



European Aviation Safety Agency

Annex B

*EASp implementation in the States
2013*

Final

This document provides a summary of the action reports provided by various States as part of the implementation of the European Aviation Safety Plan (EASp).

EASp Implementation in the States - 2013

Systemic Issues							
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	
2. Working with States to foster the implementation of SMS in the industry							
SYS2.7	Promotion of SMS.	Encourage implementation of promotion material developed by ECAST and EHEST.	MS	2012 Cont.	SP	Best Practice published by MS.	

Guidance	<p>Please provide examples on how SMS material developed by ECAST and EHEST is being promoted within your State. Which products are you promoting?</p> <p>Examples of implementation: - Establish a link to the ESSI material on the CAA's website. - Distribute ESSI material to the industry via safety bulletins, dedicated seminars, presentations at the appropriate fora, through oversight activities, dedicated working groups, electronic distributions, training, etc. - Translate ESSI material into national language.</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	The Belgian CAA (BCAA) has periodic consultative meetings with representatives of the ANS Service Provider, the aircraft operators and the certified airports to communicate and debate the achievements related to the Belgian Safety Plan. ESSI leaflets and SMS material are also promoted during these meetings. The BCAA has also established a direct link to the ESSI material (EHEST and EGAST leaflets and ECAST SMS material) on the BCAA's website.	Partially implemented
Bulgaria (BU)	Establish a link to the ESSI material on the CAA's website.	Implemented
Croatia (CR)	link to the ESSI material is on the CCAA website	Implemented
Finland (FI)	A Finnish helicopter safety team has been established and is a part of EHEST which among other actions promotes nationally the material developed by EHEST. There is a dedicated section for this at CAA website: http://www.trafi.fi/ilmailu/entoturvallisuus/helikopterit . A link to ESSI website will be established on the CAA's website. Trafi has established guidance material on SMS implementation on its website at http://www.trafi.fi/ilmailu/easa/hallintojarjestelman_%28sms-osa%29_implemointi	Partially implemented
France (FR)	In 2012, the DGAC annual safety symposium (November 14th 2012) was dedicated to helicopter safety and EHEST leaflets, translated in French were distributed on this occasion. Links to the acts of the symposium, the posters, the leaflets in French and in English are available on this page http://www.developpement-durable.gouv.fr/14-novembre-2012-Securite.html A general link to ESSI is available under "external links" of the DGAC SSP webpage http://www.developpement-durable.gouv.fr/Liens-externes-utiles.html The page includes some indications in French on the content of ESSI publications. Information on publications related to EGAST material are made available during meetings with representatives of general aviation users.	Implemented
Iceland (IC)	ICAA has promoted EHEST/ECAST material and implemented numerous actions since 2009. ICAA SMS course and Risk Management course for Operators. Guidance Material sent to Operators, implementation has progressed well and all the large operators have implemented SMS fully. All operators are doing risk assessment for management of change and are expected by April 2014 to have full implementation.	Partially implemented
Ireland (IR)	The IAA has included a specific action item to address the promotion of SMS material developed by ECAST and EHEST in the State Safety Plan (ref SSp 2013-2016 - M.004). The IAA is an active participant in both ECAST and EHEST and uses the associated guidance to promote SMS best practice and organise SMS courses for Irish industry particularly in the area of air operations. On-going SMS promotional work will continue as EASA SMS requirements are rolled out in all domains over the forthcoming years. A link to the dedicated European Strategic Safety Initiative website http://www.easa.eu.int/essi/ is provided from the IAA website. The IAA has adopted the ARMS methodology for Operational Risk Assessment and is promoting its use by Irish Industry.	Partially implemented
Italy (IT)	ECAST and EHEST material has been promoted through the publication of the Nota Informativa NI-2012-015 "INIZIATIVE PER LA SICUREZZA LA EUROPEAN STRATEGIC SAFETY INITIATIVE (ESSI)", dated on 12/11/2012, available at http://www.enac.gov.it/La_Regolazione_per_la_Sicurezza/Note_Informative/info-64344313.html .	Implemented
Latvia (LT)	In 2013, annual helicopter safety event was held, in which the EHEST materials were distributed and presented.	Partially implemented
Lithuania (LI)	Established a link on the CAA's website. Ref. to 12. Nuorodos, Europos strateginė saugos iniciatyva (ESSI), http://www.caa.lt/index.php?467881435 . We intend to promote the ESSI material to the industry through the seminars and safety bulletins in the future.	Partially implemented
Luxembourg (LU)	Promotion of SMS is being done, however not on the base of ESSI material.	Not applicable
Malta (ML)	1) All relevant material is circulated especially SM ICG products. 2) Material is sent to all unit heads within the CAD for their perusal and distribution to the relevant organisations they oversee. 3) Download links to products are available on the CAD safety page. 4) SMS courses are organised for local aviation organisations and also foreign. 4) Safety Bulletins will be sent to organisations highlighting SMS best practices.	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
The Netherlands (NL)	<ul style="list-style-type: none"> A direct link to ESSI on the CAA's website has been established. EASPPRI is applied on Amsterdam Airport 	Partially implemented
Portugal (PO)		Planned
Spain (SP)	<p>Spain promotes SMS material developed by ECAST and EHEST through different via:</p> <ul style="list-style-type: none"> - AESA translated SM ICG products into Spanish and such documents are available to industry via web at: http://www.seguridadaerea.gob.es/lang_castellano/g_r_seguridad/actividades_grupos/default.aspx - There is a link to the ESSI material on AESA's website. Please visit our webpage: http://www.seguridadaerea.gob.es/lang_castellano/g_r_seguridad/actividades_grupos/default.aspx - AESA distributes ESSI material to the industry via e-mail (electronic distributions) and dedicated working groups with Industry. We have established two working groups: "Comisión de Estudio SMS" that is devoted to CAT operators and "GHETA" that is dedicated to helicopter operators/aerial works companies. And we plan to set up another working group to deal with General Aviation issues. - Moreover, we plan to translate EGAST material into Spanish. <p>Additionally guidance material on SMS, FDM, Occurrence reporting can be found at http://www.seguridadaerea.gob.es/lang_castellano/g_r_seguridad/drg/default.aspx. Eurocopter is also translating EHEST material into Spanish.</p>	Partially implemented
Sweden (SE)	We will establish a link to the ESSI material on our website. ESSI material is also promoted at seminars with industry. ISMCG guides are also being promoted to industry and also being used internally as guidance within our SMS oversight.	Partially implemented
Switzerland (SW)	Reference to ESSI and SMICG activities & products are provided on FOCA website http://www.bazl.admin.ch/experten/regulation/03086/03092/index.html?lang=en Further promotion provided through Safety Oversight Committee, Swiss Aviation Safety Conference, and other industry related safety events throughout the year.	Partially implemented
United Kingdom (UK)	The UK CAA have developed their own promotion material and considered ECAST and EHEST material as part of the promotion.	Implemented

Summary	<ul style="list-style-type: none"> • 10 States (BE, BU, CR, FI, FR, IR, LI, NL, SP, SW) have already established a link to the ESSI material on the CAA's website. One more (SE) plans to do this in the future . • 11 States (BE, FI, FR, IC, IR, IT, LT, LI, ML, SP, SW) have distributed or discuss ESSI material with the industry. One State (LI) will start doing this in the future. This has been done in various forms like consultative meetings with representatives from various domains, dedicated safety simposiums and other industry safety events, including specific actions in national safety plans, publishing informative notes or via electronic distribution to the industry and using the material to organise SMS courses. • 3 States (FI, FR, LT) are actively promoting the material developed by EHEST and 3 more (BE, FR, SP) promote EGAST material too. • The following States are translating ESSI material: FR, SP • In addition the following States have developed and published guidance material on SMS implementation: FI, SW, SP, UK. • The ARMS methodology (endorsed by ECAST) is being used and promoted in IR. • 5 States (SP, SW, SE, ML, UK) are also actively promoting SMICG products. 	<div style="text-align: center;"> SYS2.7 </div> <table border="1" style="margin-top: 10px;"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>SYS2.7</td> <td>1</td> <td>1</td> <td>11</td> <td>5</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	SYS2.7	1	1	11	5
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SYS2.7	1	1	11	5								

EASp Implementation in the States - 2013

Systemic Issues							
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)	
1. Working with States to implement and develop SSPs							
SYS3.11	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	

