

Austrian Plan for Aviation Safety 2022

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1 Introduction

1.1 Overview of the Austrian Plan for Aviation Safety

Austria is committed to enhancing aviation safety and to the resourcing of supporting activities. The purpose of the Austrian Plan for Aviation Safety (APAS) is to continually reduce fatalities, and the risk of fatalities, through the development and implementation of a national aviation safety strategy. A safe aviation system contributes to the economic development of Austria and its industries.

The APAS constitutes the framework for the proactive management of safety-related activities on national level. It promotes the effective implementation of the Austrian safety oversight system, a risk-based approach to managing safety as well as a coordinated approach to collaboration between Austria and other States, regions, industries and Regional Safety Oversight Organisations (EASA). While Safety Management at the State level is defined in the Austrian Aviation State Safety Programme document, at the aviation industry level this systemic approach is implemented by means of respective Safety Management Systems (SMS). All stakeholders are encouraged to support the implementation of the APAS as the strategy for the continuous improvement of aviation safety in Austria.

Risk management activities at State and industry level result in the identification of such risks, which may impact the Austrian civil aviation safety system. Consequently, suitable actions and/or mitigating measures are developed, followed by expert evaluation of their effectivity.

Furthermore, the APAS comprises risks and associated actions/mitigating measures, which are included in the ICAO European and North Atlantic Regional Aviation Safety Plan (RASP) and the European Plan for Aviation Safety (EPAS) as Member State Tasks (MST) and Safety Promotion Tasks (SPT), as applicable.

The Austrian Plan for Aviation Safety is in alignment with the ICAO Global Aviation Safety Plan (GASP, Doc 10004), the ICAO Regional Aviation Safety Plan (ICAO EUR NAT RASP) as well as the European Plan for Aviation Safety (EPAS). It has been established in conformity with Article 8 of Regulation (EU) 2018/1139, to accompany the Austrian Aviation State Safety Programme (AASSP).

1.2 Relationship between GASP, RASP, EPAS and APAS

1.2.1 GASP

The Global Aviation Safety Plan¹ (GASP) has been established by the International Civil Aviation Organization (ICAO) in order to support the prioritization and continuous improvement of aviation safety worldwide. It promotes coordination and collaboration among international, regional and national initiatives aimed at delivering a harmonised, safe and efficient international civil aviation system.

The GASP assists ICAO Member States and regions around the world in their air navigation safety policies, planning and implementation by

- setting out global air navigation safety objectives;
- providing a planning framework, timetable and guidance material for States and regions; and
- outlining implementation strategies and best practice guidance materials.

The GASP requests the establishment of a National Aviation Safety Plan in order to describe the strategic direction for the management of aviation safety at the national level, for a set time period. It outlines to all stakeholders, where the Civil Aviation Authorities (CAAs) and other entities involved in the management of the respective State's aviation safety should allocate resources for the upcoming years.

1.2.2 RASP

The regional aviation safety plan is the master planning document containing the strategic direction for the management of aviation safety at the regional level for a set time period (ICAO EUR Region). It outlines to all stakeholders where the different regional entities involved in the management of aviation safety should target resources over the coming years. RASP is based on GASP and influenced by EPAS

¹ ICAO Doc 10004, Global Aviation Safety Plan

1.2.3 EASP/EPAS

In the European aviation system, rulemaking, safety oversight and safety promotion activities are shared between the EU Member States and the European Institutions. The European Aviation Safety Programme² (EASP) describes the roles and responsibilities of the Institutions of the European Union, of the European Union Aviation Safety Agency and of each of the Member States while performing these functions. The European Plan for Aviation Safety (EPAS) is a component of the EASP and provides a framework for safety at the Union level. As an important part of the EPAS, Member State Tasks (MST) are defined and all Member States should strive to implement them.

