

# Transport Canada Promises New Drone Regulations

Aviation Bulletin

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On May 28, 2015, Transport Canada published a [Notice of Proposed Amendments \(PDF\)](#) to the regulatory framework for unmanned aircraft vehicles ("UAVs" or "drones") which weigh less than 25 kilograms and are flown within visual line of sight ("VLOS") of the operator.

UAVs weighing 25 kilograms or more will continue to be governed by the Special flight Operations certificate ("SFOC") requirements discussed [in our prior bulletin](#).

## Context

Transport Canada is responsible for the regulation of all aircraft: manned or unmanned. Its main objective is to ensure the safety of the public, of the aviation community and of the Canadian airspace.

UAV operators are considered to be users of the Canadian airspace. This privilege is counterbalanced with certain responsibilities.

Transport Canada has listed the following motivations to justify the need for new regulation:

### a) Increased use of UAVs in Canada

The drastic increase in UAV sales and the evolution of technology has resulted in rapid growth of the drone industry. In August 2014, the Unmanned Systems Canada ("USC") update of the Canadian Civil Unmanned Aircraft System Study indicated that the dollar value of the Canadian UAV market could range from \$100M to \$260M in procurement and in operations over a 10-year period<sup>[1]</sup>.

The USC report noted a threefold increase in the number of Canadian companies conducting UAV operations since 2008. It observed that UAVs are used in such diverse applications as agriculture surveys, cinematography and film, police investigations, meteorology/oceanography, search and rescue, urban planning/surveying and disaster relief.

Canada has seen a marked increase in the number of academic institutions with UAV research and development activities as well as a growing number of training schools offering courses in UAV piloting skills.

In 2014, the Minister of Transport issued 1 672 SFOCs compared with 945 in 2013 and 345 in 2012. This represents a global increase of 485% in the last two years.

This increase in popularity has had a direct effect on risks involved for the safe use of regular aircraft. In fact, there have been several reports of reckless and negligent UAV use. Since 2010, Transport Canada has launched over 50 investigations across the country regarding incidents involving UAVs. A search using transport Canada's Civil Aviation Daily Occurrence Reporting System (CADORS) reveals over 100 reported incidents in 2014 and 2015.

### b) Transport Canada workgroup recommended modifications

In 2010, Transport Canada established a joint industry and federal government working group to develop recommendations for regulatory changes. These recommendations inspired many of the changes proposed by Transport Canada.

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The working group continues to develop regulatory recommendations for beyond visual line-of-sight ("BVLOS") operations.

### **c) Desire for harmonized regulation**

There is a desire to harmonize regulation with Canada's principal international partners.

ICAO's Unmanned Aircraft Systems ("UAS") Study Group ("UASSG") has published several documents which continue to be used by Canada and other countries to develop a consistent and strategic approach to the regulatory development of UAS applications.

In February 2015, the U.S. Federal Aviation Administration ("FAA") published its Notice of Proposed Rulemaking ("NPRM") for small UAS. Canada and the US have agreed to cooperate on ongoing regulatory development and to coordinate UAV activities through the Regulatory Cooperation Council ("RCC").

The proposal has also considered reports and legislation adopted by the European Aviation Safety Agency (EASA), Australia as well as the United Kingdom Civil Aviation Authority ("CAA").

### **Proposed changes**

The current regime distinguishes between model aircrafts (defined as UAVs of less than 35 kilograms used for recreative purpose) and UAVs (which include all UAVs used for commercial purposes as well as recreative UAVs which weigh more than 35 kilograms).

In November 2013, Transport Canada introduced exemptions to the SFOC requirements for UAVs weighing less than 25 kilograms under certain conditions[2].

The new proposed rules would apply to any UAV whose total weight at takeoff is 25 kilograms or less and which is operated in VLOS. As such, the proposed regulation would eliminate the current distinction between recreational and commercial use.

The proposal adopts a classification based on the risks involved in the exploitation of UAVs. Transport Canada suggests to distinguish between: a) Small UAVs used in complex operations; b) Small UAVs used in limited operations and c) Very small UAVs.

#### **a) Small UAVs (Complex operations)**

The Small UAVs (Complex operations) category would comprise those UAVs which pose the greatest risk. It would include for example use of small UAVs in an urban setting or in proximity to airports.

Small UAVs (Complex operations) operators would be allowed to fly UAVs without the issuance of a UAV operator certificate.

