European Aviation Safety Agency

Report

European Aviation Safety Plan
2013-2016

Final

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1 Executive Summary

In light of the expectation that air traffic will 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, new approaches are necessary to complement the existing and successful safety measures in order to drive further safety improvements in aviation.

The **European Aviation Safety Plan** (EASp) is the documented output of an evidence based, pro-active approach to safety risks in order to help manage safety in Europe. The Plan complements existing safety regulations and investigations.

The present document constitutes the third edition of the EASp covering the period between 2013 and 2016. The Plan has been developed according to the same methodology that was used to develop the previous two editions. Therefore the main risk areas have not been changed, as they cover issues that are still relevant for aviation safety in Europe.

Like previous editions, this third edition of the Safety Plan encompasses three broad areas: systemic, operational and emerging issues. The risks identified in these 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.

Furthermore, this third edition consists of two parallel activities:

a. On one hand, it provides a report on the status of the *103 standing actions* developed last year. A progress report with the details on each of the actions is included in **attachment A**. This has been developed in coordination with the various action owners. Additionally, a brief summary of the progress made in each of the safety areas has been included in the main body of the document (sections 4 to 7).

b. On the other hand, it expands the initial list of actions proposed in the previous edition by incorporating *15 new actions*. These new actions have been reviewed by the European Aviation Safety Advisory Committee (EASAC) and the States and placed within the existing framework. They take into consideration new safety initiatives aimed at mitigating the existing risks.

The following chapter summarises the performance of the Plan in the current year.

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

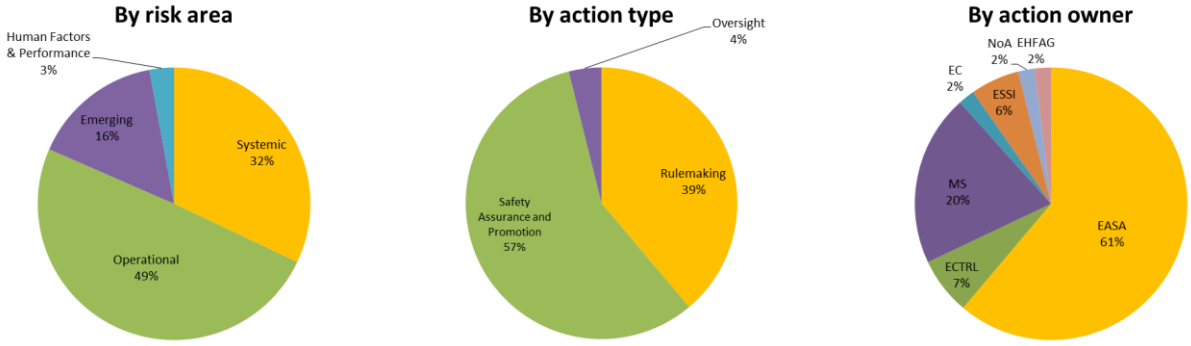
[2] *Fatal accidents per 10 million flights*, see EASA Annual Safety Review

2 2012 Performance at a glance

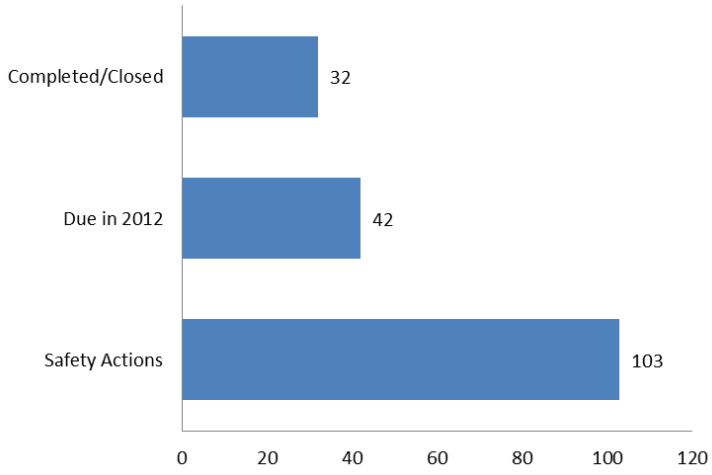
This section focuses on three aspects of the Plan: the composition of the actions from various perspectives, the Plan performance measured against the original planning established at the beginning of the year and the level of implementation among the various States.

The third edition of the European Aviation Safety Plan (EASp) contains **103 actions** (12 more actions than the second edition). Almost half of the actions contained in the EASp mitigate operational risks, being the majority of them classified as safety assurance and promotion actions (57%). These actions include launching promotion campaigns, developing safety videos, leaflets and guidance material, holding specific workshops or financing research projects among others.

Almost two-thirds of the actions are owned by the Agency. Other EASp stakeholders are the various States involved in its implementation, Eurocontrol, the Strategic Safety Initiative's (ESSI) Teams, the European Human Factors Advisory Group (EHFAG), the European Commission (EC) and the Network of Analysts (NoA). An overview of the EASp composition is provided below:



When it comes to delivering results, forty two (42) actions were due to be completed in 2012. Thirty two (32) of them have been completed or closed. This includes both actions delivered during the year as well several actions (11) that have been combined with others in order to streamline the planning and better focus on priorities. The consolidation of actions is part of the expected evolution of the planning activity as the identification of risks and implementation of action plans is a dynamic process.



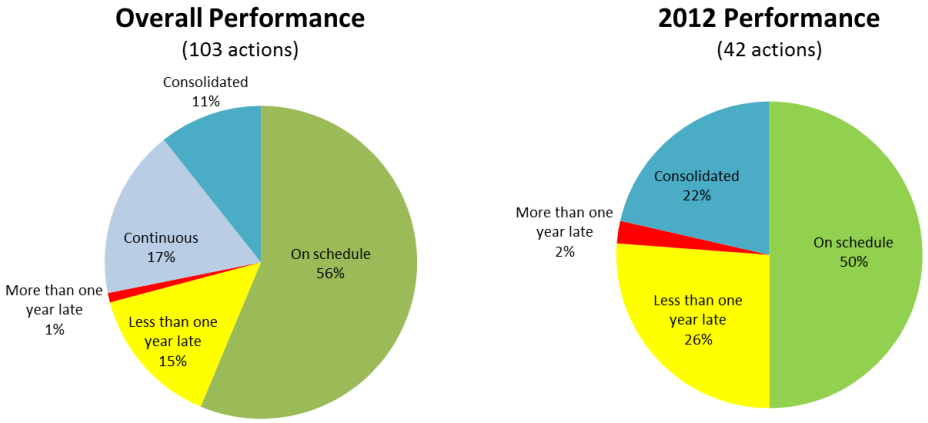
Among the actions finalised in 2012 we find:

- the adoption of the first regulations containing safety management provisions for organisations and authorities in the areas of flight crews and air operations;
- the development of a Safety Management Manual (SMM) and Toolkit for helicopter operators;
- the delivery of the European Action Plan for the Prevention of Runway Excursions (EAPPRE) proposing recommendation to address the risk of runway excursions;
- the publication of the Agency opinions on Flight and Duty time limitations and rest requirements for commercial air transport by aeroplanes addressing fatigue issues;
- the results of a cockpit automation survey that addresses flight deck automation of complex aircraft and focuses on automation control;
- a methodology to assess future risks, with a view to enhance the emerging area of the Plan;
- two SIBs to provide information on the impact of space weather on aviation; and
- a strategy to endorse human factors and human performance across civil aviation activities.

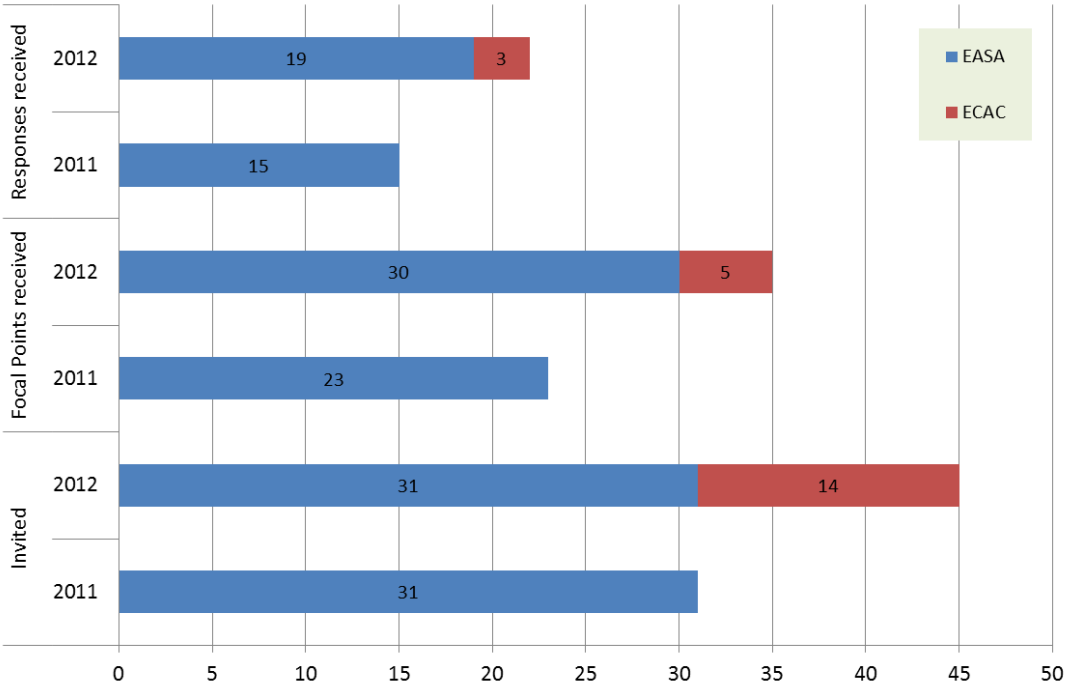
Overall, more than half (56%) of the actions are on schedule according to the initial Plan. Significant efforts have been made to deliver results on-time. A number of actions (17%) are continuous activities that are reported every year till the desired results are achieved.

In 2012, half of the actions (21) have been completed, while 22% (9 actions) have been consolidated with other actions of similar scope, 26% (11 actions) have been postponed into next year and only 1 action has been moved beyond 2013.

The below diagrams summarise the overall performance of the Plan and the results achieved in 2012.



The implementation of the EASp has been extended to 45 States: 31 EASA States plus the 14 States outside the EASA system that are members of ECAC. A request was sent out to those States that have nominated a focal point in order to retrieve the status of the various actions under their leadership (21 actions). **Thirty** (30) EASA States plus five (5) non-EASA States have nominated focal points, thus formalising their commitment to the EASp. This is a considerable increase from previous year. Twenty-two (22) responses have been received in 2012, 7 more than in 2011. The increased commitment from the States is reflected in the below picture.



In 2012, responses on the status of EASp implementation have been received from Austria, Belgium, Croatia, Czech Republic, Estonia, Finland, France, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Monaco, Montenegro, the Netherlands, Poland, Romania, Spain, Sweden, Switzerland and United Kingdom.

3 Introduction

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 decision on the best course of action to mitigate those risks. Industry organisations and States are also required to do this within the scope of the activities they have to manage.

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.

3.1 Objectives and principles

The main objective of the Safety Plan is to create a common focus on European aviation safety issues as a continuation of the European work to increase aviation safety and to comply with ICAO standards. The third edition continues the approach of compiling the on going work in Europe, hence improving traceability and reinforcing commitment to the current initiatives. This will contribute to avoiding the duplication and overlapping of safety initiatives and competition for resources.

As it was the case for the previous editions, this third edition is also driven by the national plans and priorities (bottom-up approach). While some safety issues will stay at national level and will be addressed by State Safety Programmes (SSP), there will be other instances where common issues of pan-European scope will require a collective action. The latter actions are the scope of the present publication.

The third edition of the European Aviation Safety Plan covers the 4-year period between 2013 and 2016. The objective of this edition is twofold: on one hand it informs stakeholders on the progress made on the actions during 2012; on the other hand it incorporates new actions to mitigate the already identified safety risks. The initial framework has been maintained.

The Safety Plan is built on the principle that the planning for the first year (2013) is a commitment and that the planning for the following years (2014-2016) might be subject to changes depending on changing priorities and availability of resources. Following this principle, the present 4-year Safety Plan commits the stakeholders to the actions planned for finalisation in 2013. These actions are highlighted throughout the document. The actions for the following years (2014-2016) will be reviewed in light of experience. The Agency's Rulemaking programme is also based on this principle.

3.2 Main risk areas: the Safety Plan Framework

The third edition of the Safety Plan builds on the methodology that was used to produce the first edition.

The first edition of the Safety Plan was developed by taking into account Member States safety concerns. In order to support the timely publication of the Plan, a request was sent to the 31 EASA Member States in the first quarter of 2010. They were asked to provide the top 5 safety concerns in their State as well as the process by which they had determined them. A total of 15 responses were received from Member States in May 2010. Additionally, input was aggregated with safety information from Eurocontrol, ECAST and the Agency since these organisations have a pan-European view on safety. The first results were presented to EASAC in June 2010.

The inputs collected were further analysed and classified into three different areas according to the type of issues they highlighted. All of the responses received were placed into one of the following areas:

a) **Operational Issues**, which 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.

b) **Systemic Issues**, which affect the aviation as a whole. These issues play a role in accident and incident causation. They underlie operational issues; thus their improvement has an implicit effect on operational causes.

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.

c) **Emerging issues**. This 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.

SAFETY PLAN FRAMEWORK		
SYSTEMIC ISSUES	**OPERATIONAL ISSUES**	**EMERGING ISSUES**
Working with States to implement and develop SSPs	**COMMERCIAL AIR TRANSPORT BY AEROPLANES**	**New products, systems, technologies and operations**
Working with States to foster the implementation of SMS in the industry	**Runway Excursions**	**Environmental factors**
Safety Management enablers	**Mid-air collisions**	**Regulatory considerations**
Complexity of the system	**Controlled Flight Into Terrain**	~~**Next Generation of Aviation Professionals**~~
Competence of personnel	**Loss of Control In Flight**	
	Ground Collisions	
	OTHER TYPES OF OPERATION	
	Helicopters	
	General Aviation	
HUMAN FACTORS AND PERFORMANCE		

Finally **human factors and human performance** affect all the safety topics discussed within the above areas and 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 will be addressed separately in the Safety Plan.

The proposed approach and list of issues was presented to EASA Management Board in June 2010 and constitutes the **Safety Plan Framework**.

In this edition of the EASp, the chapter titled "*next generation of aviation professionals*" that was part of the emerging issues has been moved to the systemic issues and renamed as "*competence of personnel*". This is also reflected in the list of actions provided in Attachment A. Safety actions have been added to address the above issues.

3.3 Continuous update

In collaboration with all the stakeholders, the Safety Plan is being reviewed every year. The review consists of two main activities:

a. Firstly, the status of the standing actions is assessed. An action is considered complete when the proposed deliverable is delivered. When the action could not be closed during the due date or a deviation from the Plan is expected, the causes have been recorded and a modification has been proposed. This allows measuring the progress and effectiveness of the Safety Plan. A progress report is included in **attachment A**.

b. Secondly, the initial list of actions proposed in the previous edition has been updated with the incorporation of new actions after consultation with all stakeholders. These new actions have been placed within the existing framework. They take into consideration new safety initiatives aimed at mitigating the existing risks.

3.4 The European Aviation Safety Programme

On 26 January 2011, the European Commission organised a conference to discuss the future of European Union's Aviation Safety Management towards 2020 and to hear the views and experiences of the various stakeholders in aviation safety. The conference debated the issues surrounding moving from a largely reactive system towards a proactive system based upon proven safety management.

With the results of the debate, the EC developed a Communication[3] to the Council and the European Parliament called "*Setting up an Aviation Safety Management System for Europe*". The Communication sets the strategy for aviation safety in Europe for the coming years and supports the aim, set out in the Transport White Paper[4], *to raise the EU aviation safety performance to a level that matches or exceeds the best world standard.*

[3] EC COM(2011) 670 final of 25.10.2011 - Setting up an Aviation Safety Management System for Europe.
[4] COM(2011) 144 - WHITE PAPER - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system

According to the Communication this is achieved by adding a pro-active element to the current EU aviation safety system and publishing annual updates to the European Aviation Safety Plan detailing progress made in addressing identified safety risks at EU level. This is the scope of the present publication.

This Communication is accompanied by a Commission Staff Working Paper[5] describing the current aviation safety framework at European level. It was prepared jointly by the Commission and EASA and is called the European Aviation Safety Programme. The work is based on the manual presented to the EASA MB at the end of 2010.

The Communication, the Commission Staff Working Paper and the present document constitute the main elements of the Safety Management System at European level: a strategy, a Safety Programme and a Safety Plan.

3.5 Content of the Plan

The Safety Plan is divided in four areas, each one addressing the main safety topics presented in the Safety Plan framework.

- Section 4 addresses *Systemic Issues*
- Section 5 addresses *Operational Issues*
- Section 6 addresses *Emerging issues*
- Section 7 addresses *Human Factors and Performance*, which affect all of the above areas.

Within each of the above sections, the following information is provided:

- A table with the actions delivered during 2012.
- A summary of the key achievements made during 2012 together with the main challenges encountered.
- A summary of the actions under the leadership of the States.
- A proposal for new actions to be incorporated on the EASp 2013-2016. Commitments for 2013 are highlighted in yellow.

Attachment A contains a **status report** on the progress made on the Safety Plan throughout 2012. In this section the following information is provided for each action item: a summary of the work done, the leader of the action, an assessment on whether the action is progressing according to the Plan, possible deviations from the Plan should they exist and an identification of the key deliverables.

Several other appendixes clarify the acronyms and define the terms used throughout the document (attachment B), and provide a brief description of the different working groups and initiatives at European level dealing with aviation safety (attachment C).

3.6 EASp summits

Reinforcing the coordination with the States participating in the implementation of the EASp has been one of the objectives set up for 2012. With this aim the *EASp implementation and review summits* have been created. They are a vehicle to consult on the Plan with the States.

[5] EC SEC(2011) 1261 final of 25.10.2011 – The European Aviation Safety Programme.

They consist of face to face meetings between the States, the European Commission and the Agency to take the pulse of the implementation and discuss safety risks affecting the system. They are held twice a year. The first two summits took place on 29th May and 16th November 2012 providing with an opportunity to introduce the approach to new colleagues of several States. The material discussed and main outcomes can be found here.

3.7 Governance

The content of the Safety Plan is developed by EASA under the supervision of EASAC. The Committee created in 2009 brings together 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.

Once it is reviewed and approved by EASAC, the Safety Plan is submitted to the EASA MB for endorsement. After it is endorsed, it becomes a public document that is implemented on a voluntary basis by all the stakeholders.

3.8 Promotion

A dedicated web site (www.easa.europa.eu/sms) has been created to publish the key deliverables and update on the major developments. Inquiries concerning the EASp can be addressed via a dedicated mailbox (easp@easa.europa.eu)

The Agency, in cooperation with all the stakeholders, continues to further disseminate the approach. To this end, in 2012 a brochure has been developed and handed out at various safety events. The brochure briefly explains the key aspects of the EASp and points out where to get the information.

4 Systemic Issues

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.

Completed actions		
No.	**Issue**	**Finished action**
SYS1.2	SSP Requirements.	European requirements for Aviation Authorities (AR) in the domains of air operations and flight crew licensing have been published.
SYS2.1	SMS requirements.	European requirements for Aviation Organisations (OR) in the domains of air operations and flight crew licensing have been published
SYS2.6	Promotion of SMS.	SMS best practices for helicopter operations have been developed and promoted
SYS2.11	SMS International cooperation.	European stakeholders have contributed to the work on the new ICAO Annex on SMS and represented the European position.
SYS3.10	Exchange of information on aviation safety risks.	An annual conference to facilitate the exchange of information and address the issues identified in the Safety Plan has been hosted at EASA premises in Cologne. The conference focused on Performance Based Oversight.
SYS5.6	Increasing pilot reliance on automation	The EASA Automation Policy has been consulted and promoted.

