Risk Management Services
Division of Finance and Administration

Standard Operating Procedure: **Piloting of Drones for Research Purposes**

Approval Authority**: Director, Risk Management Services**

Effective Date**: September 2015 (revised September 2026)**

I. DEFINITIONS

A **drone** is an aircraft without a human pilot, crew, or passenger on board. Included in this definition is any of the following terms: unmanned aerial vehicle (UAV), uncrewed aerial systems (UAS), remotely piloted aerial vehicle (RPAV), unmanned aircraft systems (UAS), including unmanned-aircraft vehicle systems (UAVS) and remotely piloted aircraft systems (RPAS).

On-campus use refers to the use of drones on York University properties or campuses, including Keele, Glendon, and Markham campuses.

Off-campus use refers to the use of drones on any property not belonging to York University.

For the purposes of this document, **research** means any research done by faculty, staff, or students using University resources or conducted in the name of the University. Research projects must be formally reviewed and approved by the required committees, and must be in compliance with institutional and grant/funding requirements.

II. INTRODUCTION

The piloting of drones (or any other flying object) for research purposes is governed by:

- Legislative requirements;
- York University Risk Management Services requirements;
- Institutional duties to safeguard research and sensitive information; and
- Funding agreements should funders restrict use of certain technologies.

III. LEGISLATIVE REQUIREMENTS FOR DRONES

While operating drones in Canada, the use of drones falls under Transport Canada regulations. These regulations govern the classification of drones by weight/use, the need for pilot certificates, and permissible flight locations.

Please see the Transport Canada website for the most current regulations on drones as these are updated frequently.

Should the research take place in an international jurisdiction, please review the local drone regulations. It is up to the researcher to confirm that they can operate the drone in the planned location.

IV. RISK MANAGEMENT REQUIREMENTS FOR DRONES

1. Drone pilots must read, understand, and be in compliance with all legislation, rules, and regulations that apply to the operation of drones as per any governing authority, including:
    a. The requirements for the physical operations of drones - pilot certificates, registration of the drone with Transport Canada (if applicable), and authorization documents such as SFOC and RPAS for flights; and
    b. The limitations of certain drones in types of research as outlined by governing bodies.

2. Only drones that are the property of York University or those that are formally leased/loaned to the University under contract with another company may be used for research purposes. Privately owned drones cannot be covered under the University's insurance, nor can they be used for University research purposes.

3. All individuals piloting drones for research purposes must notify Risk Management Services before any planned flights by submitting the Drone Registration Forms found on the Risk Management Services website. If the research project meets eligibility requirements, a Certificate of Insurance will be issued confirming that the University's insurance extends to the use of the drone for the project. The Drone Registration Forms may only be submitted by faculty or staff, who may also complete the request on behalf of a student in their department.

4. If students intend to pilot the drone, they must be registered as a student in the semester in which they will be piloting the drone, and they must have a supervisor indicated on the registration form.

5. Pilots are required to have the following documents with them at all times:
    a) A copy of any required authorizations;
    b) A Certificate of Insurance (proof of liability insurance coverage);
    c) The pilot's name, address, telephone number, and pilot's certificate;
    d) A copy of the drone system operating limitations.

6. Fly only during daylight and in good weather (e.g., not in strong winds or rain, fog, extreme temperatures).

7. Pilots are responsible to ensure that they are appropriately trained to pilot the drone, that the drone is maintained appropriately according to manufacturer's specifications, and that the drone is checked prior to each use to ensure that it is in a fit and safe state for use.

8. For any flights on campus, permissions must be obtained from the departments responsible for the space prior to any flights. This may include reaching out to:
    a) Temporary Use of University Space (TUUS) to formally book the space;
    b) Athletics and Recreation for use of any sports fields;
    c) Community Safety to advise of planned flights ahead of time.

    Use of drones on university campuses is limited to the confines of university property. If the drone is flown outside the limits of university property, additional permissions will be required (see next section).

9. For any flights off-campus, pilots must obtain written permission from the owner(s) of the property on which the drone intends to take off/launch from and/or land/recover on. If flying over private property, pilots will also be required to have written permission from the landowner and to note any restrictions placed by the landowner (distance from domestic animals, etc.). Municipalities, provinces, or international locations may have their own distinct set of requirements to operate a drone. It is up to the pilot to determine what permissions are required for their planned flights.

10. Pilots are responsible to be aware of any privacy or trespassing laws and bylaws that their research may be subject to.

V. INSTITUTIONAL DUTIES FOR SAFEGUARDING RESEARCH & COMPLYING WITH FUNDING AGREEMENTS

Provincial and Federal government limitations on the use of specific drone manufacturers may impact the ability of researchers to use certain types of drones. Where possible, drones should be sourced from trusted vendors, and preventative measures should be taken while operating the device. Without preventative measures there is the risk that sensitive and confidential information captured by drones or the metadata stored on the drone itself can be transferred to unauthorized third parties.

To determine sensitivity of research, points of consideration include:

- Are you receiving funding from, or is your research being used by the Federal or Provincial government who may have stipulations on types or brands of drones used?
- Is the research area related to critical minerals, critical infrastructure, Sensitive Technology Research Areas, or goods/technologies included on the export control list?
- Does the research project involve sensitive personal data or large datasets?
- Does the data collected as part of your research project have dual-use for intelligence or military applications?
- Are you partnering with an organization that could be subject to foreign government influence, have indicators of unethical behaviour, or conflicts of interest?
- Will the partnering organization have access to the University's facilities, networks, or assets, including infrastructure that houses data?
- Does your flight plan involve sensitive, classified or otherwise protected sites?

Any drones used for sensitive research (ex. sensitive technology research areas or research funded by specific grants, etc.) must be reviewed by Innovation York – Safeguarding Research (researchsecurity@yorku.ca) for compliance with government and institutional requirements before Risk Management Services can confirm any insurance coverages.