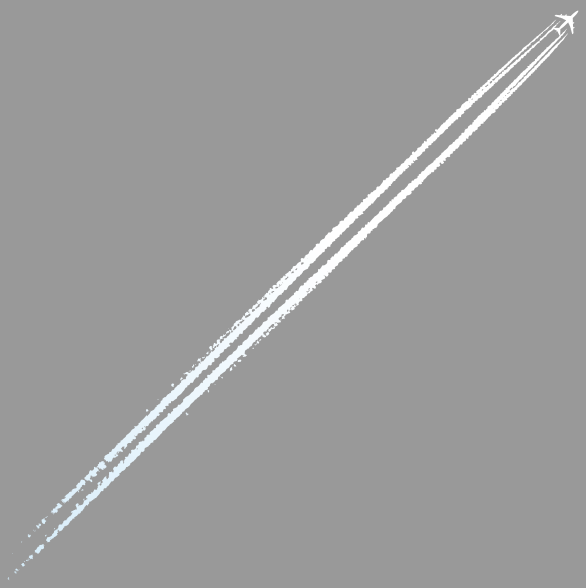
EASA
European Aviation Safety Agency

European Aviation Safety Plan

EASp 2014 - 2017



EUROPEAN AVIATION SAFETY AGENCY
SAFETY ANALYSIS AND RESEARCH DEPARTMENT

Designed in Luxembourg

European Aviation Safety Plan

EASp 2014 - 2017

Photography: Nikolaos Anagnostopoulos

Why a Plan?

Any journey needs a plan that helps assess the current status, but also can be used as a guide on the direction for future steps.

What is the EASp?

The **European Aviation Safety Plan** (EASp), identifies the risks and establishes the priorities for the European region.

In more detail, the European Aviation Safety Plan is the documented output of an evidence based, pro-active approach to safety risks. It provides the reader with a risk picture of the aviation safety system in Europe. It also supports the management of safety at European level by complementing existing safety regulations and investigations.

The worldwide rate of fatal accidents for scheduled passenger and cargo flights continued to decrease in 2013, providing a steady improvement in aviation safety (**Figure 1**). According to the EASA Annual Safety Review 2013 the rate of fatal accidents in EASA MS is comparable with and slightly lower than North America (**Figure 2**).

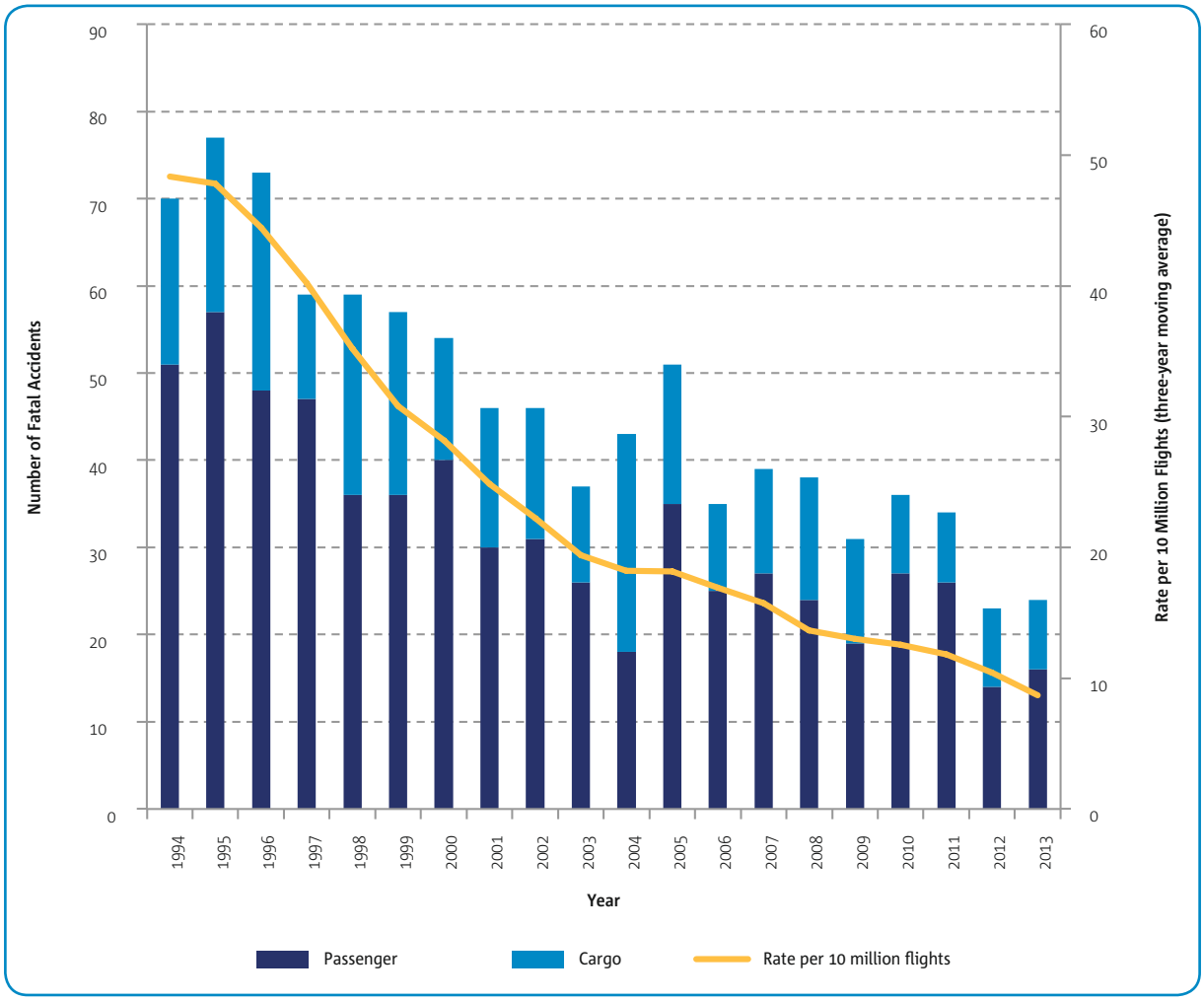
Even though this is a great achievement, there is no room for complacency: air traffic is expected to almost double by 2030[1] and the fact that the average annual rate of fatal accidents in scheduled passenger operations[2] in the European Union has remained more or less stable for the past years, makes new approaches necessary to complement the existing and successful safety measures in order to drive further safety improvements in aviation.