Progress made during 2012

One of the cornerstones to improving safety in Europe is providing organisations and authorities with a framework to manage risks at their level. Safety management systems (SMS) provide such framework. Enabling SMS within the aviation system starts with introducing regulation and follows with actual implementation.

Whereas SMS requirements already exist in the ATM domain which is well advanced in this area, the first opportunity for the Agency to draft regulations in the area of SSP and SMS has been realised in 2012 through the publication of Regulations for its first extension remit to cover the areas of Air Operations (Regulation (EC) 965/2012) and Flight Crew Licensing (Regulation (EC) 290/2012). As the adaptation of the management systems of authorities and organisations will take some time, specific transition measures are provided.

This process started back in 2006. Among other deliverables it resulted in the development of two distinct sets of requirements for authorities and organisations respectively:

- ***Authority Requirements*** take due account of the critical elements of a safety oversight system defined by ICAO, thus they support the implementation of SSPs, while serving the standardisation objective set out in the Basic Regulation (Regulation (EC) 216/2008). They further include elements that are essential for establishing a comprehensive aviation safety management system at EU level, encompassing EU and Member State responsibilities for safety management.

- ***Organisation Requirements*** include consolidated general requirements for management systems, designed to embed the ICAO SMS SARPs in a way as to ensure compatibility with existing management systems and to encourage integrated management. The Agency believes that SMS should not be implemented through an additional requirement superimposed onto the existing rules. The EASA management system requirements fit various organisations, whatever their size, nature or complexity of activities and whatever business model they follow, thus catering for proportionate application.

These requirements serve as the starting point for drafting safety management regulations in other domains. Aerodrome operators (of such aerodromes that will require certification) and competent authorities will also implement management systems. The corresponding NPAs were published in December 2011. The next domains that will follow are initial and continuous airworthiness.

When it comes to implementation, there is a need to develop practical tools that assist those implementing management systems. The European Helicopter Safety Team (EHEST) has recently published a Safety Management Manual and toolkit (SYS2.6) for operators with little experience in implementing SMS. This manual has been aligned with the adopted regulations and is available at the EHEST website. Besides the manual, the toolkit also includes an Emergency Response Plan and a Safety Management Database User Guide.

Eurocontrol Generic Safety Management Manual (EGSSMM) is in Edition 2.0 (SYS2.8). A full range of guidance on various SMS procedures complements the manual (such as on safety surveys, ATM occurrence investigation, safety records and safety assessments). The promotion is being done through ES2 (Experience Sharing to Enhance SMS) – see action SYS2.9. A third edition of the EGSMM that will integrate the results from the ANSP/NSA SMS interface project is planned during 2012.

One of the key processes of SMS is measuring performance. This requires that organisations and States develop safety performance indicators (SPIs). Furthermore, SPIs at European level are mandatory in Regulation 691/2010 that established a performance scheme for ATM. The European Commission is considering contracting a study (SYS3.7) to explore the possibility of extending the approach beyond ATM. With the outcome of the study a roadmap may be developed (most likely not before 2015).

The Safety Management International Collaboration Group (SMICG), chaired by the Agency in 2012, has defined a model for the measurement of safety performance (SYS3.5) addressing outcomes, service provider's and regulatory behaviours. The model will be available in 2013. In addition, the Network of Analysts (NoA) coordinated and managed by EASA has set up a sub-group to focus on developing SPIs, with a view to having the first definitions ready in 2013. A new action has been incorporated in the EASp to cover the work of the NoA (action SYS3.16 below)

For effective safety management, data of good quality are necessary. On 18 December 2012, the EC has put forward a proposal to provide solutions to some of the shortcomings of the

current occurrence reporting system as outlined in the European Occurrence Reporting Directive[6] (SYS3.8). This has been done after a formal consultation processes and Impact Assessment. The proposal is available here.

Finally, the subject of proposing a common framework for the risk classification of single events in aviation is being addressed by the Network of Analysts (NoA). This is being carried out by the NoA Risk Classification sub-group, which is chaired jointly by EASA, European Commission and Eurocontrol. This NoA sub-group brings together all interested and involved parties from a number of previous groups with the goal of developing a single European solution. The sub-group has developed a work programme that will deliver a European Risk Classification Framework in 2014.

Flight Data Monitoring plays an important role in capturing hazards and predicting deviations. The EASp also includes two actions (SYS3.11 and SYS3.12) intended to foster a more active involvement of States with Flight Data Monitoring (FDM), including FDM promotion, a regular and open dialogue on FDM programmes with aircraft operators, and promoting FDM indicators relevant for the prevention of RE, MAC, CFIT and LOC-I. To that end EASA and NAAs have formed a group of experts called the European Authorities Coordination Group on FDM (EAFDM). The EAFDM has produced guidance material for NAAs on setting up a "national FDM forum", i.e. a regular dialogue on FDM between a State and its aircraft operators. This guidance is published on EAFDM website.

To tackle the issue of increasing pilot's reliance on automation, EASA developed an Automation Policy. The Policy was presented in the EASA Safety Conference on LoC (October 2011), at the European Aviation Safety Seminar (EASS) organised by the Flight Safety Foundation this year. Furthermore, a web-survey has been published on the EASA website on 24 April and has been open till the end of July (SYS5.6). Results have been analysed and follow-up actions are now incorporated in the plan (action SYS3.17 below).

Work to develop a training implementation policy to reduce the differences in training implementation among States has started (SYS5.5). A training implementation working group has been established within the EASA Internal Group on Personnel Training (IGPT). The issue has been discussed with NAAs in a Workshop on 27 June. The results of the workshop will be taken into consideration to develop the Policy that should be available in 2013.

Coordination with Member States

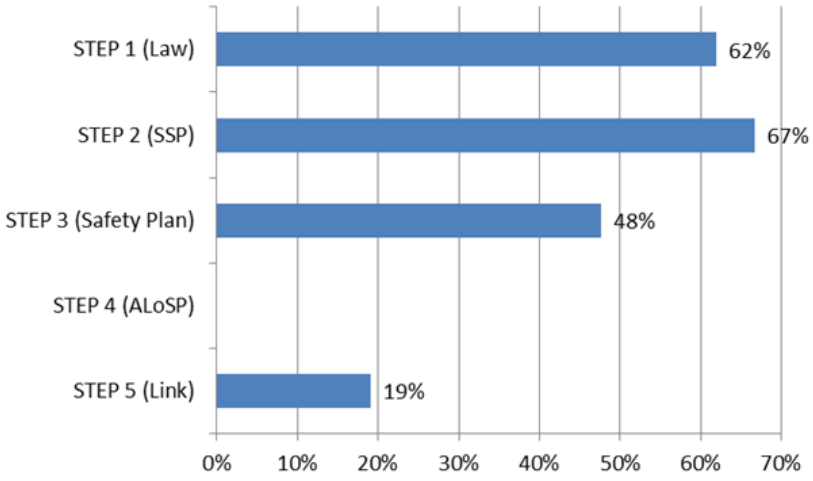
ICAO Annexes (see table below summarising the applicability date of Safety Management SARPS for States) and regulation 691/2010 (Performance Scheme for Air Navigation Services and Network Functions) require that States develop an SSP.

Safety Management SARPs for States		
Date	**Denomination**	**Annex**
Nov 2006	Safety Programme	6, 11,14
Nov 2010	SSP	1, 8,13
Nov 2010	SSP Framework (Attachment)	1, 6, 8,11,13,14

[6] DIRECTIVE 2003/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2003 on occurrence reporting in civil aviation

Action SYS1.7 encourages States to prioritize its implementation (due in 2014). An overview of the State Safety Programmes and Safety Plans that have been made available to the Agency as part of the implementation of the EASp can be found here.

Twenty one (21) States provided an action report, which contained details on the implementation of SSPs and Safety Plan at State level. The majority of States have modified their law to enact an SSP and published a document describing how the management of safety is organised in their States. Almost half of them have also published a Safety Plan. Many States are developing indicators, however no single State has agreed targets with industry and service providers. A small amount of States have established a link between the indicators and the risk areas coming from their Safety Plans. An overview is provided in the below picture and explanatory note on the right-hand side.



SSP implementation STEPS

1. STEP1 The State promulgates a legal framework for the definition of the SSP.
2. STEP2 The State publishes an SSP which delivers the State's safety responsibility and accountability and explains in broad lines what the State's safety objectives are and the strategies to achieve them.
3. STEP3 The State regularly publishes a State Safety Plan which includes a detailed implementation plan for the next 2- 5 years. The State Safety Plan includes identified risks, associated priorities and performance indicators to monitor risks.
4. STEP4 The State has agreed Acceptable Levels of Safety Performance (ALoSP) with each service provider or organisation under its oversight.
5. STEP5 There is a link between the SSP risk priorities and the safety indicators and / or targets published at National level.

The establishment of SPIs and targets at both national and European level is one of the priorities for future work. A new action has been identified in the following section (action SYS3.16)

Action SYS3.11 encourages States to set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes. Among the States that provided a response, seven of them mentioned safety promotion meetings addressing FDM. Three States expressed their intention to organise these types of meetings in the future. Discussions on FDM events relevant for preventing the major operational risks identified in the EASp are held in 4 States. Among the issues discussed are non-stabilised approaches and events relevant to prevent runway excursion. More details can be found on the supplementary report titled *EASp implementation in the States*.

New actions

Safety Performance Indicators in ATM/ANS

Even though agreed safety performance indicators at European level do not exist in all domains of aviation, the Performance Scheme regulation (Commission Regulation 691/2010) has established the first Europe-wide indicators in ATM/ANS. The indicators measure performance not only in safety, but also in other areas like capacity, environment and cost-efficiency.

The European-wide safety indicators in ATM measure the effectiveness of safety management in both National Supervisory Authorities (NSA) and Air Navigation Service Providers (ANSP), the level to which the assessment of the severity of ATM-related events (runway incursions, separation minima infringements and ATM specific technical events) is harmonised by means of the Risk Analysis Tool (RAT) and the reporting of just culture.

Data to support their measurement will start flowing at the beginning of 2013. EASA and PRB have been working together to make this happen. The performance reporting activity is organised around annual reports to be prepared by the States as well as a European Commission/PRB annual report to the Single Sky Committee.

Safety Management enablers

Frequency of information to support the management of safety

EASA publishes an annual safety review on a yearly basis. The review provides an overview of the level of safety in Europe for a given year. Many stakeholders use the information to take decisions at their level. In order to provide stakeholders with a more frequent update on the state of safety in Europe and worldwide EASA will publish a safety dashboard through its website.

Proposed action(s)

EASA should publish a safety dashboard on the EASA website with the intent to provide regular statistics on the state of safety in Europe and worldwide. The dashboard will be updated quarterly.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
SYS3.13	*Frequency of information to support the management of safety*	EASA should publish a safety dashboard on the EASA website with the intent to provide regular statistics on the state of safety in Europe and worldwide	EASA	2013	SP	Safety dashboard published

All domains, except ATM, lack indicators and targets on key performance areas in order to achieve and maintain required safety levels

Without measuring performance it is not possible to know how effective our mitigation actions are in reducing the identified risks both at European and national level. Measuring performance is one of the cornerstones of SSPs as well as vital to measure the achievements of the EASp. A sub-group of the NoA has been set up to pave the way on establishing SPIs for use at a European and national level. The sub-group draws on the available expertise from safety analysts from NAAs and is co-chaired by the NAA of the Netherlands and EASA.

Proposed action(s)

The NoA will develop high-level SPIs for use at a European and national level. The first definitions will be published in 2013 in order to support States.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
SYS3.16	*All domains, except ATM, lack indicators and targets on key performance areas in order to achieve and maintain required safety levels*	Develop high-level SPIs for use at European and national level in all domains of aviation safety.	NoA & MS	2013	SP	Publications of the high-level SPI definitions

Lack of harmonised barriers models to support organisations in applying SMS.

Managing safety is moving from dominantly reactive processes to more and more proactive processes. Less and less accident means more work done addressing non consequence events and suspected safety weaknesses. An average operator is collecting thousands of safety related events or observations and must take action from it. Assessing risk, weighting potential safety improvement of safety measures and prioritising actions has become a priority.

Proposed action(s)

A research study on *safety modelling* will cover the practical application to Safety Management System processes and in particular the **definition of a credible and well accepted safety model easily usable by various commercial aviation related actors for selected types of accidents**.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
SYS3.17	*Lack of harmonised barriers models to support organisations in applying SMS*	Define a credible and well accepted safety model easily usable by various commercial aviation related actors for selected types of accidents.	EASA	2013	SP (Research)	Barrier models for various accident scenarios

Competence of personnel

Issue of increasing pilot reliance on automation

From 30 April to 23 July 2012, EASA published a cockpit automation survey aimed at consolidating the Automation Policy (*action SYS5.6*) developed by the EASA Internal Group on Personnel Training (IGPT) following the EASA International Conference on Pilot Training of November 2009 and the International Conference Staying in Control Loss of Control Prevention and Recovery of October 2011.

This Policy addresses flight deck automation of complex aircraft and focuses on automation control. The EASA Automation Policy adopts an innovative approach consisting of mapping crew-automation interaction issues, design, certification

and training principles, and respective regulatory provisions to identify top issues and paths for improvement.

This survey's objective was to evaluate the degree of agreement with the identified automation issues and suggested paths for improvement.

Most supported and consensual action proposals

1. Improve basic airmanship and manual flying skills of pilots.
2. Improve recurrent training and testing practices with regard to automation management
3. Improve the Multi Crew Cooperation (MCC) and Crew Resource Management (CRM) concept and training (instruction and testing) practices to better address automation management.
4. Improve the Competence Based Training (CBT) and Evidence Based Training (EBT) approaches to better address automation management.
5. Develop automation policies specific to aircraft types and variants to account for differences regarding automation and flight path management.
6. Improve the Multi-crew Pilot Licence (MPL) programme to better address automation management.

Proposed action(s)

EASA, through the IGPT, will study possibilities for mitigating the risk of increasing pilot's reliance on automation through the proposals derived from the cockpit automation survey.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
SYS5.7	*Issue of increasing pilot reliance on automation*	EASA, through the IGPT, will study possibilities for mitigating the risk of increasing pilot's reliance on automation through the proposals derived from the cockpit automation survey.	EASA (IGPT)	2013	SP	Mitigation proposals developed

5 Operational Issues

Operational issues are brought to light by the reporting and analysis of occurrence data. The Safety Plan starts by addressing the main risks that affect commercial air transport operations , 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.

Within the commercial air transport operations by aeroplanes, safety issues have been organised into six different scenarios, which compile the various ways in which accidents and serious incidents take place. These scenarios represent end states in the series of events that develop into a safety occurrence. 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.

It is also important to recognise that certain issues like unstable approaches, the encounter with hazardous weather conditions or inappropriate actions performed by the crew have an impact on more than one risk area. Human factor issues also affect different areas and are addressed in section 7.

Completed actions

No.	Issue	Finished action
AER1.1	Produce a European action plan to prevent RE by combining Authorities' and industry efforts.	European Action Plan for the Prevention of Runway Excursions (EAPPRE) has been published
AER1.7	Global response to runway safety.	European partners have taken part in the RRSS organised in March 2012 in Amsterdam and have contributed to develop action plans to promote the establishment of collaborative runway safety teams.
AER3.2	Aircraft Design.	CS-25 have been amended to introduce requirement aiming at reducing approach and landing accidents.
AER3.3	Fatigue.	Flight and Duty Time Limitations and rest requirements for commercial air transport with aeroplanes have been updated to take into account recent scientific and technical evidence .
AER4.4	Fuel System Low Level Indication / Fuel Exhaustion Associated crew procedures.	CS-25 has been amended by introducing new provisions and associated AMC addressing safety recommendations in order to better protect Large Aeroplanes against fuel exhaustion/fuel low level scenarios
AER4.9	Response to unusual attitudes.	Part FCL has been published, with new European-wide requirements addressing the training of and recovery from unusual attitudes.
AER5.11	Lack of harmonisation of ground operation activities.	Industry developed ground operations manual has been issued and its use is being promoted in Europe.

Completed actions		
No.	**Issue**	**Finished action**
HE1.5	Helicopter flights into degraded visual environment.	A research study has been performed to define and evaluate visual augmentation possibilities for VFR helicopter flights
GA1.3	See and avoid for General Aviation	Reviews of on-going local/national initiatives to look at improvements to see and avoid for GA have been performed as part of the research project SISA
GA1.4	Transfer of technologies into General Aviation	Research projects to look into the safety and environmental benefits of encouraging the transfer of new technologies into GA have been proposed in the context of FP7.

5.1 Commercial Air Transport by Aeroplanes

Progress made during 2012

To mitigate the risk of runway excursions a European Action Plan for the Prevention of Runway Excursions (EAPPRE) has been finalised in 2012 (action AER1.1) and is available here. The Plan contains actions for authorities, various industry organisations (operators, service providers, aerodromes) and also for the Agency. Follow-up have been included in the EASp (actions AER1.9 and AER1.10).

In the area of loss of control, which continues to be the category with the major number of fatal accidents in Europe, the update of certification specifications to improve safety of large aeroplanes and engines in icing conditions has been delayed (AER4.2) due to a delay in the FAA rulemaking activities from which they are dependant. In view of this, the Agency has decided to take the lead on the rulemaking process.

The introduction of provisions to protect against fuel low level scenarios is now completed (AER4.4) by incorporating new fuel indication system(s) standards into CS-25. This is the outcome of the work of an international working group led by the Agency and including major airframe and engine manufacturers (Boeing, Airbus, ATR, Embraer, Rolls Royce), and civil aviation authorities (FAA, TCCA, EASA). This effort was made as a reaction to accidents and incidents involving engine fuel starvation, fuel exhaustion or fuel low level.

In addition, Part-FCL has been published (AER4.9). It contains European-wide requirements that address training of and recovery from unusual attitudes, one of the scenarios that has led to several loss of control accidents. EASA and Member States continue to participate in the International Committee for Aviation Training in Extended Envelopes (ICATEE) and Loss of Control Aviation Rulemaking Team (LOCART). The work of ICATEE continues on technical aspects of simulation and on the update of the Upset Prevention and Recovery Manual which has been presented to ICAO in October 2012.

Fatigue is one of the factors that contributes to many accidents and serious incidents. The opinions on Flight and Duty time limitations and rest requirements for commercial air transport with aeroplanes taking into account recent scientific and technical knowledge have been published in October 2012. The proposed rules will now enter the legislative process, where they will be finalised by the European Commission assisted by National Authorities, with Parliamentary scrutiny.

The second extension rules that deal with ATM and aerodromes, will incorporate European requirements that will contribute to mitigate the risk of runway excursions, mid-air collisions

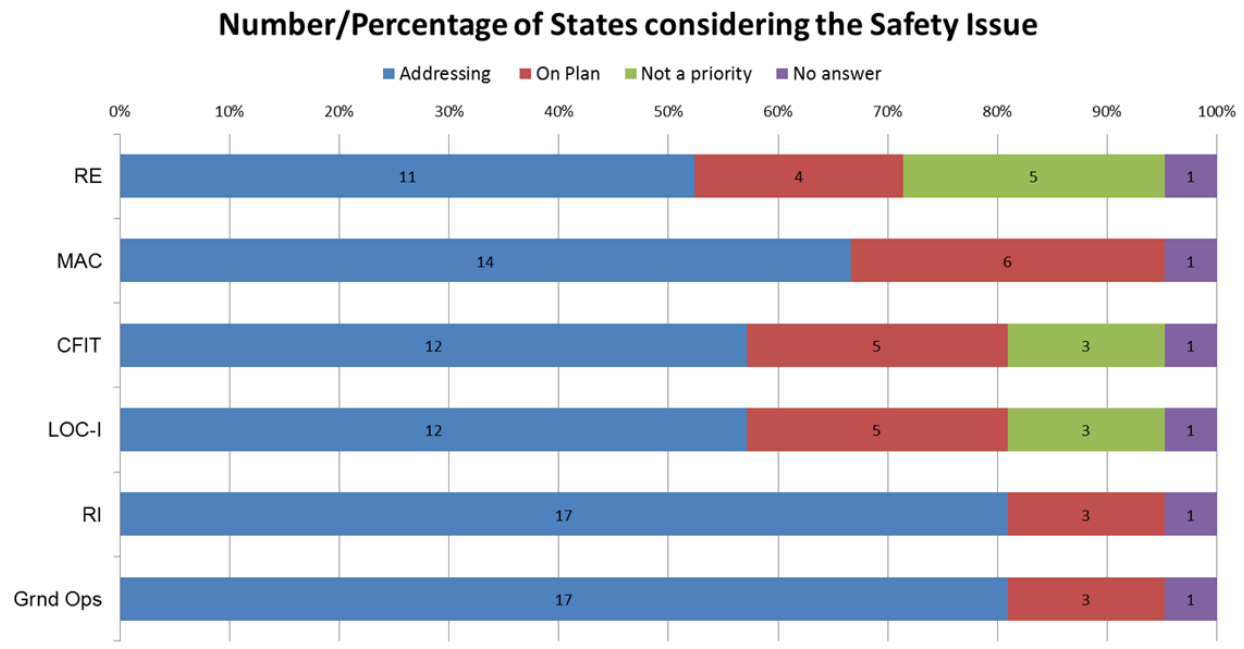
and runway incursions as well as enhance the safety of ground operations. In the ATM domain, the first Implementing Regulations have already been transposed. The opinions on the Aerodrome regulations are now expected in 2013.

