

Preventing impaired flying: Transportation Safety Board recommends alcohol and drug testing following investigation of Carson Air Ltd. in-flight breakup

Date : December 15, 2017

In November 2017, the Transportation Safety Board of Canada (TSB) published its investigation report relating to the in-flight breakup of Carson Air Ltd. flight 66. In the report, while unable to determine the exact cause of the breakup, the TSB concluded that alcohol intoxication “almost certainly played a role in the events leading up to the accident.” As a result of this finding, as well as a number of recent incidents involving impaired pilots, the TSB recommended a “comprehensive response to inappropriate drug and alcohol use in aviation.” In the TSB’s view, drug and alcohol testing may be one aspect of such a response.

By way of background, flight 66 was a weekday cargo flight between Vancouver and Fort St. John, British Columbia, operated by Carson Air Ltd. On April 13, 2015, flight 66 took off from Vancouver International Airport at approximately 7:03 AM. The only people aboard were the captain and first officer. Seven minutes after takeoff, the aircraft began an abrupt and steep descent such that the aerodynamic forces caused structural disintegration, referred to as “in-flight breakup.” The captain and first officer were fatally injured in the resulting crash.

Post-mortem examinations and toxicological screening were conducted on both pilots. Post-mortem toxicology screening revealed that the captain had a blood alcohol content level (BAC) of 0.24%, such that he had likely consumed alcohol over a period of several hours, until shortly before take-off. The TSB set out the following as the typical effects of a BAC between 0.09-0.25%:

- emotional instability;
- loss of critical judgement;
- impairment of memory and comprehension;
- decreased sensory response; and
- mild muscular incoordination.

The TSB also set out the following as the typical effects of a BAC between 0.18-0.30%:

- confusion;
- dizziness;
- exaggerated emotions (anger, fear, grief);
- impaired visual perception;
- decreased pain sensation;
- impaired balance;
- staggering gait;

- slurred speech; and
- moderate muscular incoordination.

The TSB's investigation also revealed that a number of Carson Air employees had suspicions, and some had even voiced concerns with colleagues, that the captain had an ongoing alcohol problem. The autopsy report identified coronary artery atherosclerosis, as well as steatosis and hepatitis in the captain's liver, all of which, found in a 34-year-old person, suggest excessive alcohol use over a prolonged period.

The TSB ultimately put forward three possible theories to explain the crash: a mechanical failure of the pitot system, pilot incapacitation, and an intentional act. Although the TSB did not make a definitive finding regarding the cause, based on the evidence relating to the captain's BAC, it did conclude that "alcohol intoxication almost certainly played a role in the events leading up to the accident."

The TSB's finding in this regard follows a number of high-profile incidents involving pilots who have reported to work while impaired. For example, in late 2016, an intoxicated Sunwing Airlines pilot was arrested after passing out in the cockpit prior to takeoff. These incidents persist, despite that the Canadian Aviation Regulations mandate that no person shall act as a crew member while under the influence of drugs or alcohol. Similarly, Canada's *Criminal Code* prohibits the operation of an aircraft while impaired by drugs or alcohol. Nevertheless, the number of incidents involving impaired pilots suggests a gap in the current state of the law.

In the wake of the Sunwing incident and the evident risk to safety posed by pilot intoxication, we suggested that Transport Canada implement uniform enforcement and testing measures for the prevention of drug and alcohol use prior to flight (see "[Preventing impaired flying: Where do we go from here?](#)"). This notion of alcohol and drug testing is reiterated by the TSB's recommendation that:

"the Department of Transport, in collaboration with the Canadian aviation industry and employee representatives, develop and implement requirements for a comprehensive substance abuse program, including drug and alcohol testing, to reduce the risk of impairment of persons while engaged in safety-sensitive functions. These requirements should consider and balance the need to incorporate human rights principles in the *Canadian Human Rights Act* with the responsibility to protect public safety."

Despite the apparent need, the TSB's recommendation for drug and alcohol testing may be difficult to implement. Employee representatives have traditionally been opposed to random testing. At the same time, employers have a limited ability to unilaterally implement policies calling for random testing. In *Irving Pulp and Paper Ltd.* (2013), the Supreme Court of Canada struck an employer's random testing program, on the basis that it infringed on the privacy rights of

employees. The Court held that random testing could be permitted in dangerous workplaces if:

- (a) there is reasonable cause to believe that an employee is impaired while on duty;
- (b) the employee has been directly involved in a workplace accident or significant incident; and/or
- (c) the employee is returning to work after treatment for substance abuse.

Apart from the circumstances above, to implement random testing, an employer must demonstrate particular risks within the workplace, such as a general problem of substance abuse.

In our view

It remains our view that the safe operation of airports and airlines is the responsibility of everyone involved including employers, employees, and unions. We agree with the TSB that all parties must come together to implement a comprehensive substance abuse program that would include education, employee support, and intervention, as well as an effective testing regime. The collective interest in safety justifies the need for such a program and outweighs the invasion of privacy.

Random alcohol and drug testing in the aviation industry has been adopted by a number of countries around the world. As the TSB report points out, Australia, and the United States have implemented testing requirements for aviation employees in safety-sensitive positions. In each case, testing forms just one part of a larger program. In Australia, the program includes education and intervention, as well as random testing. In the United States, the applicable regulations set out the procedures for conducting workplace drug and alcohol testing, as well as who is subject to testing, when, and in what situations. The United Kingdom Civil Aviation Authority advises all Air Operator Certificate holders and Air Navigation Service Providers to have a drug and alcohol policy as part of their safety management systems, which should include procedures for monitoring program efficacy, likely to include a testing program. As such, there are a number of approaches that Canada could consider to address this important safety issue.

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