The commitment to improve safety in a systematic manner is the driver behind the EASp.

1 EUROCONTROL CND/STATFOR Doc415 of 17 December 2010 - Long-Term Forecast – Flight Movements 2010 - 2030.

2 *Fatal accidents per 10 million flights*, see EASA Annual Safety Review.

Figure 1 shows the number and rate per 10 million flights of scheduled passenger and cargo fatal accidents worldwide per year, 1994-2013.



➡ Figure 2 shows the fatal accident rate of scheduled passenger and cargo fatal accidents per 10 million flights, by region of the world, using the regions defined by the ECCAIRS taxonomy between 2004-2013

A Safety Management System at European level

Europe has started to implement a *Safety Management System* to become more pro-active in the identification of hazards and with the ultimate goal of further reducing our already good safety record. This system complements the existing system of developing safety regulations, complying with them and investigating accidents and serious incidents when they occur.

One of the key elements of an SMS is managing safety risks, which means identifying hazards, assessing the risks and making decisions on the best course of action to mitigate those risks. Industry organisations and States are also required to do this.

At the European level this process is carried out in coordination with States and industry because they are part of one aviation system and now documented in a 'safety plan'. That document is the **European Aviation Safety Plan**, the EASp. The Plan starts by identifying those areas in which coordinated action will make a difference in avoiding accidents and serious incidents, which is the ultimate goal that links all the activities together.

The planning activity is followed up by a reporting activity, in which progress on the actions is evaluated and also documented. This feedback loop ensures that the process to manage risks continuously improves.

How is the EASp developed and approved?

The first edition of the Safety Plan was developed after taking into consideration Member States' safety concerns. The input provided by the States was aggregated with pan-European safety information from Eurocontrol, ECAST[3] and the Agency. This resulted in a high-level framework with three broad areas (operational, systemic and emerging issues).

In 2012 the EASA Safety Risk Panel was created in order to formalize the risk assessment process. The Panel is charged with identifying the priorities and making recommendations for mitigation.

The content of the Safety Plan is developed by EASA together with safety experts from the Member States, the European Commission, Eurocontrol, the Performance Review Body (PRB), industry and EASA. Their role is to provide advice on how to address the identified safety risks at EU level.

The EASp is consulted with industry through ESSI teams and States through dedicated meetings known as EASp summits.

In its final phase it is reviewed and approved by the Agency and the European Aviation Safety Advisory Committee (EASAC) and then submitted to the EASA Management Board for endorsement. After it is endorsed, it becomes a public document that is implemented on a voluntary basis by all the stakeholders.

How is it implemented?

The EASp is not an EASA plan, but a Europe-wide plan. The risks identified in its areas are mitigated by safety actions that Member States, Eurocontrol, the European Commission, the industry and the Agency take on board. All the partners work together, streamline their activities and add their efforts to drive our accident rate even further down.

While some safety issues stay at national level and are addressed within State Safety Programmes (SSP) alone, there are other instances where common issues of pan-European scope require a collective action. The latter actions are the scope of the present publication.

The implementation of the EASp is voluntary as no regulation obliges to comply with it.

3 ECAST: European Commercial Aviation Safety Team.

Where can I find the information?

The EASp 2014-2017 consists of four documents:

- The core document explains how the Plan is organised, the process to develop it, summarises the progress made in 2013 and introduces the new actions for the period 2014-2017.
- ***Annex A*** contains a detailed **status report** on the progress made on the Safety Plan throughout 2013.
- ***Annex B*** focuses on the actions owned by States and summarises the feedback provided throughout the year.
- ***Annex C*** contains the results of an SSP Phase Implementation survey aimed at highlighting where States are with SSP implementation.

All of them are available at **www.easa.europa.eu/sms**

What are the main areas of the EASp?

The Safety Plan encompasses three broad areas: operational, systemic and emerging issues. Human factors and human performance is addressed in a dedicated section.

Operational Issues are closely related to the events that are reported during operation. The relationship between this type of issues and the final outcomes or end states can be supported by data.

Systemic issues are system-wide problems that affect aviation as a whole. Their association to a particular safety event or circumstance is not always obvious. In most scenarios, they become evident by triggering factors and play a significant role in the development of safety occurrences. They often relate to deficiencies in organisational processes and procedures.

The above issues can be considered as the reactive elements of the Safety Plan since they address problems that have already happened and for which data is to some extent available. In order to balance the composition of the Plan with a more proactive or forward looking element, a third category of issues named **emerging issues** was also proposed.

The **Emerging issues** area gives some consideration to safety issues derived from operations or regulations that have not been fully deployed and where data is not always available.

Finally **human factors and human performance** affect all the safety areas. It is important to recognise that addressing human factors will bring safety improvements across all those issues. Due to the fact that they have an effect across all domains and the difficulty of associating them to one of the above broad areas, they are addressed in a dedicated section in the Safety Plan.

What are the specific safety issues addressed in the EASp?

With each update of the Plan, specific safety issues are allocated within the Safety Plan areas.

Systemic Issues

Systems approaches to safety and a greater emphasis on organisational and managerial factors on the part of industry organisations and regulatory authorities have been growing over the past two decades. The systemic issues addressed in the EASp stem from the recognised benefits of a move towards a more performance based approach to safety where the safety capabilities of industry organisations and authorities are demonstrated up front instead of waiting for incidents and accidents to happen.

The EASp focuses on **State Safety Programme** (SSP) and **Safety Management System** (SMS) implementation, where both authorities and industry stakeholders have responsibilities. Measuring safety performance, sharing safety information and implementing a just culture throughout the organisations involved emerge as key enablers to embrace this approach to safety.

The above elements have to be incorporated in a system with many interdependencies. Long term growth, increasing levels of integration and technical advancements make up for a **complex aviation system** and bring about new safety issues.