Through its Ground Safety Working Group, ECAST has contributed to the development of the IATA Ground Operations Manual (IGOM). The first edition of the IGOM, was published on 2nd April 2012. The IGOM and other related IATA material are promoted by IATA and ECAST and through international conferences such as the IATA Ground Handling Council Conference (IGHC 2012).

Eurocontrol is leading the development of guidance material for ground-based safety nets (AER2.2 and AER2.3).

Coordination with Member States

The responses received from 22 Member States conclude that all the risk areas proposed in the EASp are already incorporated in risk portfolios of more than half of the States. Out of the 21 reports received, Runway Incursions and the safety of ground operations are included in the risk portfolios of 17 States, followed by Mid-air collisions (MAC) – 14 States –;Controlled Flight Into Terrain (CFIT) and Loss of Control In Flight (LOC-I) -12 States - and Runway Excursions (RE) – 11 States-. A few States are in the process of building their States Safety Programmes and will incorporate the risk areas in the future. Others have not taken into consideration some of the areas because the number of occurrences reported was low. An overview is provided in the chart below.



RI=Runway Incursions; LOC-I=Loss of Control in Flight; CFIT=Controlled Flight Into Terrain; MAC=Mid-air Collisions; RE=Runway Excursions; Grnd Ops = Safety of Ground Operations.

Attachment A and a supplementary report (*EASp implementation in the States*) offer more details on the feedback provided by the States including SPIs and safety initiatives carried out at national level to mitigate the above issues. The feedback has been discussed with the States during the *2nd EASp implementation and review summit* on 16 November.

Runway Excursions

Runway excursions

There are at least two runway excursions each week worldwide. ICAO (Global Runway Safety Symposium 2011) has noted that the rate of runway excursions has not decreased in more than 20 years. A wide array of aviation stakeholders have requested to address the risk of runway excursions.

The European Action Plan for the Prevention of Runway Excursions (EAPPRE) developed by the European Working Group for the Prevention of Runway. Excursions (EWGPRE) under the aegis of ECAST is now available. The recommendations contained in the Plan stem from the findings of a Eurocontrol study of runway excursions in the European region. The study findings made extensive use of lessons from more than a thousand accident and incident reports.

Key findings:

- The risk of a runway excursion is increased by wet and contaminated runways in combination with gusts or strong cross or tail winds;
- Practices such as landing long and or late or ineffective deployment of braking devices are highly relevant to runway excursion risk;
- The majority of runway excursions occur on a dry runway;
- In the cases of both landing and take-off excursions, the primary opportunity to prevent a runway excursion is in the decision making of the flight crew to go around or, once at or approaching V1, continue a take-off.

Key enablers:

- Local Runway Safety Teams;
- Aeronautical Information publishers;
- Participation in lesson sharing;
- The uniform and consistent application of ICAO provisions and EU regulations;
- Training;
- Know your aircraft type performance limits for the aerodrome concerned;
- Communication of the recommendations and guidance materials contained in the European Action Plan for the Prevention of Runway Excursions to all operational staff.

Proposed action(s)

Two recommendations are proposed that encompass action at both Member States and Agency level.

A. On one hand Member States should address the recommendations made by the EAPPRE via their State Safety Programmes in coordination with service providers and industry organisations.

B. On the other hand EASA should study possibilities for mitigating the risk of runway excursions through regulation, starting by evaluating the proposals made by the EAPPRE.

It has to be noted that as part of the second extension of the Agency's remits to ATM and aerodromes there are proposals in the process of being adopted that will contribute to this effort.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
AER1.9	*Runway excursions*	Member States should address the recommendations made by the EAPPRE via their SSPs in coordination with service providers and industry organisations	MS	Per Plan	SP	Report on progress
AER1.10	*Runway excursions*	EASA should study possibilities for mitigating the risk of runway excursions through regulation, starting by evaluating the proposals made by the EAPPRE	EASA	Per Plan	R	Report on progress

Mid-air collisions

Loss of separation/Airprox

Many Member States are now developing their SSPs. As these Programmes are established consideration must be given to actions and processes to mitigate major risks affecting the EU aviation system. The NoA has set up a sub-group to further analyse the risk of MAC. This sub-group plans to also assist MS in setting up mitigation actions and measuring effectiveness.

Proposed action(s)

A set of actions to mitigate the risk of MAC and processes for measuring their effectiveness shall be developed for use by the MS in their SSPs.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
AER2.10	Loss of separation/Airprox	Develop a set of actions to mitigate MAC and processes to measure their effectiveness for use by the MS in their SSPs	NoA	2013	SP	Report by NoA with actions and processed.

Loss of control in flight

Erroneous weight or centre of gravity.

Accidents and incidents have occurred because the actual aircraft weight and/or centre of gravity were out of the certified limits or ranges. The Dutch investigation authority reviewed the ICAO database and found that 37 such accidents are known to have occurred since 1995 world-wide.

When the take-off is initiated either with an aircraft weight or centre of gravity outside the operating envelope, with insufficient engine thrust/power or incorrect

take-off speeds, there is clearly a risk of a catastrophic outcome. The aeroplane may not be able to lift off and may have to reject the take-off at high speed, with a risk of runway overrun; or the aeroplane may be able to lift off but may not be able to climb with the expected gradient, which may result in a collision with obstacles or in a stall of the aircraft.

Erroneous estimates or entry of these parameters are quite likely during operations. On-board autonomous systems are available, which give an indication of the aeroplane's weight and balance that is sufficient to attract the crew's attention in case of an abnormal situation. Current aircraft are not required to be equipped with such systems.

Proposed action(s)

Study the feasibility of proposing an amendment to certification specifications for Large Aeroplanes (CS-25) to require that the aeroplane is equipped with a weight and centre of gravity measuring system. When feasible it is envisaged to propose a retroactive requirement for such system to be installed on already Type certificated Large Aeroplanes (using a Part-26/CS-26 rule). Finally, the safety benefit which could be gained by requiring such system to be installed on CS-23 commuter aeroplanes will be investigated; and subsequent amendments to CS-23 will be proposed as appropriate.

In the meantime, the increased use of "*consumer-electronics*" devices in cockpits will be studied as another possibility to mitigate the risk. Before these devices can be used in flight, they need an operational approval which is granted by the authority in different ways. A research project will **perform a survey of approval processes for the use of the Electronic Flight Bag (EFB) with a focus on applications for performance calculations including weight and balance** and will seek to identify best practices.

New Safety Actions

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
AER4.12	*Erroneous weight or centre of gravity.*	Study the feasibility of proposing an amendment to certification specifications for Large Aeroplanes (CS-25) to require that the aeroplane is equipped with a weight and centre of gravity measuring system.	EASA	2017	R (RMT.0116)	Feasibility[7] study
AER4.13	*Erroneous weight or centre of gravity.*	Perform a survey of approval processes for the use of the Electronic Flight bag (EFB) with a focus on applications for performance calculations including weight and balance and identify best practices.	EASA	2013	SP (Research)	Research project report

[7] It should be noted that the result of this feasibility study may or may not be a formal Decision by the Agency.

Ground contamination of aircraft surfaces.

In spite of existing operational procedures (EU-OPS), accidents and serious incidents have been caused by the degradation of aircraft aerodynamic performances due to ground icing contamination and de-/anti-icing operations. Several scenarios have been encountered involving loss of control of the aeroplane during take-off caused by the aerodynamic performance degradation occurring due to aerodynamic surfaces contamination. Such contamination may be present before take-off if the operational procedures fail to detect and/or remove ice contaminants, or if substantial ice contamination occurs during the taxi phase.

The application of de-/anti-icing fluids on aerodynamic surfaces can also degrade the aerodynamic performance and controllability of the aircraft if for example the fluid gets trapped in the gap between horizontal stabilizer and elevator.

In addition to operational procedures, further risk mitigation could be achieved during the design of the aircraft.

Proposed action(s)

Study the feasibility of proposing an amendment to certification specification for Large Aeroplanes (CS-25) to require applicants to perform an assessment of the effect of on-ground contamination of aircraft aerodynamic surfaces on take-off performance and on aircraft manoeuvrability and controllability.

The applicant would have to demonstrate that prior to take-off, the aircraft aerodynamic surfaces cannot accumulate undetectable hazardous quantities of ice contamination. When the aircraft has been de-iced by application of de-icing and/or anti-icing fluid, the applicant would have to demonstrate that there is no hazardous effect on aircraft performance and manoeuvrability or controllability.

A retroactive measure(Part-26/CS-26) applicable to large aeroplanes TC holders; and requiring similar analysis and means of protection as the ones proposed for CS-25 will be proposed. The retroactive rule may be limited to the most vulnerable category of aircraft.

Furthermore, **the Agency will cover the safety issue in its annual safety conference organised in the fourth quarter of 2013 as part of the wider topic of *icing*.**

New Safety Actions

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
AER4.14	*Ground contamination of aircraft surfaces.*	Study the feasibility of proposing an amendment to CS-25 to require applicants to perform an assessment of the effect of on-ground contamination of aircraft aerodynamic surfaces on take-off performance and on aircraft manoeuvrability and controllability.	EASA	2015	R (RMT.0118)	Feasibility[8] study

[8] It should be noted that the result of this feasibility study may or may not be a formal Decision by the Agency.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
AER4.15	*Icing*	Organise a safety conference to exchange views on the safety issue and identify mitigation opportunities.	EASA	2013	SP	Conference outcome

5.2 Helicopter Operations

Progress made during 2012

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) as well as leaflets with safety considerations for helicopter pilots.

The issue of DVE is also addressed by one of the research projects financed by the Agency (HDVE), which aims to define and evaluate visual augmentation possibilities for VFR helicopter flight to mitigate the potential hazards associated with this scenario. The EHEST is also developing a tool to assess the impact of technologies on mitigating helicopter safety issues. A first version of this tool should be available in 2013.

Coordination with Member States

Action HE1.3 encourages NAAs in partnership with industry representatives, to organise Helicopter Safety events annually or every two years and to promote the EHEST materials. Almost half of the States that provided a status report (10) organise helicopter safety events on a regular basis. Four (4) more States have plans to organise these type of events in the future. The EHEST materials are widely promoted in these events, but also through individual meetings with operators. Dedicated helicopters working groups/teams exist in at least 3 States in some cases also addressing general aviation issues.

5.3 General Aviation

Progress made during 2012

EGAST develops and shares good practices and safety promotion material for the GA pilots and community in Europe. The latest material can be found on the EGAST website.

A research project (SISA) financed by the Agency reviewed on-going local/national initiatives looking at improvements on see and avoid for GA with the aim to identify best-practices and promote standardisation. The final report is being finalised and will be made are available here.

Coordination with Member States

Action GA1.5 encourages that national authorities play the leading role in establishing and promoting local implementation priorities and actions to prevent the risk of airspace infringement in General Aviation. Airspace infringements committed by General Aviation are a safety concern for 71% of the States (15) that submitted a status report. The infringements are committed in most cases by VFR traffic infringing the controlled airspace (in some cases at international airports). Most of States have implemented or are implementing the recommendations provided in the European Action Plan for Airspace Infringement Risk Reduction.

New actions

Priorities to focus GA work not formally established in the EASp

The vast majority of fatal accidents in EASA States, of aircraft below 2250 kg, involved General Aviation. In 2011, 253 people were killed as a result of such type of accidents[9]. Data on accidents involving light weight aircraft is sent to the Agency by the EASA Member States.

Based on the analysis of the data received from the States, the Agency will establish the main accident categories and will work with EGAST in order to identify the scenarios leading to them. This analysis will aim at identifying priorities for safety improvements actions and providing a framework to better organise actions around the main issues.

Future editions of the EASp will progressively incorporate actions to mitigate the identified issues.

Proposed action(s)

Based on data received from EASA States, the Agency will identify the main accident categories affecting general aviation aircraft below 2250kg in Europe.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
GA1.6	*Priorities to focus GA work not formally established*	Based on data received from EASA Member States, the Agency will identify and publish the main accident categories affecting general aviation aircraft below 2250 kg in Europe.	EASA	2013	SP	Main priorities identified

[9] According to the Annual Safety Review 2011

6 Emerging Issues

This section anticipates issues that are emerging or where 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 approach illustrated in previous chapters. 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.

Completed actions

No.	Issue	Finished action
EME1.1	Methodology to assess future risks.	A method to assess future risks based on expert judgement, project studies, questionnaires and scenarios has been proposed.
EME1.7	Composite Damage Metrics and Inspection.	The understanding of high energy blunt impact on composite structure for aircraft, its significance, and the associated damage metrics and damage indications has been improved through research.
EME2.4	Flying through clouds with High Ice Water Content at High altitude.	Research to validate the proposed regulatory mixed phase and glaciated icing environment has been completed with a view to assess the necessity of further amendment/extension of the envelope and define the necessary actions for a more detailed characterisation of the composition of cloud masses at high altitude.
EME2.5	Impact of space weather on aviation.	Two SIBs to raise awareness on the impact of space weather on aviation have been published.

Progress made during 2012

Actions EME1.1 and EME1.2 address the issue of developing a methodology to assess future risks as well as a possible picture of the future. The Future Aviation Safety Team (FAST) has proposed a methodology that allows addressing in a practical manner many of the intrinsic difficulties characterising the assessment of future risks by safety assessing an appropriately scoped future scenario system in its future context. The methodology is available at www.easa.europa.eu/sms.

In parallel a concept paper to establish how a possible picture of the future may be depicted is under development. The paper will be used to approach existing groups after an exploration of the activities they carry out.

Actions EME1.4 and EME1.5 encompass the regulation of certain products like high-performance aircraft or operations like powered lift pilot licensing operations. Since they were incorporated in the EASp, they have been however subject to several delays due to the various unknowns that surround the rulemaking activity. The actions are now scheduled to start in 2015. The safety risk associated with the introduction of new products has been re-evaluated, taking also into consideration the on-going preparatory work that has already been started before the establishment of a formal regulatory framework.

Two Safety Information Bulletins (SIB) were published on 23 May addressing the impact of space weather on aviation, thus closing action EME2.5

7 Human Factors and Performance

A projected increase in passenger numbers over the next decade, the move towards a Single European Sky and next generation aircraft technology, together with constantly shifting political, economic and regulatory frameworks demand that the role of the human in achieving the highest possible standards of safety within the aviation industry is seen as essential.

The entire aviation system, through people, processes and performance, relies predominantly on individuals and teams for safety, efficiency and effectiveness. In practice, people are required to communicate, apply judgments and make decisions and in doing so are constantly exposed to the risk of error. Therefore, human factors and performance of individuals and organisations affect all aspects of aviation and should not be addressed in isolation.

Completed actions		
No.	**Issue**	**Finished action**
HFP1.1	Strategy for human factors.	A human factors strategy has been developed in conjunction with EHFAG to enable and endorse human factors and human performance across civil aviation activities including rulemaking, regulatory oversight and standardization.

Progress made during 2012

The European Human Factors Advisory Group (EHFAG) has finalised a Human Factors Strategy with the intent of endorsing human factors principles across civil aviation activities (HFP1.1). Once the strategy is consulted with all stakeholders, the next step for the group is to make concrete proposals in the form of actions that will be incorporated in the EASp to implement the strategy.

Eurocontrol's Safety Team provides support to ANSPs in the deployment of ATM human factors activities (HFP1.3). To that end a work programme has been approved that covers the following strands of work:

- Weak Signals
- Human Factors in safe ATM Design
- Human Factors intelligence for all safety actors and all layers of management
- Human Performance safety culture improvements
- Safety Human Performance Dissemination and Toolkits
- Fatigue management
- Human Factors in Investigation
- Degraded Modes
- Critical Incident Stress Management
- Safety and Team Work Factors

One of the objectives that was established at the beginning of 2012 was to reinforce the human factors and human performance section. To that end 3 new safety actions are proposed in the below section. The EHFAG is also in the process of developing a comprehensive action plan on human factors based on the strategy delivered this year (HFP1.2). The delivery of the human factors plan is expected in 2013 and will bring about a more fundamental approach to deal with human factors in aviation.

New actions

EASA is committed to ensure that human factors are addressed in regulatory materials across the aviation system in a consistent and proportionate manner. It recognises that current and future operations rely on humans (pilots, ATC, trainers, managers, maintainers, loaders, dispatchers, designers, regulators, etc.) for safety, efficiency and effectiveness. Human factors and performance affects all aspects of the aviation system (individual and organisational) and should be addressed in an integrated manner and as part of the implementation of safety management principles in all areas.

The Agency is provided expert advice and guidance in the multidisciplinary field of Human Factors by the European Human Factors Advisory Group (EHFAG). This expertise is drawn from National Aviation Authorities (including the FAA), industry, professional associations and human factors academia and science community.

Consideration of HF in rulemaking activities.

While EASA continue to develop its own HF expertise , the EHFAG shall provide EASA expert human factors knowledge and advice in the scope of rulemaking activities. Advice shall be sought by EASA where appropriate and the EHFAG shall provide advice in the form of comments, position papers or other deliverables. To ensure consistency, all EHFAG deliverables are reviewed and agreed at plenary level before communication to the Agency.

Proposed action(s)

EASA will take into account HF in any rulemaking task that may have human factors considerations. To assist in this activity the Agency may task the EHFAG to review such material at the initial drafting stage. **EHFAG will review the rulemaking programme for 2013 to 2016 and identify tasks that have potential HF considerations.**

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
HFP1.4	Consideration of HF in rulemaking activities	The Agency to take into account HF in any rulemaking task that may have human factors considerations. EHFAG will review the rulemaking programme for 2013 to 2016 and identify tasks that have potential HF considerations.	EASA / EHFAG	September 2013	R	Report on RT with HF considerations

Room for improvement on HF guidance to address design related pilot errors.

EASA published certification specifications for *installed systems and equipment for use by the flight crew* (CS 25.1302) in September 2007 to show how applicants may address potential crew limitations and errors. The FAA followed some time later with an Note of Proposed Rulemaking (NPRM) for 25.1302 with the intent to harmonize with EASA on the regulation and guidance material.

Feedback from applicants that had experience with CS 25.1302 suggests that they would like more guidance on certain aspects. The FAA launched a research project to interview people in organisations (especially those with experience with complying with CS 25.1302) to get more specific information on where the gaps are in the guidance material. These organizations included industry and authorities (including EASA).

The research project is being finalised and has identified a few areas where more information would be beneficial. These areas include more guidance on level of detail in documentation and methods of compliance; more information on acceptable error analyses and guidance on whether 25.1302 should be applied in Special Type Certification (STC) projects among others. These will be reviewed and validated by EASA and the FAA. The EHFAG will start providing the first steps of the process.

New Safety Actions

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
HFP1.5	Room for improvement on HF guidance to address design related pilot errors.	Identify gaps or areas to improve the AMC for CS25.1302 Installed Systems for use by the Flight crew in order to better address design-related pilot error and recommend that the material is updated and harmonized.	EHFAG	November 2013	R	Report with identified improvement areas

HF competencies for regulatory inspectors are not developed.

