**Proposed Amendments to the Canadian Aviation Regulations:**

**What do they mean, anyway?**

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In Canada, the use of unmanned aerial vehicles (UAVs) is governed by Transport Canada. Right now, in order to fly a UAV, [recreational UAV users must follow one set of rules](https://www.tc.gc.ca/eng/civilaviation/opssvs/flying-drone-safely-legally.html), and commercial or research operators must apply for and receive a Special Flight Operations Certificate (SFOC) OR their operation must be eligible to be conducted under the [exemption conditions to the SFOC requirement](https://www.tc.gc.ca/eng/civilaviation/opssvs/getting-permission-fly-drone.html%23notification).

However, the rapid development of UAV manufacturing technology has made UAVs more available and less costly than ever before, leading to an exponential increase in the number of people who own and operate UAVs in Canada. Transport Canada has identified three main issues related to the increased use of UAVs: safety, administrative burden, and regulatory predictability. Safety relates to the risks of damage or injury to property or persons from unmanned vehicles, which are largely attributed to a lack of understanding and knowledge of airspace, aviation regulations, manned aviation airspace, and best practices. Administrative burden relates to the requirements of Transport Canada employees to review SFOC applications, issue SFOCs, and enforce the current laws governing UAV operations; the large volume of SFOC applications has led to operational delays, slow turn-around times, and high administrative costs. Lastly, a lack of regulatory predictability stems from the facts that no clear regulations exist for UAVs in Canada, the SFOC exemption conditions have been updated and altered several times since their publication, and the case-by-case review of SFOC applications has led to inconsistences in allowed operations within and among Transport Canada regions, often causing confusion and frustration for operators.

In July 2017, Transport Canada published in the Canada Gazette the [full text of their proposed amendments to the Canadian Aviation Regulations](http://www.gazette.gc.ca/rp-pr/p1/2017/2017-07-15/html/reg2-eng.php) (CARs), which will introduce regulations specific to the operation of Unmanned Aerial Vehicles (UAVs) in Canada. One goal of these proposed regulatory changes was to address the three issues outline above. Safety can be improved by increasing UAV operators’ knowledge requirements prior to conducting operations and created standardized training and testing procedures. Administrative burden can be decreased by alleviating the requirement to apply for SFOCs, while regulatory predictability will be greatly improved by having a clear set of UAV regulations that are not expected to change again in the foreseeable future.

***In Transport Canada’s own words:***

*“The main objective of the regulatory proposal is to mitigate potential safety risks posed by UASs to manned aviation and to people and property on the ground. In addition, Transport Canada has the objectives of:*

* *Improving regulatory predictability in order to foster a stable yet agile regulatory environment for UAS industry development;*
* *Reducing administrative burden on UAS businesses; and*
* *Increasing Transport Canada’s ability to meet its service standard for traditional aviation activities and surveillance capability.”*

In the new CARs, UAVs will no longer be regulated based on recreational versus commercial operations, because Transport Canada determined it is not the use of the UAV that poses a potential risk to people or property, but the size of the aircraft and environment it operates in. The new regulations will cover three categories of UAVs: very small UAVs, with a takeoff weight of 250 grams to 1 kilogram; small UAV, limited environment, with a takeoff weight of 1 to 25 kilograms being used in rural environments; and small UAV, complex environment, which covers UAVs weighing 1 to 25 kilograms in urban environments, controlled airspace, or near aerodromes. A set of rules and operating conditions is set out for each of these categories, and as long as a UAV operator follows those rules and conditions, they will be allowed to operate without being required to apply for an SFOC or notify Transport Canada of their intentions.

It can be difficult to comprehend the Canadian Aviation Regulations, especially for those interested in UAV operations but with no prior experience with aviation otherwise. This article “translates” the proposed regulations from technical aviation terminology to a format more comprehensible by those without a background in aviation. The translations are organized into several tables, each covering a section of the proposed CAR amendments. Numbers (i.e. **900.01**) in the tables indicate the section of the CARs covered. The regulatory text is in full beside the translation to allow easy comparison.

* The first table covers Part IX, Division II of the CAR amendments, which are regulations that will apply to ALL UAV operations regardless of UAV platform size or operating environment. This table is in two sections: “Must Do” and “Must Not Do”.
* The second table covers the rules and operating conditions listed in CAR Part IX, Subpart 1: Very Small UAVs
* The third table covers operating conditions listed in CAR Part IX, Subpart 2, Division II: Small Unmanned Aircraft, Limited Operations
* The fourth and last table covers operating conditions listed in CAR Part IX, Subpart 2, Division III: Small Unmanned Aircraft, Complex Operations

We hope that this article makes it easier for those without a background in aviation to understand the upcoming changes to the Canadian Aviation Regulations related to unmanned aerial vehicle operation. UAVs are legitimate airspace users in Canada and represent an exciting new industry with applications in a wide variety of fields; the new regulations will make Canada a leader in allowing the UAV industry to grow nationally while reducing risks, increasing regulatory efficiency, and maintaining a safe and productive operating environment for manned and unmanned aircraft alike.

**Outside Resources**

<https://www.tc.gc.ca/eng/civilaviation/opssvs/proposed-rules-drones-canada.html> - a summary of the proposed rules that will come out of the changes to the CARs, organized by UAV category

<http://www.gazette.gc.ca/rp-pr/p1/2017/2017-07-15/html/reg2-eng.php> - the full text of the proposed CAR amendments, published in the Canada Gazette

<https://www.tc.gc.ca/eng/civilaviation/opssvs/getting-permission-fly-drone.html> - a summary of current (as of fall 2017) UAV regulations in Canada

<http://laws-lois.justice.gc.ca/PDF/SOR-96-433.pdf> - a PDF version of the current CARs