Competence of personnel is one of the systemic issues addressed in the EASp. New technologies in aircraft design, manufacturing and operations were developed over the past decades and have led to a new generation of aircraft. Other developments are ongoing. The training requirements for aviation personnel, although continuously amended, need to be adapted after a careful evaluation of how far they are still adequate to enable aviation professionals to meet the challenge

Operational Issues

The primary focus of the EASp is on **commercial air transport operations**[4], especially those carried out by aeroplanes. Additionally an effort has been made to capture actions that address **other types of operation**; thus acknowledging the existing initiatives at European level. The latter part will be further developed in future editions of the EASp.

Within the commercial air transport operations by aeroplanes, safety issues have been organised into six different groups, which represent the main outcome categories leading to fatalities in aviation. Before they occur, usually other recoverable safety issues are triggered that reduce the available safety margin. These may be related to weather, air traffic services, airport services, operations, flight crew, etc. The latter are the issues that the safety actions aim to address.

4 These operations involve the transportation of passengers, cargo and mail for remuneration or hire.

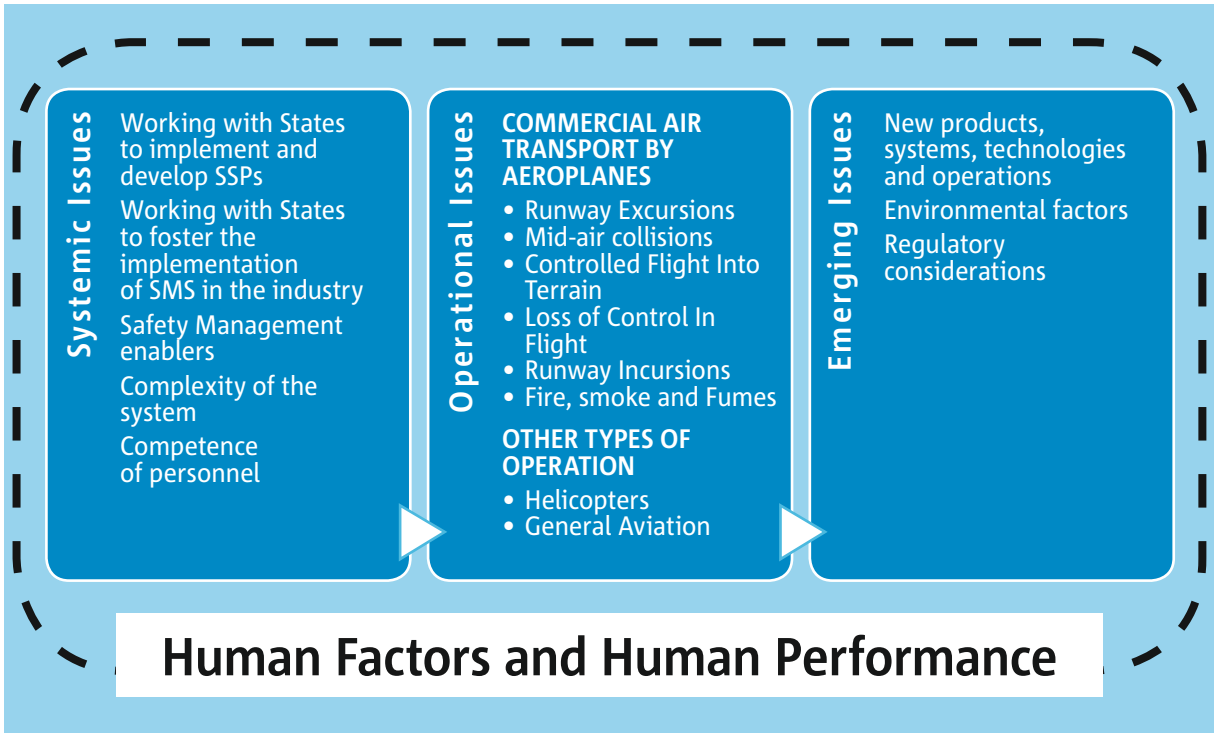
Emerging Issues

This section anticipates issues that are emerging or where potential hazards exist for the immediate or near future. Giving consideration to safety issues derived from operations or regulations that have not been fully deployed incorporates a forward looking element in the Safety Plan, thus complementing the reactive approach. Developing a possible picture of the future with some of the trends that are more relevant to aviation is one of the actions captured in this section.

The nature of the issues identified in this chapter is twofold: on one hand, it addresses safety aspects of changes and trends that impact aviation; on the other hand, it copes with the introduction of new products, systems, technologies and operations for which safety regulations may need to be updated.

Actions will not only deal with uncertainties at early stages of development but also with gathering data that are lacking from operations. Gaps in safety data can be mitigated by specific research actions either to produce simulation experiments (at different scales) or by gathering operational experts input on safety issues and prioritising them.

In addition to **new products, systems and technologies**, consideration is given to issues related to the **environment** like the effect of climate change in aviation as well as the possible evolution of the **role of the regulator** and oversight authorities .



Completed in 2013

The following are some of the actions completed in 2013:

- Publication of the opinion requiring aerodrome operators (of such aerodrome that will require certification) to implement and maintain a management system as well as the authorities responsible for their oversight;
- Progress made on paving the way on safety performance measurement: The SMICG has published guidance material for service providers while the NoA has agreed the first SPI definitions with States;
- Collaborative work of the International Committee for Aviation Training in Extended Envelopes (ICATEE) and Loss of Control Aviation Rulemaking Team (LOCART) in which EASA and Member States have taken part. ICATEE recently delivered a draft Upset Prevention and Recovery Manual to ICAO;
- Workshop on loss of control prevention and recovery training was organised on 28 February and 1 March at the Agency. The workshop invited the major stakeholders who discussed on issues like theoretical training, on aircraft upset prevention and recovery training (UPRT), Flight Simulation Training Devices, realistic stall prevention and training scenarios development and manual flying skills. Actions coming out of the workshop have been identified and a follow-up EASp action is proposed in this edition;
- Development of a tool to assess the impact of technologies on mitigating helicopter safety issues by the EHEST;
- Organisation of a safety conference to exchange views on icing – both on ground and in the air - and identify mitigation opportunities by the Agency in October;
- Implementation of a uniform, standardisation process for all fields of aviation as covered by the Basic Regulation and related Implementing Rules;
- Review of the rulemaking programme for 2013 to 2016 and identification of tasks that have potential HF considerations carried out by the EHFAG.

