

saercosafety



ready

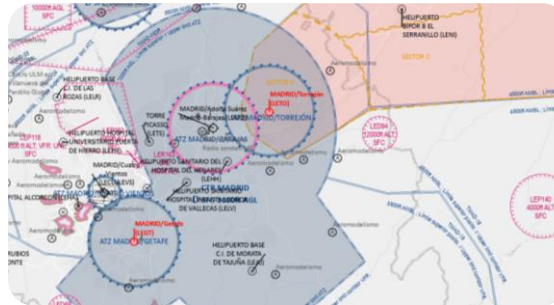
S a f e t y N e w s l e t t e r

Airspace is generally complex, being made up of various structures with different procedures, services and requirements. There are different criteria when designing an airspace depending on its purpose, the type of aircraft that will operate (or will not be able to operate), under which flight rules they will operate, in which flight phase, with which requirements or in which environments.

Given this complexity, navigation errors are not infrequent and can lead to airspace infringements. An airspace infringement occurs when an aircraft enters in a volume of airspace, generally under the responsibility of an ATS unit, and does so either without prior communication to obtain the required access permission, or without complying with all the requirements necessary to operate in that airspace as established in the aeronautical publications. There are times when it would not even be able to access this volume of airspace given the nature of the activities for which it is designed (e.g., military) or the environment it protects (e.g., overflying a nuclear power plant).

Thus, it is common practice that, for example, Visual Approach Charts (VAC) clearly indicate that aircraft bound for the aerodrome will contact the ATS unit before reaching the published reporting points. Likewise, there are areas published as restricted, prohibited or hazardous, as well as temporarily reserved or segregated airspaces for which certain requirements are established. All these volumes and zones are published in the Aeronautical Information

Publication (AIP), being information accessible to all users..



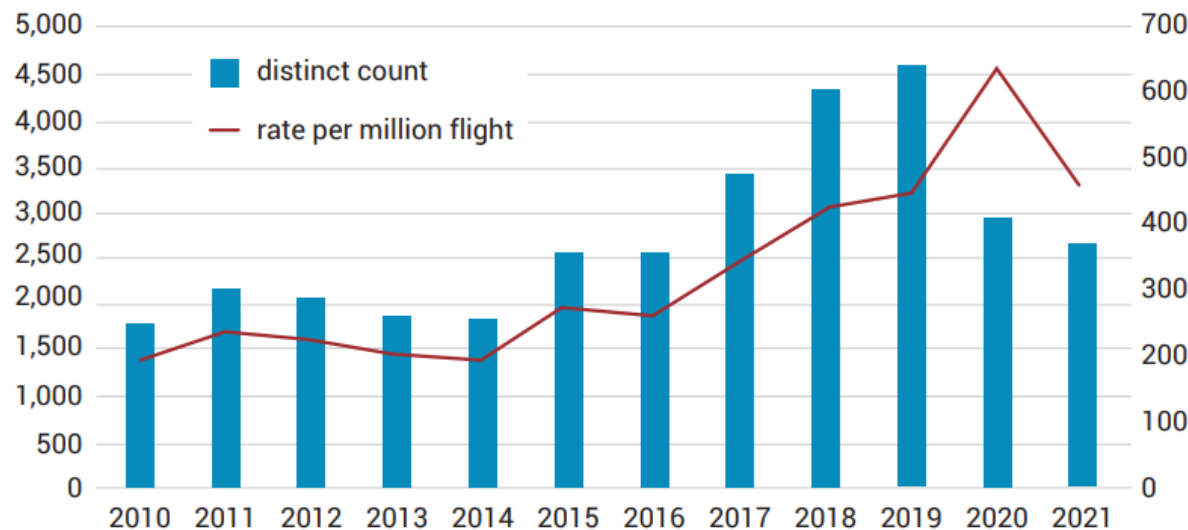
In most cases, airspace infringements occur in favorable contexts, i.e. without giving rise to conflicts, in addition to the fact that they are quickly detected by the air traffic services depending on the means at their disposal, the visual observation itself if they occur in an airport environment, or even detected by other users who do operate correctly in accordance with the airspace in which they are located. However, there are less favorable contexts in which an airspace intrusion may occur, and depending on the evolution of the situation that is triggered, it could lead to inadequate separations (AIRPROX), separation minima infringement in case there is one established, or the worst credible effect, the Mid Air Collision (MAC). Additionally, an airspace infringement does not necessarily have to occur in controlled or restricted airspace, as flight information zones or Flight Information Zone (FIZ) (Class G airspace) where AFIS requirements may be considered an airspace

services are provided have established requirements such as Radio Mandatory Zones (RMZ) or Flight Plan Mandatory Zones (FPMZ) where failure to comply with these infringement. In addition, the VAC charts of AFIS aerodromes clearly indicate the need for traffic to notify intentions to the responsible AFIS unit before entering the FIZ along the established routes.