Guidance	<p>Note: The action is a safety promotion initiative and should not be confused with inspections conducted in the framework of operators oversight.</p> <p>1. Please indicate:</p> <ul style="list-style-type: none"> If your State has organised meetings with aircraft operators to promote FDM in 2013 or 2012, or If your State has organised or contributed to any other type of activity to promote FDM in 2013 or 2012, or If your State plans to organise regular meetings with aircraft operators or any other initiative to promote FDM, and if applicable, when. <p>When appropriate indicate the type of initiative/activity.</p> <p>2. In the case where your State has already engaged into a dialogue with aircraft operators on FDM promotion, please indicate:</p> <ul style="list-style-type: none"> How many operators are taking part on average, and If discussion on FDM events relevant for preventing Runway Excursions (RE), Mid-Air Collisions (MAC), Controlled Flight Into Terrain (CFIT) or Loss of Control Inflight (LOC-I) has been initiated as part of this dialogue. Please sum up the conclusions of the discussions, if applicable. <p>3. Please indicate:</p> <ul style="list-style-type: none"> If aircraft operators reports to your State, on a regular basis, FDM event summaries or FDM-derived data. If applicable, please sum up what type of information is collected and by what means.
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	<p>Operators are audited twice a year on the subject of SMS under EU-OPS 1.037. In that audit a FDM section is foreseen. Operators may freely report events in their Safety reviews and these are communicated to the BCAA.</p> <p>BCAA plans to have yearly a FDM specific audit and a general SMS audit.</p> <p>The BCAA plans to organise meetings with aircraft operators to promote FDM in the first quarter of 2014.</p> <p>As the audit mentioned above are done under EU-OPS 1.037, operators are seen one at a time. Operators who are voluntarily implementing FDM are then also audited.</p> <p>When FDM detects an unreported event, the operator will make a retrospective occurrence report.</p>	Planned
Bulgaria (BU)	All Bulgarian airlines operating aircraft over 27,000kg, have implemented FDM programs and they are part of Safety audits. We plan to organised FDM meeting with Aircraft operators on the October -2013.	Partially implemented
Croatia (CR)	At this moment, no planned activities related to this issue.	Not planned
Finland (FI)	<p>1. National operators gather twice annually to discuss FDM programmes. Meetings started in 2010, next meeting scheduled for 22nd October 2013.</p> <p>2. All the operators with FDM requirements are participating in meetings. RE, MAC, CFIT, LOC-I are all SPIs and prevention of those events is a major issue also in FDM gatherings.</p> <p>3. FDM event summaries are regularly presented in FDM meetings to CAA. Also prior and during CAA audits to operators, FDM data availability and analysis based on FDM data are checked. Some operators report regularly their FDM event summaries categorised based on SPI classes. These are sent via e-mail and in excel form.</p>	Implemented
France (FR)	Until mid 2013, FDM matters were discussed as agenda items during meetings with safety officers of the major and medium size airlines in France (about 20 airlines). Numerous presentations were focused on unstabilised approaches ; as far as runway excursions are concerned, there were some discussions on how to enhance the detection of near RE. Starting autumn 2013, meetings dedicated only to FDM with representatives of airlines processing FDM data will take place, in addition to the before mentionned meetings. Considering that there is no requirement to exchange FDM programme safety results, these meetings aim at facilitating exchanges on a collaborative basis. Such exchanges are a prerequisite to feed discussions on operational issues with FDM data.	Partially implemented
Iceland (IC)	ICAA has had meetings with the operators involved in FDM, only 3 in Iceland, and use them to promote, educate, learn and distribute information between them. The expected FDM guidance material is being worked on by an ops inspector from Iceland.	implemented
Ireland (IR)	<p>All Irish airlines operating aircraft over 27,000kg have implemented flight data monitoring programmes and are actively utilising the data to identify risk precursors and implement mitigating action.</p> <p>1) The IAA, in conjunction with the operators, has reviewed the FDM programmes in all Irish AOCs to confirm they are monitoring the main key risk areas identified in the State Safety Plan particularly RE, MAC, CFIT and LOC-I. The results of this review also established the needs for continuous monitoring of the FDM and the IAA has developed a specific audit checklist for this purpose. The IAA conducts annual high level reviews with Operators on Annual Safety Performance. This identifies key risk areas for the operators which are then monitored under the FDM. More detailed follow up reviews are conducted for certain operators.</p> <p>2) All five main operators are involved</p> <p>3) Reporting of FDM is either by submission of reports (eg weekly) by an operator or via regular (eg monthly) SMS/FDM review meetings. This is in addition to the mandatory occurrence reporting system but obviously MOR's are reviewed at the same time. In addition the FDMS is audited during the oversight audit of the Safety Management System. Typically the operators FDMS will collect and analyse events (including corrective actions) and provide trends analysis of higher risk events. Some operators are working on developing target levels for certain high risk events. Information is normally summarised in a regular report (eg weekly, monthly, quarterly or annually).</p>	implemented
Italy (IT)	At this stage there is not yet a regular dialogue with national aircraft operators on flight data monitoring (FDM). However ENAC plans to start in 2014 to organize some meetings with aircraft operators to promote FDM.	Planned
Latvia (LT)	<p>LV CAA takes part in European Authorities coordination group on FDM (EAFDM) activities, with the objective to foster actions, which contribute to improving the implementation of FDM Programmes and to making FDM programmes more safety effective.</p> <p>EAFDM offers a set of standardised FDM-based safety indicators that an NAA can promote to its operators. These safety indicators are focused on the prevention of four categories of occurrence, namely runway excursions, controlled flight into terrain, loss of control in flight and mid-air collisions, as they have been recognised as a high priority by the European Aviation Safety Plan.</p> <p>Regular communications were established to foster the programming by aircraft operators of FDM-based safety indicators that are meaningful for the monitoring of operational risks identified at the national or European level.</p> <p>It is expected that the standardised FDM-based indicators will bring all operators to:</p> <p>(a) monitor common operational risks that they would otherwise not necessarily consider as priority;</p> <p>(b) ensure that for those common risks, operators have in place relevant indicators;</p> <p>(c) allow voluntary reporting of FDM summaries in a standardised way to an NAA, for the benefit of a national FDM forum (sharing between operators) and for the benefit of the State Safety Programme (national safety reference level, national safety trends, identification of risk areas, etc.)</p>	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Lithuania (LT)	The meetings were organised with the 3 air carriers UAB "Avion Express", UAB "Aurela and UAB "Small Planet Airlines" in 2012. The discussed issues were RE, MAC, CFIT and LOC-I. Conclusions: the representatives of the air carriers understood the importance of the FDM programmes according SYS3.11. They willingly accepted to cooperate with the CAA on this issue. The FDM issue is included in the CAA Safety Plan (2013-2016), ref. to http://www.caa.lt/index.php?467881435 , Civilinės aviacijos administracijos saugos planas 2013-2016 m.: įsakymas, planas , No. 8. Presently the operators report according to the mandatory reporting requirements (not on a regular basis, e.g. FDM summaries).	Planned
Luxembourg (LU)	No promotion of FDM monitoring of specific issues has been done. DAC is verifying that operators develop own safety indicators based on FDM data, in a manner consistent with their SMS.	Not applicable
Malta (ML)	Flight Ops: Every six months the operators are required to attend a meeting, Flight Operations Consultation Group. A formal agenda is issued to all Post holders, discussing various subjects of interest including Safety that require immediate attention. No formal discussion takes place on FDM incidents due to the fact that very few operators utilise FDM as they are not legally bound. Attendance is quite high where the operators make it a point to send a representative if any of the Post Holders are unable to attend. With immediate effect a item for FDM discussion shall be included in the agenda.	Planned
The Netherlands (NL)		Planned
Portugal (PO)	<ol style="list-style-type: none"> Planned for 2014 Working with major operators Occurrence report data base 	Planned
Spain (SP)	<ol style="list-style-type: none"> AESA plans to set up a National FDM working group equivalent to EOFDM in Spain. We have sent invitations to air operators to join this National FDM working group. The draft ToR of the National FDM working group are based in the EAFDM "Guidance for National Aviation Authorities on setting up a national FDM forum" document. The kick-off meeting of the National FDM working group will be 21st October 2013. Spain has already engaged into a dialogue with aircraft operators on FDM promotion: <ul style="list-style-type: none"> In particular, we have contacted Iberia, Air Europa and Vueling. These three companies are part of ACETA (an important airlines association) and also participates in EOFDM. These companies support us to set up a national FDM working group. ACETA's FDM working group uses FDM data to analyse in depth safety issues. Currently they are analysing TCAS alerts among other events. In the scope of the Safety Performance Indicators Programme that AESA established with air operators, some safety indicators are derived from the FDM data. These SPIs are provided monthly by the air carriers via AESA web-site. 	Partially implemented
Sweden (SE)	<ol style="list-style-type: none"> The AOC oversight section has recently started an initiative to inform the relevant AOCs. This will be followed up by individual dialogues, and by a special session at seminars with Nominated Post Holders later this year. No such dialogues have taken place yet. There is currently no dedicated FDM reporting done to the authority. 	Partially implemented
Switzerland (SW)	<p>A regular dialogue with the national aircraft operators on flight data monitoring (FDM) programmes is established. The chairman (Serge Heiniger) is also a member of the EASA FDM working group (Lead: Guillaume Aigoin). Regular meetings with the industry are held. A fourth meeting will be held in November 2013. 10 Swiss AOC-holders are participating the meetings.</p> <p>Discussion on FDM events relevant for preventing Runway Excursions (RE), Mid-Air Collisions (MAC), Controlled Flight Into Terrain (CFIT) or Loss of Control Inflight (LOC-I) are discussed in the meetings.</p> <p>Aircraft operators do not report on a regular basis so far. In the future we will get FDM event summaries or FDM-derived data, based on standardized safety indicators .</p>	Partially implemented
United Kingdom (UK)	<ol style="list-style-type: none"> Meetings with aircraft operators are organised every 6 months, on a voluntary basis. We are also involved with EAFDM and EOFDM working groups and provide training on FDM at various courses in the UK. We are also supporting special project to promote adoption of FDM in light (<27000kg) aircraft operations. The meetings involve 10 to 20 operators. Work has been conducted to develop standardized FDM events, in cooperation with FDM software developers and aircraft operators. The focus has been initially targeted at runway excursions. It became clear that complex events such as unstable approaches are difficult (or even impossible) to standardize both in terms of algorithms and event thresholds. To overcome this issue, the approach consisted in defining algorithms and thresholds to identify only the most generic events. These events are not necessarily tailored to each operator and are meant to be collected in addition to the operator-specific events. In many cases, this effectively represents an overhead to operators with less than desirable benefits for them. Based on the lessons learned from this initiative, we are planning different strategies to promote FDM more effectively. Regular FDM-derived statistic are collected. These include: number of flight movements captured by FDM operators and count of events: TCAS, GPWS, flaps not set below 500ft, stalls, go-rounds, hard landings, in-flight engine shutdowns/failures 	Implemented

