Sample Municipal Drone Usage Policy

Title: USE OF UNMANNED AERIAL VEHICLES ("UAV") POLICY AND PROCEDURE	
Approved By: Xx	**Page #: X.XX.1 (of X)**
Issued: Xx	**Revised: Xx**
Responsibility:	**Section: Xx**

1. Policy

1.01 Once confined to military applications, UAVs, also sometimes referred to as "drones," are increasingly being utilized in the civilian context owing to the decreasing cost of such technology, particularly when compared to manned aircraft, and in recognition of the time and cost savings they offer in terms of many routine inspection and surveillance functions.

1.02 [Municipality] has recognized several areas of its service delivery that can be rendered less costly and more effective through the application of UAV's compared to existing solutions. It anticipates that it will identify further areas where the use of UAVs will enhance its service delivery in the future.

1.03 Notwithstanding its considerable potential benefits, UAV technology poses significant potential risks to the safety and the privacy of its employees and members of the public. This policy is intended to provide guidelines to minimize the risks to public safety and privacy that might otherwise result from the use of UAVs.

2. Purpose

2.01 To provide guidance for the operation of UAVs in the course of [Municipality's] service delivery.

3. Definitions

3.01 "Collected Information" has the meaning ascribed to it in para.5.10.

3.02 "Data" means all photographic and video images and any other readings or measurements.

3.03 "Drone" has the same meaning as "Unmanned Aerial Vehicle" or "UAV".

3.04 "Information" shall have the same meaning as "Data."

3.05 "*MFIPPA*" means the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c.M. 56, as amended.

3.06 “Unmanned Aerial Vehicle” or “UAV” means a motorized aircraft that operates without a human operator onboard and whose flight path is either controlled remotely in real time by a human operator or is pre-programmed into the UAV’s computer system.

3.07 Xx

4. Guiding Principles

4.01 UAVs shall at all times be operated:

- In accordance with federal aeronautics laws;
- With the paramount consideration being the safety of municipal employees and the public at large; and
- With the aim of minimally intruding on the privacy of municipal employees and members of the public at large.

5. Procedures

5.01 All municipal UAVs shall be operated in strict accordance with federal aeronautics law.

- The Canadian Aviation Regulation (“CARs”) provide that no person shall operate a UAV except in accordance with a Special Flight Operation Certificate (“SFOC”). The SFOC may set conditions on the flight which must be abided by. Further, all other operating and flight rules set out in the CARs that apply generally to aircraft also apply to UAVs since they are captured within the definition of aircraft in the *Aeronautics Act*.
- There are two exemptions from the requirement to obtain a SFOC. Those exemptions are based on the weight of the UAV: any UAV having a weight of 0-2 kg is exempted regardless of any other factor; and UAVs having a weight of 2-25 kg are exempted provided they meet the conditions of the exemptions, and the UAV is operated within the operator’s visual line of sight. These conditions include:
    - The operator is at least 18 years old;
    - The operator must only operate a UAV during daylight hours;
    - The operator must successfully complete a pilot ground school program;
    - The operator must carry liability insurance with a minimum of $100,000 coverage;

- The operator must ensure that the UAV is in a fit and safe state for flight prior to take-off/launch; and

- The operator must report any "occurrences" during flight (for example, unintended contact between a UAV and persons, vehicles, structures, etc.).[1]

5.02 UAVs may only be utilized for tasks that have been specifically approved by Municipal Council.

- A comprehensive written proposal must be developed for any new utilization of a UAV for approval by Council. The proposal should clearly set out:

  - The rationale and purpose of the proposed use;

  - The location and field of vision of the operation;

  - The rationale and purpose of the specific location(s) for the operation of the UAV proposed;

[1] New regulations will come into effect on January 15, 2018. A summary of the new regulations is set out in the following chart:

	Very Small UAVs	Small UAVs (Limited)	Small UAVs (Complex)	
Aircraft Requirements				
Identification	✓	X	X	*Identification, and marking and registration requirements are intended to assist accident and enforcement investigations.*
Marking and Registration	X	✓	✓	
Design Standard	X	✓	✓	
Pilot Requirements				
Age Restrictions	X	✓	✓	*Basic knowledge is required to operate a UAV safely. Depending on the level of risk the aircraft and operation poses, different regulatory requirements will apply.*
Knowledge Test	✓ *(Basic)*	✓ *(Basic)*	✓ *(Advanced)*	
Pilot Permit	X	X	✓	
Medical Certificate	X	X	✓ (Cat 4)	
Respect for Privacy and Other Laws	✓	✓	✓	
Permission to Fly				
At night	X	X	✓	*The regulatory requirements will allow low risk operations in complex environments or conditions when the risk of the operation is mitigated through other pilot or aircraft requirements.*
In proximity to an aerodrome	X	X	✓	
Within 9 km (5 nm) of a built-up area	✓	X	✓	
Over people	X	X	✓	
Liability Insurance	X	✓	✓	
Operator Certificate *	✓	✓	✓	

SFOCs will no longer be required for very small UAVs (250 g-1 kg), small (limited) UAVs (1 kg-25 kg flown in rural areas), or small (complex) UAVs (1 kg-25 kg flown in built-up areas).