Finally, airspace infringements are considered as mandatory reportable occurrences to occurrence reporting systems, and as such must be treated by potential reporters of this type of occurrences, as they are identified in the classification list of reportable occurrences in civil aviation in accordance with Regulation (EU) No 376/2014. being such list contained in Regulation (EU) No 2015/1018.

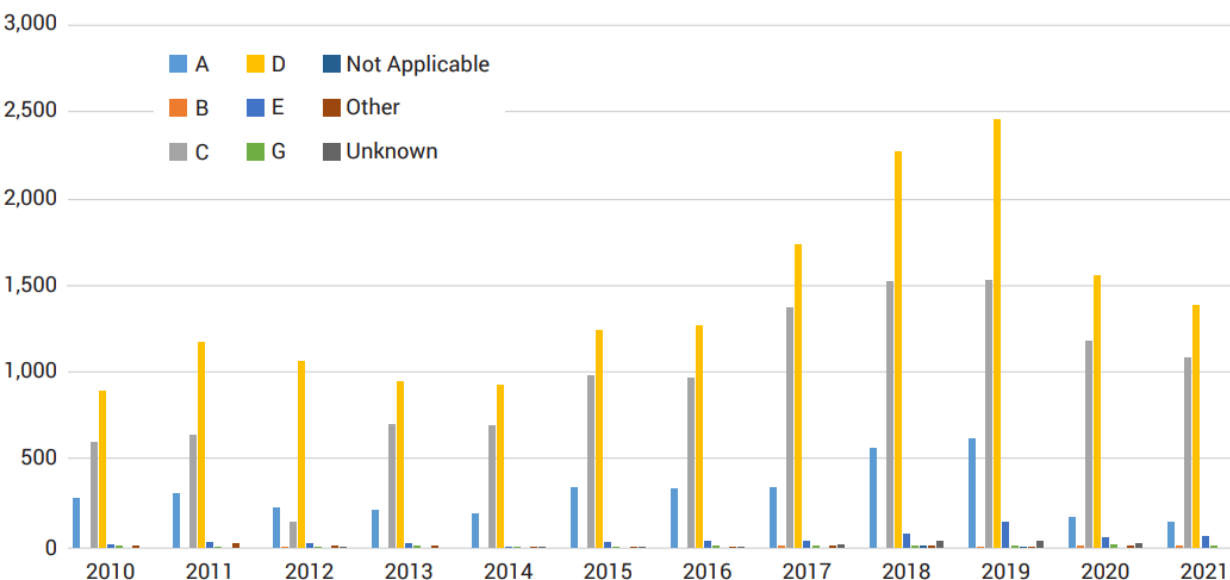


<https://www.easa.europa.eu/domains/general-aviation/flying-safely/airspace-infringement>
<https://insignia.enaire.es/>



The European Action Plan for Airspace Infringement Risk Reduction (EPAIRR) (currently in its version 2.0, March 2022), constitutes an initiative to improve safety by presenting a series of measures aimed at preventing the occurrence of airspace infringements and their possible consequences.

The first of the statistics shows the evolution of airspace infringements in the period 2010-2021, where the increasing number of these can be observed despite the influence of COVID-19, although such increase should be interpreted with some caution, since as a result of the implementation of Regulation (EU) No 376/2014, the number of occurrences reported to the Occurrence Reporting Systems of the National Authorities is clearly on the rise.



The second statistic analyzes airspace infringements with respect to the classification of the airspace in which they occur, indicating that most airspace infringement type events occur in Class D airspace (e.g., CTRs and ATZs). The EPAIRR document identifies general aviation operations flying under VFR rules as being primarily involved, with most occurrences occurring due to problems related to navigation, flight planning, cockpit distractions and/or difficulty in dealing with adverse or changing weather conditions.

<https://www.eurocontrol.int/publication/european-airspace-infringement-action-plan>

Prevention of airspace infringements

In general, there is a consensus on the main actions to be taken to prevent airspace intrusions, such as:

Performing a correct flight planning based on:

- Updated aeronautical charts
- NOTAMs
- Knowledge of the possible existing restrictions for the type of flight to be performed
- Existence of restricted, prohibited and dangerous airspaces, as well as temporarily segregated or reserved areas along the route to be followed, paying attention to the observations published for each of them
- Possible requirements for communications, flight plan and transponder (Zones defined as RMZ, FPMZ, TMZ)
- Volumes of airspace and their access requirements
- Meteorological information
- Have a radio in optimal working conditions
- Make use of the transponder
- Contact the corresponding ATS unit before entering the volume of airspace under their responsibility

There is a large amount of informative material available to instruct and raise awareness on the importance of a correct flight planning to avoid this type of incident. Specifically, EASA available a great amount of information through its website in different formats, such as leaflets, newsletters, and videos, all of them focused on highlighting the importance of the previous actions.