Summary	<p>1. FDM promotion activities:</p> <ul style="list-style-type: none"> 6 States (FI, FR, IC, LI, SW, UK) have organised meetings with aircraft operators to promote FDM in 2013 or 2012 or establish a regular dialogue with operators on the subject. 5 States (BE, BU, IT, ML, SP) plan to organise meetings with aircraft operators to promote FDM or to include a dedicated agenda item on their flight ops meetings. 1 State (IR) conducts annual high level reviews with operators. 1 State (SE) has started to inform AOCs and plans to follow-up with individual dialogues and special sessions at seminars. 1 State (LT) has established regular communications with aircraft operators to foster the programming of FDM-based safety indicators. 2 States (CR, LU) have no plans to organise meetings with aircraft operators to promote FDM. IC is working on guidance material on FDM for its operators. <p>2. Level of participation and topics:</p> <ul style="list-style-type: none"> In FI all operators with FDM requirements participate in the meetings; about 20 in FR; 5 operators in IR; 3 in LI; 3 in SP and 10 in SW; 10-20 in UK. Discussion on FDM events relevant for preventing Runway Excursions (RE), Mid-Air Collisions (MAC), Controlled Flight Into Terrain (CFIT) or Loss of Control Inflight (LOC-I) have been initiated as part of this dialogue in 6 States (FI, FR, LI, SP, SW, UK). In IR the CAA has developed audit checklists for this purpose. The UK has focused initially on RE. <p>3. Reporting to the State:</p> <ul style="list-style-type: none"> In 4 States (FI, IR, SP, UK) aircraft operators reports to the State, on a regular basis, FDM event summaries or FDM-derived data. In two cases this is done to feed SPIs agreed between the operator and the authority (e.g. SP and FI). In LI this is done when a reportable occurrence is detected through FDM-derived data (not on a regular basis). In SW FDM event summaries based on standardised indicators will be sent to the authority in the future. 	<p style="text-align: center;">SYS3.11</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>■ SYS3.11</td> <td>2</td> <td>6</td> <td>6</td> <td>4</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	■ SYS3.11	2	6	6	4
	Not planned/not applicable	Planned	Partially implemented	Implemented								
■ SYS3.11	2	6	6	4								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
1. Runway Excursions (RE)						
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

Guidance	<p>Some of the operational scenarios that precede a RE are situations in which the aircraft lands outside of stable landing criteria, high-speed/deep touch downs or rejected take offs at high speed. Has your State been exposed to these type of scenarios in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>Examples of measures:</p> <ul style="list-style-type: none"> • Runway excursion and overrun events. • Unstable/de-stabilised approaches: all and proportion that continue to landing. • Deep landing events. • High-speed touchdown events. • High-speed rejected take-off events. <p>Based on specific actions being undertaken:</p> <ul style="list-style-type: none"> • Proportion of air traffic controllers to have completed unstable approach awareness training. <p>Are you measuring any of the above? Have you implemented other measures related to RE?</p>
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Implementation Reports

State	State's update	Status of the action
Belgium (BE)	<p>Reported Occurrences:</p> <ul style="list-style-type: none"> • Runway excursion and overrun events. 2010:4, 2011:5, 2012:2 • Unstable/de-stabilised approaches: all 2010:42, 2011:71, 2012:52...and proportion that continue to landing. 2010:13, 2011:41, 2012:26 • Deep landing events.2010:0, 2011:1, 2012:2 • High-speed rejected take-off events. 2010:3, 2011:2, 2012:1 <p>None of these events were considered high risk events.</p> <p>Unstable/ De-stabilised approaches are the main factor that contributed to the risk. The BCAA considers to take risk mitigation actions against unstabilized approaches and to implement recommendations from the new European Action Plan for the prevention of Runway Excursions. These actions will be published in one of the future updates of the safety plan. Mechanisms to address corresponding actions are described in the BCAA Safety Policy and in a number of detailed risk management processes and procedures.</p>	Planned
Bulgaria (BU)	RE is included in the Bulgarian SSPlan 2013-2015. All airports have a Local Runway Safety team in action.	Partially implemented
Croatia (CR)	<p>CCAA is measuring RE since 2012. Until June 2013 we had 6 occurrences related to RE. We did not consider any of these events like high risk event. Mechanisms to mitigate risks have been established on a case-by-case basis. Implementation and effectiveness of mitigating measures are monitored by assigned inspectors and for overall overview by CCAA Safety Board- trend monitoring.</p> <p>According to Croatian SSP hazardous conditions are:</p> <ul style="list-style-type: none"> - impossibility of performance go-around (go around); - back / side wind, reduced visibility or a rapid change; - lack of updated information on weather; - contamination of the runway, - inability to stop the aircraft in case of interrupted takeoff, - problems with the aircraft undercarriage, - unstabilised approach, etc. 	Partially implemented
Finland (FI)	<p>During the last 5 years, there has been ca 100 rejected take off occurrences (about 90 of these in CAT operations), of these four were classified as serious incidents. Main factors to these were flight crew errors and FOD.</p> <p>Among others, these type of events are part of Finnish SSP as Safety performance indicators, for which targets are set for all aviation operators to assess the risk of each SPI in their operations and conduct appropriate mitigating actions. The achievement of these targets is monitored during the oversight process. Relating to runway excursions, Finland also monitors the number of runway excursion, unstable approaches, abnormal runway contact events, number of landing gear and revers faults, runway condition, landings and takeoffs performed over the approved wind component, high-speed rejected take-off events as part of safety performance indicators.</p>	Implemented
France (FR)	<p>Although there are a lot of RE involving general aviation aircraft (some of them remaining undeclared), those events do not lead to casualties most of the time, therefore GA RE are not a priority for DGAC.</p> <p>There were four significant commercial runway excursions (french airlines or french airfields) during the last 5 years (with damage to the aircraft but fortunately not with casualties). There are numerous reports (many hundreds a year) on precursors of RE, and data available through FDM suggest that only a small part of them are indeed reported.</p> <p>Runway excursions are also addressed within SSP through following action plans :</p> <ul style="list-style-type: none"> - the non stabilised approaches; - met conditions during approach; - transmission of the information of runway surface condition and contamination to the flightcrew. <p>France considers that EAPPRE provides an adequate list of recommendations to address this issue. Those recommendations have been assessed during the april 2013 national SSP safety review, and priorities amongst them have been established taking also into account pre existing action plans.</p> <p>DGAC has attempted to develop indicator based on the number of incident reports. However results were found difficult to use considering the variability of the reporting rate and the mixture in a single indicator of events of different nature (commercial vs general aviation, big vs small airports for instance)</p> <p>DSAC is still working on the project to use ground radar including mode S data at CDG airport in order to measure the deceleration profile of each airplane and thus to help identify near runway excursions. This study may lead to the development of tools for airport operators helping real time detection of degradation of runway friction condition.</p>	Partially implemented
Iceland (IC)	ICAA is addressing this issue as follows: (i) Approvals. Service providers will be encouraged to cover/evaluate risk factors relating to RE in their SMS systems. (ii) Through ICAA's continuous oversight; with analysis of findings and reported occurrences that may be interlinked with RE. (iii) Promotion: ICAA will promote information from initiatives and studies e.g. conducted by EASA on this topic.	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Ireland (IR)	<p>Runway Excursions do not feature highly in the analysis of mandatory and voluntary occurrences reported to the IAA but nevertheless due to the broader European and Worldwide experiences reported by ICAO/EASA RE is included in the IAA SSp 2013-2016 in action item FOD.002.</p> <p>The IAA collects, classifies and analyses Runway Excursion events. The IAA currently does not have measures in place for the precursors to RE events however safety analysis of the causal factors for RE events can identify them.</p> <p>The IAA has recorded three RE events per year for the past three years (mostly light aircraft), which were minor excursions from the runway due to GA pilot handling errors. Only one RE report was considered high risk (using ARMS RM Score > 10) and this was related to an RE by a large transport aircraft following heavy landing and nose gear collapse during landing in high cross winds.</p>	Partially implemented
Italy (IT)	<p>RE are included in ENAC Safety Plan 2012-2015 as action TOP 1.1.1.</p> <p>The safety action is: to determine national RE indicators and a measuring plan.</p> <p>The RE report is already completed and should be published by the end of 2013.</p>	Implemented
Latvia (LT)	<p>SSP is not implemented yet. In last 5 years - 6 rejected take offs at high speed. Operators should have in place relevant FDM-based indicators to focus on the prevention of RE occurrence.</p> <p>The FDM programme should allow an operator to identify areas of operational risk and quantify current safety margins.</p> <p>Operator's safety manager should be responsible for the identification and assessment of issues and their transmission to the managers responsible for the processes concerned.</p> <p>LV CAA is responsible for the establishing and maintenance an oversight programme covering oversight activities, including assessment of associated risks.</p> <p>Deciding the depth and frequency of oversight activity, each case involves review of the Organisation Risk Profile (including both the overall rating, and the ratings for each individual indicator).</p>	Planned
Lithuania (LU)	<p>There were no RE in the past 5 years.</p> <p>The EAPPRE is included in the CAA Safety Plan (2013-2016), ref. to http://www.caa.lt/index.php?467881435</p> <p>Civilinės aviacijos administracijos aviacijos saugos planas 2013-2016 m.: įsakymas, planas, No. 11. To start to implement the EAPPRE actions the appropriate detailed CAA plan for Prevention of Runway Excursions will be issued in November 2013.</p>	Planned
Luxembourg (LU)	<p>Due to the configuration of Luxembourg airport (runway 4000x60m, no significant obstacles), runway excursions are rare and of low severity. In the last 3 years, 4 runway excursions were recorded, all by single engine aircraft and all without damage to aircraft or injury to persons. DAC considers that no specific action for runway excursions is required and does not plan to include this topic in the SSP.</p>	Not applicable
Malta (ML)	<p>ANS: All ATCOs validated for Tower do the required training on unstable approaches as part of th refresher training for the unusual situations at Skyguide. From an awarness point of view - The european action plan was distributed to all ATCOs on the 29th of January 2013 we have not measured the effectiveness because fortunately the problem of RWY excursions is very low</p> <p>Flight Ops: 5 incidents occurred during the last five years. As the amount of occurrences are few and apart, all incidents are discussed with the individual operators and identify the root cause of the incidents. To strengthen the process of reporting and safety action taken, a formal group within the state authority shall be established to identify possible hazards within the whole aviation system.</p> <p>Aerodromes: The airport operator has been advised to set up the Local Runway Safety Team according to the established terms of reference. Operator agreed and is in the process of setting up this group.</p>	Planned
The Netherlands (NL)	<p>Runway excursions don't belong to the indicated risks in the Netherlands.</p> <p>It will be taken into account in the next SSP.</p>	Planned
Portugal (PO)	<p>None of this SPI are from our top safety concerns. Concerning RE we have a Workshop planned for December 2013 in cooperation with Eurocontrol.</p>	Planned
Spain (SP)	<p>1.- RE has not been identified as a major concern in Spain, however in order to be aligned with EASp, we have included RE in Spain's risk portfolio and in Spanish Aviation Safety Plan. AESA has analysed in depth the RE occurrences in Spanish territory that are registered in our Spanish MORS during 2009-2012 period. The main conclusions of this analysis are:</p> <ul style="list-style-type: none"> • There are 50 REs in 2009-2012 period. 7 are accidents, 14 are serious incident, 13 are major incident and 16 significant incidents. • 64% of RE occurrences (or 32 RE) are landing veeroff • In 70% of RE occurrences (or 35 RE), the MTOW < 2.250 Kg • In 50% of RE occurrences (or 25 RE) the operation type is General Aviation <p>• Taking into account the Eurocontrol document "A Study of Runway Excursions from a European Perspective", we have analysed if the causal factors of the landing veeroffs identified by Eurocontrol (crosswind, wet/contaminated runway, nose wheel steering problems,...) have been the precursors of the RE in Spain. In our landing veeroffs, we have identified these causal factors: crosswind in 5 occurrences, aircraft handling in 5 occurrences and main landing gear in 3 occurrences. The other causal factors have been identified in only 1 or 2 occurrences.</p> <p>2.- Regarding the examples of measures that are proposed, our results are:</p> <ul style="list-style-type: none"> • a.- Runway excursion and overrun events. Please see above results. • b.- Unstable/de-stabilised approaches: all and proportion that continue to landing. It is not possible to compute the proportion of unstable/de-stabilised approaches that continue to landing. However we have monitored all the unstable/de-stabilised that are registered in our Spanish MORS from 2009-2012 period. There were 75 in 2009, 184 in 2010, 175 in 2011, 222 in 2012 and 223 in 2013 (only 6 months period). Therefore, the number of reported unstable/de-stabilised approaches is growing partially due to a better open-reporting culture. • c.- Deep landing events. Regarding "aircraft landed long" events, there are only 5 occurrences in Spanish MORS from 2009-2012 period. • d.- High-speed touchdown events. There are not occurrences in Spanish MORS. • e.- High-speed rejected take-off events. There are not occurrences in Spain. <p>3. Regarding the mitigation actions, our intention is to promote EAPPRE recommendations. Moreover, in aerodrome domain, AESA will require Spanish airports to comply with EAPPRE recommendations. In fact, AESA has defined the next plan:</p> <ol style="list-style-type: none"> i. EAPPRI/EAPPRE high-level compliance analysis in Spanish airports. ii. EAPPRI/EAPPRE initial compliance map in Spanish airports based on previous inspections iii. EAPPRI/EAPPRE compliance questionnaire iv. EAPPRI/EAPPRE advanced compliance map in Spanish airports based on questionnaire responses and inspections v. EAPPRI/EAPPRE advanced compliance map is continuously updated based on: Regulatory and Certification Inspections and Requested documentation vi. AESA has designed a report form for additional information in case of runway incursions and runway excursions <p>The effectiveness of EAPPRE recommendations will be monitored using the trend of RE occurrences reported to the Spanish MORS.</p>	Partially implemented
Sweden (SE)	<p>RE:s have a dedicated SPI and are followed up by the Aviation Safety Analysis Forum at monthly meetings. Results are communicated to the AOC:s.</p>	Partially implemented
Switzerland (SW)	<p>Occurrences: 2009-2013</p> <ul style="list-style-type: none"> - RE: 5, 3 high risk - Unstabilized approaches: 40, 1 high risk - AC landed fast: 0 - High speed rejected takeoff: 28, 4 high risk 	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
United Kingdom (UK)	<p>The UK SSP is currently being redrafted for publication in Dec 2013. The SSP will specifically highlight runway excursions as one of the UK CAA's significant seven priorities.</p> <p>UK CAA Safety improvement activities to mitigate the risk of Runway Excursion will continue to focus on the following three areas:</p> <ul style="list-style-type: none"> • Reducing unstable/de-stabilised approaches. • Improving information to pilots on expected braking action on contaminated runways. • Improving safety areas around runways. <p>Key Performance Metrics</p> <p>Runway Excursion mitigation actions will be tracked using the following key performance metrics:</p> <ul style="list-style-type: none"> • Runway Excursion and overrun events. • Unstable/de-stabilised approaches that continue to a landing. • Runway events where runway contamination is a contributory or causal factor. • Proportion of UK aircraft operators to have implemented and actively monitored Runway Excursion precursor measures. • Proportion of UK licensed aerodromes using 'new reporting criteria' for runway surface condition. 	Partially implemented