1.2.4 AASSP/APAS

The aim of this Austrian Plan for Aviation Safety (APAS) is to provide a systematic overview of the strategic priorities, identified safety risks and actions and/or mitigating measures taken. The document allows for the effective communication of relevant information to all stakeholders and collaborative efforts to improve safety on a continuous basis. It outlines safety risks and actions/measures taken pertinent to the year **2021** and **before**. Those have been identified along with the analyses of safety performance at national level, also taking into account European, regional and global levels.

The APAS complements the AASSP document in pursuing a strategic perspective with respect to the implementation of Safety Management at both State and industry levels, emphasizing risk-based and performance-based approaches. In this context, Austria is in the process of developing meaningful risk profiles for all relevant industry stakeholders.

Furthermore, the APAS delineates activities, such as safety promotion, aiming at improving safety at the operational level, also considering lessons learnt from occurrences, hazards identification and other available sources.

² Report from the Commission to the European Parliament and the Council, "The European Aviation Safety Programme", COM(2022) 529 final and COM(2022) 529 final - Annex

1.3 Relationship between the Austrian Plan for Aviation Safety (APAS) and the Austrian Aviation State Safety Programme (AASSP)

Through an effective State Safety Programme, Austria identifies and mitigates national operational safety risks. The Austrian Aviation State Safety Programme document provides safety information to the Austrian Plan for Aviation Safety. The AASSP allows Austria to manage its aviation activities in a coherent and proactive manner, it measures the safety performance of its civil aviation system, monitors the implementation of the APAS' Safety Enhancement Initiatives (SEIs)³ and addresses any identified hazards and deficiencies. The APAS is one of the key documents produced as part of Austria's Aviation State Safety Programme documentation. Austria defines and drives the implementation of SEIs generated by the Austrian risk management process drawn from the GASP, RASP and EPAS by the mean. It also allows Austria to determine initiatives to strengthen its Aviation State Safety Programme or otherwise needed to achieve its safety objectives.

Further information on Austria's State Safety Programme can be found in the Austrian Aviation State Safety Programme document, which can be downloaded at bmk.gv.at.

1.4 Structure of the Austrian Plan for Aviation Safety

The APAS presents the strategy for enhancing aviation safety and comprises of the following five sections and one Appendix:

- Introduction,
- Purpose of the Austrian Plan for Aviation Safety,
- Austria's Strategic Approach to Managing Aviation Safety,
- Safety risks, and
- Monitoring of the Implementation

³ The Austrian Safety Enhancement Initiatives (SEIs) are listed in the Appendix to the APAS.

1.5 Responsibility for the Development, Implementation and Monitoring of the Austrian Plan for Aviation Safety

The Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) is responsible for the development, implementation and monitoring of the APAS, in collaboration with Austro Control GmbH, the Austrian Aero-Club, the Austrian Safety Investigation Authority and the national aviation industry and other relevant stakeholders.

1.6 Operational Context

The following tables give an overview of the size and complexity of the Austrian aviation industry/system by area, dated September 2022.

Table 1: Aircraft Register

Item	Number of licences or approvals
Sailplanes	250
Ultralight aircraft	45
Aircraft below 2000 kg	726
Aircraft from 2000 kg until 5699 kg	120
Aircraft over 5699 kg	543
Rotorcraft	255
Balloon	207
motorised Hanglider	30
motorised Paraglider	78
Total	2254

Table 2: Licences⁴

Item	Number of licences or approvals
Sailplane Pilot Licence	3040
Ultralight Pilot Licence	378
Private Pilot Licence	6292
Commercial Pilot Licence	2526
Airline Transport Pilot Licence	4360
Light Aircraft Pilot Licence	465
Multi Pilot Licence	119
Private Helicopter Pilot Licence	339
Commercial Helicopter Pilot Licence	498
Helicopter Pilot Licence	35
Ballon Pilot Licence	200
Hang-/Paraglider Licence	8756
motorised Hang-/Paraglider Licence	472
national Parachutist Licence	2255
Maintenance Licence	139
Maintenance 1. Class Licence	38
Part 66 Licence	1125
ATCO Licence	372
Total	31209