The regulator has a key role in assessing how organisations address human factors so that it delivers the intent of the requirements. To achieve this regulatory inspectors need to have an appropriate understanding of human factors to perform their oversight duties. By defining competencies for human factors, EASA and competent authorities can assess their staff to identify whether additional skills and/or training is required. This will result in greater oversight of HF programmes and improved safety performance.

This activity will initially consider the competencies of Regulatory Inspectors responsible for the oversight of continuing airworthiness and maintenance with the intent of further work to address all regulatory staff. This should also consider the work being done to deliver SMS competencies by the SMICG (action EME3.4)

Proposed action(s)

Development of human factors competencies for the various functions of regulators, initially for maintenance inspectors.

New Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
HFP1.6	HF competencies for regulatory inspectors are not developed.	Development of human factors competencies for the various functions of regulators, initially for maintenance inspectors.	EHFAG	March 2014	SP	Report with HF competencies for regulatory inspectors

Attachment A: 2012 Status Report

This section provides the individual details concerning each of the action items, including a status update and the point of contact responsible for reporting. An initial identification of likely deviations in time or scope for each action is also provided. A "traffic-light system" (green, yellow and red colours) has been used to track progress against the plan.

In the attached report, the actions have been organised following a comprehensive format illustrated in the example below:

Safety Actions						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
Unique identifier (No.).	Safety issue being addressed.	A brief description of the course of action taken to mitigate the safety issue	The action owner or key stakeholder that will be responsible for its implementation (it does not mean that it is the only one contributing to the action). Being owner of an action means to be able to report on its progress.	As a minimum the year in which the deliverable is expected. When possible the starting year is also provided. Actions due in the year that the plan is issued are highlighted in yellow since the commitment is in this case stronger.	The actions type: rulemaking (R), Oversight (O) or Safety Assurance and Promotion (SP) according to the functional areas that are part of the EASP. When a rulemaking task has been created or a research project has been launched, the reference is provided in brackets (e.g. ATM.001 refers to a rulemaking task as it can be found in EASA's rulemaking programme).	The deliverable that is expected as a result of the actions. It allows evaluating the completion status on a yearly basis and serves as a first measure of progress.

Each action is accompanied by its implementation status according to the following format

Implementation					
Update	**Status**	**Lead**	**According to PLAN**	**Reasons for deviation**	**Deliverables**
Brief description of the progress made on the action	Not started Started Advanced Complete Closed	Organisation/Team leading the development of the action	On schedule Less than one year late More than one year late Not finalised	When there are deviations according to what was initially planned the reasons are recorded here.	A link to the deliverable or relevant website is provided when available

The new actions incorporated in a given year contain a "**NEW**" marker next to the action number in the identifier column.

SYSTEMIC ISSUES

Systemic Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
1. Working with States to implement and develop SSPs												
SYS1.2	SSP Requirements.	Publish European requirements for Aviation Authorities (AR) in the domains of air operations and flight crew licensing.	EASA & EC	2012	R	Opinion/Decision	The amending regulation for Civil Aviation Aircrew, building upon Opinion 03/2011, has been published on 30 March 2012 (Reg. 290/2012). It includes Authority Requirements (ARs) for aircrew (Part-ARA). Opinion 04/2011 published on 1 June 2011 contains ARs for air operators, a first Regulation applicable to CAT with aeroplanes and helicopters has been published on 25 October 2012 (Reg. 965/2012). The scope will successively be extended to cover CAT with sailplanes and balloons, NCC and NCO operations. ARs contain specific provisions to support the implementation of SSP (exchange of information, management system and oversight, with particular focus on the ICAO critical elements of a State oversight system), they do not contain explicit requirements mandating SSPs/Safety Plans for the Member States.	Completed	R.3	On-schedule	Specific mandate for SSP not included in the regulations.	Regulation 290/2012 Regulation 965/2012
SYS1.3	Incorporation of SSP in all domains of aviation.	Incorporate SSPs and enablers in the IR for airworthiness (enablers are supporting tools like system safety analysis, occurrence reporting and human factors).	EASA & EC	~~2013~~ **2014**	R (MDM.055 and .060) (RMT.0251 and RMT.0262 +RMT.0550)	Opinion/Decision	The work on continuing airworthiness (MDM.055) has resulted in publication of a first NPA covering Part-M and Part-145. The NPA covering Part-66 and Part-147 will be published early 2013. The first Opinion/Decision is scheduled for 2013/Q3. The work on initial airworthiness (MDM.060) has started in 2012. The task has been split into RMT.0262 with Opinion/Decision scheduled for 2014/Q1 and RMT.0550 with Decision for AMC/GM scheduled 2015/Q1. In both tasks the provisions in Part-AR designed to support the implementation of SSP (exchange of information, management system and oversight) will be considered for amending the airworthiness rules. However there will be no requirements mandating SSPs/Safety Plans for the Member States.	Advanced (MDM.055) (RMT.0251) Started (MDM.060) (RMT.0262 and RMT.0550)	R.4	On-schedule	MDM.060 (RMT.0262) due date delayed Specific mandate for SSP will not be in the IRs.	ToR MDM.055
SYS1.4	Incorporation of SSP in all domains of aviation.	Incorporate SSPs and enablers in the requirements on Competent Authorities in ATM/ANS.	EASA & EC	~~2012~~ **2013**	R (ATM.004) (RMT.0157)	Opinion/Decision	Commission Implementing Regulation No 1034/2011 was published on 18th of October 2012. The regulation contains some elements that facilitate the implementation of SSP in the field of ATM/ANS. The second phase of the rulemaking task will bring further enhancements in this area in order to align with the provisions already incorporated in the fields of operations and flight crew licensing. NPA on the related IR foreseen by 2013/Q1.	Advanced	R5.1	On-schedule	No deviation	Commission Implementing Regulation No 1034/ 2011
SYS1.5	Incorporation of SSP in all domains of aviation.	Incorporate SSPs and enablers in the requirements for aerodrome oversight authorities.	EASA & EC	2012	R (ADR.001) (RMT.0139)	Opinion/Decision	Work started in July 2010. NPA 2011-20 was published on 13 December 2011. The NPA contains draft rules for the certification, management, operation and design of aerodromes. The original comment period has been extended by 1 month. The Comment Response Document has been published on 26 November 2012.The public and stakeholders are now asked to give their reactions on the CRD documents by February 3, 2013. It is estimated that Opinions on the IRs will be issued in 2013/Q1. Decisions on the associated AMC's and GM will be issued after the adoption of the IRs at the latest by 2013/Q4 (December 2013). They will define the requirements for competent authorities management systems.	Advanced	R5.2	Less than one year late	Extention of the comment period	NPA 2011-20 CRD 2011-20

SYSTEMIC ISSUES

Systemic Issues							Implementation					
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**	**Update**	**Status**	**Lead**	**According to PLAN?**	**Reasons for deviation**	**Deliverable(s)**
SYS1.6	Safety Management promotion and information.	Organise a workshop with MS to share experience on national implementation of the Authority and Organisation requirements.	EASA	2013	SP	Workshop	An information and promotion plan is being developed. A conference was held in 13 December 2012 focusing on initial airworthiness (MDM.055) to present the main elements of the NPA which will be published before year end. Some of the MS mandated SMS already in the area of maintenance and this will be a good opportunity to get feedback and to explain the NPA, which builds upon the first extension rule material.	Started	R3	On-schedule	No deviation	Conference: SMS in Part-M and Part-145
SYS1.7 **NEW**	SSPs are not consistently available in Europe.	Member States to give priority to the work on SSPs.	MS	2014	SP	SSP established	The implementation of SSPs is done in various phases. Out of the States that provided a response, 14 have published an SSP document explaining how the management of safety is organised in their States. 12 States have promulgated a legal framework to define the SSP. 10 States have also published a Safety Plan with identified risks and mitigation actions. No single State has agreed ALoS with service providers. A summary of the responses received from the States has been compiled in a separate report (*EASp implementation in the States*)	21 responses received	MS	On-schedule	Status request sent to 35 focal points. 21 responses have been received	Published SSPs and Safety Plans
2. Working with States to foster the implementation of SMS in the industry												
SYS2.1	SMS requirements.	Publish European requirements for Aviation Organisations (OR) in the domains of air operations and flight crew licensing.	EASA & EC	2012	R	Opinion/Decision	The amending regulation for Civil Aviation Aircrew, building upon Opinion 03/2011, has been published on 30 March 2012. It includes Organisation Requirements (ORs) for aircrew (Part-ORA) that address SMS. Opinion 04/2011 published on 1 June 2011 contains ORs for air operators, a first Regulation applicable to CAT with aeroplanes and helicopters has been published on 25 October 2012 (Reg. 965/2012). The scope will successively be extended to cover CAT with sailplanes and balloons, NCC and NCO operations. All approved organisations and holders of an FSTD qualification certificate will be required to implement management systems covering safety management related elements.	Completed	R.4.2	On-schedule	No deviation	Regulation 290/2012 Regulation 965/2012
SYS2.2	Incorporation of SMS in all domains of aviation.	Incorporate SMS and enablers in IR for airworthiness (enablers are supporting tools like system safety analysis, occurrence reporting and human factors).	EASA	~~2013~~ **2014**	R (MDM.055 and .060) (RMT.0251 and RMT.0262)	Opinion/Decision	The work on continuing airworthiness (MDM.055) will result in publication of a first NPA covering Part-M and Part-145. Part-OR will form the basis for amending Regulation 2042/2003. Although the structure is not changed, a certain number of adaptations were made to "transpose" Part-OR, in particular as regards existing quality system requirements. The work on initial airworthiness (MDM.060) has started in 2012. The task has been split into RMT.0262 with Opinion/Decision is (for IR) scheduled for 2014/Q1 and RMT.0550 with Decision for AMC/GM scheduled 2015/Q1. Whenever the ToR are adopted, a drafting of NPA for Regulation 1702 will start using the selected working method and taking into account the basis created in the text of Parts AR and OR. In addition, it was decided to launch pilot projects with selected D & M organisations to perform trial implementation of SMS. The pilot projects will run in parallel to NPAs drafting so that experience gained can be reflected.	Started (MDM.055 and MDM.060) (RMT.0262 and RMT.0550	R.4	On-schedule	MDM.060 due date has been delayed.	ToR MDM.055
SYS2.3	Incorporation of SMS in all domains of aviation.	Incorporate SMS and enablers in the requirements for aerodrome operator organisations (part ADR.OR).	EASA & EC	2012	R (ADR.001) (RMT.0139)	Opinion/Decision	Work started in July 2010. NPA 2011-20 was published on 13 December 2011. The NPA contains draft rules for the certification, management, operation and design of aerodromes. The original comment period has been extended by 1 month. The Comment Response Document has been published on 26 November 2012.The public and stakeholders are now asked to give their reactions on the CRD documents by February 3, 2013. It is estimated that Opinions on the IRs will be issued in 2013/Q1. Decisions on the associated AMC's and GM will be issued after the adoption of the IRs at the latest by 2013/Q4 (December 2013). They will define the requirements for aerodrome management systems, containing SMS.	Advanced	R5.2	Less than one year late	Extention of the comment period	NPA 2011-20 CRD 2011-20

SYSTEMIC ISSUES

Systemic Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
SYS2.4	Incorporation of SMS in all domains of aviation.	Incorporate existing SMS and enablers in part OR for ANSP.	EASA & EC	2013	R (ATM.001) (RMT.0148 and .0150)	Opinion/Decision	Commission Implemented Regulation No 1035/2011 was adopted on 17 October 2011. It addresses safety management systems for ANSP in the field of ATM/ANS. Further enhancements and reviews of these requirements are envisioned for the second phase of the rulemaking task ATM.001 in order to better align them with the regulations in the other domains and to to align with ICAO SARPs for SMS.	Advanced	R5.1	On-schedule	No deviation	Commission Implementing Regulation No 1035/ 2011
SYS2.6	Promotion of SMS.	Develop and promote SMS best practices for helicopter operations.	EHEST	~~2011~~ **2012**	SP	Best Practice	A specialised team of EHEST has developed a Safety Management Manual (SMM) and Toolkit for Operators (with little experience of implementing an SMS). This is the first SMS Manual built around the European OPS rules on Management System. In addition, EHEST was involved in the development of the helicopter compatible version of ISBAO by IBAC published in Dec 2011. EHEST also encourages the worldwide use of the IHST SMS Toolkit and HAI video (accessible from the EHEST website).	Completed	EHEST	On-schedule	No deviation	SMM and toolkit for complex operators
SYS2.7	Promotion of SMS.	Encourage implementation of promotion material developed by ECAST and EHEST.	MS	~~2011~~ **~~2012~~** Cont.	SP	Best Practice published by MS.	Ten (10) States have already established a link to the ESSI material through their websites and are distributing or promoting the ESSI material (10) to their industry organisations (operators, ANS service providers, certified aerodromes, flight crew, engineers, etc) through dedicated working groups, training for specific groups (inspectors, operators), seminars, safety symposiums, electronic distributions like national safety bulletins, etc. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
SYS2.8	Promotion of SMS.	Develop and promote SMS guidance and best practices for ATM.	ECTRL (DNM/COO/NOM/SAF)	~~2011~~ **2011-2014**	SP	Best Practice	EUROCONTROL Generic Safety Management Manual (EGSSMM) is in Edition 2.0. A full range of guidance on various SMS procedures complements the manual (such as on Safety Surveys, ATM Occurrence Investigation, Safety records, Safety Assessments etc). The promotion is being done through ES2 (Experience Sharing to Enhance SMS) – see SYS2.9.	Advanced	ECTRL	On-schedule	No deviation	EUROCONTROL Generic Safety Management Manual (EGSMM)
SYS2.9	Promotion of SMS.	Support to ANSP SMS implementation; develop a structured approach to the identification of safety key risk areas and to gathering information on operational safety and SMS best practices from the industry; harmonise SMS approaches in FABs.	ECTRL (DNM/COO/NOM/SAF), MS and ANSP	~~2014~~ **2011-2014**	SP (ESP+)	Methodology & Training material	The second ES2 workshop for 2012 covering Just Culture was hosted by DHMI (Turkey ANSP) on 20 - 21 September. Participants from more than 30 states attended. Groups represented include: ANSPs, IFATCA, APROCTA, IFALPA, ECA, EC, EASA, ICAO, IATA, airlines, EUROCONTROL NM and Single Sky directorates and the Performance Review Unit) and National Prosecution Offices. The meeting agreed that the EUROCONTROL Just Culture Task Force would be the focal point for the next stage of activities; help organise joint safety and prosecution workshops in Europe to promote the further application of Just Culture; take the lead in implementing an aviation prosecution policy; and actively lobby against any misuse of criminal processes in aviation and ATM-related incidents and accidents. The third ES2 workshop, FAB Safety Survey, was hosted by EUROCONTROL at the IANS premises in Luxembourg on 20 - 22 November. Another meeting of ANSP CEOs is also planned for February/March 2013 to discuss FAB RP2 requirements. SKYbrary is the main platform to share the safety knowledge with industry. Further developments of various portals are ongoing. A new "Stabilised Approach Awareness Toolkit for ATCOs" was added in the summer 2012 and more partners are joining SKYbrary (www.skybrary.aero).	Advanced	ECTRL	On-schedule	No deviation	ES2 - Experience Sharing Enhanced SMS

SYSTEMIC ISSUES

Systemic Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
SYS2.10	SMS International cooperation.	Promote the common understanding of SMS principles and requirements in different countries, share lessons learned and encourage progress and harmonisation.	EASA and MS through SMICG	Cont.	SP	SMICG Products	EASA and 5 MS continue to support the SMICG. The first products of the group are now available on Skybrary. They include a pamphlet with basic principles, an SMS effectiveness assessment tool and a practical guide for senior managers. The group has been considerably expanded and includes 12 authorities. EASA has chaired the SMICG throughout 2012.	Advanced	E2	Continuous action	No deviation	SMICG Skybrary link
SYS2.11	SMS International cooperation.	Contribute to the work on the new ICAO Annex on SMS and represent the European position.	EC, EASA & ECTRL	2012	R	Participate in ICAO activity Report.	EASA has permanent representation at ICAO since July 2011. EC, EASA and ECTRL have contributed to the ICAO SMP Phase I. A draft Annex 19 is available and has been submitted to Member States for comments with a view to adopt it in Nov. 2013. The SMM has also been updated. A draft SMM edition 3 has been made available. EC, EASA and ECTRL continue to support the work of the SMP in Phase II.	Completed	E2	On-schedule	No deviation	ICAO ISM Section
3. Safety Management Enablers												
Sharing safety information												
SYS3.2	Comparable risk classification of events across the industry.	Propose a common framework for the risk classification of events in aviation based on existing work.	EASA, ECTRL & MS	2013	SP	Study Report	The subject is being addressed by the Network of Analysts (NoA) coordinated and managed by EASA. This is being carried out by the NoA Risk Classification Sub Group, which is chaired jointly by EASA, the European Commission and Eurocontrol. This NoA Sub Group brings together all interested and involved parties from a number of previous groups with the goal of developing a single European solution. The Sub Group has developed a work programme that will deliver a European Risk Classification Framework in 2014. Although this is a delay over the original timescale, the inclusion of Eurocontrol personnel involved in the RAT will greatly improve the chance of success and buy in for the solution in the long term.	Started	E2	Less than one year late	Complexity and need of coordination.	
Development of SPIs with associated data stream												
SYS3.4	Monitor performance at national level.	Publish SPIs in use at national level.	MS	~~2011~~ **2012**	SP	SPIs published	The process to establish SPIs has started in the majority of reporting States. 13 States reported to have established SPIs of some short. The remaining 8 are in the process of defining them. Various States have declared that after establishing the first batch of SPIs they will continue to adjust them as they gain experience. Targets have not been agreed with industry/service providers in any of the States. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States). States are encouraged to continue to publish SPIs in use at national level and to share them with the NoA SPI sub-group. The action will be transferred to the NoA.	21 responses received. Action closed.	MS	Consolidated. Action has been transferred to the NoA	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
SYS3.5	Lack of a methodology to define SPIs.	Develop a comprehensive methodology.	EASA and MS through SMICG	2012	SP	Safety Performance Measurement Approach - Phase I	In phase I of the Safety Performance Measuring Approach (SPMA) project, the SMICG measurements working group has defined a model for the measurement of safety performance taking a systems perspective for deriving safety performance indicators and focusing on the aviation system's ability to effectively manage safety. It considers outcomes, as well as aviation system behaviours. Guidance on Safety Performance Measurement for service providers will also be developed. Phase I is expected to be concluded in 2013/Q1. In phase II of the SPMA project, the ICG measurements working group will develop guidance material on the application of the SPMA in the different areas, where such guidance will not include explicit risk acceptance criteria. Phase II is expected to be concluded 2013/Q4.	Advanced	R.4	Less than one year late	Complexity of the task and need to provide enough time for consultation and reaching consensus. Action will be finished in 2013/Q1.	