Summary	<p>Except in very few cases, most of the precursor events monitored by States in the last 5 years were not considered high-risk events. Two States (FR, SP) reported that the majority of events involved General Aviation operations and/or light aircraft. One State (FI) ca 100 rejected take off occurrences (about 90 of these in CAT operations) during the last 5 years. Only four were classified as serious incidents. In FR there were four significant commercial runway excursions (french airlines or french airfields) during the last 5 years ending in damage to the aircraft but fortunately not with casualties.</p> <p>10 States are addressing RE at national level in the following ways: 5 States (BU, IR, SP, SW and IT) in Safety Plans, 3 States (UK, FI and FR) in SSPs and 2 States (CR, SE) are measuring precursors and assessing the consequences.</p> <p>One State (FI) has established safety performance indicators and targets for all operators. The achievement of this targets is monitored during the oversight process.</p> <p>One State (IC) encourages service providers to evaluate risk factors and then monitors compliance through oversight activities.</p> <p>5 States (BE, LT, LI, PO, ML) have plans to address the issue in the future.</p> <p>Among the occurrences being monitored by States due to the potential to lead to a RE are:</p> <ul style="list-style-type: none"> - Lateral excursions - Overrun events - Unstable/de-stabilised approaches - Deep landing events - high-speed rejected take-off events - Adverse weather during approach - Runway surface condition and contamination - Braking action by flight crew - Problems with the landing gear or thrust reversers - Abnormal runway contacts - Landings and takeoffs performed over the approved wind component - Flight crew errors - FOD. <p>Various States (LT, FR) are promoting FDM programmes that allow operators to identify risk areas and quantify safety margins</p> <p>The recommendations provided in EAPPRE are found a good way to mitigate the risk in the majority of States.</p>	<p style="text-align: center;">AER1.5</p> <table border="1"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AER1.5</td> <td>1</td> <td>6</td> <td>9</td> <td>2</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER1.5	1	6	9	2
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AER1.5	1	6	9	2								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
1. Runway Excursions (RE)						
AER1.9 NEW	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

Guidance	<p>The European Plan for the Prevention of Runway Excursions (EAPPRE) was published at the beginning of 2013 (http://www.skybrary.aero/bookshelf/books/2053.pdf). Please indicate if you have already started to take the EAPPRE recommendations into consideration and how you are doing it in the various domains: authority's oversight activities, aircraft operations, ANSP, aerodrome operators, aeronautical information service providers, aircraft manufacturer. How do you measure/plan to measure effectiveness?</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	The BCAA has not yet started to take the EAPPRE recommendations into consideration. The BCAA considers to take risk mitigation actions against unstabilized approaches and to implement recommendations from the new European Action Plan for the prevention of Runway Excursions. These actions will be published in one of the future updates of the safety plan.	Planned
Bulgaria (BU)	RE is a new action in the Bulgarian SSP. European Action Plan for the Prevention of RE (EAPPRE) 2013 being adopted and implemented. RE is a part of authority's oversight activities.	Partially implemented
Croatia (CR)	In accordance with Croatian SSP activities related to the implementation of recommendation of EAPPRE will start by the end of this year.	Planned
Finland (FI)	EAPPRE will be included in the Finnish Aviation Safety Plan. Number of runway excursions are measured continuously as one of the tier 2 SPIs.	Planned
France (FR)	The EAPPRE recommendations have been assessed during the april 2013 SSP safety review, and priorities amongst the recommendations have been established. Those priorities are included in the French SSP action plan. As far as the recommendations to the operators are concerned, people in charge of operators oversight discuss with them how they intend to implement the EAPPRE recommendations relevant for their operations in the framework of their SMS. DGAC considers it is not appropriate to impose on operators to implement such recommendations provided they justify this position in the framework of their SMS.	Partially implemented
Iceland (IC)	EAPPRE has been promoted to Isavia the service provider. The use of the material is being evaluated at this stage.	Partially implemented
Ireland (IR)	The IAA State Safety Plan SSP 2013-2016, action item FOD.002 addresses the implementation of the recommendations for regulatory authorities contained in the EAPPRE. Some of the actions contained in EAPPRE (eg Runway Safety Teams, Inclusion of RE in Safety Oversight) have already been completed and other actions (including the dissemination of EAPPRE to all industry stakeholders) are planned for the next two years. Due to the statistically low number of occurrences no specific statistical measures are planned but the effectiveness of these EAPPRE measures will be reviewed via Runway Safety Teams and Safety Oversight activities.	Partially implemented
Italy (IT)	This issue should be included in the edition 2013-2016 of ENAC Safety Plan.	Planned
Latvia (LT)	SSP is not implemented yet.	Planned
Lithuania (LI)	The EAPPRE is included in the CAA Safety Plan (2013-2016), ref. to http://www.caa.lt/index.php?467881435 Civilinės aviacijos administracijos aviacijos saugos planas 2013-2016 m.: įsakymas, planas, No. 11. To start to implement the EAPPRE actions the appropriate detailed CAA plan for Prevention of Runway Excursions will be issued in November 2013 We intend to start to measure effectiveness in the 2014.	Planned
Luxembourg (LU)	Due to the configuration of Luxembourg airport (runway 4000x60m, no significant obstacles), runway excursions are rare and of low severity. In the last 3 years, 4 runway excursions were recorded, all by single engine aircraft and all without damage to aircraft or injury to persons. DAC considers that no specific action for runway excursions is required and does not plan to include this topic in the SSP.	Not applicable