⁴ Does not include drone pilot licences

Table 3: Organisations

Item	Number of licences or approvals
Maintenance	126
Production	22
Design	15
Approved Training Organisation Aircraft, Type Rating Training Organisation Aircraft, Flying Training Organisation Aircraft	46
Approved Training Organisation Helicopter, Flying Training Organisation Helicopter	9
Declared Training Organisation Aircraft	47
Declared Training Organisation Helicopter	0
Declared Training Organisation Balloons	3
Declared Training Organisation Sailplane	59
Approved National Civil Aviation School Hang- and Paragliding	40
Approved National Civil Aviation School Parachute	11
Approved National Civil Aviation School Ultralight-aircraft	8
Part 147 Training Organisation	3
Total	389

Table 4: Aero Medical

Item	Number of licences or approvals
Aeromedical Centres	3
Aeromedical Specialist	63
Medical Specialist	105
Aviation Psychologist	8
Total	179

Table 5: Flight Operation

Item	Number of licences or approvals
Aircraft	40
Rotorcraft	11
Balloons	31
Total	82

Table 6: Drones

Item	Number of licences or approvals
Drones on register	35932
Drone pilot licences	54198

Table 7: Aerodromes and Ground Handling

Item	Number of licences or approvals
Aerodromes	6

Table 8: Air Navigation Services

Item	Number of licences or approvals
Air Navigation Service Provider	1

2 Purpose of the Austrian Plan for Aviation Safety

The Austrian Plan for Aviation Safety is the master planning document containing the strategic direction of Austria for the management of aviation safety. This plan lists national, **regional**, and European safety issues to address identified safety deficiencies.

The APAS addresses all aspects of civil air transport at the State level, with the objective of providing a clear and comprehensive planning and implementation strategy for the future development of the entire civil aviation sector. The Austrian Plan for Aviation Safety contains in-depth information specific to aviation safety.

The Austrian Plan for Aviation Safety has been developed using international safety goals and targets and high-risk categories (HRCs) from the GASP, the EUR NAT RASP and the EPAS. The safety enhancement initiatives (SEIs) listed in the GASP, RASP and EPAS support the improvement of safety at regional and international level. These Plans include several actions to address specific operational safety risks and recommended actions for individual States. Austria has adopted these SEIs where relevant and has included them in the appendix to this plan. Cross-references to the individual EUR NAT RASP SEIs and EPAS SEIs are provided, if applicable.

3 Austria's Strategic Approach to Managing Aviation Safety

3.1 General

The Austrian Plan for Aviation Safety presents the actions derived from Austria's safety risk management process, the safety data collection and processing systems, as well as the work undertaken by service providers in the development and implementation of their safety management systems (SMS). This plan is developed and maintained by the Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, in coordination with Austro Control GmbH and the Austrian Aero-Club. The APAS will be updated on a yearly basis.

The actions in this plan are implemented through Austria's existing safety oversight capabilities and the service providers' SMS. Some of the national actions are linked to overarching actions at the regional and international levels and help to enhance aviation safety globally.

The Austrian Plan for Aviation Safety also addresses emerging issues. Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. It is important that Austria remains vigilant on emerging issues to identify potential operational safety risks, collects relevant data and proactively develops mitigations to address them.

The full list of actions/SEIs is presented in the appendix to the APAS.

3.2 Safety promotion

Noteworthy is that Austria focuses on numerous safety promotion initiatives and activities, delivered by highly qualified and experienced authority personnel. In the context of safety promotion, such as Season Opener events, Road Shows, trainings, workshops, safety briefings, folders, leaflets, surveys, self-assessment checklists, and tailored industry guidance, topics of significant impact on aviation safety are shared with the aviation community.

The existing risk management process emphasizes also on human factors or their contribution to safety events. Hence, Austria is enabled to address the human error topic as a recurring factor in occurrences by considering systemic correlations and observing it as an integral part of managing safety more effectively.

