpret policies and procedures governing effective program management. Knowledge in budget administration and overseeing contracts and contracted services. Ability to interpret federal/state legislation regarding UAS and aviation and to establish state-level policy and guidance.

Thorough knowledge of the concepts and theories of UAS operations, skill in reading and interpreting plans, specifications, and contract documents; project management; drawing conclusions and making recommendations; assessing construction plans and projects; design and project layout and surveying; communication and negotiation; regulate and resolve conflicts; and conducting presentations and training; developing and administering a variety of diverse projects and functions; and developing ideas and solutions for complex problems finding innovative ways to unique solutions to transportation construction and engineering problems using principles and practices of innovations, engineering and technology

Skills: Active learning; active listening; analytical thinking; coaching and developing others; communicating with others; solving complex problems; critical thinking; customer service; deductive reasoning; developing objectives and strategies; evaluating information against standards; identification of key causes; identifying downstream consequences; implementation planning; inductive reasoning; information organization; initiative; innovation; judgment and decision making; solving problems; oral and written comprehension and expression; organizing, planning and prioritizing; persuasion; providing consultation and advice to others; resolving conflict/negotiating with others; solution appraisal; system evaluation; time management.

Minimum Qualifications (Education and Experience):

The required knowledge and skills are typically acquired through a combination of education and experience equivalent to a Bachelor's degree in Unmanned Aircraft Systems (UAS), Operations or Remote Piloted Aircraft (RPA), Business Administration, Public Administration, Engineering, or a related field.

This position requires a minimum of two (2) years of experience in drone piloting, and two years (2) of program management, and/or policy development, or a related field.

Certifications, licensure, or other credentials include: A current part 107 UAS federal license is required, a Part 61 federal pilots license or better is preferred.

Alternative qualifications include: Any combination of additional related work experience and education equivalent to the minimum qualifications.

Special Requirements:

Fingerprint check

Background check

Revision Date: 06/2022

Human Resources Review

Job Code Title: Project Management Specialist 3 Job Code Number: B1J033

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

- | | |
|---|--|
| <input type="checkbox"/> FLSA Exempt | <input checked="" type="checkbox"/> FLSA Non-Exempt |
| <input type="checkbox"/> Telework Available | <input checked="" type="checkbox"/> Telework Not Available |
| <input checked="" type="checkbox"/> Classification Complete | <input type="checkbox"/> Organizational Chart attached |

Human Resources:

Signature	Title	Date
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