

## The recovery finally started, bringing new risks and challenges

After false starts in 2020 and 2021, as the summer of 2022 approached we finally started to see the recovery that we had all been waiting for. The summer of 2022 saw airports filling up and aircraft finally taking to the skies in greater numbers. Across the industry there were new challenges to deal with as borders opened up and passengers returned. With this came issues with spooling up a complex system in a relatively short period of time.

In this Air Ops Review for 2022 you will get a short and easy to understand update on safety in Commercial Air Transport (CAT) operations with fixed wing aircraft over the past year. There will be some useful graphs to help you understand what's happening and most importantly where we observe the greatest risks at global/ European level. You can use this information to help understand the risks you face in your own organisation.

## Commercial aviation safety worldwide in 2022

In 2022 there were eleven (11) fatal accidents worldwide in CAT operations with large aeroplanes with a maximum take-off mass greater than 5,700 kg. The number of fatal accidents in 2022 was the same as the previous 2 years. There have not been any fatal accidents involving an EASA Member State (MS) operator since 2016.

You can find a full list of the fatal accidents that occurred in 2022 on the last page of this document. There is basic information about each accident and what is known at this stage of the investigation.

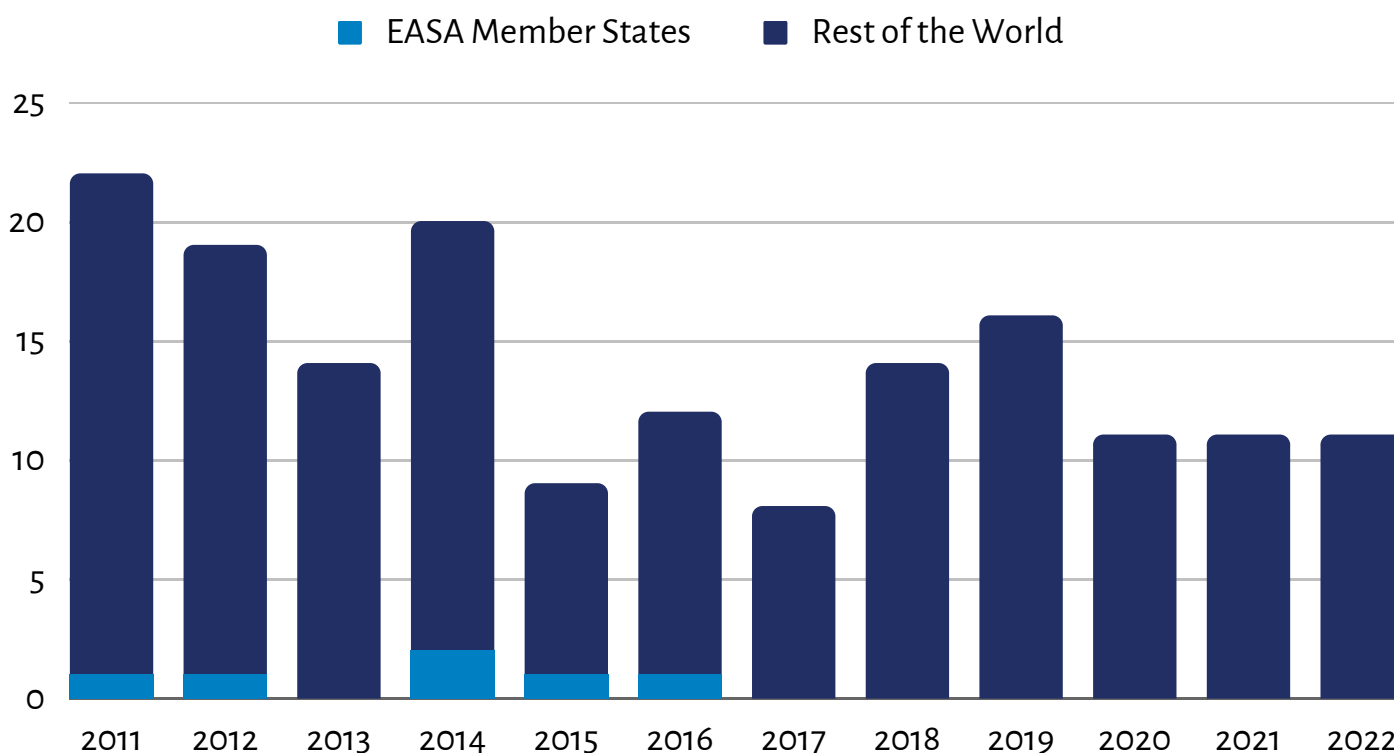


Figure 1. CAT Large Aeroplane Fatal Accidents

# A continual reduction in worldwide fatalities, but this should never lead to complacency in our safety efforts

The number of fatalities has been more variable over the past years. This is because it is dependent on the number of people on board aircraft. Cargo fatal accidents represented 30% of the fatal accidents in 2022.