Overall, safety promotion is an essential mean in the enhancement of safety performance of all stakeholders. Various activities have also resulted in significant improvement of the reporting culture, whereas further efforts will be made to refine data and information quality.

Safety recommendations of Union-wide relevance within the European Central Repository for Safety Recommendations in aviation (ECR-SRIS) are now publicly accessible, which allows for direct sharing/dissemination of important information to concerned stakeholders.

4 Safety Risks

4.1 General

The Austrian Plan for Aviation Safety includes actions that address national operational safety risks, derived from lessons learned from operational occurrences and from a data-driven approach. These SEIs may include:

- rule-making;
- policy development;
- targeted safety oversight activities;
- safety data analysis;
- and safety promotion.

4.2 Operational Safety Risks

The National Safety Action Points (NAPs) are based on national High Risk Categories (HRC) of occurrences in Austria, identified through a data-driven approach.

The following national high-risk categories (HRCs) of occurrences in the context were considered of the utmost priority because of the **number of occurrences reported** and the total risk for the aviation systems associated with such events. They were identified based on analyses from mandatory and voluntary reporting systems between 2015 and 2021.

1. ARC: Abnormal runway contact
2. LOC-I: Loss of control – inflight
3. CTOL: Collision with obstacle(s) during take-off and landing
4. TURB: Turbulence encounter
5. LOLI: Loss of lifting conditions en-route

Compared to the HRCs presented in the previous version of the APAS (APAS 2021), three of the top five HRC of the APAS 2022 are the as in APAS 2021. These three are ARC: Abnormal runway contact (in APAS 2021 on position 2), LOC-I: Loss of control – inflight (which was on position 3 in APAS 2021 and CTOL: Collision with obstacle(s) during take-off and landing

(which was on position 5 in APAS 2021). New in the APAS 2022 top five HRC are TURB: Turbulence encounter and LOLI: Loss of lifting conditions en-route (position 4 and 5 on the HRC list above).

All occurrences collected by means of the European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS) events were reviewed in the period from 01 January 2021 to 31 December 2021. With due regard to tracking of highest risk, occurrences were selected for further processing by assigned area experts/teams. From the overall processing rate of occurrences and otherwise detected concrete or potential safety deficiencies, safety trends were recorded, while the entirety of all other occurrences are continuously monitored.

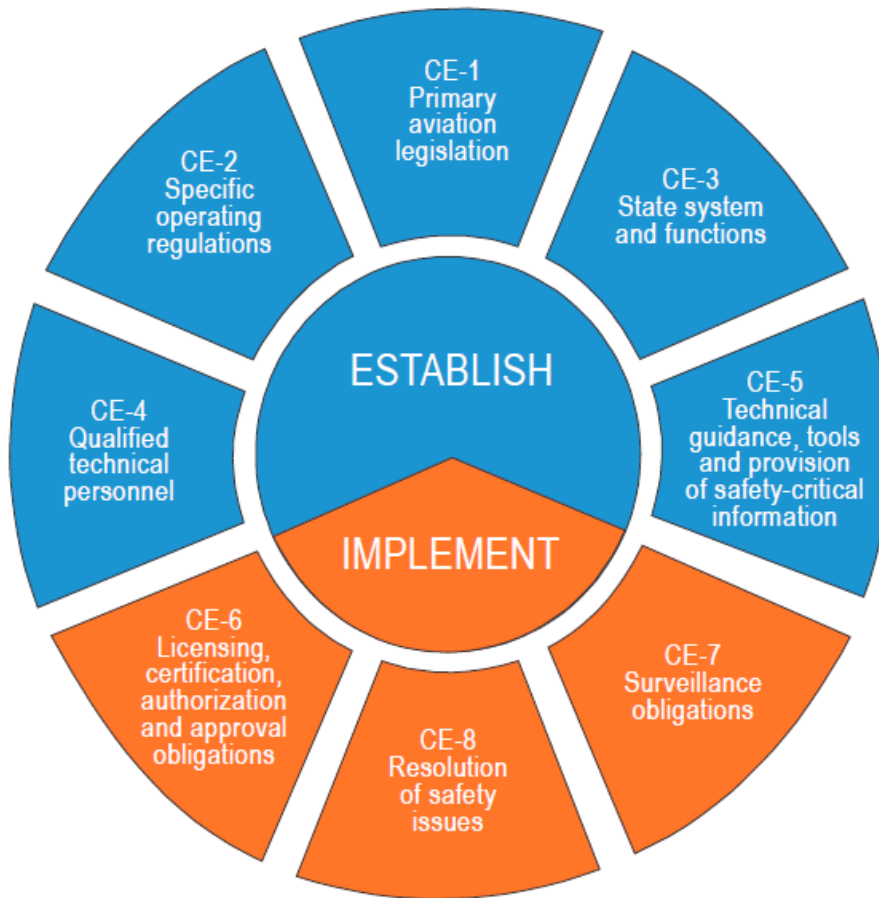
With respect to those aviation stakeholders having a safety management system (SMS) in place, risk management is conducted as part of their SMS framework. Based on the suggested corrective action(s)/mitigating measure(s), decisions are taken in the context of scheduled surveillance activities. Such decisions reflect whether the proposed measures are sufficient and suitable to identify the root cause(s), potential causal and contributing factors, and therefore reduce the identified risk to an acceptable level.