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Malta (ML)	<p>ANS:We have not yet started to measure the effectiveness.</p> <p>Flight Ops: Flight operations Inspector conducting simulator session inspections, brings to the attention of the crew the recommendations envisaged in the EAPPRE.</p> <p>Aerodromes: The airport operator has been advised to set up the Local Runway Safety Team according to the established terms of reference. Operator agreed and is in the process of setting up this group. The NAA plans to measure its effectiveness by being present at LRST meetings and monitoring its activities.</p>	Planned
The Netherlands (NL)	It will be taken into account in the next SSP.	Planned
Portugal (PO)	The planned Workshop for December is an initial step for the implementation of EAPRE. However some service providers may have some actions implemented already.	Planned
Spain (SP)	<p>The European Plan for the Prevention of Runway Excursions (EAPPRE) document has been internally distributed and its recommendations are being analysed by AESA staff.</p> <p>In aerodrome domain, AESA has decided to require Spanish airports to comply with EAPPRE recommendations. (Please see previous answer for details). In other domains EAPPRE recommendations will be promoted via safety oversight inspections and dedicated working groups.</p> <p>The progress in this area will be provided in the next LSSIP due to the last LSSIP version did not include this objective.</p> <p>Regarding the plan to measure its effectiveness, AESA will monitor the trend of these type of occurrences.</p>	Planned
Sweden (SE)	The Swedish Transport Agency has published a national action plan, based on EAPPRE, with recommendations to Aerodrome Operators, Air Navigation Service Providers, Aircraft Operators and the National Authority. During the oversight the actions taken by the different actors will be reviewed.	Implemented
Switzerland (SW)	<p>EAPPRE is known and under consideration. FOCA Safety Divisions are reviewing Authority activities for potential applicability in Switzerland.</p> <p>Currently, all authority related actions are being addressed either through aerodrome certification process, the Swiss State Safety Program, oversight activities and SMS oversight activities.</p> <p>Not all recommendations have been implemented in relation to the other domains. Those that have been implemented are measured for effectiveness through oversight and surveillance checklists.</p> <p>- Based on FOCA initiative the implementation of EAPPRE recommendations is discussed in every local Runway Safety Team for all addressed domains.</p> <p>- Effectiveness of taken measures is monitored by FOCA through participation in LRST and oversight activities (audits, inspections), if required.</p>	Partially implemented
United Kingdom (UK)	<p>The UK CAA has issued an Information notice to UK industry promoting EAPPRE (Feb 2013) to encourage organisations to review and implement appropriate recommendations.</p> <p>The UK CAA is planning follow-up regulatory action regarding key recommendations contained in EAPPRE.</p>	Partially implemented

Summary	<p>EAPPRE is known by the majority of States. Work is underway to implement the recommendations contained in the EAPPRE.</p> <p>7 States have already included the EAPPRE recommendations as new action in their Safety Plans (BU, IR, LI, SE, SP) or SSPs (FR, SW). 3 States (BE, FI, IT) plan to incorporate the actions in future updates. EAPPRE recommendations are also being addressed through oversight activities like the aerodrome certification process or through SMS oversight.</p> <p>Various States will start measuring the effectiveness of the relevant measures as part of oversight activities through participation in LRST.</p> <p>1 State (FR) reported that people in charge of operators oversight discuss with operators how they intend to implement the EAPPRE recommendations relevant for their operations in the framework of their SMS. They consider that it is not appropriate to impose on operators to implement such recommendations provided they justify this position in the framework of their SMS.</p>	<div style="text-align: center;"> <h3>AER1.9 NEW</h3> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AER1.9 NEW</td> <td>1</td> <td>10</td> <td>6</td> <td>1</td> </tr> </tbody> </table> </div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER1.9 NEW	1	10	6	1
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AER1.9 NEW	1	10	6	1								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
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

Guidance	<p>Have there been any airspace infringements in the past 5 years (please exclude the ones that involved GA since they are addressed in GA1.5)? If so, how many of them were considered high-risk events? what are the main factors that contributed to them? Where is your State with the implementation of the European Action Plan for Airspace Infringement Risk Reduction?</p> <p>The progress of your State against the European Action Plan for Airspace Infringement Risk Reduction is reported within the European/Local Single Sky Implementation (ESSIP/LSSIP) process at the following website http://www.eurocontrol.int/articles/essip-report. The latest available report includes the activities carried out in 2011. Please indicate whether any progress has been made towards the objective in 2012 and 2013 and what is the expected situation at the end of the year. Consider the situation at both State and Service Provider Level</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	<p>Reported Occurrences Airspace Infringement Commercial Aviation: 2010:6 2011:4 2012:1</p> <p>None of these events were considered high-risk events.</p> <p>The main factor is the complexity of the Belgian airspace and the complex airspace of our neighbouring countries. Belgium has established a national action plan derived from the European Action Plan for Airspace Infringement Risk Reduction. The Belgian Airspace Infringement Reduction Plan focuses mainly on General Aviation VFR traffic as well as on pilot training organizations, in an effort to reduce the risk of infringements in the future (see GA1.5).</p>	Not applicable
Bulgaria (BU)	Airspace infringement risk is one of the Key Safety indicators. The Bulgarian CAA is committed to implement all actions assigned to regulatory authorities contained in the EAPAIRR.	Planned
Croatia (CR)	Implementation of the European Action Plan for Airspace Infringement Risk Reduction has been started during this year. In March 2013 Croatian State Safety Program has been published, to ensure general framework for Airspace Infringement LSSIP SAF 10 implementation. In August 2013, Croatian Civil Aviation Agency published Air Safety Information Letter ASIL 2013-001 to facilitate further implementation. By the end of 2013 it is expected that all stakeholder's (ANSP, Training Organisation, Airspace Users, and Regulatory Authority) implementation plans will be in place.	Partially implemented
Finland (FI)	<p>During last 5 years there has been ca 20 airspace infringements involving other than general aircraft. Most of these have been caused by coordination problems within ATC units. Several cases have happened to commercial helicopter operators when they have accidentally penetrated P, R or D-areas. None of the cases have been considered high-risk events, though several airspace infringements conducted by general aviation aircraft have been categorised as serious incidents.</p> <p>According to LSSIP report, the actions in European Action plan have been implemented by the regulator and ANSP in 12/2011. The monitoring of the implementation of these actions are part of continuous oversight process. European Action Plan for Airspace Infringement Risk Reduction will also be considered in Finnish Aviation Safety Plan. Airspace infringements involving other than GA aircraft are very rare, if nonexistent.</p>	Implemented
France (FR)	Airspace infringement not involving GA are very marginal. EAPAIRR focuses on GA ; see response GA1.5	Not applicable
Iceland (IC)	ICAA has not followed the European Action Plan for Airspace Infringement Risk Reduction - Iceland is not a member of Eurocontrol nor part of ICAO EUR region. Further the traffic pattern within these areas is different, where the NAT region traffic consists mainly. heavy a/c. Iceland is participating in projects concerning airspace infringement under the umbrella of ICAO NAT SPG. However due to Iceland's special position it will have to monitor the development of the European Action Plan and apply actions / best practices if deemed necessary and not adequately covered within the scope NAT SPG. SPIs have been developed within the NAT SPG and being worked on within ICAA, infringement is monitored on a continuous bases, and no specific actions have been taken recently.	Implemented
Ireland (IR)	<p>The IAA Annual Safety Review 2012 reports 81 cases of airspace infringements in Irish Airspace over the period 2009-2012. This includes infringements by large transport aircraft, military aircraft and general aviation aircraft. None of these were classified as high risk Severity A or B, per ESARR 2 Severity Classification, but 26 of these were Severity C. There is no detailed breakdown currently available but the vast majority of airspace infringements (~90%) involve infringements by general aviation or military aircraft. The small proportion of airspace infringements by large transport aircraft are mainly found in oceanic operations due to communication difficulties.</p> <p>The IAA has completed twelve of the thirteen recommended and proposed actions for regulation authorities included in the European Action Plan for Airspace Infringement Risk Reduction with the remaining action due for completion in 2013. This includes full consultation with airspace users for any proposed changes to airspace as well as an Annual Review Meeting with users under the FUA Level 1 activity.</p>	Partially implemented
Italy (IT)	ENAC introduced the adoption of the Airspace Infringement Plan of Eurocontrol in the ENAC Safety Plan for 2012. All regulatory actions have been completed. ENAV has put into practice the recommendations and actions listed in the European Action Plan for Airspace Infringement Risk Reduction. See LSSIP (Italy 2012) - ESSIP Objective SAF 10	Implemented
Latvia (LT)	<p>SSP is not implemented yet. In last 5 years - 11 CAT airspace infringements by Latvian operators, and 39 by foreign operators in Latvian airspace. Current airspace infringements by the commercial aviation do not generate safety risks, as they are related to the infringement of noise sensitive area restriction in very close proximity to the SIDs and STARs. Number of noise sensitive area infringements have decreased due to redesign of the airspace. For setting the local airspace infringement risk reduction strategies and for development the most appropriate and effective actions the following risk factors shall be considered and appropriately mitigated:- Complexity of the airspace structure;</p> <ul style="list-style-type: none"> - Scale of military flying activity; - Scale and maturity of both commercial and general aviation sectors; - Scope and nature of air traffic service provision; and - State's regulatory and legislative frameworks. <p>Hazard identification and risk assessment was performed concerning the General Aviation aircraft flights. Following actions were proposed for Airspace Infringement Risk Reduction:</p> <ul style="list-style-type: none"> - Ensure updated maps and charts are made available to flying clubs and schools; - Promote membership of flying clubs and federations among private pilots; - Establish provisions for correct GPS equipment installation and maintenance; - Harmonise provisions of flights by ultra-lights, micro-lights and gliders (including hang-gliders and para-gliders). 	Planned
Lithuania (LI)	There were not any airspace infringements in the past 5 years. The EAPAIRR is included in the CAA Safety Plan (2013-2016), ref. to http://www.caa.lt/index.php?467881435 Civilinės aviacijos administracijos aviacijos saugos planas 2013-2016 m.: įsakymas, planas, No. 12. To start to implement the EAPAIRR actions the appropriate detailed CAA plan for Prevention of Airspace infringement risk will be issued in December 2013	Planned