**Part IX, Division II: General Operating and Flight Rules**

**Applies to ALL UAV Operations**

| **CAR - Must Do** | **Translation** |
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| **Contact Information Unmanned Aircraft Operator**  **900.06**No person shall operate an unmanned aircraft system unless the name, address and telephone number of the operator is clearly visible on the aircraft. | UAV must have name, address, and telephone number of operator visible on aircraft. |
| **Fitness for Flight**  **900.07**No person shall conduct the take-off or launch of an unmanned aircraft, or permit the take-off or launch of an unmanned aircraft to be conducted, unless   * **(a)**the pilot-in-command determines that the aircraft is serviceable; * **(b)**the unmanned aircraft system has been maintained in accordance with the manufacturer’s instructions; * **(c)**all mandatory actions have been completed in accordance with the manufacturer’s instructions; and * **(d)**all equipment required by these Regulations or the manufacturer’s instructions are installed and serviceable | Determine that the aircraft is fit for flight before takeoff.This includes the pilot deeming it serviceable, and maintenance of all components has been completed and kept up to date in accordance with manufacturer’s instructions |
| **900.09**A pilot of an unmanned aircraft shall ensure that the appropriate air traffic control unit or flight service station is notified immediately any time the flight is no longer under the pilot’s control and inadvertent entry into controlled airspace occurs or is likely to occur. | Notify the appropriate air traffic control as soon as a UAV is not under pilot’s control or enters or is about to enter controlled airspace. |
| **Right of Way**  **900.11**A pilot of an unmanned aircraft shall give way to manned aircraft at all times. | Give way to manned aircraft at all times. |
| **Visual Line-of-sight**  **900.13**No pilot shall operate an unmanned aircraft system unless the pilot or a visual observer has the aircraft in visual line-of-sight at all times during flight. | Keep the UAV within visual line of sight at all times. |
| **Visual Observers**  **900.14 (1)**No pilot shall operate an unmanned aircraft system if visual observers are used to assist the pilot in the provision of sense and avoid functions unless reliable and timely communication is maintained between the pilot and each visual observer during the operation.  **(2)**A visual observer shall communicate information to the pilot in a timely manner, during the operation, whenever the visual observer detects conflicting air traffic, hazards to aviation safety or hazards to persons and property on the surface.  **(3)**No visual observer shall perform visual observer duties for more than one unmanned aircraft at a time.  **(4)**No visual observer shall perform visual observer duties from a moving aircraft, vehicle or vessel unless the pilot may conduct an operation set out in subsection 902.51(2) and those duties are conducted under a special flight operations certificate — UAS issued under section 904.03. | Visual observers must communicate with the pilot in timely and reliable way, relaying information on hazards and air traffic. A person can’t be an observer for more than one UAV at a time. An observer cannot perform duties from a moving vehicle without an SFOC. |
| **Flight Safety**  **900.16**A pilot-in-command that operates unmanned aircraft system shall immediately cease operations if at any time aviation safety or the safety or property of any person is endangered or likely to be endangered. | Stop operations the moment aviation safety or the safety of a person or property is threatened. |
| **Take-offs, Launches, Approaches, Landings and Recovery**  **900.19**A pilot of an unmanned aircraft shall, before take-off, launch, approach, landing or recovery, ensure that   * **(a)**there is no likelihood of collision with another aircraft, person or obstacle; and * **(b)**the site set aside for take-off, launch, landing or recovery, as the case may be, is suitable for the intended operation. | Before take-off or landing ensure the site for take-off/landing is suitable and there is not risk of collision with anything. |
| **Pre-flight Information**  **900.20**A pilot of an unmanned aircraft shall, before commencing a flight, be familiar with the available information that is relevant to the intended flight, including   * **(a)**the appropriate aeronautical charts; * **(b)**the *Canada Flight Supplement* and the *Designated Airspace Handbook*; and * **(c)**the NOTAM for the proposed area of operation. | Prior to operations, the pilot must be familiar with aeronautical charts, NOTAMs, and CFS for the area being flown in. |
| **900.21**A pilot of an unmanned aircraft shall, before commencing a flight, be familiar with the available weather information that is relevant to the intended flight. | Prior to operations, the pilot must know weather relevant to their flight. |
| **Fuel or Energy Requirements**  **900.22**A pilot of an unmanned aircraft shall, before commencing a flight, ensure that there is a sufficient amount of fuel or energy for safe completion of the flight. | Prior to operations, the pilot must ensure there is enough fuel or energy to complete the flight. |
| **Crew Member Instructions**  **900.23**A pilot-in-command of an unmanned aircraft shall ensure that each crew member, before acting as a crew member, has been instructed   * **(a)**with respect to the duties that the crew member is to perform; and * **(b)**on the location and use of all emergency equipment associated with the operation of the unmanned aircraft system. | Prior to operations, the pilot must ensure each crew member knows their duties during operations as well as location and use of emergency equipment. |
| **Compliance with Instructions**  **900.24**Every crew member of an unmanned aircraft system shall, during flight time, comply with the instructions of the pilot-in-command or of any person whom the pilot-in-command has authorized to act on behalf of the pilot-in-command. | All crew members must comply with the pilot’s instructions at all times. |
| **Incidents and Accidents — Associated Measures**  **900.25**A pilot of an unmanned aircraft shall cease operations if any of the following incidents or accidents occurs until such time as the cause of the occurrence has been determined and corrective actions have been taken to eliminate the risk of recurrence:   * **(a)**injuries to any person requiring medical attention; * **(b)**unintended contact between the unmanned aircraft and persons, animals, vehicles, vessels, buildings or structures; * **(c)**unanticipated damage incurred to the airframe, control station, payload or command and control links that adversely affects the performance or flight characteristics of the unmanned aircraft; * **(d)**anytime the unmanned aircraft is not kept within lateral boundaries or altitude limits; * **(e)**any collision with or loss of separation from another aircraft; * **(f)**anytime the unmanned aircraft becomes uncontrollable, experiences a fly-away or is missing; and * **(g)**any incident not referred to in paragraphs (a) to (f) for which a Canadian Aviation Daily Occurrence Report (CADORS) has resulted. | Operations must be ceased if any of the listed incidents or accidents occur:  -injuries to a person  -contact with a person, animal, vehicle, vessel, building, structure  -damage to the UAV  -the UAV leaves lateral or altitude boundaries  -collision or less of separation (getting too close to) another aircraft  -UAV flies away or becomes uncontrollable  -any other incident requiring a Canadian Aviation Daily Occurrence Report |
| **Radio Interference**  **900.30**No pilot shall conduct the take-off or launch of an unmanned aircraft unless the pilot confirms that radio frequency interference that may result in the loss of the command and control link is not present before flight, and is not likely to be present during flight. | Prior to operations, pilot must confirm no radio interference is likely. |
| **900.37**If an unmanned aircraft is operated from a control station that is at an altitude above 10,000 feet ASL, each crew member shall wear an oxygen mask and use supplemental oxygen at all times during the flight. | If take-off occurs from an altitude about 10,000 feet ASL all crew members must use oxygen during operations. |
| **Availability of Unmanned Aircraft System Operating Manual**  **900.38**No person shall conduct the take-off or launch of an unmanned aircraft for which the manufacturer has provided an unmanned aircraft system operating manual unless the manual is immediately available to crew members at their duty stations. | Manufacturer’s operation manual must be immediately available to all crew members during operation. |
| **Transponder and Automatic Pressure-altitude Reporting Equipment**  **900.40 (1)**Subject to subsection (2), no person shall operate an unmanned aircraft system, if the aircraft is in the transponder airspace referred to in section 601.03 unless the aircraft is equipped with a transponder and automatic pressure-altitude reporting equipment.  **(2)**An air traffic control unit may authorize a person to operate an unmanned aircraft that is not equipped in accordance with subsection (1) within the airspace referred to in section 601.03 if   * **(a)**the air traffic control unit provides an air traffic control service in respect of that airspace; * **(b)**the person made a request to the air traffic control unit to operate the aircraft within that airspace before the aircraft entered the airspace; and * **(c)**aviation safety is not likely to be affected. | Operation in transponder airspace is only allowed if a) the UAV has a transponder and pressure-altitude reporting equipment or b) an air traffic control unit allows permission |
| **Liability Insurance**  **900.42**No person shall operate an unmanned aircraft system unless, in respect of every incident related to the operation of the aircraft, liability insurance covering risks of public liability has been taken out in an amount that is not less than $100,000 for each person involved in the operation of the aircraft. | A minimum of $100,000 in liability insurance must be held covering each person involved in operations. |