SYSTEMIC ISSUES

Systemic Issues							Implementation					
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**	**Update**	**Status**	**Lead**	**According to PLAN?**	**Reasons for deviation**	**Deliverable(s)**
SYS3.6	Continuous monitoring of ATM safety performance.	Develop and populate safety indicators to measure performance on ATM and disseminate general-public information of the ANSPs performance through routine publication of achieved safety levels and trends.	EASA ECTRL MS ANSPs SRC/SRU	2014	SP (ESP+)	Publication of SPIs and safety levels/trends	On-going process of the Annual Summary Template (AST) reporting mechanism provides the main inputs to the deliverables. The public avaialble material is found in the SRC Annual Safety Reports and Performance Review reports. In addition, in 2012, like the first in 2011, the ATM Chapter for the EASA ASR was further developed with, and submitted to, EASA Safety Analysis as per the agreed work programme. Furthermore, for the purpose of developing the next PRB report, the AST data are being used for comparison with data from the European Central Repository (ECR) and EASA data, to allow for enhancement of quality of data and reporting in Performance Monitoring The EUROCONTROL Voluntary ATM Incident Reporting (EVAIR) function also provides valuable and alternative insight and data on ATC operations and 2 EVAIR Safety Bulletins were issued during 2012.	Advanced	ECTRL	On-schedule	No deviation	EASA Annual Safety Review European ANS Performance Review
SYS3.7	All domains, except ATM, lack indicators and targets on key performance areas in order to achieve and maintain required safety levels	Develop a roadmap for the introduction of a performance scheme explaining the context and problem definition, the objective, the options, an initial assessment of the impacts, and the consultations conducted	EC	~~2011~~ **As determined by EC annual working plan**	SP	Roadmap	Following a 'brain storming' session at the EASAC in Feb 2012 which highlighted the difficulties on deciding on a clear path forward the EC is considering commissioning a study on the issues. The output of this study will help in the preparation of the legislative roadmap. Any study is unlikely to be completed before autumn 2014.	Not started	EC	On-schedule	The deliverable date needs to be revised. A roadmap on a legislative proposal cannot be delivered before Summer 2015.	
SYS3.8 **NEW**	Shortcomings in the European occurrence reporting system.	Bring forward proposals to update the EU system on occurrence reporting by reviewing Directive 2003/42/EC and its Implementing Rules with a view to gain full access to ECR.	EC	2012	R	Formal legislative proposal to the Parliament & Council	After completing the Impact Assessment and consulting with stakeholders, the European Commission adopted the proposal in December 2012. The proposal must be approved by both the European Parliament and the Council (Member States) before becoming European legislation. Once approved, the Regulation will become directly applicable in all Member States as national law.	Completed	EC	On-schedule	No deviation	Memo and proposal by the EC
SYS3.9 **NEW**	Understanding of European wide operational issues.	The NoA will perform an analysis of the operational Issues in the Safety Plan from the National Databases in the EASA Members States. This will be combined with any additional information found in the ECR .	NoA	~~2012~~ **Cont.**	SP	Report will be provided for each operational area	An initial analysis was performed by the NoA in February 2012. Further analysis and discussion took place at the 3rd NoA Meeting that was held on 18/19 September 2012. Reports on the operational issues were provided after the meeting. The NoA will be doing this analysis every year, therefore the action has been made continuous.	Advanced	E2	Continuous action	No deviation	
SYS3.10 **NEW**	Exchange of information on aviation safety risks.	Host an annual conference to facilitate the exchange of information and address the issues identified in the Safety Plan.	EASA	2012	SP	Conference hosted	On 10 and 11 October 2012, EASA hosted its 4th annual safety conference titled "*Safety Oversight – Managing Safety in a Performance Based Regulatory Environment*" and explored some of the many challenges and difficulties which could jeopardise the transition to a performance based regulatory oversight system. The objective of Performance Based Oversight is to achieve the highest possible level of safety in the aviation system with a series of defined, organisation-wide processes that enable effective day-to-day risk-based decision-making. Experiences and initiatives by industry and regulators to develop different practical approaches for inspection, assessment and oversight were presented and discussed at the conference.	Completed	E2	On-schedule	No deviation	Conference website

SYSTEMIC ISSUES

Systemic Issues							Implementation					
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**	**Update**	**Status**	**Lead**	**According to PLAN?**	**Reasons for deviation**	**Deliverable(s)**
SYS3.11 **NEW**	FDM programmes priorities do not consider operational issues identified at the European and national levels.	States should set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes, with the above objectives.	MS	~~2012~~ Cont.	SP	Report on activities performed to promote FDM	Among the States that provided a response, safety promotion meetings addressing FDM were organised in 7 of them (Latvia, Ireland, France, Finland, UK, Belgium and Switzerland). Four States (Lithuania, Iceland, Poland and Italy) expressed their intention to organise these types of meetings in the future. In two States (Czech Republic and Estonia) the number of aircraft operators required to have an FDM programme is particularly low. In Monaco there are only helicopter operators that are not required to have an FDM programme. In other States, the dialogue only takes place during the oversight activity (e.g. Sweden). Discussions on FDM events relevant for preventing the major risks identified in the EASp are held in 4 States (UK, Ireland, Latvia, Finland). Among the issues discussed are non-stabilised approaches and events relevant to prevent runway excursion. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
SYS3.12 **NEW**	FDM programmes priorities do not consider operational issues identified at the European and national levels.	EASA should foster actions by States to improving the implementation of FDM programmes by their operators and assist States initiate the standardisation of FDM events relevant to SSP top safety priorities.	EAFDM	2012	SP	Report on activities of the EAFDM	The EAFDM met twice in 2012, in June (meeting 3) and in December (meeting 4). Ten Authorities of EASA Member States have delegates in the EAFDM. The EAFDM has produced guidance material for NAAs on setting up a national Flight Data Monitoring (FDM) forum with their aircraft operators. This guidance is published on EAFDM page of EASA website. The EAFDM is working on a list of standard FDM events relevant for the prevention of runway excursions, mid-air collisions, controlled flight into terrain and loss of control in flight. A first list of candidate FDM events was identified, however work is still on going and this task will remain active in 2013. In 2013, it is planned to produce guidance material for NAAs on FDM programmes' oversight.	Advanced	EAFDM	Less than one year late	The action is only partially completed and will be extended.	Guidance for NAAs in setting up a national FDM forum
4. Complexity of the system												
SYS4.1	Apportionment of safety budgets across aviation segments.	Develop a methodology based on EUROCAE ED-78A (as part of AMC for ATM systems).	EASA	2014	R, SP	Methodology	ED-78A was issued in 2000 and has been applied since then by various groups such as WG-51 (ASAS applications), WG-76 (AIS/MET datalink applications) or WG-78 (ATM datalink applications). Feedback from these and other groups on the use of ED-78A has shown that the document is used well beyond its initial scope as well as a few discrepancies in its application. WG-91 will therefore review ED-78A and identify where appropriate guidance material would be necessary, notably with regard to the production of system-wide standards, which can be considered coordinated, correct and complete. The Kick Off Meeting for WG-91 took place on 6 and 7 June 2011, at EUROCONTROL premises in Brussels. A webex meeting was held in February 2012. The output should be a process specification . The activity receive only low support and it may be difficult to meet the current schedule.	Started	R5	On-schedule	No deviation	

SYSTEMIC ISSUES

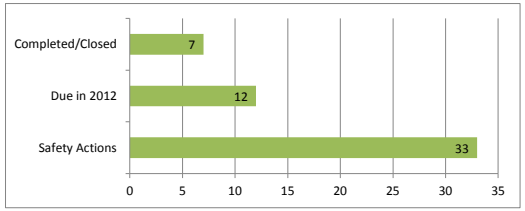
Systemic Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
SYS4.4	Fragmentation of European skies.	Assess impact of SESAR in current rulemaking activities.	EASA, EC & ECTRL	2015	R	RP Update	The RMP 2013-2016 includes an annex stemming from the SESAR regulatory roadmap with the purpose to indicate SESAR related tasks anticipated to impact the EASA RMP. Reviewing the related regulatory needs is naturally dependent on the maturity of the proposed concepts, including the actual time of their planned deployment.	Started	R5/E0	On-schedule	No deviation	Rulemaking Programme 2013-2016
SYS4.5 **NEW**	Increasing the number of design interfaces.	Evaluate the safety issues and identify mitigation means to the risk of outsourcing design of significant items.	EASA	2013	SP	Study completed	The first step is to develop a specification for the study. A draft should be available by Q2/2013. Gathering of information has started to prepare the specification (e.g. GAO reports on delays on the F-35). The study is now expected to be finished in 2014.	Started	E6	Less than one year late	Late start of the specificatin of the study due to conflicting priorities	
5. Competence of personnel												
SYS5.1	The demand for aviation professionals may exceed supply and aviation personnel have to cope with new procedures and increasingly complex technologies.	Evaluate new training methods such as Competency Based Training (CBT), Evidence Based Training (EBT) and distance learning, and adapt as necessary training standards and rules to ensure that the level of safety can only be positively affected. Priority will be given to the training of pilots but also of certifying staff involved in aircraft maintenance.	EASA	~~2014~~ **2014-2017**	R	Opinion/Decision	For Flight Crew Licensing: Based on the agreed prioritisation of tasks it was decided to initiate task FCL.006 in 2014/Q2. The title of this task is: "Extension of competency-based training to all licences and ratings and extension of TEM principles to all licences and ratings". EASA opinion is planned to be published Q2 2017 and the AMC material Q2 2018. The task has been renumbered as RMT.0194, 0195 with no additional changes. Work will be started for maintenance training too.	Not started	R	On-schedule	No deviation	
SYS5.3	Modernise training and competence provisions in ATM and ANS.	Develop provisions for air navigation service providers to ensure that their personnel are suitable and qualified for the tasks and that procedures are established in respect of their training and continuing competence.	EASA	~~2014~~ **2015**	R	Opinion/Decision	With the second phase ATM.001 Rulemaking task it will be proposed training and competence requirements for Air Traffic Safety Electronic Personnel (ATSEPs) amending the recently adopted Commission Implementing Regulation No 1035/2011 on Organisation Requirements for Air Navigation Service Providers. Creation of proper regulatory framework also for other safety critical personnel groups through new established Rulemaking tasks is envisaged. With the second phase ATM.003 Rulemaking task the ATCO competence scheme framework will be further developed and enhanced.	Advanced	R5.1	On-schedule	No deviation	
SYS5.5	Reduce possible differences in training implementation among States.	Develop a Training Implementation Policy.	EASA (IGPT)	~~2012~~ **2013**	SP	EASA Policy	A dedicated WG of the EASA Internal Group on Personnel Training (IGPT) has identified a top ten issue list. This list has been discussed with NAA Ops and FCL experts in the Workshop organised by EASA, S Directorate, on 27 June 2012. The results of the Workshop serve as the basis to develop the EASA Training Implementation Policy due in 2013.	Started	E2/S1	On-schedule	No deviation	

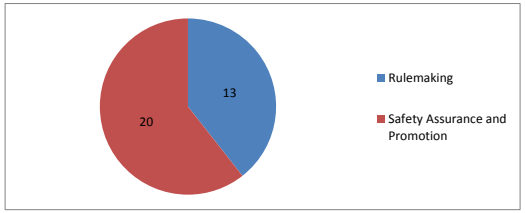
SYSTEMIC ISSUES

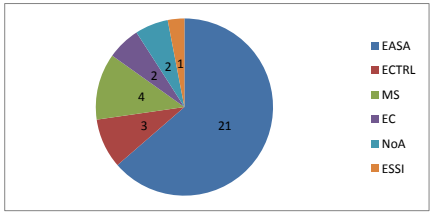
Systemic Issues						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
SYS5.6 NEW	Address the problem of increasing pilots' reliance on automation.	Consolidate the EASA Automation Policy through consultation and promote this policy among stakeholders.	EASA (IGPT)	2012	SP	Report on promotion activities

Implementation					
Update	**Status**	**Lead**	**According to PLAN?**	**Reasons for deviation**	**Deliverable(s)**
The EASA Automation Policy has been presented in 2011 in the EASA Safety Conference Staying in Control - LoC Prevention and Recovery and in 2012 in the FSF European Aviation Safety Seminar (EASS), in the ALIAS Conference, in the RAeS International Flight Crew Training Conference and in the UN WFP4th Global Humanitarian Aviation Conference. A web-survey was published on the EASA website from 30 April to 23 July. The results of this survey are being considered by EASA together with the products of various working groups and initiatives on LoC, such as LOCART, ICATEE, and SUPRA. The EASA Automation Policy also served as a basis for the Working Paper AN-Conf/12-WP/34 "Development of an Aviation Automation Policy" presented at the ICAO 12th Air Navigation Conference by the Presidency of the European Union on behalf of the European Union and its Member States; by the other Member States of the European Civil Aviation Conference2; and by the Member States of EUROCONTROL.	Completed	E2	On-schedule	No deviation	EASA automation Policy

SUMMARY







OPERATIONAL ISSUES

Operational Issues							Implementation				
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
Commercial Air Transport by Aeroplanes												
1. Runway Excursions (RE)												
AER1.1	Produce a European action plan by combining Authorities' and industry efforts.	Develop and publish the EAPPRE.	ECTRL, ECAST	2012	SP	EAPPRE, 1st edition	The task has been led by Eurocontrol with support from ECAST. The EAPPRE Edition 1 has been developed and will be published in early 2013. It includes actions for regulators, air navigation service providers, aircraft and aerodrome operators that will further mitigate the risk of Runway Excursions in the following years.	Completed	ECAST	On-schedule	No deviation	EAPPRE Edition 1
AER1.3	Requirements for RE need to be transposed in certain areas.	Development of European requirements for aerodrome operators organisations, aerodrome operations and aerodrome design.	EASA & EC	2012	R (ADR.001, ADR.002 & ADR.003) (RMT.0139, RMT.0140 & RMT.0144)	Opinion/ Decision	NPA 2011-20 was published on 13 December 2011. The NPA contains draft rules for the certification, management, operation and design of aerodromes. These proposals are closely based on ICAO requirements which are already in place and to which EASA MS adhere. The original comment period has been extended by 1 month. The Comment Response Document has been published on 26 November 2012.The public and stakeholders are now asked to give their reactions on the CRD documents by February 3, 2013. It is estimated that Opinions on the IRs will be issued in 2013. Decisions on the associated AMC's and GM will be issued after the adoption of the IRs. They will propose mitigation measures to the risk factors contributing to the RE.	Advanced	R5.2	Less than one year late	Extention of the comment period	NPA 2011-20 CRD 2011-20
AER1.4	Requirements for RE need to be transposed in certain areas.	Development of European requirements for ATM/ANS provision	EASA & EC	2013	R (ATM.001)	Opinion/ Decision	Commission Implementing Regulation (EU) No 923/2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation was published on 26/09/2011. The proposals for the provision of ATS and other services defined in chapter 2 of Annex Vb of the EASA BR are foreseen by 2013/Q2 and beyond.	Advanced	R5.1	On-schedule	No deviation	Opinion 05/2011
AER1.5	Include RE in national SSPs.	Runway excursions should be addressed by the MS on their SSPs in close cooperation with the aircraft operators, air traffic control, airport operators and pilot representatives. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	~~2012~~ **Cont.**	SP	SSP publication	Runway Excursions (RE) have been included in the risk portfolios of 11 States (Lithuania, Latvia, Ireland, Sweden, France, Finland, UK, Iceland, Italy, Croatia and Switzerland). Many of them have made RE a priority in their SSPs (Croatia, Finland) or Safety Plans (France, Lithuania, Ireland, Italy, UK) identifying specific actions. Others address the issue through specific oversight actions (Latvia) or risk portfolios (Switzerland). A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
AER1.6	Share national actions and measures.	Share actions and measures in use at national level to address the safety issue and participate in a dedicated workshop.	EASA, MS	~~2011~~ **2012**	SP	Survey, Report & Workshop	A survey has been launched with nominated focal points (35). 20 responses have been received so far indicating the actions carried out at national level to mitigate the risk. The results have been summarised in a dedicated report. The action will be consolidated with AER1.5 and closed.	20 responses received Action closed	MS	Consolidated	Action consolidated with AER1.5	Survey results available on SINAPSE
AER1.7 **NEW**	Global response to runway safety.	European partners should take part in the RRSS that will be organised in March 2012 in Amsterdam and contribute to develop action plans to promote the establishment of collaborative runway safety teams.	EASA, ECTRL, EC & MS	2012	SP	Participation & report of activity	The European Regional Runway Safety Seminar was held on March 8 2012 in Amsterdam within the ATC Global 2012 framework. One of the conclusions reached by the seminar was that to further improve Runway Safety, aviation stakeholders need to increase harmonization to international safety provisions but, at the same time, implement airport-tailored defenses to mitigate risks which are naturally associated with local layouts operations and human factor aspects. To that end, local Runway Safety Teams are the best tool for improving communication and cooperation between all stakeholders to optimize the mitigation of runway safety related risks.	Completed	E2	On-schedule	No deviation	ERRSS outcomes
AER1.8 **NEW**	Wind shear.	Develop regulations to require predictive wind shear warning systems in CAT operations.	EASA	2013-2015	R RMT.0369	Opinion	RMT.0369, 0370 planned to start in 2013, with Opinion due 2015 (AMC/GM in 2016).	Not started	R	On-schedule	No deviation	

OPERATIONAL ISSUES

Operational Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
2. Mid-air Collisions (MAC)												
AER2.1	Airspace infringement risk.	MS should implement actions of the European Action Plan for Airspace Infringement Risk Reduction.	MS	Per Plan	SP	SSP Publication	Airspace Infringements are a safety concern for 75% of the States that submitted a report (15/21) and primarily initiated by GA traffic. The majority of States (13) are in the process of implementing the European Action Plan for Airspace Infringement Risk Reduction and report to Eurocontrol within the European/Local Single Sky Implementation (ESSIP/LSSIP) process. Iceland is not a member of Eurocontrol and monitors the issue within the ICAO NAT umbrella. At least 5 States have established an SPI to monitor this issue and many have incorporated the issue in their SSP and Safety Plans. Belgium is in the process of developing a dedicated national plan to mitigate airspace infringements. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	ESSIP Report EASp implementation in the States
AER2.2	Ground-based ATM Safety Nets.	Develop high level specifications completed by guidance material for System Safety Defences (Short Term Conflict Alert, Approach Path Monitoring and Area Proximity Warning).	ECTRL, EASA	2014	R	Guidance material	The high level specifications complemented by comprehensive guidance material are completed. The SPIN (Safety nets Performance Improvement Network) Sub-Group that developed the documentation now meets twice per year to maintain and where necessary complement the documentation. A European action paper for ICAO AN-Conf/12 has been prepared to propose promulgation of relevant parts of the available documentation into an ICAO Manual for Safety Nets.	Advanced	ECTRL	On-schedule	No deviation	Ground-based Safety Nets website
AER2.3	Ground-based ATM Safety Nets.	Create an awareness campaign to promote and support, where appropriate, Europe-wide deployment of ground-based safety nets.	ECTRL	2014	SP	Leaflets, training modules.	The following general awareness creation resources are available: • A dedicated safety nets web site: http://www.eurocontrol.int/safety-nets • The NETALERT newsletter that is published three times per year: http://www.eurocontrol.int/safety-nets/public/standard_page/NetAlert.html • The SPIN (Safety nets Performance Improvement Network) Sub-Group that meets twice per year The following dedicated awareness creation resources are made available on request: • Safety nets seminars tailored to the needs of specific ANSPs or FABs (so far nine seminars were conducted, and a recent survey indicated a demand for seven additional seminars) • Independent safety nets performance assessments and optimisation assistance (so far provided to eight ANSPs, and a recent survey indicated interest from 11 additional ANSPs) • An application, PolyGen (Polygon Generator), which allows MSAW surfaces to be defined more accurately and with less effort using digital terrain data as an input	Advanced	ECTRL	On-schedule	No deviation	Ground-based Safety Nets website

