



GREAT FALLS FIRE RESCUE

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Preface-

Great Falls Fire Rescue in Great Falls, Montana, in conjunction with the Montana State Regional Hazmat Response Teams (SHMRTs), utilizes Small Unmanned Aircraft Systems (sUAS) for the purpose of aerial observation, information gathering, and emergency operations management with the ability to perform additional tasks as permitted by the Federal Aviation Administration (FAA) and governed by local, state, and federal rules and regulations.

These guidelines and procedures apply to all the various uses of sUAS by SHMRT personnel. These guidelines are to be reviewed on an annual basis to ensure compliance with local, state, and federal laws regarding the usage of sUAS. Any questions or comments regarding these guidelines and procedures should be directed to the Fire Chief or his designee.

1. Purpose

- a. The use of small unmanned aircraft systems (sUAS) to support fire department operations has become widely accepted as a low-cost tool to enhance situational awareness on emergency scenes. However, prior to their use, Public Safety Agencies should develop a detailed policy outlining procedures for the appropriate use of sUAS. The purpose of this policy is to establish usage guidelines that ensure compliance with local, state, and federal regulations and to respond to the potential uses of such aircraft within the boundaries of the host department and the State Hazardous Materials Response Team, or within the boundaries of another municipality who has requested assistance from host agency. This policy will give guidance on the operational and approval requirements for safe and responsible use of sUAS of personnel of host agency, while safeguarding individual citizen's rights to privacy.

2. Policy

- a. It is the practice of the host agencies that sUAS shall be deployed only for specific public safety operations, in compliance with all applicable laws, and only by trained and authorized personnel.
- b. This policy is not intended to be all-inclusive, but instead shall serve as a supplement to other policies and procedures of the host agency, applicable local, state, and federal regulations, and sUAS manufacturers' approved flight manuals.

3. Definitions

- a. Aircraft: A device that is used or intended to be used for flight in the air. This includes unmanned aircraft.
- b. Unmanned Aircraft System (UAS/sUAS): An aircraft that is operated without direct human intervention from within or on the aircraft. Also called remote piloted aircraft or drones.



GREAT FALLS FIRE RESCUE

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- c. Remote Pilot in Command (RPIC): The individual with the final authority and responsibility for operation and safety of an sUAS operation.
 - d. Certificate of Authorization (COA): COA is an authorization issued by the Federal Aviation Administration (FAA) to a public operator for a sUAS. After a complete application is submitted, the FAA conducts an operational and technical review. If necessary, provisions or limitations may be imposed as part of the approval to ensure the sUAS can operate safely with other airspace users.
 - e. Visual Observer (VO): If used, an sUAS flight crewmember designated by the RPIC to assist with the responsibility to identify and avoid other air traffic or objects in the air or on the ground.
 - f. National Air Space (NAS): A network of both controlled and uncontrolled airspace, both domestic and oceanic.
4. Procedures
- a. Program Administration
 - i. SHMRT sUAS shall be used only to support public safety operations.
 - ii. The list of authorized missions shall be clearly defined and may include, but are not limited to:
 - 1. In-progress calls involving a threat to the safety of any person or the public. (including, large structural or wildland fire, hazardous materials events, mass casualty incidents)
 - 2. Search and rescue operations
 - 3. Incident scene documentation (fire, traffic crash, disaster)
 - 4. Requests to support other agencies
 - 5. Public relations or photo flights of department personnel or operations
 - 6. Other operations as authorized by the fire chief or his designee.
 - iii. All operations will be flown in accordance with FAA regulations, 14 CFR Parts 107 and/or Certificate of Authorization, applicable portions of 14 CFR Parts 61 and 91, current FAA National Policy regarding sUAS Operational Approval and any additional Local or State guidelines relating to the operation of unmanned aircraft.
 - iv. All personnel assigned to the sUAS program shall be approved by the Fire Chief, and may consist of on duty Battalion Chiefs, program coordinator, RPICs, visual observers, and others deemed necessary to ensure safe and efficient sUAS operations.
 - v. To enhance the level of safety and promote appropriate use of sUAS, all procedures contained herein shall be followed without deviation, unless necessary during an emergency, or with appropriate supervisory approval.
 - b. Personnel Qualifications and Training
 - i. Personnel shall be trained to the FAA Part 107 Remote Pilot Standard and shall maintain a valid Remote Pilot License in good standing.