Main topics of work during 2013

Systemic Issues

Working with Authorities and Organisations to implement Safety Management

Managing safety in a systematic and proactive way will allow authorities and organisations to act on hazards before aviation accidents occur. This is a global move as the adoption of the new ICAO Annex 19 compiling all safety management provisions reflects.

This move is an integral part of the EASp as the EU is in the process of setting up the regulatory framework that will require organisations and authorities to implement a management system that incorporates safety in it. The various strands of work to make this happen across all aviation domains are described in the 4th edition of the EASp.

Safety Management Enablers

Besides identifying hazards and assessing the associated risks, SMS seeks to close the loop by measuring achievements. In order to do that organisations and States have started to engage in developing safety performance indicators (SPIs). Several EASp activities contribute towards measuring performance.

- The **Safety Management International Collaboration Group** (SMICG), has published guidelines to assist service providers in the definition and implementation of a set of safety performance indicators .
- At European level a performance scheme has been made mandatory in Regulation 691/2010 for ATM. The European Commission is getting ready to contract a study to explore the possibility of extending the approach beyond ATM. The study is envisioned in 2015.
- Additionally the Network of Analysts (NoA) has already defined high-level SPIs that can be used at European and national level.

Flight Data Monitoring (FDM) is a powerful tool for monitoring operational safety on a day-to day-basis, and a natural component of the SMS of an aircraft operator. The EASp includes two actions intended to promote that FDM programmes priorities include common operational issues identified at the European and national levels.

Competence of personnel

Having the right competencies and adapting training methods is recognised as a key area in the EASp, hence a new systemic threat was created in the previous edition of the Plan in order to tackle such issues like the increasing pilot reliance on automation, the modernisation of training provisions or the differences in training implementation among States.

In response to the issue of increasing pilot's reliance on automation, EASA has published three SIBs that address manual flight training and operations, stall and stick pusher training and mode awareness and energy state management. The training issues addressed in them are closely related to the EASp activities that address loss of control avoidance and recovery training.

Work to develop a training implementation policy to reduce the differences in training implementation among States has concluded. The resulting training implementation policy addresses the implementation of rules regarding training, testing and checking.

Two actions focus on modernising training methods and competence provisions across several domains: flight crew licensing, operations, maintenance and ATM/ANS. New training methods like competence based training (CBT), evidence based training (EBT) and distance learning are being evaluated and training standards will be adapted in the coming years as necessary.

Coordination with Member States

In the new ICAO Annex dedicated to safety management, the role played by the State in managing safety at its level has been reinforced, stressing the concept of overall safety performance in all domains, in coordination with service providers.

The near-term objectives of the GASP 2013 focus on the implementation of an effective safety oversight system by 2017 in all States. Using the Universal Safety Oversight Audit Programme (USOAP) effective implementation (EI) as an indicator of State safety oversight system maturity, the GASP stipulates that States with an EI above 60% should begin SSP implementation if they have not already. This is the case of the majority of the States implementing the EASp.

A dedicated action item encourages States to expedite SSP implementation. Until now **16 SSP documents** and **10 Safety Plans** have been made available to the Agency as part of the implementation of the EASp. Web links to these documents can be found at **www.easa.europa.eu/sms**.

In 2013, a new survey has been distributed to the States in order to assess where they are with SSP implementation. For that purpose the 4 phase approach suggested in the 3rd edition of the Safety Management Manual was used. The survey was tailored to the EASA safety system and accompanied with guidance text.

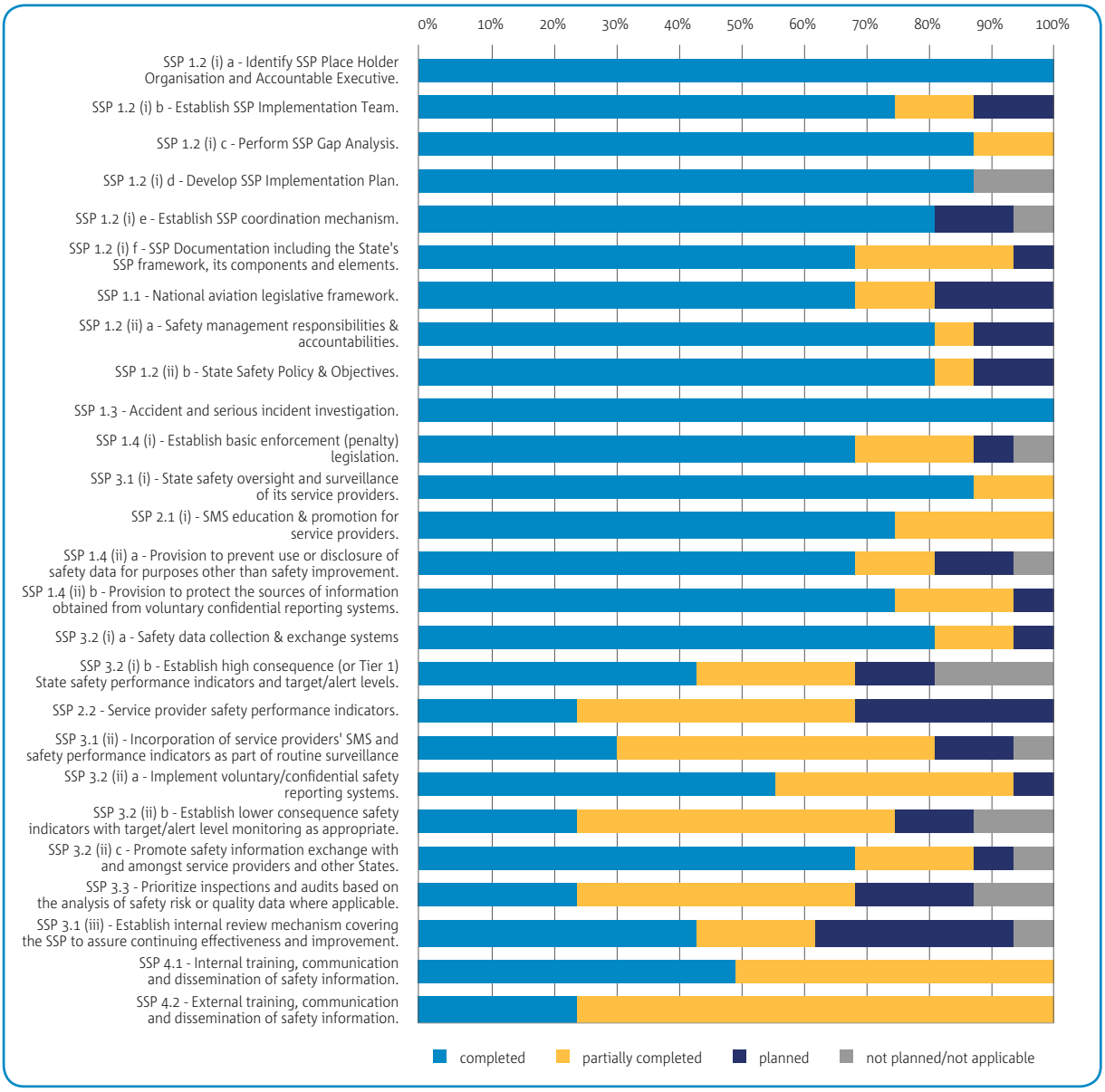
The aggregated results (based on 16 respones) show that some elements such as identifying the SSP place holder organisation, performing an SSP gap analysis, developing an implementation plan, establishing an accident and incident investigation body or performing oversight and surveillance of service providers are already in place in at least 80% of the States that provided a response.