Figure 2 shows the evolution in the number of fatalities since 1970. While the number of fatalities in 2022 increased compared to 2021, it still remains amongst the lowest recorded of in the last decade, with 173 fatalities.

The graph shows the considerable improvement in safety over the past few decades. The high safety level has been hard won. This means we can never be complacent in our safety efforts. It's vital that we continually seek to identify risks and manage them effectively. More on this shortly.

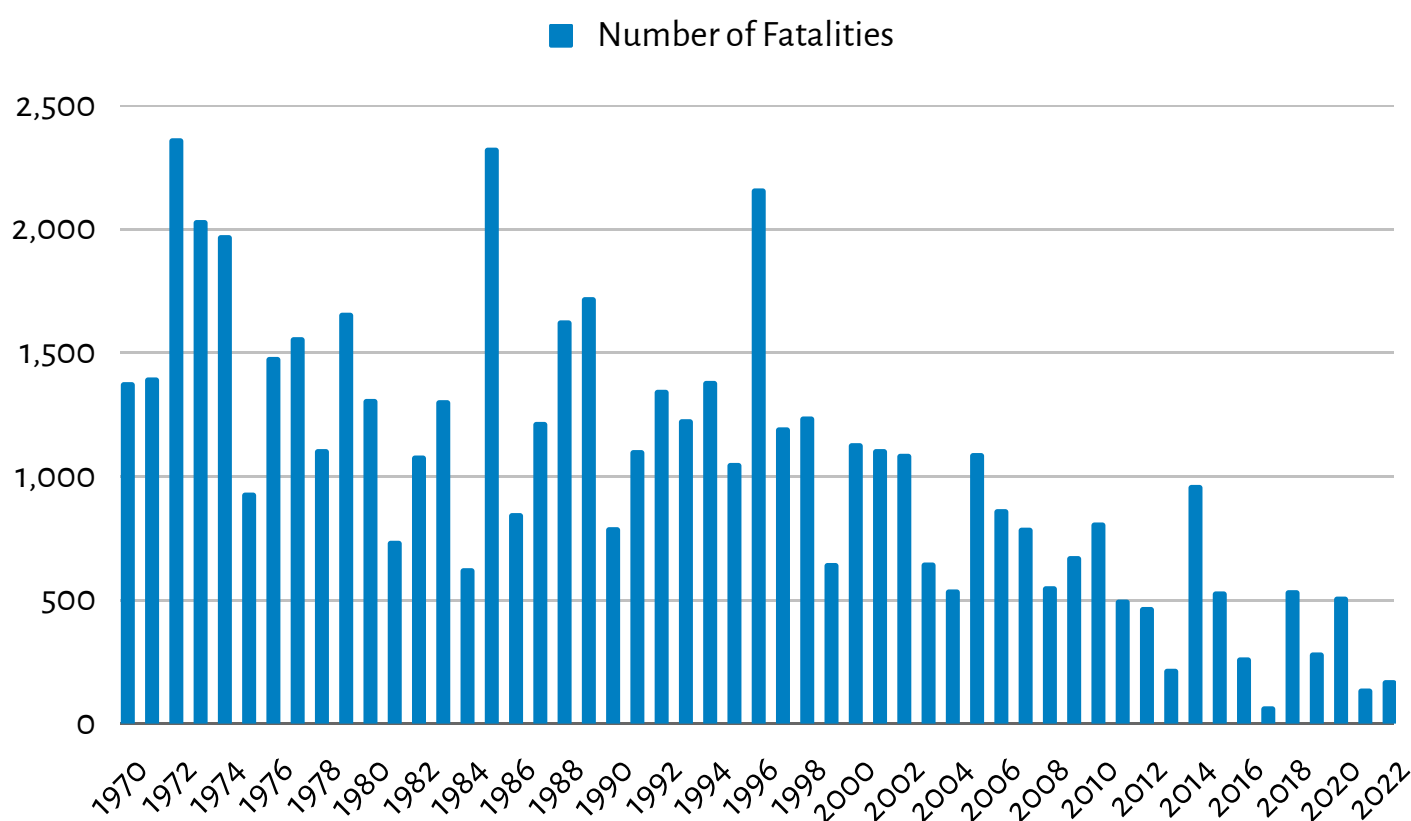


Figure 2. Fatalities involving large aeroplane passenger and cargo operations worldwide

## Types of accidents in 2022

There were various different types of accidents in 2022:

- 5 accidents involved fatalities on the ground. These included ground staff ingested into an engine, struck by a propeller, injured during pushback, and two collisions on the runway - one with a motorcycle in Guinea and one with a fire truck in Peru.
- A single fatal accident involving loss of control/ aircraft upset.
- A runway overrun.