OPERATIONAL ISSUES

Operational Issues							Implementation				
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
AER2.4	Airborne ATM Safety Nets.	Prepare studies to further evolve airborne safety nets. These studies will collect information on the current performance of safety nets and forecast their performance for possible future operational environment, as well as assessing the performance implications of envisaged changes to the safety nets.	ECTRL	2014	SP	Study report published.	The work in this area is done in close coordination with the related SESAR projects. A priority area of study is the compatibility of safety nets with each other and with other conflict management layers. The results of the related and recently completed PASS project are available. A specific topic in compatibility of safety nets is ACAS RA display to controllers. With the increasing use of Mode S surveillance the number of early adopters is also increasing (six identified so far). A specific drafting group was created to achieve two objectives: • Create awareness of open issues amongst early adopters • Develop and validate a harmonised concept of operations The early adopters are also offered dedicated support (so far provided to two ANSPs). Furthermore a dedicated tool, InCAS (Interactive Collision Avoidance Simulator), is available and maintained. Recently support for TCAS version 7.1 has been implemented). Finally work is ongoing to bring compatibility issues to the attention of relevant standardisation bodies.	Advanced	ECTRL	On-schedule	No deviation	PASS project
AER2.5	European ATM requirements.	Requirements on ATM/ANS provision	EASA & EC	2013	R (ATM.001) (RMT.0148 and RMT.0150)	Opinion/ Decision	Commission Implementing Regulation No 1035/2011 was published on 17 October 2011. It lays down common requirements for the provision of air navigation services. Commission Implementing Regulation (EU) No 923/2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation was published on 26/09/2012 . The proposals for the provision of ATS and other services defined in Chapter 2 of Annex Vb of the EASA BR are foreseen on 2013/Q2 and beyond.	Advanced	R5.1	On-schedule	No deviation	Commission Implementing Regulation No 1035/ 2011 Commission Implementing Regulation No 923/2012
AER2.6	European ATM requirements.	Requirements on Competent Authorities in ATM/ANS.	EASA & EC	~~2012~~ **2013**	R (ATM.004) (RMT.0156)	Opinion/ Decision	Commission Implementing Regulation No 1034/2011 was published on 17 October 2011, transposing existing EU requirements. The second phase of the rulemaking task will bring further enhancements in this area. It is exptected to finish in 2014.	Advanced	R5.1	Less than one year late	Rulemaking task taking longer than initally planned	Commission Implementing Regulation No 1034/ 2011
AER2.7	European ATM requirements.	Requirements for systems and constituents.	EASA & EC	~~2011-2013~~ **2012-2015**	R (ATM.005) (RMT.0161 and RMT.0162)	Opinion/ Decision	RMT.0161 & 0162 have not been yet launched. A concept paper is under development.	Not started	R5	Less than one year late	Dates re-adjusted to the RM planning, different priorities.	
AER2.8	Include MAC in national SSPs.	Mid-air collisions shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	~~2012~~ **Cont.**	SP	SSP Publication	Fourteen (14) States include MAC in the risk portfolios, SSPs and Safety Plans. This is done after analysis of State's occurrences and global data. Six (6) States (Lithuania, Montenegro, Romania, Monaco, Poland and the Netherlands) plan to incorporate the issue as they draft their Plans and SSPs. The number of actual MAC across States is low, because many safety barriers are in place (both on-ground and in the air). The separation minima infringements are being monitored in many States and in many cases originate from airspace infringements due to military aircraft or general aviation interfering with CAT. In some cases the occurrences take place in uncontrolled (class G) airspace. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
AER2.9	Share national actions and measures.	Share actions and measures in use at national level to address the safety issue and participate in a dedicated workshop.	EASA, MS	~~2011~~ **2012**	SP	Survey, Report & Workshop	A survey has been launched with nominated focal points (35). 20 responses have been received so far indicating the actions carried out at national level to mitigate the risk. The results have been summarised in a dedicated report and discussed during the 2nd EASp summit in November. The action will be consolidated with AER2.8 and closed.	20 responses received Action closed	MS	Consolidated	Action consolidated with AER2.8	Survey results available on SINAPSE

OPERATIONAL ISSUES

Operational Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
3. Controlled Flight Into Terrain (CFIT)												
AER3.1	Electronic Checklists, smart alerting and automatic altitude call-outs.	Amend CS-25 to introduce requirements aiming at reducing approach and landing accidents by: - Implementing interactive electronic checklist and smart alerting systems in new type-certificated airplanes. - Incorporating human factors principles into checklist design for new type-certificated airplanes. - Developing requirements for automatic aural altitude call-outs on final approach	EASA	~~2012-2014~~ **2013-2015**	R (20.010) (RMT.0004)	Decision	RMT.0004 has been suspended from rulemaking planning, but intend has been convered by other tasks (20.002 EFB). Action will be closed.	Action closed	R	Consolidated	Action suspended from RMP. Intend covered by other tasks.	
AER3.2	Aircraft Design.	Amend CS-25 to introduce requirement aiming at reducing approach and landing accidents by: - Identifying flight-critical system components as the basis for design guidance, continuing airworthiness, and maintenance. - Issuing design guidance to ensure flight-critical system components are fault tolerant and are subjected to critical-point, flight-realistic-condition, certification testing/analysis.	EASA	2012-~~2014~~ **2015**	R (25.027) (RMT.0047)	Decision	The RMT.0047 was one of the task resulting from the "JAA inventory of on-going and planned rulemaking tasks". When the Agency was preparing the ToR for this task, it became apparent that most of it was already addressed by other tasks that are already finished, or on-going like RMT.004 (approval of Electronic Checklists). The action will be closed.	Action closed	R4	Consolidated	Action already covered by existing tasks.	
AER3.3	Fatigue.	Updating of Flight and Duty Time Limitations and rest requirements for commercial air transport with aeroplanes taking into account recent scientific and technical evidence.	EASA	~~2011~~ **2012**	R	Opinion	NPA 2010-14 was published in December 2010 receiving a great deal of comments. After a thorough review of all the suggestions received, Opinion 04/2012 (*Implementing Rules on Flight and Duty Time Limitations and rest requirements for commercial air transport with aeroplanes*) has been published in October 2012. They propose safety improvements to deal with fatigue of flight crew.	Completed	R3	On-schedule	No deviation	Opinion 04/2012
AER3.4	Include CFIT in national SSPs.	Controlled flight into terrain shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	~~2012~~ **Cont.**	SP	SSP Publication	Twelve (12) States include CFIT in the risk portfolios, SSPs (2) and Safety Plans (5). Five (5) States (Lithuania, Montenegro, Romania, Monaco and Estonia) plan to incorporate the issue as they draft their Plans and SSPs. The number of actual CFIT events across States is low, but the consequences are serious and this is why some States decided to incorporate the issue in the risk portfolios. Various States relied on global data to justify the risk (e.g. UK) while others are just monitoring the events (e.g. Croatia, Sweden). In other cases, the low number of occurrences did not justify the consideration of the risk at State level (Spain, Luxemburg, the Netherlands). A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
AER3.5	Share national actions and measures.	Share actions and measures in use at national level to address the safety issue and participate in a dedicated workshop	EASA & MS	~~2011~~ **2012**	SP	Survey, Report & Workshop	A survey has been launched with nominated focal points (35). 20 responses have been received so far indicating the actions carried out at national level to mitigate the risk. The results have been summarised in a dedicated report and discussed during the 2nd EASp summit in November. The action will be consolidated with AER3.4 and closed.	20 responses received Action closed	MS	Consolidated	Action consolidated with AER3.4	Survey results available on SINAPSE
AER3.6 **NEW**	Certain turbine powered aircraft are not equipped with TAWS.	Make TAWS equipment mandatory for aircraft of less than 5700 kgs MTOM able to carry 6 to 9 passengers.	EASA	2013-2016	R RMT.0371	Decision	RMT.0371, 0372 planned to start in 2013, Opinion due in 2016 (AMC/GM in 2017).	Not started	R3	On-schedule	No deviation	

OPERATIONAL ISSUES

Operational Issues							Implementation				
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
4. Loss of Control In Flight (LOC-I)												
AER4.1	Protection From Debris Impacts and Fire.	Develop a new paragraph of CS-25, which would cover the protection of the whole aircraft against the threat of tire/wheel failure. Identified as a common priority for JAA-FAA-TCCA joint rulemaking	EASA	2013	R (25.028) RMT.0048	Decision	Task 25.028 has started, NPA publication expected in early 2013. Schedule is delayed because of difficulties faced in the events data finding & analysis phase.	Started	R4	On-schedule	Schedule is delayed because of difficulties faced in the events data finding & analysis phase. No delay on the task declared yet.	
AER4.2	Protection of aircraft and engines in icing conditions.	Upgrade the existing CS-25 and CSE certification specifications to ensure that Large Aeroplanes and engines safely operate in icing conditions including Super cooled Large Drop (freezing drizzle, freezing rain), mixed phase and ice crystal.	EASA	2012	R (25.058) RMT.0058 RMT.0179	Decision	Task 25.058 has started, NPA 2011-03 was published on 22 March 2011 and was open to comment until 05 August 2011. A companion NPA 2011-04 was published for CS-E on the same date with the same period for comment. The task was due to finish during 2012/Q1. Harmonisation with the FAA demands the publication of a second NPA for CS-25 in parallel with the final rule from the FAA. The FAA is leading these rulemaking activities, hence progress is dependent on FAAs rulemaking constraints. FAA rulemaking has been delayed (publication expected in 2013/Q1-Q2). As a consequence EASA schedule has been delayed and it was decided that the Agency will take the lead on the rulemaking process. A decision is expected in 2014/Q1.	Advanced	R4	More than one year late	Delay in FAA rulemaking that is taking the lead on the activity.	NPA 2011-03 NPA 2011-04
AER4.4	Fuel System Low Level Indication / Fuel Exhaustion Associated crew procedures.	Amend CS-25 by introducing new provisions and associated AMC addressing safety recommendations in order to better protect Large Aeroplanes against fuel exhaustion/fuel low level scenarios	EASA	2012	R (25.055)	Decision	Rulemaking task 25.055 is completed. The corresponding CS-25 amendment 12 material has been delivered via ED Decision 2003/02/RM of 6 July 2012. It introduces new fuel indication system(s) standards as the outcome of the work of an international working group led by the Agency and including major airframe and engine manufacturers (Boeing, Airbus, ATR, Embraer, Rolls Royce), and civil aviation authorities (FAA, TCCA, EASA). This effort was made as a reaction to accidents and incidents involving engine fuel starvation, fuel exhaustion or fuel low level.	Completed	R4	On-schedule	No deviation	CS-25 Ammendment 12
AER4.6	Include LOC-I in national SSPs.	Loss of control in flight shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	~~2012~~ **Cont.**	SP	SSP Publication	Twelve (12) States include LOC-I in the risk portfolios, SSPs and Safety Plans (4). Five (5) States (Lithuania, Montenegro, Romania, Monaco and Estonia) plan to incorporate the issue as they draft their Plans and SSPs. The number of actual LOC-I events across States is low, but the consequences are serious and this is why some States decided to incorporate the issue in the risk portfolios. Various States relied onthe fact that it is considered a European priority or risk analysis at State level (e.g. Belgium), while others are just monitoring the number of events (e.g. Croatia). In other cases, the low number of occurrences did not justify the consideration of the risk at State level (Spain, Luxemburg, the Netherlands). A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
AER4.7	Share national actions and measures.	Share actions and measures in use at national level to address the safety issue and participate in a dedicated workshop	EASA & MS	~~2011~~ **2012**	SP	Survey, Report & Workshop	A survey has been launched with nominated focal points (35). 20 responses have been received so far indicating the actions carried out at national level to mitigate the risk. The results have been summarised in a dedicated report and discussed during the 2nd EASp summit in November. The action will be consolidated with AER4.6 and closed.	20 responses received Action closed	MS	Consolidated	Action consolidated with AER4.6	Survey results available on SINAPSE
AER4.8 **NEW**	Response to upset conditions.	EASA and Member States to support, encourage and follow up initiatives such as ICATEE to contribute to developing solutions aimed to reduce LOC-I, revising and promoting upset recovery guidance material, and influencing the adoption of future ICAO SARPs.	EASA and MS	2013	SP	Report on initiatives such as ICATEE	ICATEE activities continue with participation from EASA. An ICATEE meeting was hosted at EASA in September 2012 and this allowed several agency staff to meet and exchange ideas and information with the ICATEE members. This was particularly useful for rulemaking colleagues as the ICATEE output is expected to directly affect forthcoming rulemaking tasks. The final draft content for the Airplane Upset Prevention and Recovery Manual was compiled and is expected to be presented to ICAO in the first quarter of 2013. The technical group also discussed proposals for the amendment of ICAO Doc 9625 regarding Flight Simulator Training Devices. Coordination with the LOCART group is maintained.	Advanced	C.2	On-schedule	No deviation	ICATEE website

OPERATIONAL ISSUES

Operational Issues							Implementation					
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**	**Update**	**Status**	**Lead**	**According to PLAN?**	**Reasons for deviation**	**Deliverable(s)**
AER4.9 **NEW**	Response to unusual attitudes.	Publish Part FCL, which contains the new European-wide requirements addressing the training of and recovery from unusual attitudes.	EASA	2012	R	Publication of Part FCL	Part-FCL was published November 2011 as Annex I to Commission Regulation (EU) No 1178/2011 on civil aviation aircrew. Related Decision was published in December.	Completed	R3	On-schedule	Action completed ahead of schedule	Commission Regulation (EU) No 1178/2011
AER4.10 **NEW**	Response to unusual attitudes.	Organise a Workshop to identify and promote requirements and guidance in Part FCL and Part OPS related to the prevention of LoC accidents and identify needs for future improvements.	EASA	2012	SP and R	Workshop on Part FCL and OPS	Scope has been extended to OPS (not only FCL). Currently waiting the outcome of the still ongoing ICAO (FAA) LOCART initiative, which will be concluded in early 2013 to incorporate also the outcome of ICATEE. A meeting with the ICATEE group and the LOCART group was held in Cologne in September 2012. This was the first step for preparing an EASA workshop on this issue. However, based on the slight delay the two initiatives were facing the Agency's workshop has been postponed to February 2013. This workshop will also be used to clarify the main objectives for the recently created rulemaking task RMT.0581, which will deal with loss of control and recovery training and will be initiated by the Agency in spring 2013.	Advanced	R3	Less than one year later	Key initiatives in the area running late. Scope extended.	
AER4.11 **NEW**	Unclear maintenance responsibilities.	Review and update CAMO and Part-145 responsibilities.	EASA	2012-2014	R RMT.0217	Opinion & Decision	The task has not yet started. ToRs will be published in January 2013.	Not started	R4	On-schedule	Priority given to other tasks.	
5. Ground Collision												
Runway Incursions												
AER5.1	Runway safety.	MS should audit their aerodromes to ensure that a local runway safety team is in place and is effective. Member States will report on the progress and effectiveness.	MS	~~2012~~ **Cont.**	O	Audit plan included in SSPs. Progress Report.	Almost all States that provided a report have established a Local Runway Safety Team (19) and most of them monitor both their existence and effectiveness, in most cases through regular oversight audits but also through direct involvement on the safety teams. Various States require LRST to implement EAPPRI 2 recommendations. ESSIP Report 2011: Significant progress is reported by all stakeholders (ANSPs, Airports and Military) on the establishment of a local RunwaySafety Team. Fifty two airports have reported it as -Completed-.	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	ESSIP Report
AER5.2	Runway incursions.	MS should implement actions suggested by the European Action Plan for the Prevention of Runway Incursions.	MS	Per Plan	SP	SSP Publication	All States that provided a report but two (2) continuously implement EAPPRI recommendations and report on progress within the European/Local Single Sky Implementation (ESSIP/LSSIP). States are currently at various stages of implementation. SMS of involved organisations as well as safety teams are key in the implementation of the EAPPRI recommendations. The follow-up of the EAPPRI is part of the regulatory surveillance activity. ESSIP Report 2011 (objective AOP03): Based on the local implementation planning provided by the states on their reports, the implementation of EAPPRI v2 recommendations may be considered satisfactory and well on track to achieve the European target date of December 2013. The LSSIP reports provide the following progress: 12 States completed, 24 States partially completed and 5 States planned.	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	ESSIP Report
AER5.3	Runway incursions.	Development of Implementing Rules based on transferred tasks from the JAA and the EUROCONTROL EAPPRI report.	EASA	2011-~~2014~~ **2011-2015**	R (MDM.085) (RMT.0416 and RMT.0417)	Opinion/ Decision	Task MDM.085 is transferred to task OPS.009(a) and (b). The tasks have started and are scheduled to finish in 2015. Task renumbered as RMT.0416, 0417. ToR published on 12/09/2011 and the Rulemaking Group has been established. The aim of the tasks is to prevent runway incursions through the introduction of operational procedures and best practices for the taxi phase, including sterile flight deck procedures.	Started	R	On-schedule	No deviation	OPS.099 ToRs

OPERATIONAL ISSUES

Operational Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
AER5.4	Include RI in national SSPs.	Runway incursions should be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	~~2012~~ Cont.	SP	SSP Publication	The majority of States (17) have included RI in their risk portfolios, mainly in Safety Plans (6) and SSPs (2). Three States (3) plan to include the risk in their SSPs in the future. The recommendations of the EAPPRI and LRSTs involving airport operators, ANSPs, aircraft operators, ground personnel and regulators are key mechanisms in the implementation of mitigation actions. Some States have detected increasing trends during monitoring of the occurrences. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
AER5.5	Share national actions and measures.	Share actions and measures in use at national level to address the safety issue and participate in a dedicated workshop.	EASA & MS	~~2011~~ **2012**	SP	Survey, Report & Workshop	A survey has been launched with nominated focal points (35). 20 responses have been received so far indicating the actions carried out at national level to mitigate the risk. The results have been summarised in a dedicated report and discussed during the 2nd EASp summit in November. The action will be consolidated with AER5.4 and closed.	20 responses received Action closed	MS	Consolidated	Action consolidated with AER5.4	Survey results available on SINAPSE
Safety of Ground Operations												
AER5.6	Transposition of requirements into EU regulation in the domain of Aerodromes.	Requirements for aerodrome operator organisations and oversight authorities.	EASA & EC	2012	R (ADR.001) (RMT.0136)	Opinion/ Decision	NPA 2011-20 was published on 13 December 2011. The NPA contains draft rules for the certification, management, operation and design of aerodromes. These proposals are closely based on ICAO requirements which are already in place and to which EASA MS adhere. The original comment period has been extended by 1 month. The Comment Response Document has been published on 26 November 2012.The public and stakeholders are now asked to give their reactions on the CRD documents by February 3, 2013. It is estimated that Opinions on the IRs will be issued in 2013/Q1.	Advanced	R5.2	Less than one year late	Extention of the comment period	NPA 2011-20 CRD 2011-20
AER5.7	Transposition of requirements into EU regulation in the domain of Aerodromes.	Requirements for aerodrome operations.	EASA & EC	2012	R (ADR.002) (RMT.0140)	Opinion/ Decision	NPA 2011-20 was published on 13 December 2011. The NPA contains draft rules for the certification, management, operation and design of aerodromes. These proposals are closely based on ICAO requirements which are already in place and to which EASA MS adhere. The original comment period has been extended by 1 month. The Comment Response Document has been published on 26 November 2012.The public and stakeholders are now asked to give their reactions on the CRD documents by February 3, 2013. It is estimated that Opinions on the IRs will be issued in 2013/Q1. *The action will be merged with AER5.6 with simmilar scope.*	Action closed	R5	Consolidated	Extention of the comment period. Action merged with AER5.6	NPA 2011-20 CRD 2011-20
AER5.8	Transposition of requirements into EU regulation in the domain of Aerodromes.	Requirements for aerodrome design.	EASA & EC	2012	R (ADR.003) (RMT.0144)	Opinion/ Decision	NPA 2011-20 was published on 13 December 2011. The NPA contains draft rules for the certification, management, operation and design of aerodromes. These proposals are closely based on ICAO requirements which are already in place and to which EASA MS adhere. The original comment period has been extended by 1 month. The Comment Response Document has been published on 26 November 2012.The public and stakeholders are now asked to give their reactions on the CRD documents by February 3, 2013. It is estimated that Opinions on the IRs will be issued in 2013/Q1. *The action will be merged with AER5.6 with simmilar scope.*	Action closed	R5	Consolidated	Extention of the comment period. Action merged with AER5.6	NPA 2011-20 CRD 2011-20
AER5.9	Include Ground Operations in national SSPs.	Risks to ground operations should be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	~~2012~~ **Cont.**	SP	SSP Publication	The majority of States (17) have included Ground Operations in their risk portfolios: at least five Safety Plans (5) and three SSPs (3) contain specific mitigation actions/initiatives. Three States (3) plan to include the risk as they develop or update their SSPs in the future. Local Runway Safety Teams (LRST) play a key role in analysing ground safety data and addressing mitigation actions in various States, dedicated industry-authority working groups exists in at least two States.	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States