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Luxembourg (LU)	The majority of airspace infringements in 2011 and 2012 were due to one specific cause that has been successfully addressed at the operational level (deviation from the agreement between two ANSPs, after airspace restructuring). Airspace infringements by CAT aircraft are not a concern.	Not applicable
Malta (ML)	ANS: We did not experience Airspace infringements in the last 5 years. We do not consider this as a problem for us and we have not planned any activity. If on the other hand we will have IFR airspace infringements we will then reconsider.	Planned
The Netherlands (NL)	The EAPAIRR is applied. Military traffic management is involved to. Where necessarily airspace was adjusted. Reports have been submitted to ESSIP/LSSIP. A reduction in infringements is established.	Implemented
Portugal (PO)	Most of our airspace infringements are concerned with traffic going inside military areas, and military traffic going outside military space areas. Workshop planned for December 2013	Partially implemented
Spain (SP)	AI has been identified as a major concern in Spain, therefore we have included AI in Spain's risk portfolio and in Spanish Aviation Safety Plan. AESA analysed airspace infringements in which GA is not involved for the 2008-2012 period. The results are: <ul style="list-style-type: none"> There were 64 AI in which GA was not involved and there were 472 AI in total, in Spanish territory and during 2008-2012 period. Therefore, in 14% of AI occurrences there were not GA involvement. There were 7 AI occurrences with serious or major severity. Therefore, 11% of AI occurrences had high severity. The main factors that contributed to AI were: pilot-ANS communications (in 15 occurrences), ATM coordination failures in adjacent civil units (in 4 occurrences) and deviation from clearance (in 3 occurrences). Spain is implementing the European Action Plan for Airspace Infringement Risk Reduction. The EAPAIRR recommendations will be promoted via safety oversight inspections and dedicated working groups. For details, please see the European/Local Single Sky Implementation (ESSIP/LSSIP) process at the following website http://www.eurocontrol.int/articles/essip-report AESA plans to monitor AI occurrences each 6 months.	Partially implemented
Sweden (SE)	The Swedish action plan for reduction of airspace infringements was published June 2012. Actions have been distributed to responsible parties. Follow up will be done during 2014.	Partially implemented
Switzerland (SW)	Occurrences: 2009-2013 276, 57 high risk An Airspace Infringement Working Group analyses local data to identify hotspots and critical issues. The majority of the EAPAIRR relevant for Switzerland has been implemented. SB & SRM analyze pilot reports obtained during AI investigations. State level SPI have been identified and are being monitored.	Partially implemented
United Kingdom (UK)	See attached REG, ASP and MIL responses to ESSIP/LSSIP SAF10. The CAA: a) Undertakes regular monitoring of the number of airspace infringements. Assessment of the effectiveness of infringement awareness and reduction activity is undertaken through analysis of infringement data and through feedback from pilots involved in airspace infringements. b) Is currently considering how Human Factors (HF) influence infringements and their outcomes, and the extent to which the AIWG Action Plan needs to evolve to better reflect HF concerns. c) Has introduced a questionnaire for pilots who have infringed controlled airspace to it to better understand infringement causal factors (including airspace design) and take action where appropriate. This is based upon a similar questionnaire used by NATS. (August 2013) d) Developing an online infringement awareness package for pilots. e) Identifying the means to better target awareness material towards pilots of high risk infringements. f) Has developed a standard infringement awareness briefing that can be tailored to suit all sectors of the industry. g) Developing future infringement reduction/prevention initiatives. DFT is funding research into lightweight transponders and position broadcasting technologies. (March 2015)	Implemented

Summary	<p>The majority of States reported that Airspace Infringements involved mainly General Aviation or military aircraft and are not a concern for CAT. One State (IR) reported that the small proportion of airspace infringements by large transport aircraft were mainly found in oceanic operations due to communication difficulties. However at least 2 States (SP, SW) reported a number of high risk events in the past years affecting CAT. One State (SP) reported that during 2008-2012, 11% of AI occurrences in which GA was not involved had high severity.</p> <p>EAPAIRR is already being implemented in 11 States (BE, CR, IR, FI, IT, LI, NL, SP, SE, SW, UK). This is being done through publication of relevant action in SSPs (CR), the publication of dedicated plans to address the risk (BE, SE) or by including the recommendations in Safety Plans (IT, LI, SP).</p> <p>2 States (BU, LT) plan to implement the EAPAIRR in the future. One State (IC) participates in projects concerning airspace infringement under the umbrella of ICAO NAT SPG. One State (SW) has established an Airspace Infringement Working Group that analyses local data to identify hotspots and critical issues.</p> <p>Airspace Infringement risk is a safety indicator in various States (BU, SP, SW). The EAPAIRR recommendations will be promoted via safety oversight inspections and dedicated working groups in SP.</p> <p>Among the factors that contribute to AI mentioned by the States we find:</p> <ul style="list-style-type: none"> airspace complexity coordination problems within ATC units pilot-ANS communications deviation from clearance 	<p style="text-align: center;">AER2.1</p> <table border="1"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AER2.1</td> <td>3</td> <td>4</td> <td>6</td> <td>5</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER2.1	3	4	6	5
			Not planned/not applicable	Planned	Partially implemented	Implemented						
AER2.1	3	4	6	5								
ESSIP Report 2012	<p>SAF10 Implement measures to reduce the risk to aircraft operations caused by airspace infringements</p> <p>Compared to the previous report, significant progress has been made in the deployment of this objective. 15 States declared this objective as completed which constitutes around 36% of all ECAC States. Comparing to 2011 when only 6 States declared full completion of this objective.</p> <p>Even though progress has been made in the implementation of this objective, there is still a vast amount of States who declared this as Late which constitutes around 55%. One State (SW) has declared this objective as partially completed. Furthermore, 2 States (LU and MT) declared that airspace infringements are not an issue in their State and therefore there is no need for the implementation of the related action plan.</p> <p>Link: http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/essip-report-2012.pdf</p>											

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
2. Mid-Air Collisions (MAC)						
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

