

14.00-15.00

Liability of Airports and ANSPs



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Liability of Airports and ANSPs
Safety and security issues posed by drones

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Safety and security issues posed by drones

It is estimated that by 2035, the European drone market will generate a value of EUR 10 billion a year.

With an ever-growing number of drones taking to the skies, their safe and secure integration into the airspace poses the main challenge to enabling the market.

With this challenge in mind, it is noted that the number of incidents involving drones has steadily increased in Europe and around the globe over recent years.

December 2015

18-Month-Old child loses right eye in a drone accident (Huffingyonpost).

July 2018

Drone injured woman's eye at Las Vegas casino July 4th party, lawsuit says (ABC News).

December 2018

Between 19 and 21 December 2018, hundreds of flights were cancelled at Gatwick Airport near London, England, following reports of drone sightings close to the runway. With 140,000 passengers and 1,000 flights affected, it was the biggest disruption at Gatwick since its closure following the 2010 volcano eruptions in Iceland.

February 2020

On 3 February 2020 three out of four runways at Madrid Barajas airport were temporarily inoperable on a Monday morning, following a drone sighting, with 26 flights being re-routed. At Frankfurt airport runway operations and some flights were suspended twice within one month (8 February and 2 March 2020) due to the reported presence of drones.

August 2021

A Cessna 172 collided with a drone operated by the York Regional Police while on approach to Buttonville Municipal Airport. The Cessna landed without incident and suffered major damage, including a bent airbox, a damaged engine cowling and a propeller strike.

Safety and security issues posed by drones

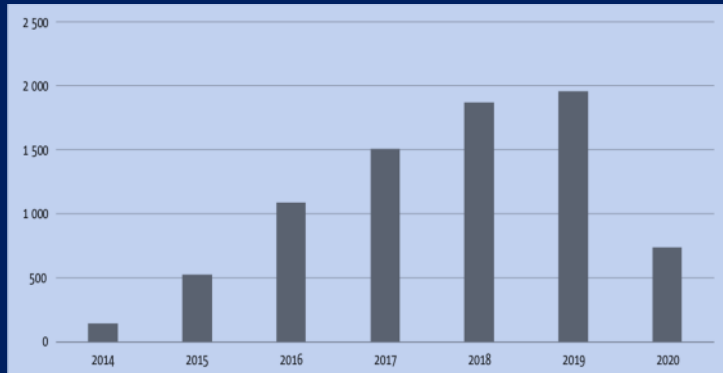
Focus on

- 1 AIRPORTS
- 2 MANNED AIRCRAFT
- 3 INSURANCE



1. Airports

UAS occurrences in Europe between 2014 and 2020*



The EASA internal task force (TF) — established following the events in Gatwick during the winter 2018/2019 — was mandated to analyse the facts related to the incidents and to develop an action plan ensuring that aerodrome operators, air traffic service (ATS) providers and aircraft operators are better prepared to prevent such events from happening, and, if they nevertheless should happen, respond appropriately to non-cooperative (unauthorised) drones.

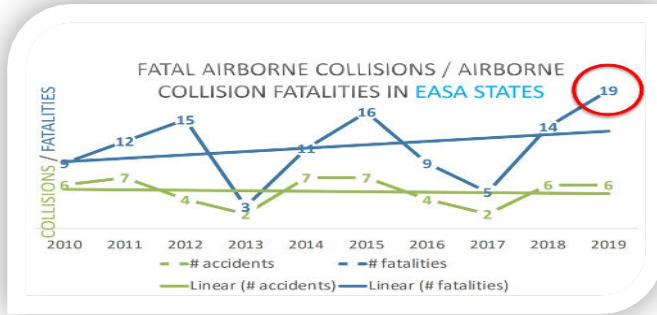
In that sense, the European Union Aviation Safety Agency (EASA) published some guidelines in which counter-drone systems (C-UAS) are considered in order to mitigate drone intrusion impact on the airport ecosystem.

