

A close-up, front-facing view of a military aircraft's cockpit. The aircraft has four propellers, two on each side, which are dark and appear to be in motion. The cockpit canopy is highly reflective, showing a distorted reflection of the sky and the ground. The aircraft is painted in a dark blue or black color with some orange or yellow markings on the sides of the fuselage. The background is a clear blue sky with a hint of green ground at the bottom.

European Action Plan for Airspace Infringement Risk Reduction

Airspace Users
(civil and military)

EAPAIRR


European Action Plan for Airspace Infringement Risk Reduction

Introduction

Airspace infringement, also known as “unauthorised penetration of airspace” is a major operational hazard that can result from the division of airspace into different classes and structures, with their associated procedures and services, and its joint use by different categories of users, often with competing objectives and different operational requirements and capabilities.

Infringements are not rare events in busy European airspaces and, without prompt action by air traffic controllers and pilots, could result in a loss of separation, or even mid-air collision. Recognising the severity of this threat to aircraft operations and the need to ensure the safe use of airspace and sustainable development of commercial, military and general aviation in the short, medium and long term, the major aviation stakeholder groups in Europe agreed that coordinated actions should be taken to control this aviation risk. The launch of the Airspace Infringement Safety Improvement Initiative in 2006 provided the vehicle for achieving this goal.

The first Action Plan was initiated in 2006, and was the key deliverable of the European Airspace Infringement Initiative. This initiative delivered an action plan in 2009, presenting a set of safety improvement measures and provides guidance on how they can best be implemented.



This action was partially adopted throughout the European Aviation Industry.

The plan was developed with the support of, and active contributions from, organisations representing the airspace users, service providers, regulatory and military authorities. Notable contributions were made by the International Council of Aircraft Owner and Pilot Associations (European region), Europe Air Sports, Association of European Airlines, International Air Transport Association, the European Commission and EUROCONTROL.

Ten years after that publication the issue of Airspace Infringements is still present, as is the associated risk. Many local and regional initiatives have been running for a number of years. These have resulted in the sharing of many best practices and have gone some way to reducing the risk slightly: but they have come nowhere near to eliminating it. With a further developed aviation industry which has seen increased traffic in both General Aviation and Commercial Aviation and flexible use of Airspace by the military, the environment has changed as well. Other developments like the evolution of Flight Information Service, 8.33kHz implementation, development of surveillance and detection equipment, changes in airspace structure and activations and last but not least the rapidly increasing professional and recreational drone activities may have an impact on the risk as well.

All the aforementioned elements and the open ends to the questions, demand a renewed European Airspace Initiative. Again the ultimate goal is to develop a risk reduction action plan and support airspace users, civil and military service providers and national authorities in implementing the recommended safety improvement measures for the timeframe 2020-2030. CANSO and EUROCONTROL chair the initiative which draws on the expertise and close support of a working group of stakeholders.

The recommendations have been divided in 5 domains: Airspace Design (AD), ANSPs (ANSP), Airspace Users (AU), AIM & Meteorology (AIM) and Regulators (REG). The document is available in a full version and in booklets per domain, and is complemented by a list of implemented best practices by the contributing stakeholders.

This document refers to the recommendations and best practices for Airspace Users (civil and military). The information on the other domains, as well as the complete introduction and context can be found in the full version on <https://skybrary.aero/articles/european-airspace-infringement-action-plan>