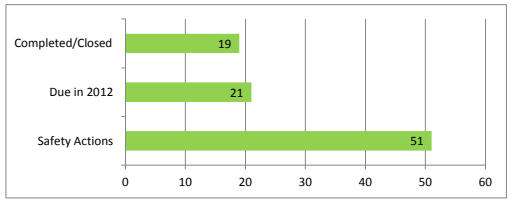
OPERATIONAL ISSUES

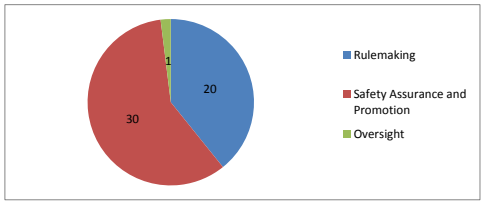
Operational Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
AER5.10	Share national actions and measures.	Share actions and measures in use at national level to address the safety issue and participate in a dedicated workshop.	EASA & MS	~~2011~~ 2012	SP	Survey, Report & Workshop	A survey has been launched with nominated focal points (35). 20 responses have been received so far indicating the actions carried out at national level to mitigate the risk. The results have been summarised in a dedicated report and discussed during the 2nd EASp summit in November. The action will be consolidated with AER5.9 and closed.	20 responses received Action closed	MS	Consolidated	Action consolidated with AER5.9	Survey results available on SINAPSE
AER5.11 NEW	Lack of harmonisation of ground operation activities.	Contribute to the development of industry developed ground operations manual and promote the use of this manual in Europe.	ECAST	2012	SP	Working draft IGOM	Though its Ground Safety WG, ECAST has contributed to the development of the IATA IGOM. The IGOM, First Edition, was published on 2 April 2012. The IGOM and other related IATA material (AHM, ISAGO, GDDB) are promoted by IATA and ECAST and through Intl. Conferences such as the IGHC 2012.	Completed	ECAST	On-schedule	No deviation	IGOM Edition 1
Other types of operation												
1. Helicopters												
HE1.1	Improve Helicopter Safety in Europe through risk awareness and safety promotion.	In cooperation with the IHST, promote safety by developing risk awareness and training material	EHEST	cont.	SP	Leaflets and training material	The EHEST cooperates with the IHST to produce risk awareness, safety promotion and training material. The following material has been published on the EHEST website: - Video on the Loss of Control in Degraded Visual Environment, - Two videos on Helicopter Passenger Management (for the pilots and for the passengers), - Leaflet Safety Considerations for Helicopter Pilots, - IHST Maintenance Toolkit (co-developed with EHEST), - Leaflet Helicopter Airmanship, - Leaflet Off Airfields Landing Site, - Leaflet Pilot Decision Making, - Leaflet Risk Assessment in Training, In development: - Video Helicopter Mission Preparation Including Off Airfields Landing, - Leaflet Autoration in Training - Flight CrewTraining Instructor Manual	Advanced	EHEST	Continuous action	No deviation	EHEST training
HE1.3	Further implement EHEST recommendations.	NAAs in partnership with industry representatives, to organise Helicopter Safety events annually or every two years. The EHEST materials could be freely used and promoted.	MS and Industry	~~2012~~ Cont.	SP	Number and frequency of events organised	Ten (10) States organise helicopter safety events on a regular basis. Four (4) more States have plans to organise these type of events in the future. The EHEST material is widely promoted in these events, but also through individual meetings with operators. Dedicated helicopters working groups/teams exist in at least 3 States (Spain, Finland and UK) in some cases also addressing general aviation issues. These teams develop their own safety material to address specific risks. In some States (Luxemburg, Lithuania or Ireland), the number of helicopter operators is low. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States
HE1.4 NEW	Impact of technologies in mitigating helicopter safety issues.	Finalise a first version of a tool to assess the impact of technologies on mitigating helicopter safety issues.	EHEST	2013	SP	First version of tool developed	A first draft of the tool has been developed. Currently, more than 100 technologies have been assessed for their capability to mitigate safety issues. Work progress was presented in the 38th European Rotorcraft Symposium organised by the NLR in Sep 2012.	Advanced	EHEST	On-schedule	No deviation	EHSIT ST Technology
HE1.5 NEW	Helicopter flights into degraded visual environment.	Perform a study to define and evaluate visual augmentation possibilities for VFR helicopter flight with the aim to mitigate the potential hazards associated to DVE.	EASA	2012	SP Research (HDVE)	Study report	Project HDVE is finalised, simulation exercises took place in July-August, report available in early 2013.	Completed	E2	On-schedule	No deviation	Project Report
2. General Aviation												
GA1.1	Improve quality of General Aviation safety data	Improve the collection and analysis in Europe of data on accidents involving light aircraft.	~~EGAST~~ MS	cont.	SP	Report on light aircraft data contained in the ASR	Every year a letter and a form are sent to the National Aviation Authorities to collect data on light aircraft. The level of reporting and quality differs by State. This action has been re-allocated to Member States because they are the owners of the data.	Started	MS	Continuous action	Action re-allocated to Member States	EASA Annual Safety Review

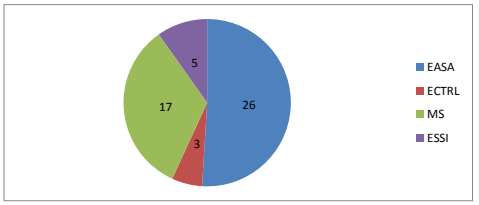
OPERATIONAL ISSUES

Operational Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
GA1.2	Improve General Aviation Safety in Europe through risk awareness and safety promotion.	Contribute to improve risk awareness, sharing of good practices and safety promotion among the European general aviation community	EGAST	cont.	SP	Leaflets and training material.	EGAST develops and shares good practices and safety promotion material for the GA pilots and community in Europe. Recent publications: - IASA Video Loss of Control - IASA Video Safety Parachute can Save your Life! - IASA Video Le Train d'Atterrisage - Sujet Facteurs Humains - Leaflet Collision Avoidance - Leaflet Decision Making - Leaflet Weather Anticipation In development: - Leaflet Navigation in Day VFR Using Advanced Technologies - Leaftet Stall/Spin Loss of Control In addition, safety promotion material from several NAAs and GA Associations are made available to the GA community on the EGAST website.	Advanced	EGAST	Continuous action	No deviation	EGAST website
GA1.3	See and avoid for General Aviation.	Perform reviews of on-going local/national initiatives looking at improvements to see and avoid for GA with the aim to identify best-practices and promote standardisation.	EASA	~~2011~~ **2012**	SP Research	Study report published.	Project SISA is finalised. A workshop with GA community was held at EASA on 22 June, report available in early 2013.	Completed	E2.3	On-schedule	No deviation	Project Report
GA1.4 **NEW**	Transfer of technologies into general aviation.	Study the feasibility of launching a research project to look into the safety and environmental benefits of encouraging the transfer of new technologies into General Aviation (excluding Business aviation).	EASA	2012	SP Research	Project feasibility studied	Scope has been assessed with NAAs, existing initiatives and possible research cooperations (EARPG group). A meeting was organised on the 16 Nov on the transfer of technology from the car racing crashworthiness world into the GA crashworthiness world. Research projects have been proposed in the context of FP7, EASA is invited to take advisor role. No specific project funded by EASA planned for next year.	Completed	E2.3	On-schedule	No deviation	
GA1.5 **NEW**	Airspace infringement risk in general aviation.	National authorities should play the leading role in establishing and promoting local implementation priorities and actions.	MS	~~2013~~ Cont.	SP	List of local implementation priorities and actions for GA	Airspace infringements committed by General Aviation are a safety concern for 71% of the States (15) that submitted a response. The infringements are committed in most cases by VFR traffic infringing the controlled airspace (in some cases at international airports). Most of States have implemented or are implementing the recommendations provided in the European Action Plan for Airspace Infringement Risk Reduction. A summary of the responses received from the States has been compiled in a separate report (EASp implementation in the States).	21 responses received	MS	Continuous action	Status request sent to 35 focal points. 21 responses have been received	EASp implementation in the States

SUMMARY







EMERGING ISSUES

Emerging Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
1. New products, systems, technologies and operations												
EME1.1	Methodology to assess future risks.	Adapt or create a robust method to assess future risks based on expert judgement, project studies, questionnaires and scenarios.	EASA	Sept. 2012	SP	Methodology	More than 700 methods have been reviewed by the FAST in Phase 1 of the project started in 2011. The methodology was delivered to the EASAC in Nov 2012. The proposed methods suggests: • To identify as accurately as possible the system under study (scenarios) • To identify the interactions for the risk analysis (using FAST areas of change and general prospective documents)	Completed	E2/E6	On-schedule	No deviation	Methodology
EME1.2	Common possible picture of the future.	Adapt or create a methodology to develop a common possible picture of the future. Such methodology should envisage cooperation with other bodies such as EUROCONTROL, SAE or ACARE.	EASA with ECTRL, SAE & ACARE	2012	SP	Methodology	A concept paper to clarify the scope is under development. The paper will be used to approach existing groups after an exploration of the activities they carry out. This concept paper will take into account: the paper presented to EASAC at its September 2010 meeting (a picture of future air transport 2025), the roadmap to a single European transport area-towards a competitive and resource efficient transport system, the flight path 2050, the common picture of the future developed by FAST as a by-product of their main task on EME 1.1, the work performed by the Cambridge students (Market research and analysis of the aviation industry and impact on EASA) and ACARE work. Delays have been encoutered in the drafting of the scoping paper, which will be available by March 2013	Started	E6	Less than one year late	Approaching other orgnaisations is likely to occur early 2013. Slow progress due to conflicting priorities.	
EME1.3	~~UAS~~ RPAS further regulation.	Development of IR for the operations of ~~UAS~~ RPAS~~.~~	EASA	~~2012-2014~~ **2013-2016**	R (MDM.030) (RMT.0229)	Opinion/Decision	Task MDM.030 is due to start during 2013/Q1 and to end 2016/Q2. EASA Rulemaking is actively involved in the pre-rulemaking strategy phase. A concept paper will be available by the end of 2012. The main development of RPAS is outside EASA scope either because they are below 150kg or because they will be used for custom, police and search and rescue. The activity is synchronised with the activities of other key players in this area, in particular ICAO. RMT title changed to '*RPAS further regulation*' to align with ICAO terminology.	Started (pre-rulemaking phase)	R	On-schedule	No deviation	
EME1.4	Operations with ~~VLJ~~ high-performance aircraft~~.~~	Review of Implementing Rules in relation to the operation of ~~Very Light Jets~~ high-performance aircraft~~.~~	EASA	~~2012-2015~~ **2014-2017**	R (MDM.064) (RMT.0414 and RMT.0415)	Opinion/Decision	Rulemaking task MDM.064 has been replaced by task OPS.066 and renumberd as RMT.0414, 0415. RMT title changed to '*Operations and equipment for high performance aircraft*'. Preparatory work to start early 2013: tender for a study to review the OPS rules and receive appropriate recommendations for changes. Rulemaking task scheduled to start 2015, ending 2018 (2019 for AMC/GM). Completion of the task falls outside the EASp time framework. The action will be re-scoped to focus on work done before entering the formal rulemaking process.	Started (pre-rulemaking phase)	R	On-schedule	No deviation	
EME1.5	Powered Lift (Tilt rotor) pilot licensing and operations.	Review of Implementing Rules for pilot licensing and operations in relation to the experience gained in the BA 609 certification process	EASA	~~2012-2015~~ **2013-2016**	R MDM.070 RMT.0266	Opinion/Decision	Task MDM.070 starts during 2013 and should end during 2016 (2017 for the AMC). For the time being there is one application for validation using special conditions. The action is dependant on the certification progress and possible entry into service. A preparatory study is most likely to be undertaken in 2012. New timing is aligned with certification - no such aircraft are yet certified.	Started (pre-rulemaking phase)	R	On-schedule	No deviation	
EME1.6	Suborbital planes regulation.	Regulate sub-orbital planes.	EASA	2012-2014	R MDM.098 RMT.0396	Opinion/Decision	Pre-RIA and ToR drafted, submittal to SSCC put on hold due to a new directive from the Commissioner's Cabinet to investigate a lighter process, similar to FAA-AST "Launch Licensing". Sub-orbital Working Group (SoWG) is subsequently currently drafting possible amendments to the BR to accommodate for this lighter approach, however 3 European stakeholders confirmed their demand for full certification (EADS, Booster, REL-Skylon). To meet their application times and allow them to design according to the rules, task MDM.098 started in 2012 and should end in 2014.	Started (pre-rulemaking phase)	R	On-schedule	No deviation	

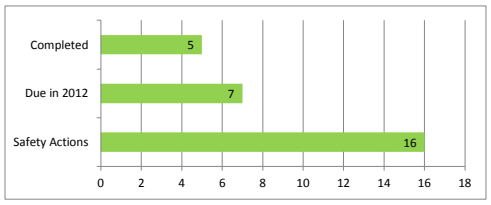
EMERGING ISSUES

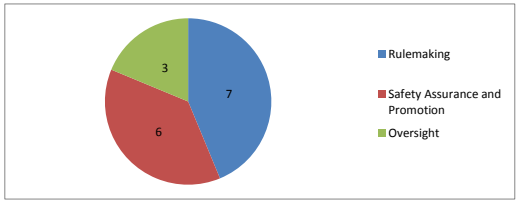
Emerging Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
EME1.7 **NEW**	Composite Damage Metrics and Inspection.	Improve the understanding of high energy blunt impact on composite structure for aircraft, its significance, and the associated damage metrics and damage indications.	EASA	2012	SP Research (CODAMEIN)	Final study report published	Report on CODAMEIN Phase 1 available on EASA website. 2nd phase of tests on composite structure completed, results are being analysed, report will be published beginning of 2013. A third phase of impact tests is planned for 2013.	Completed	E2.3	On-schedule	No deviation. Third tests phase is an extension to better ensure comparison with similar US research	Project report
2. Environmental factors												
EME2.1	Effect of climate change on aviation.	Establish a network to increase awareness and provide dissemination, coordinate research and avoid duplication. Establish roadmaps and identify precursors (data bank).	EASA	~~2011~~ **2012**	SP	Network ToR.	Atmospheric risks including climate change was the subject of one panel at the EU/US safety conference held in Vienna on June 14-16 2011. The main conclusion was that there was no consensus yet on the impact of climate change on safety but highlighted that the development of new operations was raising concerns about the assumptions made at aircraft certification. Research was necessary to address these and in the mean time avoidance (despite its limitations) and training were the most effective mitigation means. Slides outlining the general intentions have been prepared for the WEZARD (Weather hazards for aeronautics) workshopn 30 May / 1 June 2012. The ToR for the network will take into consideration the outcomes of this dicussion and will be finalised in March 2013.	Advanced	E6	Less than one year late	ToR took longer than expected due to conflicting deadlines with other tasks.	
EME2.2	Effect of climate change on aviation.	Take regulatory action as appropriate to cover well identified issues like icing (in particular ice crystals). Develop rules as identified by the network.	EASA	Depending on outcome of network	R	Opinion/Decision	This action is dependant on the findings of the network.	Not started	E6	On-schedule	No deviation	
EME2.3	Effect of climate change on aviation.	Complement activities by development of Standards and special conditions.	EASA	Depending on outcome of network	R, O	Special Condition	This action is dependant on the findings of the network.	Not started	E6	On-schedule	No deviation	
EME2.4 **NEW**	Flying through clouds with High Ice Water Content at High altitude.	Launch research to validate the proposed regulatory mixed phase and glaciated icing environment, assess the necessity of further amendment/extension of the envelope and define the necessary actions for a more detailed characterisation of the composition of cloud masses at high altitude.	EASA	2012	SP Research (HighIWC)	Final study report published	HighIWC project launched, main objective is to prepare flight test campaign for validation of CS-25 'icing' envelope, completed by end of 2012. Flight test campaign will take place in 2013.	Completed	E2.3	On-schedule	No deviation	Project Report
EME2.5 **NEW**	Impact of space weather on aviation.	Publish an SIB to raise awareness on the impact of space weather on aviation.	EASA	2012	SP	SIB published	Two SIBs have been published on 23 May: - Effects of space waether on Aviation (2012-09) - Single Effect Event effects on aircraft systems caused by Cosmic Rays (2012-10)	Completed	E6	On-schedule	No deviation	SIBs

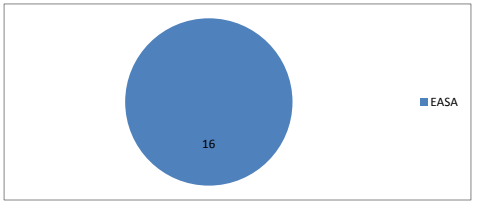
EMERGING ISSUES

Emerging Issues							Implementation					
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	Update	Status	Lead	According to PLAN?	Reasons for deviation	Deliverable(s)
3. Regulatory and oversight considerations												
EME3.1	Well balanced standardisation programme.	Establish a well balanced standardisation programme based on three pillars, regulatory compliance verification, pro-active standardisation and a regulatory feedback mechanism.	EASA	2014	O	Standardisation Inspection Annual Programme + Annual Report	Regulatory compliance verification is managed in accordance with the Standardisation Inspection Annual Programme; the frequency, scope and extent of inspections is increasingly taking into account several risk criteria, which are the core of a wider model being developed in the frame of the upcoming risk-based Continuous Monitoring Approach (CMA) to Standardisation. Pro-active standardisation activities, including the organisation of regular standardisation meetings and the involvement of seconded NAA Team members in the EASA inspection teams, are on-going. The regulatory feedback provided in the Standardisation Annual Report has been significantly expanded. Feedback is also ensured on a regular basis through direct involvement of Rulemaking officers in Findings Classification Committees and in Standardisation meetings.	Advanced	S.1	On-schedule	No deviation	
EME3.2	One uniform standardisation methodology for all fields of aviation.	Develop and implement one uniform standardisation process for all fields of aviation as covered by the Basic Regulation and related Implementing Rules.	EASA	2014	O	Updated methodology	The methodology in use by all sections/domains has progressively achieved full convergence in the course of 2012. A major revision of Regulation (EC) 736/2006 (working methods for conducting Standardisation inspections) is expected in the course of 2013; this represents an opportunity to further improve and streamline the standardisation methodology.	Advanced	S.1	On-schedule	No deviation	
EME3.3	Implement CMA.	Develop and implement a Continuous Monitoring Approach involving a risk based targeting based on a confidence model and a series of safety relevant indicators.	EASA	2014	O	Confidence model + safety indicators developed	The development of a Continuous Monitoring Approach has progressed throughout 2012, with the accomplishment of the following: - Definition of the confidence level concept - Drafting of a detailed confidence level model - Initial definition of indicators to be considered, data to be collected, and their sources - Initial data collection campaign - Definition of the online framework specifications - Definition of required regulatory changes (the draft revision of Regulation (EC) 736/2006 has been developed taking into account the abovementioned concepts).	Advanced	S.1	On-schedule	No deviation	
EME3.4 NEW	New regulatory competences in risk based regulation.	Based on guidance developed by the SM ICG and experience from ECTRL SRC, a roadmap will be developed describing how regulatory competence in risk based regulation, risk based oversight and oversight of SMS will be developed in the EU.	EASAC	2012	SP	Roadmap developed	The SMICG has started work on the competencies required for inspectors to evaluate SMS effectiveness when they oversee organisations. The work of the SMICG is expected to be available in 2013. The EASAC will discuss how to develop a possible roadmap.	Started	E2	Less than one year late	Slow progress made on this task	