EASA Counter Drones (C-UAS) action plan objectives

- Educate the public to prevent and reduce misuse of drones around aerodromes
- Prepare aerodromes to mitigate risk from unauthorised drones use
- Support the assessment of the safety risk of drones to manned aircraft
- Ensure that C-UAS measures are swiftly considered and implemented from a global safety perspective
- Support adequate occurrence reporting

*(source: EASA Drone Incident Management at Aerodromes)

2. Airborne collisions Integration of drones in the airspace



The number of drones is increasing rapidly. When a large number of drones fly simultaneously in airspace, collision problems can occur, which is likely to lead directly to human accidents or economic loss

Starting from the most congested areas, U-Spaces will be deployed to ensure a safe integration of drones with manned aircraft

In November 2016, the European Commission proposed to create an automated ATM system for drones operating at low-level, referred to as the “**U-space**”. The U-space will be governed by a system similar to existing ATM for manned aircrafts, which will be automated using tools like e-identification and, as a key component, geo-fencing, so that the information can always be accessed even by autonomous drones.

*Policy package regulating **U-space**, which is made up of three implementing regulations whose new provisions is applicable from **26 January 2023***

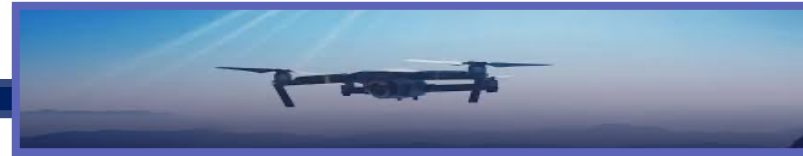
COMMISSION IMPLEMENTING REGULATION (EU) 2021/664 of 22 April 2021 on a regulatory framework for the U-space.

COMMISSION IMPLEMENTING REGULATION (EU) 2021/665 of 22 April 2021 amending Implementing Regulation (EU) 2017/373 as regards requirements for providers of air traffic management/air navigation services and other air traffic management network functions in the U-space airspace designated in controlled airspace.

COMMISSION IMPLEMENTING REGULATION (EU) 2021/666 of 22 April 2021 amending Regulation (EU) No 923/2012 as regards requirements for manned aviation operating in U-space airspace.

3. Insurance

Past experience has shown that emerging technology often suffers some degree of malfunction or failure. Liability in the event of damage or bodily injury is subject to some uncertainty. National legislation that provides clarity for drone incidents becomes indispensable, as well as the need for a harmonized international framework. In the absence of international conventions regarding the use of drones, the only solid legal ground for any type of liability system is the vast regulatory framework of the aviation sector, including the Rome Convention of 1952 establishing a strict liability regime for aircraft operators.



National regulations refer to the EC Regulation 785/2004 on insurance for air carriers and aircraft operators, which defines requirements for third-party liability insurance for manned aircraft operators and, in connection therewith, has set forth a regime of strict liability. The lack of a cross-border liability and insurance framework in respect of drone use gives rise to a number of issues, such as the identification of the liable party, the liability regime applicable to the liable party and insurance provisions applicable to civil drones.

Comparison of the insurance regime between drones and cars in Italy

Drones

(art. 7 EC Regulation 785/2004)

Category	MTOM (Kg)	Minimum insurance (million SDRs*)
1	<500	0,75
2	<1000	1,5
3	<2700	3
4	<6000	7
5	<12000	18
6	<25000	80
7	<50000	150
8	<200000	300
9	<500000	500
10	≥500000	700

Cars

(Art. 128 of Italian Code of Private Insurance)

Damages	Mimum Insurance**
Personal injury	€ 6.070.000,00
Property damage	€ 1.220.000,00
Total	€ 7.290.000,00

*Special Drawing Rights (SDRs) are an interest-bearing international reserve asset used by the International Monetary Fund (IMF) and is based on a basket of currencies. The exchange rate is 1 SDR=1.267,18 EUR.

**per claim, regardless of the number of victims.