

Procedure #	GA 120-P
Related Policy Name & #	Remotely Piloted Aircraft
-	Systems Policy
	GA 120
Approved by:	Sanjay Puri
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Replaces Procedure	n/a
Dated:	
Policy Holder:	Vice President,
-	Administration and CFO

Remotely Piloted Aircraft Systems Procedure

Purpose:

To outline the procedures for operating a Remotely Piloted Aircraft Systems (RPAS) on College property.

Definitions:

<u>Advanced Operations</u>: If you meet **any one (1)** of these conditions, you are conducting advanced operations:

Operating in controlled airspace as defined by Transport Canada

- Operating over bystanders
- Operating within 30 meters (100 feet) of bystanders (measured horizontally)
- Operating less than 3 nautical miles from a certified airport or military aerodrome
- Operating less than 1 nautical mile from a certified heliport

<u>Basic Operations</u>: If you meet **all five (5)** of these conditions, you are conducting basic operations:

- Operating in uncontrolled airspace
- Operating more than 30 meters (100 feet) of bystanders (measured horizontally)
- Never operating over bystanders
- Operating more than 3 nautical miles from a certified airport or military aerodrome
- Operating more than 1 nautical mile from a certified heliport

If you DO NOT meet any 1 of these conditions, you are deemed to be conducting Advanced Operations.

Both Humber College North and Lakeshore campus including satellite locations are contained within controlled airspace and therefore the requirements for Advanced Operations must be followed.

<u>Controlled Indoor Space</u>: An area located inside a building where a RPAS operation has been approved. The perimeter of the area must be positively controlled by physical barriers or persons and signage to prevent potential conflicts between bystanders and the aircraft.



<u>*Pilot:*</u> The operator of a remotely piloted aircraft system (RPAS) whether licensed or not, that is responsible for its safe and effective operation, including monitoring its flight path, responding to emergency situations, and complying with applicable laws and regulations.

<u>*RPAS:*</u> Is a remotely piloted aircraft system, sometimes informally referred to as a drone. It is an unmanned aircraft that is remotely controlled by a pilot on the ground.

<u>Special Flight Operations Certificate (SFOC)</u>: Is a Canadian aviation document issued by Transport Canada to authorize the operation of aircraft for specific purposes that fall outside the normal operating procedures or regulations.

<u>Visual Line of Sight (VLOS)</u>: Refers to unaided visual contact at all times with a RPAS that is sufficient to be able to maintain control of the aircraft, know its location, and be able to scan the airspace in which it is operating in order to perform the detect and avoid functions in respect to other aircraft or objects.

Procedures:

1. General:

- 1.1 The College will protect the safety of all persons present at Humber campuses by:
 - a) Communicating the approval process for the use of RPAS on College property
 - b) Ensure that RPAS are used on college property only in accordance with Transport Canada and Canadian Aviation Regulations, as applicable.
 - c) Support RPAS education, skills, and training as required.
 - d) Support practical application of RPAS services to Humber.
 - e) Ensure safe operation of RPAS on Humber campuses through policy, procedure, and monitoring.
- 1.2 All RPAS pilots are required to comply with this procedure as well as all other applicable college policies, federal, provincial, and municipal laws relating to RPAS.

2. Approval:

- 2.1. Anyone seeking to operate an RPAS at any Humber campus (indoors or outdoors), must complete the <u>Request to Operate A Remotely Piloted Aircraft Systems online</u> <u>form</u> to the Director, Public Safety and Emergency Management (or designate) within three (3) days of operation.
- 2.2. Upon satisfaction of all requirements, Director, Public Safety and Emergency Management (or designate) shall at their discretion, authorize the RPAS activity as detailed on the request form.
 - 2.2.1. Permission to fly may be withheld or revoked for any reason at the discretion of the Director, Public Safety and Emergency Management (or designate).
- 2.3. Campus Security will be notified of the approved activity.