4.3 Other Safety Risks

In addition to the national operational safety risks listed in the Austrian Plan for Aviation Safety, Austria has identified other safety issues and initiatives selected for the APAS. These are given priority since they are aimed at enhancing and strengthening Austria's safety oversight capabilities and the management of aviation safety at the national level.

The eight critical elements (CEs) of a safety oversight system are defined by ICAO. Austria is committed to the effective implementation of these eight CEs, as part of its overall safety oversight responsibilities, which emphasize Austria's commitment to safety in respect of its aviation activities. The eight CEs are presented in Figure 1 below.

Figure 1: Eight critical elements of a State's safety oversight system



The latest ICAO activity⁵ in 2019, which aims to measure the effective implementation of the eight CEs of Austria's safety oversight system, as part of the ICAO Universal Safety Oversight Audit Programme (USOAP), has resulted in the following scores as per December 31st 2021:

Overall EI score⁶: **93,35 % / 92,75%**

⁵ The latest ICAO activity was an off-site validation, which took place in summer/autumn 2019.

⁶ see Note 8

Table 9: EI Score by CE

Critical Element	Scores (Initial ⁷ and Adjusted ⁸)
CE-1	100,00 % / 100,00 %
CE-2	95,92 % / 94,74 %
CE-3	96,20 % / 94,74 %
CE-4	94,52 % / 92,50 %
CE-5	82,35 % / 79,41 %
CE-6	96,96 % / 97,14 %
CE-7	93,51 % / 93,55 %
CE-8	90,70 % / 94,44 %

Table 10: EI Score by Area⁹

Area	Score (Initial ⁷ and Adjusted ⁸)
LEG	95,45 % / 95,45 %
ORG	81,82 % / 77,78 %
PEL	100,00 % / 100,00 %
OPS	96,64 % / 96,97 %
AIR	100,00 % / 100,00 %
AIG	68,89 % / 66,67 %
ANS	100,00 % / 100,00 %
AGA	88,41 % / 86,84 %

⁷ Effective Implementation (EI) result as listed in the Final Report of the activity.

⁸ Effective Implementation (EI) adjusted to the current set of Protocol Questions (PQs). The current list/set of Protocol Questions is updated from time to time, thus the content and the number of PQs may vary from year to year which results in an adjusted EI value.

⁹ Eight audit areas pertaining to USOAP, i.e. primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

5 Monitoring of the Implementation

Austria will continuously monitor the implementation of the actions listed in the Appendix of the APAS and measure safety performance of the national civil aviation system, to ensure the intended results are achieved using the mechanisms presented in the appendix to this plan.