GREAT FALLS FIRE RESCUE

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- ii. All sUAS program personnel shall receive training in the legal aspects of sUAS use.
 - iii. Each pilot shall perform at least one training flight or UAS deployment per quarter to maintain proficiency with each aircraft utilized by the team and any related equipment.
 - iv. Personnel involved in flight operations shall be medically qualified in compliance with the host agency's policy.
 - v. All sUAS program personnel shall receive training necessary to safely, efficiently, and effectively manage or operate sUAS, to include initial and recurrent training.
- c. Program Coordinator
- i. A Program Coordinator appointed by the Haz-mat Team Coordinator with approval of the Fire Chief will be selected to oversee the UAS Program. Their duties will include the following:
 - 1. Ensuring that policies and procedures conform to current laws, regulations, and privacy guidelines.
 - 2. Establishing a training standard for operators that meets FAA requirements.
 - 3. Overseeing the selection and training of operators.
 - 4. Maintaining and updating the Certificate of Authorization (COA) with the FAA.
 - 5. Overseeing procurement and maintenance of UAS equipment
 - 6. Review of UAS deployments to ensure compliance with policies and operating procedures.
 - 7. Conducting audits of flights logs semiannually.
 - 8. Reporting required information to the FAA as required.
 - 9. Oversee annual training for all sUAS program personnel on the policies and procedures governing the use of the equipment.
 - 10. Generate an annual report on program activities for submission to the Fire Chief.

5. Operational Procedures

- a. SHMRT sUAS operations shall comply with local, state, and federal guidelines.
- b. All sUAS operations should be approved by a Battalion Chief or higher rank. The Incident Commander or their approved designee shall maintain oversight of any deployments and the uses of sUAS.
- c. A qualified individual shall be designated as the Remote Pilot in Command (RPIC).
 - i. The RPIC is directly responsible for and is the final authority over the operation of the UAS. RPICs have absolute authority to reject a UAS deployment based on weather, aircraft limitations, physical condition, etc.



GREAT FALLS FIRE RESCUE

PO Box 5021, Great Falls, MT 59403
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- ii. The RPIC shall inspect the sUAS to ensure safe operating condition of the sUAS prior to the flight. iii. The RPIC must have a copy of the COA or waiver and all operating documents during flight operations.
- iv. A Notice to Airmen (NOTAM) shall be issued at least 24 hours prior to a planned or training flight. In the case of an emergency incident, a NOTAM will be issued at the earliest possible opportunity. The RPIC shall check for NOTAMs in the flight area prior to launch while operating under a COA.
- d. A Visual Observer (VO) may be appointed if necessary, at the discretion of the RPIC.
 - i. Due to the nature of fire department UAS deployments. It is preferable the VO is a SHMRT designated UAS pilot; however,
 - 1. The RPIC may designate a VO who is not a pilot. It is the responsibility of the RPIC to brief the VO prior to any UAS operation.
 - 2. Requests for drone deployments made to assist fire operations/investigations or search and rescue events may not necessitate the use of a VO.
 - ii. The VO and RPIC must maintain contact at all times, either through verbal or radio communications.
- e. A public notification should be conducted when feasible to advise the public of the fact that:
 - i. A UAS is in operation.
 - ii. The general location of the UAS operation.
 - iii. The purpose of the UAS deployment (i.e. fire, hazardous materials, mass casualty incident, etc.).
 - iv. Other safety information for the public at large (such as to not attempt to view the drone and remain indoors with the doors locked in the case of a public safety matter).
 - v. Such notifications should not delay the UAS deployment but be used in conjunction with the deployment.
- f. All flights shall be documented on a form or database designed for that purpose, and all flight time shall be accurately recorded. In addition, each deployment of the sUAS shall include information regarding;
 - i. the reason for the flight,
 - ii. the time, date, and location of the flight,
 - iii. the names of the supervisor approving the deployment and the staff assigned, iv. a summary of the activities covered, actions taken, and outcomes from the deployment.
- g. Complaint Investigations
 - i. Should there be a complaint alleging inappropriate use of the sUAS, the complaint shall be handled in accordance with the host agency's protocols for internal investigations.