On the other hand, SSP elements such as establishing service providers performance indicators, incorporating service providers' SMS and safety performance indicators as part of routine surveillance program, establishing lower consequence safety indicators with target/alert level monitoring, prioritising inspections and audits based on the analysis of safety risk or quality data or providing external training, communication and dissemination of safety information were implemented in less 30% of the States that provided a response.

More details can be found on Annex C – SSP Phase Implementation Survey Results which is also published with the EASp.

States are also encouraged to set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes. Five States have organised meetings with aircraft operators that promote FDM in 2013 or 2012. Discussions on FDM events relevant for preventing the major operational risks identified in the EASp are held in 5 States. More details can be found on Annex B - *EASp implementation in the State*.

Figure 3 shows the aggregated results of the SSP implementation survey based on the input provided by 16 States during 2013.



Operational Issues

Commercial Air Transport by Aeroplanes

To mitigate the risk of *runway excursions* a European Action Plan for the Prevention of Runway Excursions (EAPPRE) was delivered at the beginning of 2013. The Plan offers a comprehensive view on the issues that lead to runway excursions and proposes actions for authorities, various industry organisations (operators, service providers, aerodromes) and also for the Agency. Two EASp actions are aimed at following-up the EAPPRE both at Member State and EASA level. The follow-up is coordinated with Eurocontrol implementation mechanisms.

An opinion proposing European requirements to mitigate Runway Excursions has been published in 2013 and targets aerodrome operators organisations, aerodrome operations and aerodrome design whereas the requirements targeting ATM/ANS provision are already adopted.

The *loss of control* of the aircraft in flight continues to be the category with the major number of fatal accidents in Europe. Among the hazards with the potential to develop into a loss of control addressed in the EASp are: icing, unusual airplane attitudes and erroneous weight and centre of gravity information.

The Agency is now updating its certification specifications with a view to improve safety of large aeroplanes and engines in icing conditions . Icing (both on-ground and in the air) was the subject of the safety conference organised by the Agency in October 2013. Rulemaking tasks to mitigate the ground contamination of aircraft surfaces are scheduled to start in 2015.

In certain situations, flight crews are faced with *unusual airplane attitudes*, one of the scenarios that has the potential to develop into a loss of control. Training plays a key role in these situations and hence several actions of the EASp address training:

- European-wide requirements that address training of and recovery from unusual attitudes have been adopted.
- EASA and Member States have taken part in the International Committee for Aviation Training in Extended Envelopes (ICATEE) and Loss of Control Aviation Rulemaking Team (LOCART). ICATEE recently delivered a draft Upset Prevention and Recovery Manual to ICAO.
- A workshop on loss of control prevention and recovery training was organised on 28 February and 1 March 2013 at the Agency. The workshop invited the major stakeholders who discussed on issues like theoretical training, on aircraft upset prevention and recovery training (UPRT), Flight Simulation Training Devices, realistic stall prevention and training scenarios development and manual flying skills. Actions coming out of the workshop have been identified and a new EASp action is proposed in the following section.

Another scenario that has led to loss of control accidents is having *erroneous weight and/or centre of gravity information*. Two actions of the EASp propose mitigation solutions either through regulation (i.e. equipping aircraft with a weight and centre of gravity measuring system) or through research (i.e. EFB applications).

Implementation of mitigation measures proposed in other European Action Plans already available is being followed-up with States in close coordination with Eurocontrol in the areas of runway incursions and airspace infringement risk. More information is available on Annex B.

Eurocontrol is leading the development of guidance material for ground-based safety nets like Short Term Conflict Alert, Approach Path Monitoring and Area Proximity Warning.