SUMMARY





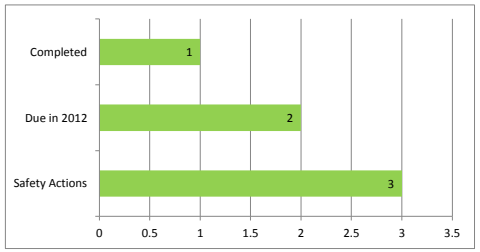


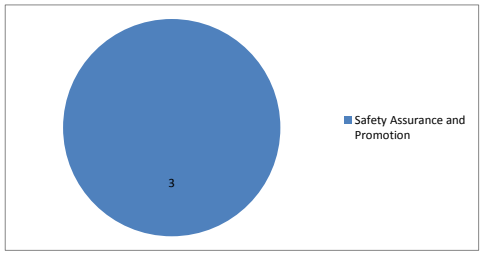
HUMAN FACTORS AND HUMAN PERFORMANCE

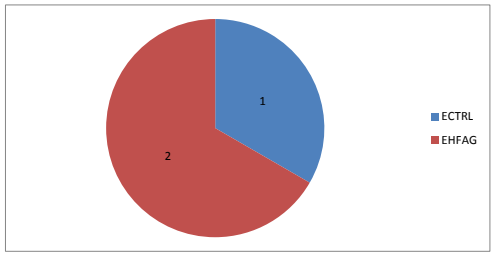
Human Factors and Performance						
No.	**Issue**	**Actions**	**Owner**	**Dates**	**Type**	**Deliverable (Measure)**
HFP1.1	Strategy for human factors.	To develop an EASA human factors strategy in conjunction with EHFAG to enable and endorse human factors and human performance across civil aviation activities including rulemaking, regulatory oversight and standardization.	EHFAG	~~2011~~ **2012**	SP	Strategy
HFP1.2	Action plan development.	Develop an Agency action plan on human factors based on the strategy and evaluation of the results of the questionnaire of December 2009.	EHFAG	2012	SP	Action Plan
HFP1.3	Support ATM human performance .	Support to ANSP in the deployment of ATM human factors activities.	ECTRL, ANSPs	2011-2014	SP (ESP+)	Best Practices

Implementation					
Update	**Status**	**Lead**	**According to PLAN?**	**Reasons for deviation**	**Deliverable(s)**
The HF strategy has been finalised by the EHFAG and presented to EASAC on September 2012. The strategy contains the key HF principles from which a more comprehensive action plan will be developed.	Completed	EHFAG	On-schedule	None.	Strategy for Human Factors
An action plan is in preparation and scheduled to be delivered in September 2013. Three initial actions have been incorporated in EASp 2013-2016.	Started	EHFAG	Less than one year late	Strategy (HFP1.1) was delivered in 2012. Transforming it into an action plan requires some time.	
Safety Team has approved in June 2011 the SHP SG (Safety Human Performance Sub Group) work programme for the period 2011-2014. The work programme covers 10 strands of work: 1. Weak Signals 2. Human Factors in safe ATM Design 3. HF intelligence for all safety actors and all layers of managemen 4. HP safety culture improvements 5. Safety HP Dissemination and Toolkits 6. Fatigue management, etc. 7. Human Factors in Investigation 8. Degraded Modes 9. Critical Incident Stress Management 10. Safety and Team Work Factors	Started	ECTRL	On-schedule	None	Human Performance in ATM

SUMMARY







Statistical Summary

COMPOSITION

By risk area

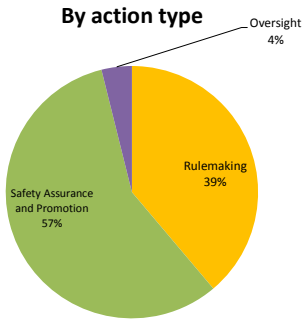
Systemic	33
Operational	51
Emerging	16
Human Factors & Performance	3
Total	103

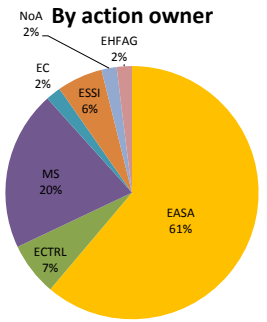
By type

Rulemaking	40
Safety Assurance and Promotion	59
Oversight	4
Total	103

By owner

EASA	63
ECTRL	7
MS	21
EC	2
ESSI	6
NoA	2
EHFAG	2
Total	103





PERFORMANCE

At a glance

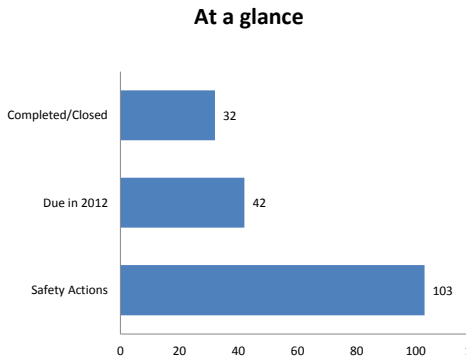
Safety Actions	103
Due in 2012	42
Completed/Closed	32

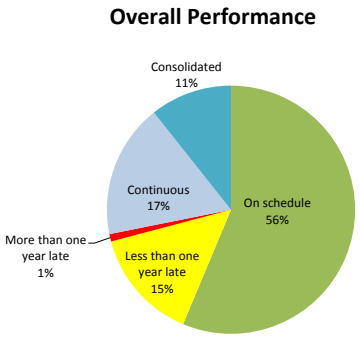
Overall Performance

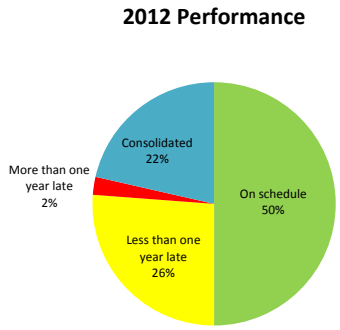
On schedule	58
Less than one year late	15
More than one year late	1
Continuous	18
Consolidated	11
Total	103

2012 Performance

On schedule	21
Less than one year late	11
More than one year late	1
Continuous	0
Consolidated	9
Total	42







Attachment B: Acronyms and Definitions

Acronyms

AER	Aeroplanes
ANS	Air Navigation Service
ANSP	Air Navigation Service Provider
AR	Authority Requirements
AST	Annual Summary Template
ATM	Air Traffic Management
CAST	Commercial Aviation Safety Team (US)
CBT	Competence Based Training
CFIT	Controlled Flight Into Terrain
CMA	Continuous Monitoring Approach
CPL	Commercial Pilot License
DVE	Degraded Visual Environment
EACCC	European Aviation Crisis Coordination Cell
EAPAIRR	European Action Plan for Airspace Infringement Risk Reduction
EAPPRE	European Action Plan for the Prevention of Runway Excursions
EAPPRI	European Action Plan for the Prevention of Runway Incursions
EASA	European Aviation Safety Agency
EASp	European Aviation Safety Plan
EASP	European Aviation Safety Programme
EBT	Evidence Based Training
EC	European Commission
ECAC	European Civil Aviation Conference
ECAST	European Commercial Aviation Safety Team
ECR	European Central Repository
EFB	Electronic Flight Bag
EGAST	European General Aviation Safety Team
EHEST	European Helicopter Safety Team
EHFAG	European Human Factors Advisory Group
EME	Emerging
ESP+	European Safety Programme for ATM
ESSI	European Strategic Safety Initiative
EVS	Enhanced Vision System
FAA	Federal Aviation Administration
FCL	Flight Crew Licensing
FSTD	Flight Simulator Training Device
GA	General Aviation
GRSS	Global Runway Safety Symposium
HE	Helicopters
HFP	Human Factors and Performance
IASCC	International Air Safety and Climate Change Conference
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
ICATEE	International Committee for Aviation Training in Extended Envelopes
IGPT	Internal Group on Personnel Training of EASA
IHST	International Helicopter Safety Team
IMC	Instrumental Meteorological Conditions
IR	Instrument Rating

LAPL	Light Aircraft Pilot License
MAC	Mid-air Collision
MS	Member States
NAA	National Aviation Authority
NCC	Non-Commercial operations with Complex motor-powered aircraft
NCO	Non-Commercial operations with Other-than-complex motor-powered aircraft
NextGen	Next Generation Air Transportation System
NGAP	Next Generation of Aviation Professionals
NoA	Network of Analysts
NSA	National Supervisory Authority
O	Oversight
OR	Organisation Requirements
OSC	Operational Suitability Certificate
PPL	Private Pilot License
PRB	Performance Review Body
LOC-I	Loss of Control In Flight
R	Rulemaking
RAT	Risk Analysis Tool
RE	Runway Excursions
RPAS	Remotely Piloted Air System
RRSS	Regional Runway Safety Symposium
SES	Single European Sky
SESAR	Single European Sky ATM Research Programme
SLD	Super-cooled Large Droplets
SMICG	Safety Management International Collaboration Group
SMS	Safety Management System
SP	Safety Assurance and Promotion
SPI	Safety Performance Indicator
SSP	State Safety Programme
SYS	Systemic
TAWS	Terrain Awareness Warning System
VLJ	Very Light Jets
UAS	Unmanned Aircraft Systems
URT	Upset Recovery Training

Definitions

Aerial Work
Aerial Work is an aircraft operation in which an aircraft is used for specialised services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue or aerial advertisement.

Aeronautical Information Publication
An Aeronautical Information Publication (AIP) is a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation. (ICAO Annex 15 - Aeronautical Information Services)

Airborne safety nets
Airborne Safety nets provide alerts and resolution advisories directly to the pilots. Warning times are generally short, up to 40 seconds. Pilots are expected to immediately take appropriate avoiding action.

Airspace infringement
Airspace infringement occurs when an aircraft penetrates an area into which special clearance is required without having such clearance.

Commercial Air Transport
Commercial air transport operations involve the transportation of passengers, cargo and mail for remuneration or hire.

Controlled Flight Into Terrain
Controlled Flight Into Terrain (CFIT) occurs when an airworthy aircraft under the complete control of the pilot is inadvertently flown into terrain, water, or an obstacle. The pilots are generally unaware of the danger until it is too late.

European Aviation Safety Programme
European regional approach to the ICAO requirements of State Safety Programmes. It contains an integrated set of regulations and activities to improve safety within EASA Member States. It is published as a Commission Staff Working Paper[10] developed jointly by the European Commission and the Agency. The latest version is available at www.easa.europa.eu/sms.

General Aviation
General Aviation means all civil aviation operations other than commercial air transport or an aerial work operation.

Ground-based safety nets
Ground-based safety nets are an integral part of the ATM system. Using primarily ATS surveillance data, they provide warning times of up to two minutes. Upon receiving an alert, air traffic controllers are expected to immediately assess the situation and take appropriate action.

Ice crystal icing conditions
Ice crystal icing condition exists when all of the liquid water particles in the cloud have frozen into ice particles and may be encountered in high concentrations at higher altitudes in the area of convective weather systems.

[10] EC SEC(2011) 1261 final European Aviation Safety Programme.

Non-precision approach
A non-precision approach is an instrument approach and landing which utilises lateral guidance but does not utilise vertical guidance. (ICAO Annex 6) For pilots of older aircraft, in which use of automated systems to assist in flying the approach is limited, a high degree of piloting skill is required to fly such approaches accurately and the frequent practice which many pilots need to achieve this can be difficult to come by if precision approaches are the normal method used.

Mid-air collision
A Mid-Air Collision (MAC) is an accident where two aircraft come into contact with each other while both are in flight.

Mixed phase icing conditions
Mixed phase icing conditions occur when super-cooled liquid water droplets and ice particles coexist in a cloud, often around the outskirts of a deep convective cloud formation.

Loss of separation
Loss of separation between aircraft occurs whenever specified separation minima are breached. Minimum separation standards for airspace are specified by ATS authorities, based on ICAO standards.

Level bust
A *level bust* occurs when an aircraft fails to fly at the level to which it has been cleared, regardless of whether actual loss of separation from other aircraft or the ground results. Level busts are also known as Altitude Deviations.

Local Runway Safety Team
Local Runway Safety Teams (LRSTs) are aerodrome centric, multi-organisational groups of experts providing practical suggestions to resolve runway incursion causal factors. More than 100 LRSTs have been established at European airports, as a consequence of which, the safety of runway operations has increased although incidents continue to be reported.

Loss of Control In Flight
Loss of control usually occurs because the aircraft enters a flight regime which is outside its normal envelope, usually, but not always at a high rate, thereby introducing an element of surprise for the flight crew involved.

Occurrences
Operational interruptions, defects faults, or other irregular circumstances that have or might have influenced flight safety and that have not resulted in an accident or serious incident.

Runway Excursion
According to the definition provided by ICAO, a runway excursion is a veer off or overrun off the runway surface. Runway excursion events can happen on takeoff or landing.

Runway Incursion
A *runway Incursion* is defined as "Any occurrence at an aerodrome involving the incorrect presence of an aircraft vehicle or person on the protected area of a surface designated for the landing and take off of aircraft". (ICAO Doc 4444 - PANS-ATM)

Safety Management System
A Safety Management System (SMS) is a systematic approach to manage safety, including the necessary organisational structures, accountabilities, policies and procedures (ICAO). ICAO

through various Annexes to the Chicago Convention has incorporated requirements for service providers in various domains of aviation to have an SMS.

Space weather
Space Weather is the travel of solar and galactic radiation and their interaction with the Earth magnetosphere and ionosphere. It is a cyclic phenomenon.

State Safety Programme
According to the ICAO definition it is an integrated set of regulations and activities aimed at improving safety. ICAO requires contracting States to implement SSPs.

System Complexity
Complexity is an attribute of systems or items which makes their operation difficult to comprehend. Increased system complexity is often caused by such items as sophisticated components and multiple interrelationships (EUROCAE/ SAE Doc ED-79/ ARP4754)

Attachment C: Working Groups

EAFDM
EASA and NAAs have formed a group of experts called the European Authorities Coordination Group on FDM (EAFDM). It is a voluntary and independent safety initiative with the following objectives:

a. to foster actions by NAAs which contribute to improving the implementation of FDM programmes and to making FDM programmes more safety effective,
b. to contribute to EASA objective of a high and uniform level of safety in Europe,
c. to contribute to a better overview of air transport operational safety in Europe for EASA and NAAs.

For more information, visit http://easa.europa.eu/safety-and-research/european-authorities-coordination-group-on-flight-data-monitoring-EAFDM.php

EASAC
The **European Aviation Safety Advisory Committee** (EASAC) was established by the Executive Director of the Agency in October of 2009. The main objective of the Committee is to advise on a European Aviation Safety Strategy and propose a European Aviation Safety Programme and Plan. The first Plan is the present document, endorsed by the Committee.

The EASAC is chaired by the Executive Director of the Agency and composed of safety experts' ad persona from Member States, the European Commission, Eurocontrol, the PRB, Industry and EASA. The Committee reports regularly to the EASA Management Board.

EARPG
The **European Aviation Research Partnership Group** (EARPG) prepares proposals and suggests priorities for research topics to be funded by relevant sources available. Identification of research needs is based on: certification experts' experience, evidence of accumulation of safety related concerns resulting from safety analysis of incident and accident databases, Safety Recommendations stemming from incident and accident investigations and proposals by the European Strategic Safety Initiative (ESSI) and its safety teams ECAST, EGAST, EHEST.

The research results are expected to lead to recommendations and improvements of safety or environmental protection through changes to requirements, compliance and guidance material. The EARPG membership consists of the Agency's research focal points, EASA Member States with an interest in research, the European Commission and Eurocontrol. It shares information with authorities from Non-EASA Member States, particularly the FAA and Transport Canada, on on-going research and where appropriate, co-ordinates future research activities. The group interfaces with Industry and Research Institutions on a regular basis through workshops.

For more information visit http://easa.europa.eu/safety-and-research/european-aviation-research-partnership-group-EARPG.php

ECAST
The **European Commercial Aviation Safety Team** (ECAST) is a component of European Strategic Safety Initiative (ESSI). ECAST addresses **large fixed wing aircraft operations**, and aims to further enhance commercial aviation safety in Europe, and for European citizen worldwide. It was launched in October 2006.

ECAST is a partnership between EASA, other European regulators and the aviation industry. ESSI is based on the principle that industry can complement regulatory action by voluntary committing to cost effective safety enhancements. ECAST cooperates with CAST and with other major safety initiatives worldwide, in particular under the Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAP).

For more information visit http://www.easa.europa.eu/essi/ecast/

EGAST

European General Aviation Safety Team (EGAST) is a component of European Strategic Safety Initiative (ESSI). General Aviation (GA) is a high priority for EASA. EGAST creates a forum for sharing best practices, improving data sources, and promoting safety.

EGAST's mission is to promote and initiate for all sectors of General Aviation best practices and awareness in order to improve safety, thereby reducing the accident rates. The team may make non binding recommendations. EGAST will help EASA and the industry focus their resources on combined safety promotion efforts to reach the goal of reducing accidents

For more information visit http://easa.europa.eu/essi/egast/

EHEST

Launched on November 2006, the **European Helicopter Safety Team** (EHEST) brings together manufacturers, operators, research organisations, regulators, accident investigators and a few military operators from across Europe. EHEST is the helicopter branch of the ESSI, and also the European component of the International Helicopter Safety Team (IHST).

EHEST is committed to the goal of reducing the helicopter accident rate by 80 percent by 2016 worldwide, with emphasis on improving European safety.

For more information visit http://easa.europa.eu/essi/ehest/

EHFAG

The **European Human Factors Advisory Group** (EHFAG) is an existing body of human factors expertise drawn from national Aviation Authorities (including the FAA), industry, professional associations and research organisations. This Group will be tasked with developing a human factors strategy and action plan on behalf of EASA.

For more information visit http://easa.europa.eu/safety-and-research/european-human-factors-advisory-group-EHFAG.php

ESSI

The **European Strategic Safety Initiative** (ESSI) is an aviation safety partnership between EASA, other regulators and the industry. ESSI's objective is to further enhance safety for citizens in Europe and worldwide through safety analysis, implementation of cost effective action plans, and coordination with other safety initiatives worldwide. ESSI was launched in June 2006 by EASA as a ten year programme and has three pillars: ECAST, EHEST and EGAST

For more information visit http://easa.europa.eu/essi/

IGPT

The Agency's Internal Group on Personnel Training (IGPT) has been set-up by the Agency to follow-up the EASA International Conference on Pilot Training of 29 Nov 2009. Its first meeting took place on 27 Jan 2010. Building on proven internal expertise and competences, the IGPT bridges Design, Certification, Training, and Operations by creating a forum to address training within the Agency and deliver the official Agency's position on the subject. The IGPT is composed of experts from all operational Directorates and adopts a total system approach in training based on the three pillars Rulemaking, Oversight and Safety Promotion. The IGPT addresses all types of training and checking for all types of personnel and operations. Regarding pilot training, this includes flight and type rating training, including both ab initio and recurrent elements, all categories of aircraft, all types of operations, and pilots with different backgrounds (e.g. those trained on highly automated glass cockpits aircraft and those pilots trained on older generation conventional aircraft).

NoA

The European Aviation Safety Agency has recently established a Network of Analysts (NoA) to provide a formal process to analyse safety data at a European level. The membership of the NoA is drawn from the National Aviation Authorities (NAAs) and Investigation Authorities of all EASA Member States.

The NoA focuses on:

- understanding what barriers exist to the provision of the best possible safety data and developing ways to improve safety data across Europe;
- agreeing the classification of aircraft accidents in EASA MS;
- carrying out analysis of safety data to support the European Aviation Safety Plan (EASp) and State Safety Plans, as well as identifying emerging issues for possible inclusion in the future;
- sharing experiences, good practice and developing safety analysis projects across Europe to enable the European aviation community to exploit the ECCAIRS European Central Repository for the benefit of all and
- providing analysis support to existing EASA groups such as the European Strategic Safety Initiative (ESSI) and the European Human Factors Advisory Group (EHFAG).

For more information visit http://easa.europa.eu/safety-and-research/network-of-analysts.php

PRB

On 29 July 2010, the EC adopted a Decision designating Eurocontrol acting through its Performance Review Commission (PRC) supported by the Performance Review Unit (PRU) as the **Performance Review Body** (PRB) until 30 June 2015. The Eurocontrol Organisation accepted to be designated as PRB on 15 September 2010.

For more information visit https://www.eurocontrol.int/articles/european-atm-performance-review-body

SM ICG

The **SMS International Collaboration Group** (ICG) created in Feb 2009 is a collaboration activity between aviation authorities in order to promote a common understanding of SMS principles and requirements in different countries, share lessons learned and encourage progress and harmonisation. The ICG consists of a core group and a participant group. The core group is comprised of authorities with resources and expertise for product development. It includes members from the FAA, EASA (supported by FOCA of Switzerland, the DGAC of

France, AESA Spain, the CAA of the Netherlands and UK CAA), TCCA, CASA of Australia, JCAB of Japan, CAA of New Zealand and ANAC of Brazil. The participant group tests and reviews the core group's work products and resources.

For more information visit:
http://www.skybrary.aero/index.php/Safety_Management_International_Collaboration_Group_(SM_ICG)