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Recommendations

Airspace Users
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REF	Recommendation	Rationale
AU1	Enhance pilot proficiency checks beyond simple aircraft handling to include navigation and R/T communication skills check	Pilot proficiency checks should include verification and assessment of navigation and R/T communication skills. The verification of air-ground communication skills could include typical scenarios of air-ground communication exchange, such as requesting clearance to cross controlled airspace. It is important that the check is planned and carried out in the form of a learning exercise, not just a test. Proficiency checks should be included in the licensing schemes for PPL and glider pilot licenses.
AU2	Improve pilot awareness of airspace infringement risk.	<p>Airspace user organisations should organise and encourage member participation at safety seminars and other events aimed to improve pilot awareness of airspace infringement risk. Internet fora should also be considered. Examples of good practice are the flight safety seminars, “Open Day’s”, booths on trade fairs organised by national AOPAs, ANSPs and CAAs. Awareness materials, such as posters, leaflets, safety letters produced by international and national organisations and authorities can be used directly or adapted according to local needs.</p> <p>Improve communication strategies to raise awareness for pilots.</p> <p>Publish real airspace infringement cases to create awareness.</p> <p>Split the objective from the means of communication.</p> <p>Establish Local Airspace Infringement Teams (LAITs) to be run by the airspace owner. Participants should be included from ANSP’s, airspace users (GA, CA and MA), local airports and regulators. Provide more general information on hotspots and ways of communication.</p>
AU3	Contact FIS when it’s available.	<p>In some states a dedicated FIS is available and capable of providing the appropriate flight information to help pilots with many aspects of flight, including the avoidance of airspace infringement.</p> <p>Give consideration to who is the most suitable air traffic unit to contact.</p>

REF	Recommendation	Rationale
AU4	Regularly update GPS systems' database.	<p>GA organisations and establishments should encourage their members, the owners, and operators (pilots) of GA aircraft to regularly update the database of the GPS systems used as navigation support means during VFR operations. The recommendation is relevant to both hand-held GPS receivers and those permanently installed on the aircraft. Reminders could be issued to pilots in case of planned implementation of considerable airspace changes. The database update procedure should also include verification of the parity between the GPS database and the VFR en-route chart(s) used during flight. The 28-day cycle for aeronautical information publication used by most GPS manufacturers and database providers need be considered in this respect.</p> <p>The GPS manufacturers and database providers should be asked to support this effort. They have the opportunity to provide regular notifications to the users of their services to download the relevant data upon update.</p> <p>Data providers have the opportunity to assist in this regard by providing data in a format that is easy to use for GPS manufacturers.</p>
AU5	Improve pre-flight briefing capabilities	<p>This action is designed to improve the pre-flight preparation of pilots. It calls for improvements to capabilities of existing briefing facilities and the implementation of new facilities, where they do not exist at the various GA locations, for example at flying clubs. Cooperation with the AIS and MET service providers (or ANSPs) is essential for successful implementation of this action. Support from the regulatory authorities should be sought and obtained. A typical briefing facility available at flying clubs should include provision of aeronautical and meteorological information, but also support the filing and submission of flight plans by means of PC's, information screens and Wi-Fi availability for access with personal devices. Remote access of members to the briefing facility should be ensured.</p>
AU6	Incentivise innovative training for GA pilots	<p>Refresher training should be designed to achieve and maintain an adequate level of navigation and communication skills by all PPL holders. GA organisations, flying clubs and schools should offer such training courses to private pilots. Refresher training should be provided for all PPL types and include glider pilots as well. Refresher courses are considered of particular importance for recreational pilots, but this is relevant to the GA pilots in general. Implementation of refresher training every two years appears to be reasonable for PPL holders. Pilots should be encouraged to be aware of their own training needs. A refresher might involve a one-hour flight with an instructor including pre-flight paperwork.</p> <p>Flying clubs should ensure additional training opportunities for 'low-hours' pilots. Rallies and cross-country tours are an example of good practice implemented by many flying clubs. The communication training may be based on typical scenarios of R/T exchange and associated basic radio discipline rules (e.g.: think what you are going to say before pressing the button; keep transmissions clear and concise; listen before talking on the frequency, etc.).</p>