| **CAR - Must Not Do** | **Translation** |
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| **Prohibition — Canadian Domestic Airspace**  **900.08**No person operating an unmanned aircraft system shall cause the aircraft to leave Canadian Domestic Airspace. | UAV cannot leave Canadian Domestic Airspace. |
| **Reckless or Negligent Operation**  **900.10**No person shall operate an unmanned aircraft system in such a reckless or negligent manner as to endanger or be likely to endanger the life or property of any person. | Do not operate in a reckless or negligent fashion. |
| **Avoidance of Collision 900.12**No person shall operate an unmanned aircraft in such proximity to another aircraft as to create a risk of collision. | Do not operate in close proximity to other aircraft. |
| **Minimum Altitude**  **900.15**Except when conducting a take-off, launch, approach, landing or recovery, no pilot shall operate an unmanned aircraft at an altitude less than the altitude necessary for the purpose of the operation or at an altitude less than the altitude necessary to allow the aircraft, in the event of an engine failure or any other emergency necessitating an immediate landing or recovery, to land or recover without creating a hazard to persons or property on the surface. | Do not operate at a lower altitude than allows the aircraft to glide clear of persons or property on the ground in case of emergency landing. |
| **Fitness of Crew Members**  **900.17 (1)**No person shall act as a crew member of an unmanned aircraft system if the person is suffering or is likely to suffer from fatigue or is otherwise unfit to perform properly the person’s duties as a crew member.  **(2)**No person shall act as a crew member of an unmanned aircraft system   * **(a)**within 12 hours after consuming an alcoholic beverage; * **(b)**while under the influence of alcohol; or * **(c)**while using any drug that impairs the person’s faculties to the extent that aviation safety or the safety or property of any person is endangered or likely to be endangered. | Do not operate a UAV within 12 hours of consuming an alcoholic beverage, while under the influence of alcohol or drugs, or while impaired. |
| **Living Creatures**  **900.18**No person shall operate an unmanned aircraft that transports or carries on board a living creature. | Do not carry living creatures on board a UAV. |
| **Payloads**  **900.26**No person shall operate an unmanned aircraft if the aircraft is transporting explosive, corrosive, flammable or biohazardous material or a payload consisting of a ***directed bright light source*** as defined in section 601.14 or a payload that can be jettisoned, self-propelled, dispersed or dropped unless the operation is conducted under a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2). | Do not use explosive, corrosive, flammable, biohazardous, or light-emitting payloads without an SFOC. |
| **Operation from Moving Vehicles, Vessels and Aircraft**  **900.27**No person shall operate an unmanned aircraft from a moving aircraft, vehicle or vessel unless the operation is conducted under a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2). | Do not operate a UAV from a moving vehicle without an SFOC. |
| **Unmanned Aircraft Operating Limitations**  **900.28**No person shall operate an unmanned aircraft system unless it is operated in accordance with the operating limitations specified by the manufacturer. | Do not operate a UAV unless in accordance with manufacturer’s operating limitations. |
| **Portable Electronic Devices**  **900.29 (1)**No person operating an unmanned aircraft system shall permit the use of a portable electronic device at a control station if the device may impair the functioning of the system or any equipment associated with the operation.  **(2)**No person shall use a portable electronic device at a control station except with the permission of the aircraft’s operator. | Do not use a portable electronic device near a control station if it may interfere with the control station. |
| **Special Effects or Pyrotechnics**  **900.31**No pilot shall conduct the take-off or launch of an unmanned aircraft unless the pilot confirms that the radio emissions from the unmanned aircraft system will not activate wireless triggering devices for special effects or pyrotechnics. | Do not operate if radio emissions from the aircraft will activate wireless triggers for special effects/fireworks. |
| **Control of Unmanned Aircraft Systems**  **900.32**No pilot shall operate an autonomous unmanned aircraft system or any other unmanned aircraft system for which they are unable to take immediate control of the aircraft at any time. | Do not operate if the pilot cannot take immediate control of the aircraft at any time. |
| **Use of First-person View Devices**  **900.33**No person shall operate an unmanned aircraft system using a first-person view device unless a visual observer who is not using a first-person view device is providing sense and avoid functions at all times during flight. | Do not use a first-person view device unless a visual observer is also watching the aircraft. |
| **Prohibition — Multiple Unmanned Aircraft**  **900.34**No pilot shall operate more than one unmanned aircraft at a time | Do not operate more than one UAV at a time. |
| **Handovers**  **900.35 (1)**No pilot shall handover pilot-in-command responsibilities to another pilot-in-command during flight unless the handover is conducted in accordance with a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2).  **(2)**No pilot shall transfer control of an unmanned aircraft from one control station to another control station during flight unless   * **(a)**both control stations are immediately available to the pilot; or * **(b)**the transfer is conducted in accordance with a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2). | Do not hand over control to another pilot or transfer control to another control station without an SFOC. |
| **Flight Termination System**  **900.36**No pilot of an unmanned aircraft equipped with a flight termination system shall activate the system if it will endanger or will likely endanger other airspace users or persons or property on the surface. | Do not use a flight termination system if it will endanger aircraft, people, or property. |
| **Flight Control Locks**  **900.39**No person who operates an unmanned aircraft system shall permit the use of a flight control lock in respect of the unmanned aircraft unless   * **(a)**the flight control lock is incapable of becoming engaged when the aircraft is being operated; and * **(b)**an unmistakable warning is provided to the person operating the aircraft whenever the flight control lock is engaged. | Do not use an aircraft that allows flight controls to be lock unless they can’t be locked during flight and warn the pilot whenever flight lock is engaged. |
| **ELT**  **900.41**No person shall operate an unmanned aircraft equipped with an ELT (emergency locator transmitter). | Don’t operate a UAV with an ELT on board. |
| **Special Aviation Events**  **900.43**No person shall operate an unmanned aircraft system at any special aviation event, except in accordance with a special flight operations certificate — UAS issued under section 904.03. | Do not operate in aviation events without an SFOC. |

