

Regulating Unmanned Aerial Vehicles in Canada

With the use of unmanned aerial vehicles (“UAVs”) for recreation, law enforcement and commercial purposes expected to continue to increase rapidly over the next several years and decades, federal regulations need to anticipate and keep up with the rate of change. Canada has been a leader in the use of commercial drones, allowing such use since at least 1996. Since first issuing Special Flight Operation Certificates (“SFOC”) for commercial use in 2007, the number of approved applications has sky-rocketed in the past two years: 2007 = 44; 2008 = 64; 2009 = 66; 2010 = 66; 2011 = 149; 2012 = 229; 2013 = 945; 2014 = 1672. Commercial uses for UAVs in Canada currently include cartography/land surveying, environmental protection/monitoring, agricultural planning, weather forecasting, filming, mining, telecommunications and more.

Commercial Uses

In order to maintain this competitive advantage and fully exploit the potential benefits of UAVs, Transport Canada must not only carefully consider current or pending regulations from a medium- to long-term perspective, but also be prepared to quickly react to rapidly changing uses and circumstances. Safety, privacy and commercial needs will continue to evolve as the fledging commercial and recreational uses continue to proliferate. The creation of two exemption categories in November 2014 by Transport Canada is a signal that the government is cognizant of the need to adjust rules on the fly. As per Transport Canada’s news release: “Under the new exemptions, a Special Flight Operations Certificate will not be required for UAVs under 2 kilograms and certain operations involving UAVs under 25 kilograms. The new approach will apply to commercial operations and contribute to a strong safety regime for those on the ground and in the skies.”

Maintaining a regulatory regime that is sensitive to business needs will not only allow Canada’s domestic companies to grow the economy and create employment, but may also attract foreign investment or relocation. At a minimum, Canada may attract companies from the USA, which is several years behind in its commercial use regulations – currently limited primarily to a handful of exemptions given to the film industry and highly restrictive test-exemptions for commercial deliveries. Getting the rules right at this early stage can extend Canada’s position as an innovator and pacesetter with UAV technology use.

Recreational Uses

Recreational uses of UAVs are more difficult to regulate and in particular, enforce. Recreational users typically have less of a financial interest in following regulations and less experience operating UAVs – further complicated by commercial and recreational UAVs being largely indistinguishable from each other and other types of model airplanes. High-profile incidents such as the breach of the White House grounds in January 2015 or recreational drones entering restricted airspace such as near airports shake public confidence, hamper incentives to find innovative commercial applications for the technology due to increased uncertainty and can potentially endanger the lives of those in commercial aircraft. Privacy violations and safety risks are the two greatest hindrances in this regard. These are legitimate concerns that must be adequately addressed if UAV technology can be developed to its full capacity – for recreational and commercial users.

Privacy and Safety Considerations

Much ink is currently being spilled over privacy concerns with the use of UAVs, including by the Privacy Commissioner of Canada. With the passing of Bill C-51 in the spring of 2015, privacy itself will likely remain a top-of-mind concern for engaged Canadians, including in relation to UAVs. Like many developing technologies, the general public acknowledges the potential benefits, but remains weary of drawbacks – such as privacy invasion, as noted by the Privacy Commissioner in 2013¹. The Commissioner notes that the implications for surveillance are fairly well

¹ *Drones in Canada: Will the proliferation of domestic drone use in Canada raise new concerns for privacy?* Office of the Privacy Commission of Canada. March 2013.

known, but that UAV technology enables surveillance that is surreptitious, cheap, efficient, persistent and agile. The Commissioner concludes:

“When it comes to the privacy implications of drones, a lot will depend on who is using them and for what purposes, the context and location of their use, the type of technology mounted on them and the extent and type of personal information that may be captured. As drones are acquired and put to use in Canada’s public and private sectors, it will be important to circumscribe their use within an accountability structure that ensures they are justified, necessary and proportional, and that the necessary checks and balances fundamental to a democratic society are in place to stave off proliferation of uses, abuses, and function creep. Canada’s privacy laws will, and do apply to UAVs deployed by public or private sector organizations to collect and/or use personal information about citizens.”

In many ways, the safety considerations of increasing UAV use are obvious – primarily their proximity to other aircraft, particularly commercial flights. At the extreme, a UAV getting sucked into a jet engine could have catastrophic consequences, but the very nature of flight-based activity carries inherent risk (things hitting other things). New technology can likely provide a large part of the solution with advanced radar capabilities and the like, but a human element will remain that must be regulated (and enforced).

Moving Forward

In 2010, the Canadian Aviation Regulation Advisory Council established its Unmanned Aircraft System Program Design Working Group, tasked with identifying “...immediate needs for staff instructions, guidance material, policy documents, advisory circulars or exemptions and make recommendations to the Director, Standards.” The group’s March 2012 Phase 1 Final Report led to the creation of the November 2014 exemptions and is now tasked with authoring new regulations, a draft of which is expected in 2017. One of the more restrictive current regulations is the requirement to maintain a direct line of sight between the UAV and its operator. Finding an innovative solution to this legitimate safety concern will open up many potential commercial uses for UAVs.

Business community input will be critical to provide context and to help find the right balance of safety, privacy, and business concerns. Unless the public is satisfied that their safety and privacy needs are being met, acceptance of widespread commercial uses and benefits will be difficult to achieve.

Recommendations

That the federal government:

1. Prior to implementing new regulations, consult with representatives from a wide range of industries that are currently using or plan to use unmanned aerial vehicles for commercial purposes.
2. Continue the Canadian Aviation Regulation Advisory Council’s Unmanned Aircraft System Program Design Working Group after fulfilling its current mandate so that Canada’s regulatory regime can continue to be responsive to evolving commercial circumstances.
3. Continue to work on technological solutions to eventually permit exemptions to the current line-of-site restrictions.