REF	Recommendation	Rationale
AU7	<p>Implement knowledge exchange programs between ATCOs/FISOs and Airspace Users.</p> <p>See also recommendation ANSP3</p>	<p>The knowledge exchange programmes should aim to support controllers and pilots in sharing their knowledge of airspace and aircraft, improve understanding of each other's needs, limitations, and way of working. Programmes should include pilots with different experience, e.g., pilots of light aircraft, gliders pilots, helicopters, etc. Such knowledge exchange programmes should be organised at local level in order to maximise effectiveness. Meeting events should be held at the flying schools and clubs and ATS facilities. Pilots' associations and flying clubs should play an essential role for improvement of the interface to ATC.</p> <p>Establish Local Airspace Infringement Teams (LAITs) to be run by the airspace owner. Participants should be included from ANSP's, airspace users (GA, CA and MA), local airports and regulators. Provide more general information on hotspots and ways of communication.</p>
AU8	<p>Review private pilots' initial training content and ensure there is improved R/T training coverage.</p> <p>See also recommendation ANSP1</p>	<p>Private pilots should be taught to: Use unambiguous call-signs - full call-sign or call-sign coupled with type of aircraft; Contact ATS for assistance in complex situations (e.g. unsure of position); Actively seek confirmation in case of doubt; Strictly apply the readback/hearback procedure; Use 121.5 MHz in complex/unusual and emergency situations if not in contact with an ATS unit on another frequency; Adhere to communication failure procedures; Use standard phraseology in English for essential air-ground communication exchanges, like clearance requests. The training course should include practicing R/T skills for the most common R/T exchange scenarios, like crossing controlled airspace, reporting basic flight plan data, and requesting information.</p> <p>This recommendation is also applicable to ULM pilots whose training and licensing are not covered by the EASA regulations.</p>
AU9	<p>Ensure adequate proficiency of flight instructors in terms of navigation and R/T skills</p>	<p>The navigation and communication skills requirements for flight instructors should be reviewed and updated, as needed, to meet the training syllabus needs.</p> <p>The risk awareness of instructors at flying schools should be raised through dedicated workshops, safety seminars and publications.</p> <p>Support from the regulatory authorities should be sought and obtained.</p>
AU10	<p>Promote extended flight corridor and alternate route planning for VFR flights</p>	<p>Promote awareness of the need and encourage private pilots to plan alternative/secondary routes to be flown in the event of unexpected/unforeseen circumstances, e.g., clearance to cross controlled airspace is refused, weather changes occurring faster than predicted, etc.</p>

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Best Practices

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Section Reference	Best Practice	Source
AU2	<p>Publish leaflets about best practices and advice to prevent and mitigate AI, promoting them through safety promotion days organized in those aerodromes where AI has been identified as a serious issue.</p> <p>Promotion of the SKYclips on Airspace Infringements through the official webpage and social media.</p>	AESA
	<p>Create a website with collated relevant safety information for General aviation, like the UK's Airspace and Safety Initiative website: https://airspace-safety.com/resources/</p>	UK CAA
	<p>Introduce a Local Airspace Infringement Team (LAIT). LAITs are run by the airspace owner (APT). Participants from ANSP's, airspace users (both GA and CA), local airports and regulator contribute to a successful working arrangement. Apart from reviewing specific incidents, also more general info on hotspots and way of communication is being shared. Home - Airspace Safety</p>	UK CAA
AU4	<p>It could be recommended that in ramp inspections special attention is paid to overlooking the updating of the GA users data bases, and reminding and encouraging the pilots to keep them updated.</p>	AESA
AU6	<p>SKYbrary features "A guide to phraseology" which can be used both for training as refresher purposes, and is freely accessible via: http://www.skybrary.aero/solutions/alkclear/Resources/RTFGuide.pdf</p>	EUROCONTROL
AU7	<p>Introduce a Local Airspace Infringement Team (LAIT). LAITs are run by the airspace owner (APT). Participants from ANSP's, airspace users (both GA and CA), local airports and regulator contribute to a successful working arrangement. Apart from reviewing specific incidents, also more general info on hotspots and way of communication is being shared. Home - Airspace Safety</p>	UK CAA
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Contributors

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