Coordination with Member States

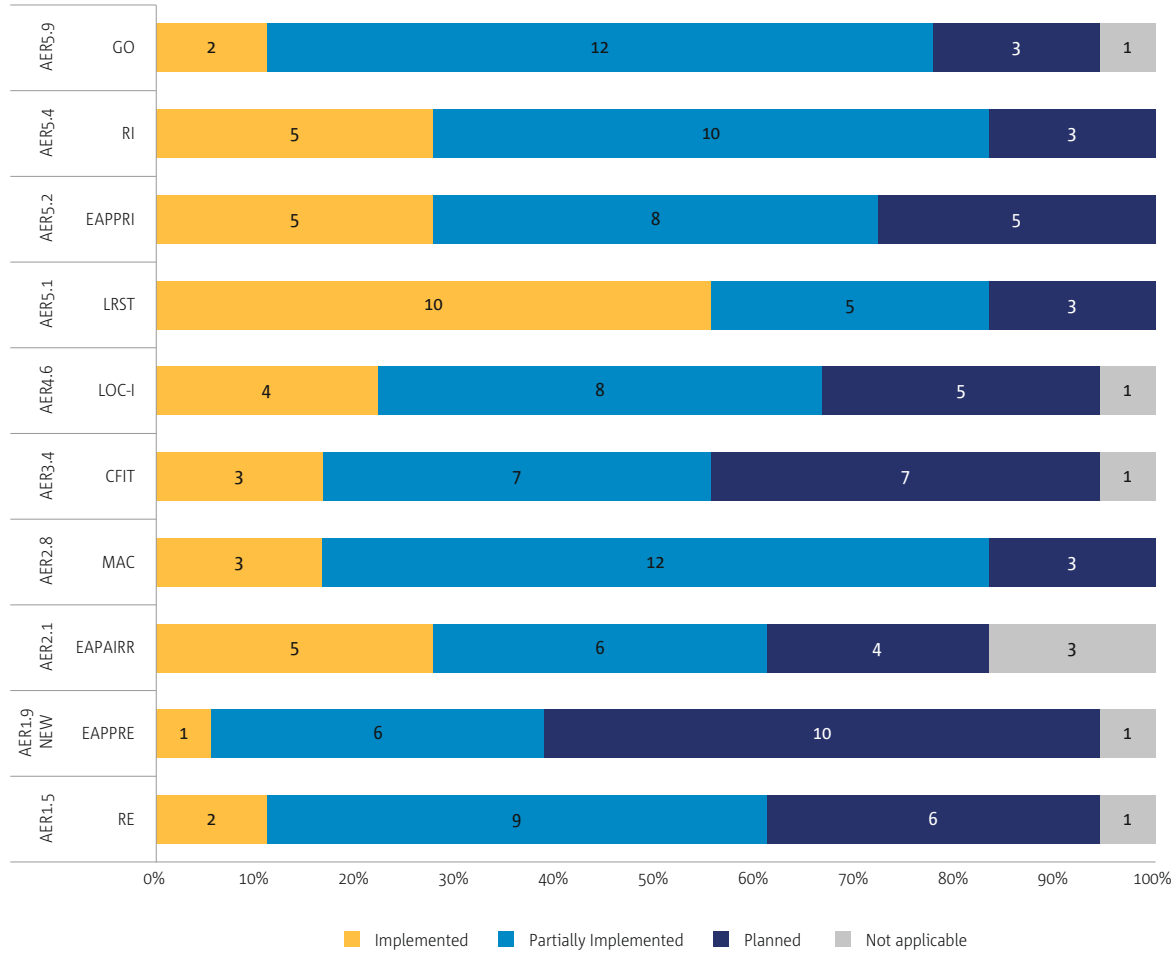
The responses received from Member States to the request on the status of their actions are included in *Annex B - EASp implementation in the States*. The Annex details to what extent the risk areas proposed in the EASp are also being incorporated in risk portfolios at national level and how coordination should be organised in the future.

In general the majority of States are also incorporating the EASp risk areas in their risk portfolios and provide useful feedback on the actions taken at their level. When the management system of a State does not justify the incorporation of an area this is also highlighted. This has been the case of States where only a specific type of operation was relevant or where the size of the activity was rather small.

In the majority of cases Local Runway Safety Teams have been set up at the certified aerodromes. They play a key role in addressing runway safety. On the other hand, the implementation of the EAPPRE (issued at the beginning of 2013) is now starting. A list of hazards with the issues being addressed in each of the States is published in Annex B.

Since coordination with States is considered vital, two additional EASp summits have been organised in 2013 (information on the events is available at **www.easa.europa.eu/sms**). More specifically the *4th EASp implementation and review summit* (organised on 7 November 2013) focused on discussing the feedback provided by States as part of the implementation of the EASp.

➨ Figure 4 summarises the responses received from 18 States on the operational risk areas identified in the EASp



MAIN EASp AREAS
RI = Runway Incursions
LOC-I = Loss of Control in Flight
CFIT = Controlled Flight Into Terrain
MAC = Mid-air Collisions
RE = Runway Excursions
GO = Safety of Ground Operations
LRST = Local Runway Safety Teams

EUROPEAN ACTION PLANS
EAPPRI = European Action Plan for the Prevention of Runway Incursions
EAPPRE = European Action Plan for the Prevention of Runway Excursions
EAPAIRR = European Action Plan for Airspace Infringement Risk Reduction

Helicopter Operations

The European Helicopter Safety Team (EHEST) continuously cooperates with the International Helicopter Safety Team (IHST) to develop risk awareness, safety promotion and training material. The **EHEST website** contains videos addressing major helicopter specific issues like loss of control in degraded visual environment (DVE), operations in the vicinity of electric infrastructure as well as leaflets with safety considerations for helicopter pilots.

In 2013 the EHEST has finalised the layout of the technology matrix tool. The tool allows to assess the impact of technologies on mitigating helicopter safety issues. Around 150 technologies in 11 categories have been identified for their capability to mitigate safety issues.

States are encouraged to partner with industry representatives, to organise helicopter safety events annually or every two years and to promote the EHEST materials. Among the States that provided a response 9 States have organised helicopter safety events. In the majority of cases EHEST material was promoted and distributed. Dedicated helicopter working groups/teams exist in at least 3 States in some cases also addressing general aviation issues.

General Aviation

The European General Aviation Team (EGAST) develops and shares good practices and safety promotion material for the General Aviation (GA) pilots and community in Europe. The latest material includes leaflets on issues like bird strikes and piston engine icing or a video on the human factor aspects related to landing gears. They can be found on the **EGAST website**.

Based on data received from Member States, the Agency has already identified in 2013 the main accident categories affecting general aviation aircraft below 2250 kg in Europe . The categories have been published in a dedicated section of the Annual Safety Review and will be used to start discussions with the GA community on where to focus further work on General Aviation within the EASp.

The EASp encourages that national authorities play the leading role in establishing and promoting local implementation priorities and actions to prevent the risk of airspace infringement involving General Aviation. Various States reported airspace infringements involving GA in the past 5 years. 10 States have confirmed that airspace infringement involving GA is a safety concern. The European Action Plan for Airspace Infringement Risk Reduction (EAPAIRR) is being used in 5 States to identify mitigation measures.

Emerging Issues

This area is the forward looking element of the EASp. By looking ahead future risks can be anticipated and acted upon.