**Part IX, Subpart 1: Very Small Unmanned Aircraft (250 g – 1 kg take-off weight)**

| **Canadian Aviation Regulations Proposed Changes** | **Translation** |
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| **Pilot Knowledge**  **901.03**No pilot shall operate an unmanned aircraft system under this Subpart unless they hold a pilot permit — small unmanned aircraft (VLOS) or both of the following conditions are met:  **(a)**they have obtained a minimum of 60% on either the written examination “Unmanned Aircraft System — Very Small (UASVS)” or the written examination “Unmanned Aircraft System — Small Limited (UASSL)” which are based on the standard entitled *Knowledge Requirements for Pilots of Unmanned Aircraft Systems (UAS) 25 kg or Less, Operating within Visual Line of Sight*, TP 15263, published by the Minister of Transport, and which cover the following subjects:   * + **(i)**the applicable provisions of the Act and these Regulations,   + **(ii)**air traffic rules and procedures,   + **(iii)**UAS airframes, engines and systems,   + **(iv)**human factors, including pilot decision-making,   + **(v)**meteorology,   + **(vi)**air navigation,   + **(vii)**flight operations, and   + **(viii)**operations carried out by unmanned aircraft systems; and   **(b)**a certificate issued by the examination administrator, demonstrating that they have successfully completed the examination within the last 60 months, is easily accessible during operation of the unmanned aircraft system. | Pilots must have completed a pilot knowledge test and obtain a grade of 60% in the last 5 years before flying under these regulations. |
| **Authorized Airspace**  **901.04**Despite sections 601.06 to 601.09, no person shall operate a very small unmanned aircraft in airspace other than Class G airspace. | UAV can only operate in Class G airspace |
| **Maximum Altitude**  **901.05** No person shall operate a very small unmanned aircraft at an altitude above 300 feet AGL. | UAV must be flown under 300 feet AGL. |
| **Speed Limitation**  **901.06**No pilot shall operate a very small unmanned aircraft at a ground speed of more than 25 knots (29 mph). | UAV has a maximum speed limit of 25 knots (29 mph) |
| **Night Operations Prohibited**  **901.07**No person shall operate an unmanned aircraft system under this Subpart during the night | Operations cannot be conducted at night |
| **Maximum Distance from Pilot**  **901.08**No pilot shall operate a very small unmanned aircraft beyond one quarter of a nautical mile from the location from which the pilot is operating the aircraft. | UAV cannot fly more than 0.25 nm (0.463 km) from the operator |
| **Minimum Distance from Aerodromes**  **901.09 (1)**No person shall operate an unmanned aircraft system under this Subpart if the aircraft or control station is less than three nautical miles from the centre of an aerodrome, other than a heliport, that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement*.  **(2)**No person shall operate an unmanned aircraft system under this Subpart if the aircraft or control station is less than one nautical mile from the centre of a heliport or an aerodrome that is used exclusively by helicopters and that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement*. | UAV must be at least 3 nm (5.5 km) from an aerodrome other than a heliport, and 1 nm (1.85 km) from a heliport |
| **Prohibition — Open-air Assemblies of Persons**  **901.10 (1)**No pilot shall operate a very small unmanned aircraft over or within an open-air assembly of persons.  **(2)**For the purposes of subsection (1), a very small unmanned aircraft shall be deemed to be operated over or within an open-air assembly of persons if the open-air assembly of persons is at a lateral distance of 100 feet or less from the aircraft | UAV cannot be operated over a crowd of people – must maintain lateral distance from crowd of at least 100 ft |
| **Lateral Distance**  **901.11**No person shall operate a very small unmanned aircraft at a lateral distance of less than 100 feet from another person, except from a crew member or other person involved in the operation, unless   * **(a)**the aircraft is operated without creating a hazard to persons or property on the surface; * **(b)**the aircraft is operated at an altitude above 100 feet AGL; and * **(c)**the aircraft is operated at a ground speed of less than 10 knots (11.5 mph). | UAV must maintain a lateral distance of 100 feet from people not involved in the operation unless it is flown higher than 100 ft AGL and at a speed slower than 10 knots (11.5 mph) |
| **Minimum Visual Meteorological Conditions**  **901.12**No pilot shall operate a very small unmanned aircraft unless   * **(a)**the aircraft is operated clear of cloud; and * **(b)**the ground visibility as observed from the location of the control station is not less than two statute miles. | UAV must be operated clear of cloud and only if ground visibility is two statute miles or more |