However, these operators would need to register with Transport Canada before conducting operations. Among other requirements, Transport Canada would ensure that UAV operators have adequate management, a method of control and supervision of flight operations, a pilot training program, adequate security procedures, a maintenance control system, a company operations manual and standard operating procedures.

Transport Canada proposes to require that these aircraft be marked and registered.

Operators would need to be properly trained and hold a permit in order to safely operate aircraft within the Canadian airspace. A minimum age requirement of 16 years would be imposed for flights without adult supervision. The minimum would be reduced to 14 years for flights with adult supervision.

#### **b) Small UAVs (Limited operations)**

For small UAVs (Limited operations), Transport Canada also proposes to forego the issuance of a UAV operator certificate.

Again, UAV operators meeting certain criteria would need to register with Transport Canada before conducting operations.

Similarly, Small UAVs used for limited operations would be marked and registered.

Pilots would need to be trained but Transport Canada proposes not to require that pilots obtain a permit or medical certificate. Contrary to Small UAVs used for complex operations, no minimum age requirement would be imposed.

### c) Very Small UAVs

Very small UAVs would be permitted without the issuance of a UAV operator certificate. A few operators meeting certain criteria would need to register with Transport Canada before conducting operations.

Transport Canada would not require the owner of UAV falling under the proposed Very Small UAV category to register their aircrafts.

They would not be required to obtain a pilot permit or a medical certificate. There would be no minimum age requirement for pilots operating very small UAVs.

As discussed in the introduction, any UAV not falling within the above categories would continue to be governed by the existing SFOC requirements for UAV operations.

The following table, taken from Transport Canada's website illustrates the proposed categories and operation conditions:

	Very Small UAVs	Small UAVs (Limited Operations)	Small UAVs (Complex Operations)
<b>Aircraft Requirements</b>			
Identification	X	--	--
Marking and Registration	--	X	X
Design Standard	--	X	X
<b>Pilot Requirements</b>			
Age Restrictions	--	X	X
Knowledge Test	X (Basic)	X (Basic)	X (Advanced)
Pilot Permit	--	--	X
Respect for Privacy and Other Laws	X	X	X
<b>Permission to Fly</b>			
At night	--	--	X
In proximity to an aerodrome	--	--	X
Within 9 km of a built-up area	X	--	X
Over people	--	--	X
Liability Insurance	--	X	X
Operator Certificate *	X	X	X

\*Operator certificates are reserved for larger operators with numerous employees, employees involved in commercial enterprises, or companies with a larger scope of operations.

### Other Issues

Transport Canada stated that it would continue to work with the office of the Privacy Commissioner to emphasize the acceptability and role of Canada's privacy laws with regard to the operation of UAVs by public and private sector organizations[3].

### Next Steps

Contemporaneously with its publication, the Notice of proposed Amendments was distributed to aviation and non-aviation stakeholders. Transport Canada also held a series of roundtable discussions across the country. The consultation period ended on August 28, 2015.

Transport Canada announced that it intends to publish draft regulations sometime in 2016.

## Conclusion

With these announced regulations, Canada continues its effort to be at the forefront of the regulation of unmanned aviation systems.

This being said, some experts have warned that inadequate enforcement of the soaring number of amateur flyers is putting the public at risk<sup>[4]</sup>. Others have claimed that Canada isn't doing enough. Several other countries currently have some level of regulation in place for BVLOS operations. Transport Canada is waiting for the results of the joint work group phase II report which will discuss small BVLOS UAVs.

Regulation of out of site drones will be essential to removing current barriers to many UAS applications.

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[1] Stewart Baillie, Keith Meredith, Dave Roughley, "Canadian Market Opportunities for UAS: Non -Military Applications", prepared for the National Research Council of Canada, August 2014 amended February 17, 2015, accessed at [http://www.ledevoir.com/documents/pdf/canadian\\_civils.pdf](http://www.ledevoir.com/documents/pdf/canadian_civils.pdf)

[2] See Transport Canada Advisory Circular (AC) No. 600-004

[3] *Drones in Canada : will the proliferation of domestic drone use in Canada raise new concerns for privacy?* Report prepared by the research group of the Office of the Privacy Commissioner of Canada, March 2013.

[4] Geordon Omand, "Experts disagree on whether Canada's drone regulations are too permissive", The Canadian Press, August 16, 2015. <http://www.canadianbusiness.com/business-news/experts-disagree-on-whether-canadas-drone-regulations-are-too-permissive/>