Work has been initiated to develop a possible picture of the future and create a foresight cell. Such cell could be used at strategic level to evaluate how risks develop with time and identify how best to prepare to face the forthcoming challenges. An agreement has been reached with the consortium developing the **ASCOS project** to perform an initial test case using the FAST areas of change to develop a picture of the future. The first results are expected in 2014.

Several actions encompass pre-regulatory activities leading to the regulation of certain products like Remote Powered Aircraft Systems (RPAS), high-performance aircraft or sub-orbital planes and operations like powered lift pilot licensing operations.

The effect of changes in weather hazards to aviation is also part of the EASp. A survey of all EASA Certification Specification (CS) and related Acceptable Means of Compliance (AMC) and Guidance Material (GM) will be

conducted in 2014. It will collect requirements addressing external hazards such as wind, gust, ice, hail, snow, lightning etc. as well as the certification level if mentioned. This will build out status quo knowledge and allow to identify areas which need further research or rulemaking action to adapt the certification specifications to potential changes on external hazard (weather) threats or close existing gaps.

A well balanced standardisation programme and a uniform standardisation methodology for all fields of aviation are now fully in place. The safety improvements put in place so far should be consolidated and further developed in the coming years.

Developing new competencies to implement safety management on the regulatory side has been identified as one of the emerging issues of the EASp. The SMICG has delivered guidance on the competencies required for inspectors to evaluate SMS effectiveness when they oversee organisations. The issue will be further progressed in 2014.

New Safety Actions

The new actions proposed with the 4th edition of the EASp are summarized below:

New Actions

Systemic Issues

- Further assess the benefits of FDM-based indicators for addressing national safety priorities.
- Develop best practice on the oversight of FDM programs.
- Facilitate the availability of adequate staff at the NAAs in terms of both qualification and number.
- Organise a thematic workshop, with the involvement of the NAAs and industry in order to continue to promote the key issues identified in the Training Implementation Policy developed in 2013

Operational Issues

- Mandate existing technology to be installed on large aeroplanes in order to reduce the number of runway overrun events during landing.
- Develop regulations which ensure that initial and recurrent pilot training and checking is adequate to provide a pilot with the knowledge, skills and attitude to be competent in preventing and, if necessary, recovering from a loss of control in flight situation.
- Evaluate the latest information available with a view to identify new opportunities to mitigate the risk of on-board fires.
- Check that regulations related to smoke and fire are being complied with and that States include fire as a new area in NAAs risk portfolios.
- Promote best practice developed by industry to outline mitigations to the risks associated with the carriage of Lithium batteries.
- Identify priorities to focus action to mitigate safety issues affecting helicopter and general aviation operations in future editions of the EASp

Emerging Issues

- Improve the level of responsiveness of operators to the implementation of mandatory requirements in order to ensure continued airworthiness.
- Use European-wide risk information contained in the EASp to support oversight of Member States.

Why these actions?

SYSTEMIC ISSUES

Further assess the benefits of FDM-based indicators for addressing national safety priorities.

In 2013 the European Authorities Coordination Group on Flight Data Monitoring (EAFDM) published a set of FDM-based indicators. An in-depth assessment is now needed of their practicalities and of their benefits for the industry and for national aviation authorities. This concept has not been experimented yet, therefore a careful examination of all aspects and possibly small-scale trials are needed at this stage. The EAFDM plans to conduct this assessment.

Develop best practice on the oversight of FDM programs.

Improving the implementation of FDM programs requires, besides active FDM promotion, an effective oversight of FDM activities. However there is currently little guidance available to national aviation authorities on how to oversee FDM programs in practice. Therefore the sharing of good practice on this topic is considered priority by the EAFDM.

Facilitate the availability of adequate staff at the NAAs in terms of qualification and number.

The Standardisation Annual Report 2012 (issued in March 2013) highlighted that the availability of adequate staff in NAAs, in terms of qualification and number, is the main reason for some of the difficulties related to the process of granting approvals, licenses or certificates and to the continued surveillance of approved organisations that were encountered in the last campaign. This problem has also been highlighted by some States at the occasion of the EASp summits. This weakness which has been perceived in most of the domains, but in particular in air operations, can have severe safety consequences because authorities risk controls may not be applied properly.

Organise a thematic workshop, with the involvement of the NAAs and industry in order to continue to promote the key issues identified in the Training Implementation Policy developed in 2013

A dedicated working group of the EASA Internal Group on Personnel Training (IGPT) developed a Training Implementation Policy in 2013 aimed at reducing possible differences in training implementation among States. The key issues and solutions identified will be promoted this year.

OPERATIONAL ISSUES

Mandate existing technology to be installed on large aeroplanes in order to reduce the number of runway overrun events during landing.

Between 1991 and 2010, EASA Member State operators had on average close to 1 fatality per year due to runway excursions at landing. The number of these occurrences has increased in line with the growth in traffic. As aviation traffic is expected to continue to grow worldwide as well as in Europe (albeit at a lower rate), the number of runway excursions can also be expected to increase further.

On-board means are now capable of performing calculation in real time in order to assess the runway overrun risk and aid the flight crews' awareness and subsequent decision making. Moreover, the enhanced awareness provided by such an on-board means allows developing effective avoidance on-board capability in order to help the flight crew to use all required and available retardation means in a timely manner.

Develop regulations which ensure that initial and recurrent pilot training and checking is adequate to provide a pilot with the knowledge, skills and attitude to be competent in preventing and, if necessary, recovering from a loss of control in flight situation.

Globally approximately 20% of all fatal accidents in Commercial Air Transport (CAT) operation with aeroplanes over the past 10 years can be attributed to loss of control in flight. The approximate global rate is 5.4 accidents per 10 million flights movements or 1 fatal accident per year. Within Europe the rate is 1.6 fatal accidents per 10 million flights or 1 fatal accident every 3 years. Improvements in pilot training and checking is the focus of many safety recommendation received in the past years.

Evaluate the latest information available with a view to identify new opportunities to mitigate the risk of on-board fires.

Check that regulations related to smoke and fire are being complied with and that States include fire as a new area in NAAs risk portfolios.

Promote best practice developed by industry to outline mitigations to the risks associated with the carriage of Lithium batteries.