**Part IX, Subpart 2: Small Unmanned Aircraft (1 kg – 25 kg take-off weight)  
Division II: Limited Operations**

| **Canadian Aviation Regulation Proposed Changes** | **Translation** |
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| **Pilot Knowledge**  **902.07**No pilot shall operate an unmanned aircraft system under this Subpart unless they hold a pilot permit — small unmanned aircraft (VLOS) or both of the following conditions are met:   * **(a)**they have obtained a minimum of 60% on the written examination “Unmanned Aircraft System — Small Limited (UASSL)” which is based on the standard entitled *Knowledge Requirements for Pilots of Unmanned Aircraft Systems (UAS) 25 kg or Less, Operating within Visual Line of Sight*, TP 15263, published by the Minister of Transport, and which cover the following subjects:   + **(i)**the applicable provisions of the Act and these Regulations,   + **(ii)**air traffic rules and procedures,   + **(iii)**unmanned aircraft airframes, engines and systems,   + **(iv)**human factors, including pilot decisionmaking,   + **(v)**meteorology,   + **(vi)**air navigation,   + **(vii)**flight operations,   + **(viii)**theory of flight, and   + **(ix)**operations carried out by unmanned aircraft systems; and * **(b)**a certificate issued by the examination administrator, demonstrating that they have successfully completed the examination within the last 60 months, is easily accessible during operation of the unmanned aircraft system. | Pilots must have completed a pilot knowledge test and obtain a grade of 60% in the last 5 years before flying under these regulations. |
| **Crew Training**  **902.08**No operator shall permit the operation of an unmanned aircraft system under this Subpart unless all crew members are trained, proficient and competent to perform their functions and duties, and their qualifications are up-to-date. | Crew members must have up-to-date qualifications and training |
| **Authorized Airspace**  **902.09**Despite sections 601.06 to 601.09, no person shall operate a small unmanned aircraft in airspace other than Class G airspace. | UAV can only operate in Class G airspace |
| **Maximum Altitude**  **902.10**No person shall operate a small unmanned aircraft at an altitude   * **(a)**above 300 feet AGL, if the aircraft is being operated more than 200 feet laterally from a building or structure; or * **(b)**greater than 100 feet above any building or structure, if the aircraft is being operated at a lateral distance of 200 feet or less from the building or structure and is operated at a distance of more than three nautical miles from an aerodrome that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement*. | UAV cannot fly higher than 300 feet AGL if more than 200 feet laterally from a building, or more than 100 feet above a building or structure if it is within 200 feet of it and more than 3 nm from an aerodrome |
| **Speed Limitation**  **902.11**No pilot shall operate a small unmanned aircraft at a ground speed of more than 87 knots (100 mph). | UAV can’t fly faster than 87 knots (100 mph) |
| **Night Operations Prohibited**  **902.12**No pilot shall operate an unmanned aircraft system under this Subpart during the night. | UAV can’t operate at night |
| **Maximum Distance from Pilot**  **902.13**No pilot shall operate a small unmanned aircraft beyond one half of a nautical mile from the location from which the pilot is operating the aircraft. | UAV can’t operate more than 0.5 nm from the pilot |
| **Operations at an Aerodrome**  **902.14**No person shall operate an unmanned aircraft system under this Subpart at an aerodrome that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement* unless the operation is conducted under a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2). | UAV can’t operate at an aerodrome without an SFOC |
| **Minimum Distance from Aerodromes**  **902.15 (1)**No person shall operate an unmanned aircraft system under this Subpart if the aircraft or control station is less than three nautical miles from the centre of an aerodrome, other than a heliport, that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement*.  **(2)**No person shall operate an unmanned aircraft system under this Subpart if the aircraft or control station is less than one nautical mile from the centre of a heliport or an aerodrome that is used exclusively by helicopters and that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement*. | UAV can’t operate within 3 nm of an aerodrome other than a heliport, or within 1 nm of a heliport |
| **Prohibition — Open-air Assemblies of Persons**  **902.16 (1)**No person shall operate a small unmanned aircraft over or within an open-air assembly of persons.  **(2)**For the purposes of subsection (1), a small unmanned aircraft is deemed to be operated over or within an open-air assembly of persons if the open-air assembly is within a lateral distance of 500 feet from the unmanned aircraft. | UAV cannot be operated within a lateral distance of 500 feet from a crowd |
| **Minimum Distance from Built-up Areas**  **902.17**No person shall operate an unmanned aircraft system under this Subpart if the aircraft or control station is less than one half of a nautical mile from the outside boundary of a built-up area. | UAV can’t operate within 0.5 nm from the boundary of a built-up area |
| **Lateral Distance**  **902.18 (1)**No person shall operate a small unmanned aircraft at a lateral distance of less than 250 feet from another person, except from a crew member or other person involved in the operation, unless   * **(a)**the aircraft is operated without creating a hazard to persons or property on the surface; * **(b)**the aircraft is operated at an altitude above 250 feet AGL; and * **(c)**the aircraft is operated at a ground speed of less than 10 knots (11.5 mph).   **(2)**No person shall operate a small unmanned aircraft at a lateral distance of less than 250 feet from any operating vehicle or vessel, except for a vehicle or vessel used in the operation unless   * **(a)**the aircraft is operated without creating a hazard to persons or property on the surface; * **(b)**the aircraft is operated at an altitude above 250 feet AGL; and * **(c)**the aircraft is operated at a ground speed of less than 10 knots (11.5 mph). | UAV can’t operate within 250 feet of an uninvolved person, vehicle, or vessel unless it does not create a hazard, is above 250 feet AGL, and is flying at less than 10 knots. |
| **Minimum Visual Meteorological Conditions**  **902.19**No pilot shall operate a small unmanned aircraft unless   * **(a)**the aircraft is operated clear of cloud; and * **(b)**the ground visibility as observed from the location of the control station is not less than two statute miles. | UAV must be operated clear of cloud and during visibility of at least 2 statute miles |
| **Site Survey**  **902.20**No pilot shall operate an unmanned aircraft system under this Subpart unless, before commencing operations, they determine that the site for take-off, launch, landing or recovery is suitable for the proposed operation by conducting a physical site survey that takes into account the following factors:   * **(a)**the boundaries of the area of operation; * **(b)**the class of airspace and the applicable regulatory requirements; * **(c)**the altitudes and routes to be used on the approach to and departure from the area of operation; * **(d)**the proximity of manned aircraft operations; * **(e)**the proximity of aerodromes; * **(f)**the hazards associated with nearby industrial sites; * **(g)**the proximity to areas of high-intensity radio transmissions or electromagnetic interference; * **(h)**the location and height of obstacles, including wires, masts, buildings, cell phone towers and wind turbines; * **(i)**the proximity of built-up areas, major roadways and recreational activity sites; * **(j)**the security measures to limit public access to the site; * **(k)**the predominant weather conditions for the area of operation; and * **(l)**the minimum separation distances from persons, vehicles, buildings and structures. | Prior to take-off, pilot must perform a site survey taking into account the listed physical factors. |
| **Normal Procedures**  **902.21**No person shall operate an unmanned aircraft system under this Subpart unless the following procedures are established or the following information is made available regarding normal operations are established:   * (a) the assembly of the system; * (b) pre-flight checks and tests; * (c) take-off or launch procedures; * (d) landing or recovery procedures; * (e) performance limitations of the system; * (f) refuelling or battery charging and replacement; and * (g) the use of checklists. | Normal operations procedures for system assembly, pre-flight checks, take-off and launch, landing and recovery, performance limitations, refueling/recharging, and use of checklists must be in place. |
| **Emergency Procedures**  **902.22**No person shall operate an unmanned aircraft system under this Subpart unless emergency procedures with respect to the following are established:   * (a) an engine failure or fire; * (b) gliding; * (c) an emergency landing or recovery; * (d) a structural failure of the unmanned aircraft; * (e) a control station failure; * (f) an equipment failure; * (g) a pilot incapacitation; and * (h) a potential conflict with other aircraft. | Emergency procedures covering the listed emergencies must be established prior to flight. |
