

2 Dangerous Air Cargo



DANGEROUS AIR CARGO

Billions of dollars' worth of dangerous goods are shipped as cargo by air each day. These goods are necessary for maintaining our quality of life and, in some cases, sustaining it. They can, however, pose a significant threat to aviation safety if not handled and transported carefully. The May 11, 1996 crash of ValuJet Flight 592 is a sobering reminder of this. One hundred and ten lives were lost that day when a fire, initiated by the actuation of chemical oxygen generators, caused the aircraft to crash into the Florida Everglades.

Dangerous goods are defined as articles or substances capable of posing a risk to health, safety, property or the environment. Explosives and radioactive material are items that come to people's minds when they think of dangerous goods. Many may be surprised to know that lithium batteries are also classified as dangerous goods.

Lithium batteries have become an indispensable part of our daily lives. They can, however, pose a significant threat to aviation safety. Damaged or defective batteries have the potential to short circuit, catch fire and emit gases that create an explosive environment. Tests have demonstrated that aircraft cargo fire protection systems may not be capable of adequately suppressing a fire involving them and that this could lead to the catastrophic failure of an airframe. Billions of lithium batteries are shipped each year. They are known to have been involved in two fatal cargo aircraft accidents, and there have been hundreds of reports of dangerous goods incidents involving them. They have been prohibited from transport as cargo on passenger aircraft since 1 April 2016, but they continue to be transported in large quantities on all-cargo aircraft.

In this stream, students will be provided the opportunity to consider whether lithium batteries can be transported safely by air and, if so, how. They will be provided with a more detailed description of the risks they pose and measures being considered to mitigate them. Students will be contributing to the resolution of a problem that has been the subject of intense discussions among experts in the fields of dangerous goods, operations, airworthiness and safety management at ICAO and within the aviation community for many years.