3. Safety:

- 3.1. All pilots must follow the requirements for <u>Advanced Operations</u> due to the controlled airspace around each campus.
 - 3.1.1. All RPAS with a minimum takeoff weight of 250 grams (g) up to and including 25 kilograms (kg) must be registered with Transport Canada (TC).
 - 3.1.2. Pilots must mark their RPAS with their TC registration number before they fly.
 - 3.1.3. RPAS must have the appropriate safety declaration for the intended operation
 - 3.1.4. Pilot must possess a valid Pilot Certificate Advanced Operations.
 - 3.1.5. Pilot must be able to always show their Pilot Certificate Advanced Operations and proof of registration when operating their RPAS.
 - 3.1.6. Request permission from air traffic control (NAV Canada) using the NAV Drone web version or mobile app to operate in the restricted airspace.
- 3.2. A Transport Canada Special Flight Operations Certificate (SFOC) is required to fly at an advertised event, a drone weighing more than 25 kg, flight above 122 meters (400 ft) and/or outside the rules of Basic and Advanced Operations.
 - 3.2.1. A SFOC is also required for foreign pilots.
- 3.3. Prior to operation, all pilots must conduct a site survey that considers the following factors:
 - The boundaries of the area of operation
 - The type of airspace and applicable regulatory requirements
 - The altitude and routes to be used on the approach to and departure from the area of operation.
 - The proximity of manned aircraft operations
 - The proximity of aerodromes, airports, and heliports
 - The location and height of obstacles, including wires, masts, buildings, cell phone towers and wind turbines.
 - The predominant weather and environmental conditions for the area of operation
 - The horizontal distances from persons not involved in the operation
- 3.4. Pilots must always have their RPAS within their visual line of sight (VLOS) during operation.
- 3.5. Pilots must ensure that they have chosen the right drone for the type of operation that will be conducted.
- 3.6. RPAS weighing less than 250 grams (g) are exempt from the above requirements, but they must be operated in a way that does not pose a danger to aircraft, property or



people or infringe on the privacy of individuals.

- 3.6.1. When operating an RPAS exempt from these regulations, the pilot is still required to contact the Department of Public Safety Security Operations Centre (416-676-8500) to inform of the time and location of the flight and to provide an emergency contact.
- 3.7. Indoor flight operations of RPAS must receive approval from the Director, Public Safety and Emergency Management or designate and undergo a rigorous safety planning process that will include at minimum:
 - Pilot with Advanced Operations Pilot Certification
 - Controlled indoor space with spotters and/or security to ensure no RPAS conflicts with bystanders.
 - Appropriate supervision as deemed necessary by the college.

4. Record Keeping:

- 4.1. The Department of Public Safety will maintain a register of all approved RPAS operations for a minimum of two (2) years.
- 4.2. All College departments or faculties that operate RPAS will maintain a registry of all certified pilots including all training records, certification dates and expiries for a minimum of two years from expiry or exit from the college.
- 4.3. College departments and faculties that own/operate a RPAS will maintain equipment and maintenance logs for each individual RPAS for a minimum of two (2) years following the aircrafts removal from active flight operations.
- 4.4. All pilots must maintain records for all NAV Canada permissions and SFOC's for a minimum of two (2) years from the flight date.

5. Responsibilities:

- 5.1. The Director of Public Safety and Emergency Management (or designate) will have authority to approve or deny requests to operate RPAS on college properties.
- 5.2. Senior Deans, Deans, Directors, Managers and Supervisors of departments or Faculties will ensure that all employees, contractors, students, and volunteers operating RPAS, do so in compliance with the RPAS Policy and Procedures.

References:

Canadian Aviation Regulation Part IX – Remotely Piloted Aircraft Systems

NAV Canada - Drone Support

Transport Canada – Choosing the right drone for advanced operations



Transport Canada - Flying your drone safely and legally

Transport Canada - Find your category of drone operation

Transport Canada Knowledge Requirements for RPAS pilots