| **Lost Command and Control Link Procedures**  **902.23 (1)**No pilot shall conduct a take-off or launch of a small unmanned aircraft unless they   * (a) assess the risk that would arise from a lost command and control link; and * (b) determine when auto-recovery manœuvres or flight termination should be initiated.   **(2)**No person shall operate a small unmanned aircraft unless lost command and control link contingency procedures with respect to the following are established:   * (a) the route of flight during a lost command and control link event; * (b) the use of transponders; * (c) orbit points in the event of a lost link; * (d) communications with the appropriate air traffic service unit if applicable; and * (e) contingency planning measures in the event that a lost command and control link cannot be re-established, including   + (i) pre-programmed flight termination points, and   + (ii) automatic landing or recovery procedures.   **(3)**No pilot shall conduct a take-off or launch of a small unmanned aircraft unless the lost command and control link contingency procedures are immediately available to the pilot. | Lost command and control link risks must be assessed before take-off and C2 emergency procedures covering the listed occurrences must be established prior to operations. |
| **Fly-away Contingency Procedures**  **902.24** (1) No person shall operate a small unmanned aircraft unless fly-away contingency procedures with respect to the following are established:   * (a) how to determine if the aircraft has inadvertently enter controlled airspace; and * (b) how to contact the appropriate air traffic service unit when the aircraft inadvertently enters controlled airspace and cannot be immediately returned to the area of operation.   (2) No pilot shall conduct a take-off or launch of a small unmanned aircraft unless the fly-away contingency procedures are immediately available to the pilot. | Fly-away contingency procedures must be established and available to the pilot before operations, including contact information for controlled airspace the UAV could enter. |
| **Flight Termination Contingency Procedures**  **902.25** (1) No person shall operate a small unmanned aircraft equipped with a flight termination system unless flight termination procedures with respect to the following are established:   * (a) how to determine when flight termination is required; * (b) how to contact the appropriate emergency services or air traffic service unit, if applicable; * (c) pre-programmed flight termination points, if applicable; and * (d) flight routes to flight termination points, if applicable.   (2) No pilot shall conduct a take-off or launch of a small unmanned aircraft equipped with a flight termination system unless the flight termination procedures are immediately available to the pilot. | Flight termination procedures with respect to the listed factors must be established and available to the pilot prior to operations. |
| **Altimeter-setting Procedures**  **902.26**When a small unmanned aircraft with an adjustable barometric altimeter is operated in the altimeter setting region or standard pressure region, the pilot-in-command shall, immediately before take-off or launch from an aerodrome or location of the take-off or launch, set the altimeter to the altimeter setting of the aerodrome or location of the take-off or launch or, if that altimeter setting is not available, to the elevation of the aerodrome or location of the take-off or launch. | If operating in an altimeter-setting region or standard pressure region, before take-off the pilot must set the altimeter to the appropriate setting for that region. |
| **Towing**  **902.27**No person shall operate a small unmanned aircraft towing an object unless the operation is conducted under a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2).  **Formation Flight**  **902.28**No person shall operate a small unmanned aircraft in formation with other aircraft unless the operation is conducted under a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2).  **Aerobatic Manœuvres**  **902.29**No person shall conduct aerobatic manœuvres with a small unmanned aircraft unless the manœuvres are conducted under a special flight operations certificate — UAS issued under section 904.03 and the pilot may conduct an operation set out in subsection 902.51(2). | No towing anything, flying in formation with other aircraft, or performing acrobatic maneuvers without an SFOC |
| **Operational and Emergency Equipment**  **902.**30 No person shall operate an unmanned aircraft system under this Subpart unless the following operational and emergency equipment is easily accessible to each crew member:   * (a) a checklist or placards that enable the aircraft to be operated in accordance with the limitations specified in the unmanned aircraft system operating manual, pilot operating handbook or any equivalent document provided by the manufacturer; and * (b) a means for extinguishing the types of fires that are likely to occur. | A checklist or placard enabling the UAV to be operated in accordance with manufacturer’s limitations, and a fire extinguisher must be available during all operations |
| **Capability Requirements**  **902.31**No pilot shall conduct a take-off or launch of a small unmanned aircraft unless there is a means of   * (a) controlling the flight of the aircraft; * (b) monitoring the proper functioning of the unmanned aircraft system; * (c) navigating the aircraft; * (d) performing the communications required by sections 601.08, 601.09, 602.96 and 602.101; * (e) detecting hazardous environmental flight conditions; * (f) mitigating the risk of loss of control of the aircraft; * (g) providing the sense and avoid functions; and * (h) remaining clear of cloud at the required distance in accordance with section 902.19 or 902.57, as the case may be. | UAV must have the listed capabilities or they cannot be operated |
| **Unmanned Aircraft Icing**  **902.32** (1) In this section, *critical surfaces* means the wings, control surfaces, rotors, propellers, horizontal stabilizers, vertical stabilizers or any other stabilizing surfaces of an aircraft and, in the case of an aircraft that has rear-mounted engines, the upper surface of the fuselage.  (2) No person shall conduct the take-off or launch of a small unmanned aircraft that has frost, ice or snow adhering to any of its critical surfaces.  (3) Despite subsection (2), a person may conduct the take-off or launch of a small unmanned aircraft that has frost that is caused by cold-soaked fuel and is adhering to the underside of its wings, if the take-off or launch is conducted in accordance with the manufacturer’s instructions for take-off or launch under those conditions.  (4) If conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, no person shall conduct a take-off or launch of a small unmanned aircraft unless the aircraft has been inspected immediately before take-off or launch to determine whether any frost, ice or snow is adhering to any of the critical surfaces.  (5) The inspection referred to in subsection (4) shall be performed by   * (a) the pilot-in-command; or * (b) a crew member designated by the pilot-in-command.   (6) If, before commencing take-off or launch, a crew member of a small unmanned aircraft observes that there is frost, ice or snow adhering to the wings of the aircraft, the crew member shall immediately report that observation to the pilot-in-command, and the pilot-in-command or a crew member designated by the pilot-in-command shall inspect the wings of the aircraft before take-off or launch.  (7) Before a small unmanned aircraft is de-iced or anti-iced, the pilot-in-command shall ensure that the crew members are informed of the decision to do so.  **De-icing or Anti-icing Equipment**  **902.33**No person shall conduct a take-off or launch or continue a flight of a small unmanned aircraft if icing conditions are reported to exist or are forecast to be encountered unless   * (a) the pilot-in-command determines that the aircraft has the equipment necessary to operate in icing conditions; or * (b) current weather reports or pilot reports indicate that icing conditions no longer exist. | UAV can’t be flown with snow, ice, or frost on critical surfaces and must be inspected for these by the pilot or a designated crew member before operations. Pilot must inform crew members before anti-icing or de-icing occurs. IF cold-soaked fuel is on the underside of the UAV’s wings and the launch can be conducted in accordance with manufacturer’s instructions, take-off may occur.  If icing conditions are forecast or likely, operations cannot occur unless the pilot deems the aircraft has the necessary equipment to operate or icing conditions no longer exist. |
| **Technical Records**  **902.34** (1) Every operator of an unmanned aircraft system operated under this Subpart shall keep the following technical records in respect of the system:   * (a) the air time of each flight or series of flights, the cumulative total air time and, where applicable, the number of operating cycles or landings since the date of manufacture; and * (b) particulars of any maintenance action, modification or repair performed.   (2) Every operator of an unmanned aircraft system operated under this Subpart who transfers ownership of the system to another person shall, at the time of transfer, also deliver to that person all of the technical records that relate to that system. | Technical records of flight time of each flight, total aircraft flight time, number of landings since date of manufacture, and particulars of maintenance, modifications, and repairs must be kept. If ownership of a UAV is transferred records must be transferred too. |