Since the Austrian Plan for Aviation Safety is a living document, Austria will review the APAS every year to keep the identified safety risks, safety issues and selected actions updated and relevant as well to ensure inclusion of new emerging safety tasks and actions/measures taken. In addition, the yearly update of the APAS ensures that all relevant MSTs of the latest edition of the EPAS are addressed and that the responsible authority/ies has/have verified and updated their Action Points, if required.

Through close monitoring of the actions, the Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology will update the APAS accordingly.

Austria has adopted a standardized approach to provide information at the regional level, for reporting to the RESG, the EASPG and to EASA. This allows the region to receive information and assess safety risks using common methodologies.

The Austrian Plan for Aviation Safety contains a number of action points, which are separated in three different chapters. Chapter 1 contains all relevant actions stemming from the European Plan for Aviation Safety. Chapter 2 contains national actions, stemming from the Austrian Risk Management System. In Chapter 3 actions from the Regional Aviation Safety Plan are listed.

Each SEI is assigned to one or more responsible authority/ies in charge of proper implementation and monitoring of the specific safety tasks and actions/measures to be taken as well as coordination, if necessary.

Abbreviations

AASSP	Austrian Aviation State Safety Programme
AASSP-SC	Austrian Aviation State Safety Programme Steering Committee
ACG	Austro Control GmbH
AeMC	Aero Medical Center
AGA	Aerodromes and Ground Aids
AIG	Aircraft Accident and Incident Investigation
AIR	Airworthiness of Aircraft
AME	Aero Medical Examiner
ANS	Air Navigation Service
ANSP	Air Navigation Service Provider
AOC	Air Operator Certificate
APAS	Austrian Plan for Aviation Safety
ARC	Abnormal runway contact
ATCO	Air Traffic Controller Licence
ATPL	Air Transport Pilot Licence aircraft and helicopter
ATO	Approved Training Organisations for helicopter
BMK	Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology
CAA	Austrian Federal Ministry for Climate Action, Environment,
CAMO	Austrian Federal Ministry for Climate Action, Environment,
CAST	Austrian Federal Ministry for Climate Action, Environment,
CE	Critical Element
CICTT	CAST/ICAO Common Taxonomy Team
CPL	Commercial Pilot Licence aircraft and helicopter
CTOL	Collision with obstacle(s) during take-off and landing
DTO	Declared Training Organisations for aircraft
EAP	European Action Point
EASA	European Union Aviation Safety Agency
EASP	European Aviation Safety Programme

EASPG	European Aviation System Planning Group
ECCAIRS	European Coordination Centre for Accident and Incident Reporting System
ECR-SRIS	European Central Repository for Safety Recommendations in Aviation
EI	Effective Implementation
EPAS	European Plan for Aviation Safety
FFS	Aircraft Full Flight Simulator
FNPT	Aircraft or helicopter Flight Navigation Procedure Training Device
FOT	Focused Attention Topics
GASP	Global Aviation Safety Plan
HRC	High Risk Category
ICAO	International Civil Aviation Organisation
ICAO EUR NAT	ICAO European and North Atlantic Office
LAPL	Light Aircraft Pilot Licence Medical
LEG	Primary Aviation Legislation and Civil Aviation Regulations
LOC-I	Loss of control – inflight
MAC	Airprox/ACAS alert/loss of separation/(near) midair collision
MST	Member State Tasks
NAP	National Action Point
NASP	National Aviation Safety Plan
NAV	Navigation error
NCC	Non-commercial operations with complex motor-powered aircraft or helicopter
ORG	Civil Aviation Organisation
OPS	Aircraft Operations
PEL	Personnel Licensing and Training
PPL	Private Pilot Licence aircraft and helicopter
RASP	Regional Aviation Safety Plan
RESG	Regional Expert Safety Group
SEI	Safety Enhancement Initiative
SMS	Safety Management System
SPO	Special Operation for aircraft and helicopter

SPT

Safety Promotion Tasks

USOAP

Universal Safety Oversight Audit Programme

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