<https://www.easa.europa.eu/domains/general-aviation/flying-safely/airspace-infringement>
https://www.seguridadareea.gob.es/sites/default/files/triptico_recomendaciones_infracciones_espacio_aereo.pdf



Safety Together!

DID YOU KNOW?

Tips to avoid airspace infringement & reduce the risk of mid-air collision

Before Flight

Plan and prepare your flight and identify controlled and restricted airspace.



Use modern navigation technology and exercise your basic navigation skills.



Turn on your transponder! For VFR flights, the default code is 7000 in most countries.



ADS-B, Automatic Dependent Surveillance Broadcast, makes you visible and makes other equipped aircraft visible to you.

During Flight

Keep good situational awareness: *Know where you are at all times!*



Entering controlled airspace requires a clearance!



If you enter unauthorised airspace without clearance, keep your transponder on and contact ATC!



Stay visible and don't be shy to communicate!

Navigation errors can lead to mid-air collisions:

Navigate accurately, look for other aircraft and practice See and Avoid!

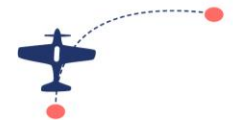
After Flight

Export the flight log from the navigation software and take a moment to debrief your flight.



How can I improve my next flight?

Report any Airspace Infringement and other incidents.



European airspace is complex and navigational errors can lead to airspace infringement and mid-air collisions. Prepare your flight, use modern navigation technologies safely, keep good situational awareness, stay visible and never hesitate to communicate!

Never stop learning and share your flight experience with others!

Communicate, stay visible and stay on track.

www.easa.europa.eu/airspaceinfringement
[#airspaceinfringement](https://twitter.com/airspaceinfringement)

An Agency of the European Union



lessonslearned :

Incidents related to airspace infringements

The following are a series of incidents related to airspace infringements:

B738 / C172, Falsterbo, Sweden, 2014

On 20 July 2014, the pilot of a Cessna 172 (VFR flight), entered the Class C controlled airspace of two successive TMAs without authorization. In the second one, he was overtaken by a B738 bound for Copenhagen, with both aircraft within 90 meters of each other. Although the Cessna 172 had a Mode C capable transponder, it was not transmitting altitude prior to the incident.

<https://skybrary.aero/accidents-and-incidents/b738-c172-en-route-near-falsterbo-sweden-2014>



A343/GLID Waldshut-Tiengen, Alemania, 2012

On 11 August 2012, an A343 about to join the final approach to Zurich in Class C airspace suddenly saw a glider on a collision course with the aircraft. The crew executed a pronounced evasive maneuver bringing the two aircraft within 260 meters of each other. The Investigation attributed the conflict (among other things) to the glider's airspace infringement.

<https://skybrary.aero/accidents-and-incidents/a343-glid-en-route-north-waldshut-tiengen-southwest-germany-2012>

AT72/B732, Queenstown Nueva Zelanda, 1999

On 26 July 1999, an ATR 72-200 on a scheduled passenger flight from Christchurch to Queenstown entered the destination CTR without the required ATC clearance after previously cancelling IFR and on VMC marginal day. This resulted in an inadequate separation with a Boeing 737-200 IFR which was maneuvering visually after a VOR/DME approach.

<https://skybrary.aero/accidents-and-incidents/at72-b732-vicinity-queenstown-new-zealand-1999>

EUFI / A321, Clacton UK, 2008

On 15 October 2008, after participating in a military exercise, a formation of 2 Eurofighters entered controlled airspace without authorization while attempting to establish the required initial contact with military ATC, resulting in the loss of the prescribed separation with several civil aircraft.

<https://skybrary.aero/accidents-and-incidents/eufi-a321-en-route-near-clacton-uk-2008>



UAV, vicinity Goodwood West Sussex UK, 2019

On 4 July 2019, the operator of a UAV lost control of his aircraft and it climbed to 8000 feet in controlled airspace entering a designated holding pattern for London Gatwick before falling at 5000 feet per minute and impacting the ground near a house. The Inquiry was unable to establish the cause of the loss of control, but noted that the system for immediately terminating a flight in such circumstances had also failed, compromising safety.

<https://skybrary.aero/accidents-and-incidents/uav-vicinity-goodwood-west-sussex-uk-2019>



The mentioned incidents are examples of how an airspace infringement situation can evolve, in the most favorable cases, into situations of considerably increased workload for the ATS services and the pilots of the aircraft concerned, while in the most unfavorable cases they can lead to "Inadequate separation" or "Separation Minima Infringement" type incidents, both possible precursors to "Mid Air Collision" type incidents/accidents.

<https://skybrary.aero/articles/airspace-infringement>

with the collaboration of:

Andrea Arcos
Beatriz Rubio
Sergio Drulas
Jaime Diezma
José Lorenzo Sánchez

www.saerco.com

safety@saerco.com

[@saerco_ansp](https://twitter.com/saerco_ansp)



...release