**Part IX, Subpart 2: Small Unmanned Aircraft (1 kg – 25 kg take-off weight)  
Division III: Complex Operations**

| **Canadian Aviation Regulation Proposed Changes** | **Translation** |
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| **Conditions**  **902.51 (1)**Despite the requirements of Division II, a person may operate an unmanned aircraft system under this Division to conduct an operation set out in subsection (2) if   * **(a)**the pilot of the system holds a pilot permit — small unmanned aircraft (VLOS) issued under Subpart 1 of Part IV; * **(b)**the unmanned aircraft is marked and registered in Canada in accordance with the requirements of Part II; * **(c)**in the case of an unmanned aircraft system that the operator purchased after December 15, 2017, the system is designed and constructed in accordance with a standard set out in section 902.72; and * **(d)**in the case of an unmanned aircraft system in respect of which markings or placards are required by the manufacturer, markings or placards are affixed to the aircraft or attached to an element of the unmanned aircraft system in accordance with those requirements.   **(2)**The operations referred to in subsection (1) are the following:   * **(a)**operations at an altitude that is above that set out in paragraph 902.10(b) under the circumstances set out in that paragraph, but not above 400 feet AGL; * **(b)**operations where the distance of the aircraft from the location from which the pilot is operating the aircraft is more than that set out in section 902.13, but not more than one nautical mile; * **(c)**operations at a distance that is less than the minimum distance from the centre of an aerodrome set out in section 902.15; * **(d)**operations at a distance that is less than the minimum distance from a built-up area set out in section 902.17; * **(e)**operations at night conducted in accordance with sections 902.52 and 902.53; * **(f)**operations over or within an open-air assembly of persons, conducted in accordance with section 902.54; * **(g)**operations over or within a built-up area, conducted in accordance with sections 902.54 and 902.55, except operations carried out for the purposes of conducting flight training, research and development, or testing and evaluation; * **(h)**operations conducted in accordance with section 902.56, where the lateral distance of the aircraft from persons, vehicles or vessels is less than the minimum required by section 902.18; * **(i)**operations in Class C, D or E airspace that meet the requirements of sections 902.57 to 902.59, except operations conducted for the purposes of conducting flight training, research and development, or testing and evaluation; and * **(j)**operations in Class F airspace, except operations in   + **(i)**Class F Special Use Restricted Airspace — UAS Operations unless authorized under a special flight operations certificate — UAS issued under section 904.03, and   + **(ii)**Class F Special Use Restricted Airspace — Military Operations unless authorized under section 902.60.   **(3)**Despite paragraph (1)(c), no person shall conduct the operations set out in paragraphs (2)(a), (b), (d), (g) and (i) in respect of any system that the operator purchased on or before December 15, 2017 unless the system is designed and constructed in accordance with a standard set out in section 902.72.  **(4)**For greater certainty, sections 902.52 to 902.60 apply only in respect of the operation of unmanned aircraft systems by persons who, under subsection (1), may conduct the operations set out in subsection (2). | This section sets out the conditions under which complex small UAV operations may take place.  Requirements:   * Pilot must have a pilot permit * Aircraft must be marked and registered in Canada * If purchased after Dec 15, 2017, must be a compliant aircraft * If markings or placards are required by the manufacturer they must be in place   Operations are complex if they are:   * At an altitude of more than 300 feet AGL but less than 400 feet AGL, * More than 0.5 nm but no more than 1 nm from the pilot * Less than 3 nm miles from the center of an aerodrome * Less than 0.5 nm from a built-up area * Operating at night * Operating over an open-air assembly of persons * Operating within or over a built-up area * Operating within 250 feet of another person, vehicle, or vessel * Operating in Class C, D, or E airspace * Operating in Class F airspace except Class F Special Use Restricted Airspace – UAS Operations or Military Operations   If an aircraft was bought before Dec 15, 2017 and is not compliant, it cannot operate above 300 feet AGL, more than 0.5 nm from the pilot, within 0.5 nm of a built-up area, over or within a built-up area, or in Class C, D or E airspace |
| **Night Flight Requirements**  **902.52** (1) Subject to subsection (3), no pilot shall conduct the take-off or launch of a small unmanned aircraft for the purpose of night flight unless it is equipped with position lights and anti-collision lights and those lights are turned on.  (2) If light-emitting diodes are used to meet the requirements of subsection (1), they shall be of an intensity, and use the appropriate spectrum, so as to be visible to other airspace users operating with or without night-vision goggles.  (3) A pilot operating a small unmanned aircraft during the night that is not equipped with position lights and anti-collision lights shall ensure that there is a means of illumination sufficient to maintain visual line-of-sight of the aircraft throughout the flight.  (4) Every crew member of the unmanned aircraft shall have a suitable portable emergency light source easily accessible to them.  (5) No crew member shall operate the unmanned aircraft if they suffer from visual limitations related to depth perception, colour blindness or visual acuity in low-light conditions.  (6) No pilot shall conduct the take-off, launch, landing or recovery of a small unmanned aircraft at night unless the site for take-off, launch, landing or recovery is lighted and operations are conducted under a special flight operations certificate — UAS issued under section 904.03.  **Night-Vision Goggles**  **902.53**No person shall use night-vision goggles to perform the sense and avoid functions. | This section sets out conditions for operating at night.   * Aircraft must have turned-on position lights and anti-collision lights * LED lights must be of intensity and spectrum to be seen with or without night-vision goggles * Aircraft must have means of illumination sufficient to maintain a visual line of sight with the pilot * Every crew member must have a portable emergency light source accessible * No crew member can conduct night operations if they have visual limitations related to depth perception, colour blindness, or visual acuity in low light * Take-off and landing site must be lighted and operations conducted under a SFOC * Night vision goggles can’t be used to perform sense and avoid functions |
