DRONE DETECTION

SPECIFICS OF HOW AND WHY AN RPAS PILOT WAS FINED FOR INCURSIONS AT OTTAWA INTERNATIONAL AIRPORT

BY SCOTT SIMMIE

A drone pilot has been hit with fines totalling more than $3,000 for two unauthorized and potentially dangerous flights at the Ottawa International Airport, CYOW. The flights took place in December of 2022 and involved the drone flying in close proximity to active runways while aircraft were landing. The flights were detected – and the pilot located – by the YOW Drone Detection Pilot Project. InDro Robotics supplies the core technology for that system, which has been in operation some two and half years.

In fact, the system allowed police to be directed to the location of the pilot while he was flying the drone from inside his car at a hotel parking lot.

"The individual was quite surprised that a police cruiser pulled up – and expressed ignorance about flying in the vicinity of the airport," says Michael Beaudette, Vice President of Security, Emergency Management and Customer Transportation with the Ottawa International Airport Authority.

"He said he wasn't aware he couldn't fly there." He was about to be educated.

Airport intrusion

The system at YOW is capable of detecting the location of active DJI drones up to 40 kilometres away. It is also designed to pick up on other brands of commercial drones flying at closer proximity to the airport by identifying their unique radio frequency signatures.

On December 20, the system generated an alert. Someone was flying a DJI Air 2S drone, which weighs 595 grams, adjacent to the airport.

Flight one: The flight began at 10:07 am and the drone and pilot were detected at the parking lot of the World Fuel Services building. The drone remained at ground level for five minutes; at 10:12 the operator and drone were detected near the hotel immediately adjacent to the airport – a likely indicator the pilot was in a vehicle and on the move. The drone began increasing in altitude, reaching a height of 873 feet – nearly 500 feet above the altitude allowed by Transport Canada in areas where drones are permitted. The flight lasted nearly 17 minutes, during which a helicopter arrived at the airport.

"Our Airport Operations Coordination Centre (AOCC) quickly checked to see if there had been any approvals granted for drone activity in the immediate vicinity of the airport and confirmed that there were none," explains Beaudette. "They then notified the Airport Section of the Ottawa Police Service of the detection, who were then dispatched to the general area where the drone had been active. However, by that time the flight had been terminated."

Flight two: The pilot was detected in the parking lot of the Fairfield Inn & Suites by Marriott Ottawa Airport. This flight began at 11:35, climbing initially to an altitude of 200 feet before increasing to 507 feet Above Ground Level. Lasting 6.85 minutes, the drone landed at 11:41. While that drone was in the air, a Jazz Q400 landed on Runway 25 at 11:36.

"When we received an alert of the second flight, we were able to track the drone flight in real time and pinpoint the exact location of the pilot," says Beaudette. "The Ottawa Police Service cruiser approached the pilot as he was sitting in his car piloting the drone and ordered him to land it immediately."

It's no surprise these flights were of great concern to authorities at the airport. "Both flights took place without prior notification to, or approval by, NAV Canada," says Beaudette. "The drone was operating within 350 metres of an active runway and during the first flight, the drone was also operating in very close proximity to a helicopter that was manoeuvering in the area."

Know the regs and penalties

As the saying goes, "Ignorance is no excuse for the law." In other words, being unaware of regulations provides zero legal cover. Police took the pilot's information, which was passed along to Transport Canada.

That's because it's TC, not local law enforcement (with the exception of local bylaw infractions), which is responsible for enforcing rules that govern drones. And in Canada, those rules are found in Canadian Aviation Regulations (CARS), Part IX. (If you're a drone pilot and haven't read these yet, it is highly recommended.)

The pilot violated multiple sections of CARS. And each of those comes with a financial penalty. Here are the sections violated, and the fines assessed:

CAR 900.06 – No person shall operate a remotely piloted aircraft system in such a reckless or negligent manner as to endanger or be likely to endanger aviation safety or the safety of any person. (Penalty assessed: $370.50)

CAR 901.02 No person shall operate a remotely piloted aircraft system unless the remotely piloted aircraft is registered in accordance with this Division. (Penalty assessed: $370.50)

CAR 901.14(1) Subject to subsection 901.71(1), no pilot shall operate a remotely piloted aircraft in controlled airspace. (Penalty assessed: $456.00)

CAR 901.25(1) Subject to subsection (2), no pilot shall operate a remotely piloted aircraft at an altitude greater than (a) 400 feet (122 m) AGL; or (b) 100 feet (30 m) above any building or structure, if the aircraft is being operated at a distance of less than 200 feet (61 m), measured horizontally, from the building or structure. (Penalty assessed: $456.00)

CAR 901.27 No pilot shall operate a remotely piloted aircraft system unless, before commencing operations, they determine that the site for take-off, launch, landing or recovery is suitable for the



Part of the YOW drone detection system, which uses multiple technologies.

PHOTO: INDRO ROBOTICS, OTTAWA INTERNATIONAL AIRPORT