GREAT FALLS FIRE RESCUE

PO Box 5021, Great Falls, MT 59403
Office (406) 727-8070



- ii. Any complaint alleging a violation of a person's civil rights by use of the sUAS shall be documented and be investigated through the host agency's Office of Professional Standards.
- iii. Unauthorized or inappropriate use of an sUAS shall result in strict accountability, in accordance with established disciplinary procedures.
- iv. Suspension or Removal
 1. Pilots may be suspended or removed from the program for any the following:
 - a. Failing to maintain a valid Remote Pilot/UAS Certificate.
 - b. Failing to comply with policy, laws, or case law applicable to UAS operation.
 - c. Reckless or unsafe maneuvers or operation of the aircraft.
 - d. Other disciplinary actions taken by Fire Department Administration

6. Emergency Procedures

- a. Emergency procedures stated in the manufacturer's operations manual shall be complied with for all sUAS operations. In the event of an emergency involving the safety of persons or property that RPIC may deviate from the procedures of this directive relating to the aircraft equipment and weather minimums to the extent required to meet the emergency.
- b. Lost Link - An interruption or loss of command and control with the sUAS such that the remote pilot can no longer manage the aircraft flight and as a result, the sUAS is not operating in predictably or planned manner.
 - i. In this case, the RPIC will ensure the landing zone is cleared for autonomous sUAS return and notify the incident commander of link failure.
- c. Loss of Visual Contact – The aircraft is not immediately visible to the RPIC or VO.
 - i. In this case, the RPIC shall command the aircraft to hover And the RPIC or VO shall try to reestablish visual contact.
- d. Loss of sUAS power - Engine failure of the aircraft in such a way that the aircraft will not be able to maintain flight.
 - i. In this case, flight team members will immediately attempt to locate the aircraft assessed the scene for injuries and render first aid as necessary.
- e. Flight Termination - The intentional or deliberate process of leveling controlled flight into terrain when all other contingencies have been exhausted.
 - i. In this case, flight termination must be and further flight of the aircraft cannot be safely achieved or other potential hazards exist that required immediate discontinuation of the flight.
- f. Accident Notification and Investigation



GREAT FALLS FIRE RESCUE

PO Box 5021, Great Falls, MT 59403
Office (406) 727-8070



- i. Any incidents involving property damage, including damage to the sUAS, will be reported to the on-duty Battalion Chief and department policy will be followed.
- ii. The RPIC must report to the FAA within 10 days of any operation that results in at least serious, injury loss of consciousness, or property damage of at least \$500 (not including the unmanned aircraft). All in-flight accidents and incidents involving fatalities, injuries, property damage, and lost link shall be reported to the program coordinator immediately for appropriate assistance with guidance. FAA regulations require the FAA to be notified within 24 hours of the incident.

7. Mutual Aid

- a. SHMRT sUAS will be available to other agencies which have mutual aid agreements with the SHMRT. This equipment will also be available to assist with and support disaster operations resources consistent with existing Emergency Management Assistance Compacts (EMACs).
- b. Should more than one request for sUAS assistance occur at the same time, the requests will be prioritized as follows:
 - i. Emergency situations with a threat to life within the host agency's response area
 - ii. Emergency situations with a threat to life outside the host agency's response area
 - iii. Requests for sUAS deployment with no life threat within the host agency's response area
 - iv. Requests for sUAS deployment with no life threat outside the host agency's response area
 - v. Other requests which do not have a time sensitive nature, such as public relations or damage assessments.

8. Restrictions on the use of sUAS

- a. The sUAS shall be deployed and used only to support official fire department and public safety operations.
- b. The sUAS shall not be operated in an unsafe manner or in violation of regulations.
- c. The sUAS shall not be equipped with weapons of any kind.
- d. Personal or commercial use of a department sUAS is prohibited.

9. Safety

- a. The sUAS program shall have a safety program based on the principles of an aviation safety management system.
- b. All sUAS personnel shall receive appropriate safety training.
- c. Each RPIC shall be limited to 90 minutes of continuous flight operations and then a 30-minute rest period is required.



GREAT FALLS FIRE RESCUE

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10. Maintenance

- a. Each sUAS shall be inspected on a weekly basis for flight readiness and to determine if maintenance is necessary.
- b. The sUAS program shall have a documented maintenance program to include the manufacturer's recommendations.
- c. The maintenance program shall describe who is authorized to perform maintenance on the sUAS and the required training for those personnel.
- d. Records shall be kept of all maintenance performed on SHMRT sUAS.
 - i. The airworthiness of all sUAS operated by the SHMRT will be declared in keeping with manufacturer recommendations and maintenance logs yearly

11. Administration Auditing and Annual Reporting

- a. Flight documentation shall be audited by the sUAS Program Coordinator monthly. This audit shall include, at minimum, a summary of the following:
 - i. number of missions/uses,
 - ii. reason for uses,
 1. safety concerns,
 2. equipment concerns,
 3. flight time, to include a review of flight logs or data from flight time counters.
 - iii. The results of the audit shall be documented and submitted to the Fire Chief or his designee for review.
 - iv. The host agency will publish an annual report documenting the use of sUAS. This report will be a public document and shared with the community.