Standardized knowledge tests (to be available online) will also be developed by Transport Canada for UAV pilots to become "licenced" to fly.

- Which personnel are authorized to operate the UAV and their qualifications/training;
- The need for any training above and beyond that required by the regulations and whether checklists and standard operating procedures will be used and applied;
- The potential for property damage or personal injury, having regard to proximity of inhabited places, proximity of real property and risk of interaction with other aircraft and persons;
- If operators are third party contractors, confirmation that they will be required to carry insurance from a reputable carrier with limits of liability that match the perceived exposure and to provide an insurance certificate naming the Municipality as an additional insured under their aviation insurance policy;
- Identification and specifications of all UAVs to be utilized;
- Steps that will be taken to guard against malicious hackers taking control of the UAVs during flight and to protect the data obtained or transmitted by the UAV;
- Security clearance for operators (anti-terrorism measure);
- The times when the UAV will be in use;
- Whether and when any images or measurements will be taken, the nature of such images and/or measurements and completion and submission of the Privacy Impact Assessment (see para. 5.10 below);
- The place where the UAV will be operated from;
- Particulars of the use to be made of any images or measurements taken by the UAV, including:
  - Security;
  - Use;
  - Disclosure;
  - Retention and destruction;

- Rights of individual access to personal information captured, and

- Rights to challenge compliance.

- The proposal should identify a person accountable for privacy compliance and privacy rights associated with any images or measurements taken. The policy should require officers, employees and contractors to adhere to it, and provide sanctions if they do not. It should provide a process to be followed in the event of inadvertent privacy breaches. It should also provide procedures for individuals to challenge a proposed use of a UAV that infringes upon their privacy.

- Public consultation with relevant stakeholders, including representatives of communities that will be affected should precede any decision to put UAVs to a new use.

5.03 Where a UAV is being operated in or above a workplace where workers under the control of the Municipality are present, the need for the use of hard hats and safety goggles by such workers shall be evaluated.

5.04 A UAV operator must only operate a UAV during daylight hours.

5.05 A UAV operator must, at minimum, successfully complete the Transport Canada knowledge test and obtain a pilot permit (or complete an authorized pilot ground school program before Transport Canada's knowledge test is implemented) and be fully apprised of the UAV manufacturer's recommended operating procedures.

5.06 UAV operators must undertake training on the obligation to protect the privacy of individuals.

5.07 A UAV operator must ensure that the UAV is in a fit and safe condition for flight prior to take-off/launch.

5.08 A UAV operator must report any "occurrences" during flight (for example, unintended contact between a UAV and persons, vehicles, structures, etc.).

5.09 A UAV operator must not operate a UAV unless he/she has a direct visual line of sight of the UAV at all times during the operation.

5.10 Where the use of a UAV involves photography, video surveillance/inspection or the collection of any other data that can be reasonably expected to infringe upon the privacy rights of members of the public or Municipal staff ("Collected Information"), the following principles shall be followed:

- A Privacy Impact Assessment of the proposed use of the UAV should be conducted and documented before it is undertaken to

determine the actual or potential kind and degree of interference with privacy that will result, and the ways in which adverse effects will be mitigated.

- Less privacy-invasive alternative ways of addressing the identified objective should be chosen unless they are not feasible or significantly less effective.

- Any photography, video surveillance or other data collection carried out using a UAV must be conducted in accordance with all applicable laws, including the Canadian Charter of Rights and Freedoms.

- The use of the UAV should be designed and operated so that the privacy intrusion it creates is no greater than absolutely necessary to achieve the goals of the surveillance.

- Municipal employees and members of the public should be informed that they may be subject to surveillance where such surveillance is reasonably anticipated to impact on the privacy of individuals.

- The transmission of Collected Information must be through a secure band spectrum wavelength.

5.11 Any data collected through the use of UAVs shall be collected and disseminated strictly in accordance with provisions of *MFIPPA*. See the Municipal policy regarding the collection and dissemination of personal information in Municipal Policy # ____.

5.12 For greater certainty in relation to para. 5.11, where photographic or video data is collected as a result of the use of a UAV, the faces of any person depicted in such images shall be pixilated or otherwise rendered unidentifiable prior to the release of the collected data pursuant to *MFIPPA*.

5.13 If operators of UAVs are third party contractors, they must be required to carry insurance from a reputable carrier with limits of liability that match the perceived exposure and to provide an insurance certificate naming the Municipality as an additional insured under their aviation insurance policy.

6. Roles And Responsibilities

6.01 Xx

6.02 Xx

6.03 Xx

7. Application

6.04 This policy applies to all uses of UAVs in the conduct of Municipal business.

8. References

8.01 Xx

9. Inquiries

9.01 For additional information regarding this policy please contact _____.