Guidance	<p>One of the operational scenarios that precedes a MAC is a loss of minimum separation (e.g. involving a TCAS alert in the most critical cases). Has your State been exposed to these type of scenarios in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>Examples of measures:</p> <ul style="list-style-type: none"> • Loss of communication events • Level busts events • ACAS RAs: all genuine RAs and proportion involving incorrect pilot response • Airspace Infringement events • Separation minima infringements/risk-bearing airprox <p>Are you measuring any of the above? Have you implemented other measures related to MAC?</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	<p>The Belgian CAA is measuring the main factors contributing to MAC.</p> <p>Reported Occurrences:</p> <ul style="list-style-type: none"> • Loss of communication events 2010:2 2011:28 2012:24 • Level busts events 2010:8 2011:15 2012:22 • ACAS RAs: all genuine RAs and proportion involving incorrect pilot response 2011:21 2012:6 • Airspace Infringement events 2010: 61 2011:126 2012:127 • Separation minima infringements/risk-bearing airprox 2010:9 2011:28 2012:52 <p>There were 3 SMI events that were considered as high-risk in 2012.</p> <p>Implementation of other measures related to MAC are:</p> <ul style="list-style-type: none"> • The reduction of Prolonged Loss of Communication. The Belgian Defense together with the Belgian Civil Aviation Authority are committed in a safety action to decrease the number of prolonged loss of radio contact in Belgian airspace. • An analysis of the technical ATM occurrences has identified the presence of broadband interferences caused by a particular aircraft type and operator. The Belgian CAA will therefore establish a taskforce to develop risk mitigating measures. 	Partially implemented
Bulgaria (BU)	MAC is a new for Bulgarian SSPlan. Potential consequences of a MAC are serious. Prevention and mitigation of these events is a part of continuous oversight activities.	Partially implemented
Croatia (CR)	CCAA is measuring MAC since 2012. Until June 2013 we had 23 occurrences related to MAC. We did not consider any of these events high risk event. Mechanisms to mitigate risks have been established on a case-by-case basis. Implementation and effectiveness of mitigating measures are monitored by assigned inspectors and for overall overview by CCAA Safety Board- trend monitoring. According to Croatian SSP hazardous conditions are: Severe collisions between aircraft in flight;- failure to follow the prescribed speed reduction- failure to comply with air traffic control instructions, etc.Since January 2013. we have started to monitor Level Bust as separate risk.	Partially implemented
Finland (FI)	<p>In total there's been 160 separation minima infringements in Finland during the last five years. Seven of these were categorised as serious incidents. Contributing factors were level busts, airspace infringements and ATCO human errors.</p> <p>Among others, MAC and separation minima infringements are part of Finnish SSP as Safety performance indicators, for which targets are set for all aviation operators to assess the risk of each SPI in their operations and conduct appropriate mitigating actions. The achievement of these targets is monitored during the oversight process. Relating to MACs and airprox Finland measures level busts, TCAS Ras, Airspace infringements, lateral deviations from clearance and separation minima events and airprox-cases as safety performance indicators.</p>	Implemented
France (FR)	<p>Regarding controlled airspace :</p> <p>Many low risk losses of separation occur in French airspace, especially around the busy airports (order of magnitude 100 a year). High risk en-route events are exceptional (0 within the French ACC's in 2012). However there are events around busy airports and a specific monitoring is in place (notably at CDG). One of the tools used to control the risk is to limit the maximum allowed traffic rate.</p> <p>The French ANSP considers MAC prevention at the highest priority. It has set up a specific action plan which is considered adequate.</p> <p>The French ANSP has an efficient incident management on this matter, uses ground based safety nets (short term conflict alert (STCA) and airspace proximity warning (APW)) for airspace infringement prevention). Those ground based safety nets are widely implemented and are used as a standard tool to control and monitor this risk.</p> <p>The ANSP makes analysis of any loss of communication event, any RA reported event and any separation minima infringements/risk-bearing airprox. The ANSP derives detailed Statistics from these analyses.</p> <p>It should be noted that all STCA events are recorded for the purpose of analysis and statistics.</p> <p>Regarding non controlled airspace :</p> <p>Declared losses of separation between civil aircraft are addressed on a case by case basis. Events between civil and military aircraft are addressed by a specific civil/military commission that publishes safety recommendations. DGAC develop action plans to address these recommendations.</p>	Implemented
Iceland (IC)	ICAA is addressing this issue by: (i) Approvals. Service providers (ANSP) and aircraft operators will be encouraged to cover/evaluate risk factors relating to MAC in their SMS systems. (ii) Through ICAA's continuous oversight; with analysis of findings and reported occurrences that may be interlinked with MAC e.g. loss of separation occurrences . (iii) Promotion: ICAA aims to further promote for initiatives and studies conducted at International level; in particular relating to NAT and ER region. ICAA flight OPS oversight raises this issue with air operators relating to the training of pilots. Within the NAT SPG framework and cooperation 8 SPIs have been developed, formalised and now monitored.	Partially implemented
Ireland (IR)	<p>The IAA State Safety Plan 2013-2016 action item ASD.001 addresses MAC.</p> <p>The following key safety indicators are separately monitored by the IAA in this regard; MAC, MAC-TCAS (RA's), Level Busts, Airspace Infringements, Separation Minima Infringements</p> <p>The IAA Annual Safety Review 2012 shows that 180 MAC and MAC-TCAS events were reported in 2012, over 80% of which were considered low or no accident risk events using ARMS classification (ARMS Score <20). Although a detailed analysis of the main causal factors has not yet been accomplished a high proportion of MAC events are found to be due to TCAS RA on converging aircraft levelling off on proximate flight levels where the risk of collision was minimal.</p> <p>There were 168 reported level busts in the period 2009 to 2012. In the last three years the vast majority of level bust reports are classified Severity E (ref ESARR 2) with only three higher risk events in 2012 (Severity C). Analysis of the number of these level busts that are associated with a MAC event is currently not available.</p> <p>There were 58 reports of separation minima infringements in the period 2009-2012 almost all of which were classified as higher risk (Severity Level C or higher).</p> <p>The IAA has implemented the recommended actions for regulatory authorities in EPAIRR as noted in AER 2.1 above. In addition mitigation actions are targeted in specific area to address concerns arising from the safety performance reviews.</p> <p>The trend analysis of the safety indicators provides a measure of the success of these actions. Ongoing work includes the further development of precursor identifiers in the risk assessment process to facilitate better safety analysis of the causal factors for MAC/MAC-TCAS events.</p>	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Italy (IT)	MAC is included in ENAC Safety Plan 2012-2015 as action TOP 1.2.1. The safety action is: to determine national MAC indicators and a measuring plan. Separation minima reduction is used as indicator. Note: Italian ATC service provider (ENAV) submit a report to ENAC every three months.	Implemented
Latvia (LT)	SSP is not implemented yet. In last 5 years - 50 TCAS alerts. In the uncontrolled Class G airspace it is planned by the nationally designated ANSP to provide AFIS coverage by the end of 2015 in order to facilitate more safe operations for the general aviation aircraft. In the controlled airspace, the ANSP has implemented the requirement to increase the number of ATCOs at the working stations at all times. After implementation of reduced runway separation and 3 nm separation in Riga TMA, the SMI has been of particular interest and subject to monitoring action by the CAA through inspections and audits. Guidance on development of safety improvement action plan APP 3.1, from 13.07.2012, was developed to manage safety in flight operations area. AOD implements actions according to the European Action Plan for Airspace Infringement Risk Reduction. During the year in close cooperation with the aircraft operators and pilot representatives AOD shares the actions that have to be taken to address the issue as well as the measures that are in place to monitor their effectiveness. This will include performance of safety oversight tasks by operations inspectors according to the programme and activities on the implementation of SMS by operators to identify the hazards and perform risk management. Indicators of severity, such as, duration of the TCAS/ACAS RA, pressure altitude difference with the selected altitude, are to be established. High vertical speed values and high speed values can indicate that the aircraft trajectory is not fully under control or a loss of situation awareness (CFIT). It could also increase the risk of a mid-air collision. It is planned in the beginning of 2014 to establish an agreement between the NAA and several aircraft operators to produce FDM data summaries in a standardised manner (for example, using a common template), aggregation into statistics will be possible, for the benefits of participating operators and of the SSP.	Planned
Lithuania (LI)	All information concerning minimum separation infringement and. 1 occurrence took place during the last 5 years. Risk level - A4. The main factors: (a) decision taken by pilot (to significantly increase vertical speed) without informing the ATCO; (b) low level reaction to the TCAS RA by the ATCO; (c) ineffective decision taken by ATCO to reduce the risk. The preventive action taken: dissemination of lessons learned, improvement of the ATCOs training programme. Effectiveness of the implemented preventive actions were verified by the CAA during annual ongoing oversight activities.	Planned
Luxemburg (LU)	An improvement after establishment of a TMZ in the most affected area has been confirmed by a decrease in the number and severity of occurrences.	Partially implemented
Malta (ML)	ANS: We experienced loss of separations in the last 5 years. This is all statistically recorded. In the last year all loss of separations were subjected to a RAT tool exercise. All investigations are available and the feedback process of the ANSP is completely tracked and controlled by a dedicated form. Flight ops: 11 TCAS RA incidents occurred in the last five years. As previously stated, all incidents were individually discussed with the operator involved. A formal group meeting shall be established within the Authority to discuss the relevant incidents and evaluate the risk involved.	Planned
The Netherlands (NL)	MAC is a risk in the Netherlands to. The airspace is adapted to prevent MAC en AI.	Partially implemented
Portugal (PO)	All precursors are being measured.	Partially implemented
Spain (SP)	In Spain we have identified two areas of major concern or two safety risk areas that precedes a MAC in our Safety Plan: TCAS RA alerts and airspace infringement events. 1.- TCAS RA issue has been analysed in ad-hoc Spanish TMA group (formed by AENA -Air Navigation- and AESA): • In the case of TCAS RA produced by an aircraft in evolution without loss of separation, the causes were identified. Mitigation measures: 1) ATC staff awareness by AENA Air Navigation; 2) a recommendation to air operators to reduce vertical speed (ROD/ROA) during ascent or descent phase before reaching flight level; and 3) AESA is also considering making the latter mandatory in the busiest TMAs such as LEMD TMA. • For the rest of TCAS RA, we identified the points/procedures in which they took place. The mitigation measures were: 1) ATC staff awareness by AENA Air Navigation; 2) Modification of LEMD missed approach procedures; and 3) we are also studying to improve South Configuration instrument approach procedures to LEMD RWY's 18 L/R. 2.- Airspace Infringement. AESA analysed AI in depth using the reported occurrences in our Spanish MORS during 2008-2012 period. The main conclusions are: • There were 472 AI in Spanish territory during 2008-2012. 51 were serious and major incidents. Therefore, 11% of AI occurrences were high severity occurrences. • Mitigation measures: take into account European Action Plan for Airspace Infringement Risk Reduction's recommendations. Regarding the other measures: • Loss of communication events. AESA analysed communication failures using occurrences registered in our Spanish MORS during 2008-2012 period: There were 771 communication failures. 1 was serious and 20 were major incidents. Therefore, 3% of communication failures were high severity. • Level busts events. AESA analysed level busts events using occurrences registered in our Spanish MORS during 2008-2012 period. We have distinguished between level bust lower or higher than 300 ft. In case of level busts higher than 300ft, there were 104 occurrences, 1 was a serious and 11 were major incidents, therefore 11% of level bust were high severity. In case of level bust less than 300 ft., there were 255 occurrences, 4 were serious and 24 were major incidents, therefore 11% of level bust were high severity. The 3 main factors that contributed to a level bust were: pilot/ANS communications, operational issues and conflict detection/resolution. • Separation minima infringements/risk-bearing airprox. During 2008-2012 period, there were 530 SMIs. 29 SMIs were serious incidents, 148 were major incidents and 340 were significant incidents. Therefore, 33% of the SMI were high severity. The 3 main factors that contributed to SMI occurrences were: conflict detection/resolution, separation provision and wrong-altitude clearance. AESA plans to monitor TCAS RA alerts and airspace infringement each 6 months	Partially implemented
Sweden (SE)	There is an SPI for airspace infringements that is being followed by the Aviation Safety Analysis Forum at monthly meetings. There is also the national actions plan airspace (see above). Currently no dedicated measurements of precursors for airspace infringements are being performed.	Partially implemented
Switzerland (SW)	Occurrences: 2009-2013 SMI: 357, 55 high risk The main contributing factors to SMI are: • Coordination between or within ATC facilities (missing, non-standard phraseology etc.): ca. (16%) • Deviation from clearances (incl. Level Bust, ROC/ROD/spd instructions): ca. (16%) • Communications between ATC and aircraft (readback/hearback, misunderstandings, non-standard phraseology...): ca. (8%) • Airspace Infringements: < 8% State level SPI have been identified and are being monitored (Rate of SMI Class A/B). VFR/IFR mixed traffic in various airspace category has been addressed specifically. Several actions were taken (awareness campaign, airspace structure, publication, ec.).	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
United Kingdom (UK)	<p>The number of loss of separation occurrences in UK airspace has remained fairly consistent since March 2010. The method for monitoring correct and incorrect responses to Airborne Collision Avoidance Systems Resolution Advisories (ACAS RAs) has not yet been determined although work is ongoing to improve this data capture. There has not been a statistically significant reduction in the total number for ACAS RAs over the five year period 2008-2012. However, the number of level busts has significantly reduced over this five year period, and continues to reduce to less than 60% of those experienced in 2008.</p> <p>Work continues to focus on initiatives to ensure correct responses to ACAS warnings to reduce the risk of mid-air collisions. ACAS guidance material has been published to improve responses to RAs. Work is also underway on reducing AIRPROX in the Visual Circuit and in Class G Airspace. Key Performance Metric improvements will support measure of the reduction of collision risk.</p> <p>A new Airborne Conflict Action Group (ACAG) is acting as a coordinating body for the work being done to minimise airborne conflict for all types of air operations within and outside of UK airspace. The ACAG has been formed to identify current potential hazards, establish on-going activities to mitigate the hazards and to develop new initiatives where key hazards are not being adequately mitigated.</p>	Partially implemented