| **Overflight of Built-up Areas or Open-air Assemblies of Persons**  **902.54 (1)**No person shall operate a small unmanned aircraft over or within a built-up area or an open-air assembly of persons unless the aircraft is operated at an altitude   * (a) greater than 300 feet AGL; and * (b) from which, in the event of an emergency necessitating an immediate landing, it would be possible to land the aircraft without creating a hazard to persons or property on the surface**.**   **(2)**For the purposes of subsection (1), a small unmanned aircraft shall be deemed to be operated over or within a built-up area or an open-air assembly of persons if the built-up area or open-air assembly of persons is within a lateral distance of 500 feet of the unmanned aircraft.  **Operations Over or Within a Built-up Area**  **902.55 (1)**No person shall operate a small unmanned aircraft over or within a built-up area unless, before take-off or launch,   * **(a)**a pilot has conducted an assessment of the hazards that may be present, including   + (i) the meteorological conditions specific to the area of operation and the impact to aircraft performance, and   + (ii) the increased probability of lost command and control links and fly-away due to radio frequency interference; and * **(b)**the procedures and precautions that relate to operations over or within a built-up area, to be taken to ensure no hazard is created to persons or property on the surface are established.   **(2)**No person shall operate a small unmanned aircraft over or within a built-up area unless a site for take-off, launch, landing or recovery   * **(a**) is established that has a minimum diameter of 20 m from the point of take-off, launch, landing or recovery; * **(b)**has access restricted to crew members; and * **(c)**is clear of obstacles.   **(3)**A pilot who operates a small unmanned aircraft within a built-up area shall reach the minimum altitude required for the operation using an expedited rate of climb. | This section sets out rules for flight over an assembly of persons and over or within a built up area.  Operations over or within a built-up area or crowd are defined as the aircraft being within a lateral distance of 500 feet.  Operations cannot occur unless   * Aircraft is flown at greater than 300 ft AGL * If an emergency landing is necessary it is possible without creating a hazard to people or property   Before take-off or launch pilot must:   * Conduct an assessment of hazards present including meteorological conditions, and probability of lost command and control links or fly-away * Establish procedures and precautions related to operations that ensure no hazard is created to people or property * Establish a site for take-off and landing with a minimum diameter of 20 m from the point of take-off that has access restricted to crew members and is clear of obstacles   Aircraft must reach the minimum altitude required for the operation at an expedited rate of climb. |
| **Lateral Distance**  **902.56 (1)**No person shall operate a small unmanned aircraft at a lateral distance of less than 100 feet from another person, except from a crew member or other person involved in the operation, unless   * (a) the aircraft is operated without creating a hazard to persons or property on the surface; * (b) the aircraft is operated at an altitude above 100 feet AGL; and * (c) the aircraft is operated at a ground speed of less than 10 knots (11.5 mph).   **(2)**No person shall operate a small unmanned aircraft at a lateral distance of less than 100 feet from any operating vehicle or vessel, except for a vehicle or vessel used in the operation, unless   * (a) the aircraft is operated without creating a hazard to persons or property on the surface; * (b) the aircraft is operated at an altitude above 100 feet AGL; and * (c) the aircraft is operated at a ground speed of less than 10 knots (11.5 mph). | No operations can occur at a lateral distance of less than 100 feet from a person other than a crew member or a vehicle or vessel, unless aircraft is operated without creating a hazard to people or property, above 100 feet AGL, and at a ground speed of less than 10 knots (11.5 mph). |
| **Minimum Visual Meteorological Conditions for VFR Flight in Controlled Airspace**  **902.57**No person shall operate a small unmanned aircraft, in VFR flight, within controlled airspace unless   * (a) ground visibility is not less than three miles; and * (b) the distance of the aircraft from cloud is not less than 500 feet vertically and one mile horizontally. | Ground visibility must be at least 3 statute miles and the distance of the aircraft from cloud must be at least 500 feet vertically and 1 mile horizontally. |
| **Prior Coordination for Operations in Controlled Airspace**  **902.58**No pilot shall operate a small unmanned aircraft in controlled airspace unless the following information is provided to the provider of air traffic services in the area of operation at least seven days before a proposed operation:   * (a) the date, time and duration of the operation; * (b) the type and registration of the aircraft, including aircraft capabilities and physical characteristics; * (c) the vertical and horizontal boundaries of the area of operation; * (d) the route of the flight to access the area of operation; * (e) the proximity of the area of operation to manned aircraft approaches and departures and to patterns of traffic formed by manned aircraft; * (f) the means by which two-way communications with the appropriate air traffic control unit will be maintained; * (g) the contact information of the operator of the aircraft; * (h) the name, contact information and pilot permit number or licence number of the pilot-in-command of the aircraft; * (i) the procedures and flight profiles to be followed in the case of a lost command and control link; * (j) the procedures to be followed in emergency situations; * (k) process and the time required to terminate the operation; and * (l) any other information required by the provider of air traffic services required for the provision of air traffic management. | This section sets out the requirements for operating in controlled airspace. Coordination with the provider of air traffic services in the area of operation at least seven days before a proposed operation and air traffic services must be given the listed information. |
| **Compliance with Air Traffic Control Instructions and Clearances**  **902.59**The pilot-in-command of a small unmanned aircraft shall   * (a) comply with and acknowledge receipt of, to the appropriate air traffic control unit, all of the air traffic control instructions directed to and received by the pilot-in-command; and * (b) comply with all of the air traffic control clearances received and accepted by the pilot-in-command and, during VFR flight, read back to the appropriate air traffic control unit the text of any air traffic control clearance received, when so requested by the air traffic control unit. | Pilot must comply with and acknowledge receipt of all air traffic instructions from air traffic control, comply with all air traffic control clearances received by the pilot, and during VFR flight, read back text of any air traffic control clearance received when requested by air traffic control. |
| **Operations in Class F Special Use Restricted Airspace – Military Operations**  **902.60**No person shall operate a small unmanned aircraft in Class F Special Use Restricted Airspace — Military Operations unless, at least 30 days before the operation,   * (a) the person obtains a written authorization from the Canadian Forces Base Range Control Officer or the Base or Wing Commander; and * (b) the person obtains a letter issued by the Minister of National Defence endorsing the authorization referred to in paragraph (a). | No operations are allowed in Class F Special Use Restricted Airspace – Military Operations unless, at least 30 days before operation, the person obtains written authorization from the Base and a written letter from the Minister of National Defence allowing the operation. |