# Understanding what's important - the top safety issues from the SRM process

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## The EASA Safety Risk Management (SRM) Process and the Safety Issue Prioritisation Index (SIPI)

Before we get into the most important safety issues, it is useful to start with a some information about the SRM process that is used to identify them. EASA develops safety intelligence from a range of different sources. We use accident reports, mandatory occurrence reports as well as expert judgement through our Collaborative Analysis Group (CAGs) with industry, the Network of Analysts (NoA) with the National Aviation Authorities and also the EASA Advisory Bodies.

Once the safety issues are identified, they go through a Safety Issue Assessment (SIA) to determine what actions should be taken in the European Plan for Aviation Safety (EPAS). One of the biggest challenges is to prioritise the safety issues and this is where the SIPI comes in. This is a risk classification, based on the European Risk Classification Scheme (ERCS), that considers its residual risk and additional elements such as historical accidents, the novelty of the issue and the level of exposure during operations.

## The top safety issues for commercial fixed wing operations

Based on the SIPI scores and the different analyses carried out, the top safety issues for commercial fixed wing operations are below. The full list will be published in January 2023 in Volume III of the EPAS. You should consider the relevance of these safety issues for your own organisation. Talk about them with your operational teams, consider your level of exposure and what additional mitigations you might need to put in place.

- Airborne collision with Unmanned Aircraft Systems (UAS).
- Approach path management.
- Coordination and control of turnarounds.
- Crew Resource Management (CRM).
- Cyber Attacks.
- Decision making in complex systems.
- Entry of aircraft performance data.
- Fatigue and quality sleep.
- Inappropriate flight control inputs.
- Lack of industry wide staff support programs.
- Mass diversions.
- Reduced available financial resources.
- Training effectiveness and competence.
- Undetected occupied runway.

# Fatal Accidents in 2022

According to our preliminary data, the following fatal accidents occurred during 2022:

- **January 24:** An airport staff member died as a result of an accident during towing of an Airbus A320-271N at Qingdao Jiaodong International Airport (TAO/ZSQD), 1 fatality on ground.
- **March 21:** A Boeing 737-89P on a passenger flight appears to have gone out of control and entered a steep, almost vertical, dive which continued until impact with the ground some 10km southwest of Wuzhou, China, with 132 fatalities.
- **July 16:** An Antonov An-12BK cargo plane, crashed near Kavala, Greece, with 8 fatalities.
- **August 19:** At Beloyarsk Airport (EYK/USHQ) an airport employee ran into a propeller of an Antonov An-24RV and died, 1 fatality on ground.
- **September 2:** An Airbus A320-251N passenger flight hit two persons on a motorcycle on the runway as the aircraft was landing at Conakry Airport, Guinea, with 2 fatalities on ground.
- **September 10:** An Antonov An-28 cargo flight crashed in the Kahuzi-Biega National Park, shortly after take-off from Bukavu-Kavumu Airport (BKY), D.R. Congo, with 3 fatalities.
- **September 20:** A British Aerospace 3201 Jetstream 32EP passenger flight sustained substantial damage after the aircraft overrun runway 24 during the takeoff and came to rest in a dirt wall at El Estrecho Airport (SPEE) San Antonio del Estrecho, Peru, with 1 fatality.
- **November 3:** A Let L-410UVP-E20 was reported missing while operating on a cargo flight from Kasese to Bukavu and Goma, Democratic Republic of the Congo. The wreckage was discovered in a forest. 3 fatalities.
- **November 6:** An ATR 42-500 landed in the Lake Victoria near Bukoba Airport (BKZ), Tanzania short of the runway, with 19 fatalities.
- **November 18:** An Airbus A320-271N passenger flight sustained substantial damage when it collided with a fire truck during take-off from runway 16 at Lima-Jorge Chávez International Airport (LIM), Peru, with 2 fatalities on ground.
- **December 31:** A baggage handler was fatally injured having been ingested into the left engine of an Embraer ERJ-175LR in Montgomery, USA.

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