12. Collection and Use

- a. sUAS host agency shall only collect information using UAS, or use UAS-collected information, to the extent that such collection or use is consistent with and relevant to an authorized purpose.

13. Retention

- a. Data collected through authorized sUAS missions will be retained in accordance with local, state, and federal guidelines and privacy laws as it pertains to the type of data collected and for what purpose(s) the data was collected.
 - i. sUAS-recorded data will not be collected, disseminated, or retained solely for monitoring activities protected by the U.S. Constitution, such as the First Amendment's protections of religion, speech, press, assembly, and redress of grievances (e.g., protests, demonstrations)
 - ii. Collection, use, dissemination, or retention of sUAS-recorded data should not be based solely on individual characteristics (e.g., race, ethnicity, national origin, sexual orientation, gender identity, religion, age, or gender), which is a violation of the law;



GREAT FALLS FIRE RESCUE

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- iii. Any reasonable concerns and/or complaints that are expressed concerning the host agency's usage of the sUAS will be investigated, and addressed, as appropriate and by the proper authorities, to ensure compliance with local, state and federal privacy, civil rights, and civil liberties laws.
 - b. The department that owns the data that has been collected is responsible for ensuring that reasonable standards for data collection, retention and security are in place and in compliance with local, state and federal laws
 - i. Any data collected that does not have local, state or federal retention requirements will be maintained for five (5) years or until the owner of the data determines it is no longer of value and may be destroyed;
 - ii. Any data collected that may contain Personally Identifiable Information (PII) shall not be retained for more than 180 days unless retention of the information is deemed necessary to an authorized mission conducted by the retaining department, is maintained in a records system that follows the Privacy Act or is required by law to be retained for a longer period by any other applicable law or regulation.
- 14. Dissemination:
 - a. The host agency owns the data they collect from the sUAS missions. Any information that is collected, and not retained in a records system covered by the Privacy Act, will not be shared outside of the department unless required by law or for authorized department purposes that comply with departmental rules. By publishing this data or otherwise releasing it to the public or another organization, departments do not transfer data ownership but instead grant permission for others to utilize and redistribute the data as necessary.
- 15. Privacy Protections. This program will operate in accordance with the standards set in the Presidential Memorandum: Promoting Economic Competitiveness while safeguarding Privacy, Civil Rights, and Civil Liberties in domestic use of Unmanned Aircraft Systems.
 - a. Civil Rights and Liberties Protections: To protect civil rights and civil liberties, the host agency shall:
 - i. ensure that policies are in place to prohibit the collection, use, retention, or dissemination of data in any manner that would violate the First Amendment or in any manner that would discriminate against persons based upon their ethnicity, race, gender, national origin, religion, sexual orientation, or gender identity, in violation of law.
 - ii. Ensure that UAS activities are performed in a manner consistent with the Constitution and applicable laws, Executive Orders, and other Presidential directives; and
 - iii. Ensure that adequate procedures are in place to receive, investigate, and address, as appropriate, privacy, civil rights, and civil liberties complaints.
 - b. Accountability. To provide for effective oversight, the host agency shall:



GREAT FALLS FIRE RESCUE

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- i. Ensure that oversight procedures for agencies' UAS use, including audits or assessments, comply with existing agency policies and regulations;
 - ii. Verify the existence of rules of conduct and training for personnel and contractors who work on UAS programs, and procedures for reporting suspected cases of misuse or abuse of UAS technologies;
 - iii. Establish policies and procedures, or confirm that policies and procedures are in place, that provide meaningful oversight of individuals who have access to sensitive information (including any PII) collected using UAS;
 - iv. Ensure that any data-sharing agreements or policies, data use policies, and record management policies applicable to UAS conform to applicable laws, regulations, and policies; and
 - v. Establish policies and procedures, or confirm that policies and procedures are in place, to authorize the use of UAS in response to a request for UAS assistance in support of Federal, State, local, tribal, or territorial government operations.
- c. Transparency. To promote transparency about their UAS activities within the NAS, agencies that use UAS shall, while not revealing information that could reasonably be expected to compromise law enforcement or national security:
- i. provide notice to the public regarding where the agency's UAS are authorized to operate in the NAS;
 - ii. Keep the public informed about the agency's UAS program as well as changes that would significantly affect privacy, civil rights, or civil liberties; and

Make available to the public, on an annual basis, a general summary of the agency's UAS operations during the previous fiscal year, to include a brief description of types or categories of missions flown, and the number of times the agency provided assistance to other agencies, or to State, local, tribal, or territorial governments.