On-board fire, smoke and fumes is proposed to be added as a new category of accidents in the 4th edition of the EASp and will form an integral part of subsequent EASp editions. Uncontrolled fire on-board an aircraft, especially when it is in flight, represents one of the most severe hazards in aviation. Post-crash fire is not addressed in this section.

There have been three major cargo fire accidents in the past 10 years and a number of serious incidents. All aircraft were carrying large quantities of lithium batteries. The Agency is involved in various certification and rulemaking activities regarding the mentioned topic as well as in the ICAO Dangerous Goods Panel.

Several safety recommendations have been received regarding redesign of transport checklist pertaining to fire, smoke and fumes, review of the cargo fire certification requirements, smoke removal requirements, flight crew training for in-flight fire, standardisation of the battery packaging regulation, research on fire suppression systems. In addition new information on how to mitigate the subject risks has become avaible and is under review.

At industry level, the **European Commercial Aviation Safety Team (ECAST) will promote best practice developed by IATA and other industry organisations** to outline mitigations to the risks associated with the carriage of Lithium batteries in passenger and crew baggage and the transport of Lithium batteries as cargo on passenger and cargo aircraft

Identify priorities to focus action to mitigate safety issues affecting helicopter and general aviation operations in future editions of the EASp

While the commercial air transport section of the EASp is organized in six areas within which issues and actions are identified, the helicopter and general aviation sections are lacking a similar structure. The goal of this action is to bring them to the same level of maturity by working with the helicopter and general aviation communities.

EMERGING ISSUES

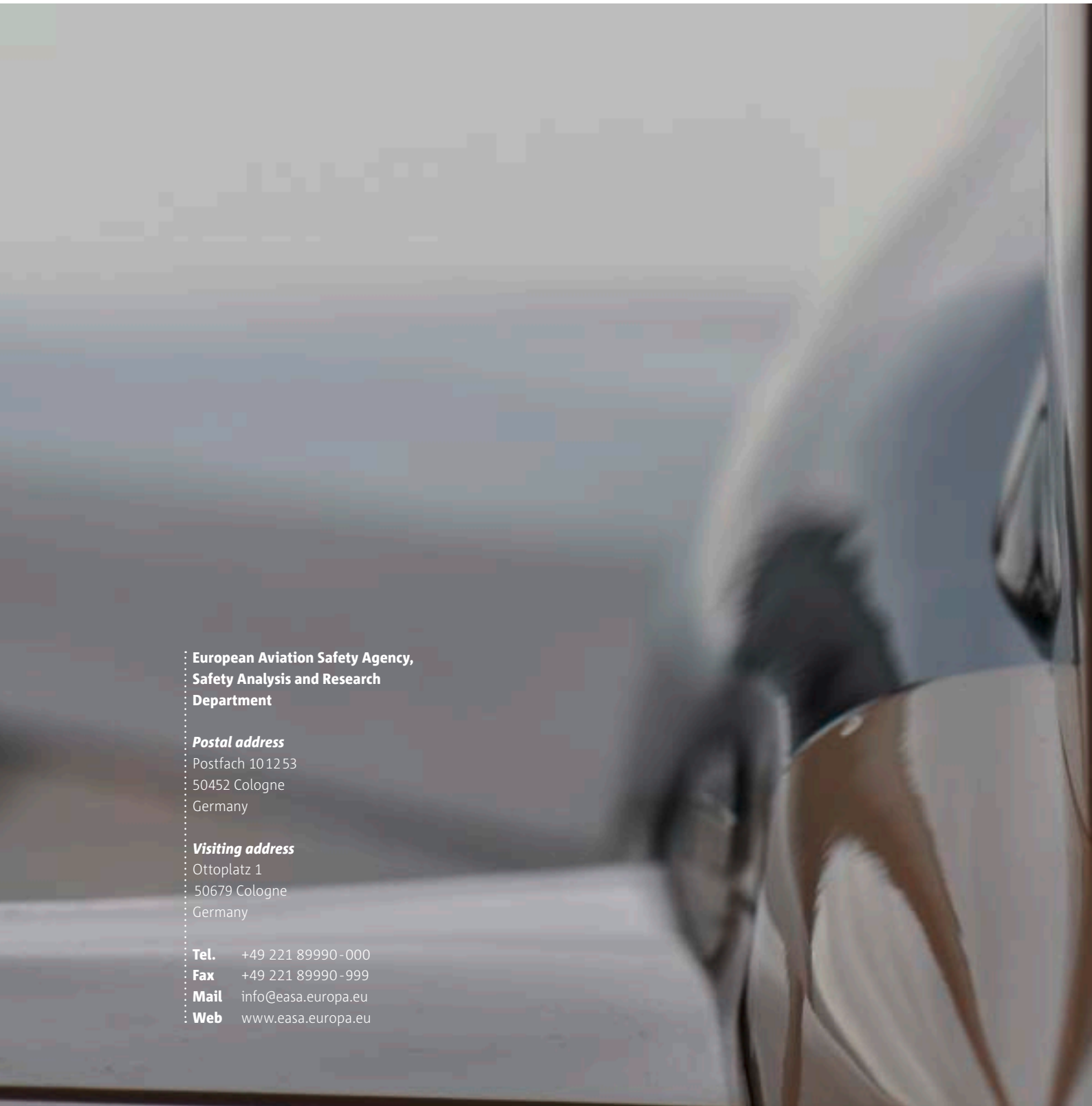
Improve the level of responsiveness of operators to the implementation of mandatory requirements in order to ensure continued airworthiness.

Compliance with Airworthiness Directives (ADs) and other mandatory requirements are critical to ensuring the continued airworthiness of operational aircraft. The level of responsiveness of operators is ensured by actions already implemented by the Agency

Experience from regulatory oversight has however shown variable achievement in this regard. In fact, some European aircraft manufacturers are concerned by the level of responsiveness of operators (especially outside Europe) with regards to the implementation of mandatory requirements and the feedback provided to them.

Use European-wide risk information contained in the EASp to support oversight of Member States.

EASA is changing its methodology to oversee Member States and transitioning to a new approach in which risk information will be better used to feed the oversight programme, hence paying more attention to those areas in which greater risks have been identified. The EASp is the risk portfolio for the region and can potentially support the identification of risk concerns.



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