Summary	<p>Most States reported several high-risk events in the past five years. One State (FR) reported that while high-risk en-route events are exceptional, some events have been reported around busy airports. One of the tools that they used to control the risk in these cases is to limit the maximum allowed traffic rate. Several States (FR, LT, SW) also follow-up the risk outside of controlled airspace due to the mixed VRF/IFR traffic</p> <p>The majority of States are addressing MAC at national level. Some examples: 4 States (BU, IR, SP and IT) include specific actions in Safety Plans, 1 State (FI) in SSPs. The French ANSP has set up a specific action plan to prevent MAC. The use of ground based safety nets plays a key role in managing the risk (e.g. STCA, APW). Other States focus on specific contributing factors like prolonged loss of communication (BE) or an increase in the number of ATCOs (LT). One State (IC) encourages service providers to evaluate risk factors and then monitors compliance through oversight activities. In the UK a new Airborne Conflict Action Group (ACAG) is acting as a coordinating body for the work being done to minimise airborne conflict for all types of air operations within and outside of UK airspace. The ACAG has been formed to identify current potential hazards, establish on-going activities to mitigate the hazards and to develop new initiatives where key hazards are not being adequately mitigated.</p> <p>3 States (LT, LI, ML) have plans to address the issue in the future.</p> <p>State level SPI have been identified and are being monitored in the majority of States. One State (FI) has established safety performance indicators and targets for all aviation stakeholders involved. The achievement of this targets is monitored during the oversight process.</p> <p>Among the occurrences being monitored by States due to the potential to lead to a MAC are:</p> <ul style="list-style-type: none"> • Coordination between or within ATC facilities (missing, non-standard phraseology etc.) • Deviation from clearances (incl. Level Bust, ROC/ROD/spd instructions, lateral deviations) • Communications between ATC and aircraft (readback/hearback, misunderstandings, non-standard phraseology, loss of communication) • Airspace Infringements • ACAS RAs: all genuine RAs and proportion involving incorrect pilot response • Separation minima infringements/risk-bearing airprox • ATCO human errors 	<p>AER2.8</p> <table border="1"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AER2.8</td> <td>0</td> <td>3</td> <td>12</td> <td>3</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER2.8	0	3	12	3
		Not planned/not applicable	Planned	Partially implemented	Implemented							
AER2.8	0	3	12	3								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
3. Controlled Flight Into Terrain (CFIT)						
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

Guidance	<p>One of the operational scenarios that precedes a CFIT is a loss of separation with terrain, water or obstacles (e.g. scenarios in which the Ground Proximity Warning System alert is triggered). Has your State been exposed to this type of scenarios in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>Examples of measures:</p> <ul style="list-style-type: none"> • (E)GPWS warnings (by mode and whether genuine, nuisance or false). • Unstable/de-stabilised approaches: all and proportion that continue to landing. • Significant deviation below glideslope events. • Gross position error events. • Deviation below minimum safety altitude events/MSAW alerts. <p>Based on specific actions being undertaken:</p> <ul style="list-style-type: none"> • Proportion of relevant fleet approved for APV-type approaches • Proportion of approaches flown by operators, which have some form of vertical guidance. <p>Are you measuring any of the above? Have you implemented other measures related to CFIT?</p>
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Implementation Reports

State	State's update	Status of the action
Belgium (BE)	<p>The Belgian CAA is measuring the main factors contributing to CFIT but has not yet implemented specific measures.</p> <p>Reported Occurrences:</p> <ul style="list-style-type: none"> • (E)GPWS warnings genuine 2010:92, 2011:91, 2012:62 • (E)GPWS warnings nuisance 2010:14, 2011:11, 2012:18 • Unstable/de-stabilised approaches: all 2010:42, 2011:71, 2012:52 and proportion that continue to landing. 2010:13, 2011:41, 2012:26 <p>None of these events were considered high-risk events.</p>	Planned
Bulgaria (BU)	<p>Potential consequences of a CFIT are serious. Prevention and mitigation of these events is a part of continuous oversight activities. European Action Plan for the Prevention of CFIT being adopted and implemented.</p>	Partially implemented
Croatia (CR)	<p>CCAA is measuring CFIT since 2012. Until June 2013 we had 30 occurrences related to CFIT. We did not consider any of these events high risk event. Mechanisms to mitigate risks have been established on a case-by-case basis. Implementation and effectiveness of mitigating measures are monitored by assigned inspectors and for overall overview by CCAA Safety Board- trend monitoring.</p> <p>According to Croatian SSP hazardous conditions are: - Fatigue and disorientation pilots; - Misunderstanding in communication with the controller; - The impact of weather conditions (eg. rain, turbulence or icing) - Unclear approach procedures; - ICAO Aerodrome Obstacle Charts type "B" and the Aerodrome Terrain and Obstacle Chart not published; - Unstabilized approach, etc.</p> <p>No operators approved for APV- type approaches.</p>	Partially implemented
Finland (FI)	<p>There has been some cases where the separation between an aircraft and an obstacle has been lost. One high risk event occurred only last year, where a foreign commercial operator descended very significantly below glideslope. Main factors in this case were problems and misunderstandings in the pilot's actions.</p> <p>Among others, CFIT and losses of separation are part of Finnish SSP as Safety performance indicators, for which targets are set for all aviation operators to assess the risk of each SPI in their operations and conduct appropriate mitigating actions. The achievement of these targets is monitored during the oversight process. Relating to CFIT, Finland also monitors the number of GPWS warnings, unstable approaches, navigation errors, incorrect pressure settings and reported errors in aviation charts as safety performance indicators.</p>	Implemented
France (FR)	<p>Numerous report on precursors of CFIT are made available to DGAC (order of magnitude 2 GPWS warning each week and 4 MSAW alerts each week). However the risk involved is often very low since VMC conditions were present.</p> <p>CFIT is addressed through the non stabilised approach action plan launched since 2006. The non stabilised approach is still considered at the highest level in the French SSP portfolio. Local indicators for GPWS alerts (airlines) and MSAW alerts (ANSP) are used but no national SPI is anticipated in 2013. See answer to issue SYS3.11 for discussion on the use of FDM data at SSP level.</p> <p>Thus only tier 3 SPI are available on this matter.</p> <p>It appears that the ultimate way to minimize non stabilised approaches is to work on the flight conditions when approaching the Final approach point. This leads DGAC to develop an action plan to monitor and control so called ANC ("non-compliant approach"), see EAPPRE pages 37-38 (appendix C).</p> <p>The ANC action plan is also a tool to minimize RE and LOC-I events.</p>	Partially implemented
Iceland (IC)	<p>ICAA has been following and supporting the ALAR (Approach and Landing Accidents Reduction) at the operators lever. ALAR is addressing CFIT, LOC, landing overrun, Runway excursion and Unstabilised approach etc. As the most common types of Approach and landing Accidents.</p>	Implemented
Ireland (IR)	<p>The IAA State Safety Plan 2013-2016 action item FOD.003 addresses CFIT.</p> <p>The IAA occurrence reporting database shows that 50 reports of CFIT event have been reported in the past three years. 17 of these events were categorised as high risk (ie ARMS Score >10). The main causal factor for these events were EGPWS warnings (Sink Rate or Terrain warnings), with a small number of large G/S deviations (in blustery conditions). Ongoing work includes the further development of precursor identifiers in the risk assessment process to facilitate better safety analysis of the causal factors for CFIT events.</p> <p>The IAA plan to introduce APV approaches for all current NPA approaches in the next few years. Most of the large transport fleet in Ireland are APV capable although formal approval for APV approaches is not yet completed for all main operators.</p> <p>The IAA currently does not have data on the ratio of APV approaches flown by Irish operators.</p>	Partially implemented
Italy (IT)	<p>CFIT is included in ENAC Safety Plan 2012-2015 as action TOP 1.3.1.</p> <p>The safety action is to determine national CFIT indicators and a measuring plan.</p> <p>The report is completed and should be published in a short time.</p>	Implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Latvia (LT)	<p>Currently, both general aviation CFIT events (2004-2012 august) have occurred in uncontrolled Class G airspace. Guidance on development of safety improvement action plan APP 3.1, from 13.07.2012, was developed to manage safety in flight operations area.</p> <p>During the implementation of the safety oversight programme operations inspectors were guided on the consideration the risk factors such as:</p> <ul style="list-style-type: none"> - Fatigue and disorientation. - Misunderstanding in communication with controllers. - Weather related (e.g. rain, turbulence or icing). - Unclear approach procedures. <p>Operators have been asked to perform appropriate activities to identify the existing defences to control safety risks and further actions to reduce safety risks. Indicators relevant for the prevention of Loss of Control in Flight and indicators of the severity are to be established. Such as weather conditions (OAT, Wind speed and direction, visibility), UTC time, clearance (visual approach or IFR) should be included in FDM data summaries on a regular basis, to provide information for further identification of potentially safety trends.</p>	Planned
Lithuania (LI)	The State did not expose these type of scenarios in the past 5 years.	Planned
Luxembourg (LU)	CFIT is not a significant concern by number and severity of occurrences.	Planned
Malta (ML)	NIL Incidents	Not applicable
The Netherlands (NL)	<p>CFIT is not an indicated risks in the Netherlands.</p> <p>There have been accidents and events, mainly related to general aviation.</p> <p>GA will be addressed.</p>	Planned
Portugal (PO)		Planned
Spain (SP)	<p>CFIT has not been identified as a major concern in Spain, however in order to be aligned with EASp, we have included CFIT in Spain's risk portfolio or in Spanish Safety Plan. AESA has analysed the CFIT occurrences in Spanish territory that are registered in our Spanish MORS during 2009-2012 period. The main conclusions of this analysis are:</p> <ul style="list-style-type: none"> • There are 12 CFITs in Spain territory in 2009-2012 period. 9 are accidents, 1 is serious incident and 1 is major incident. • In 8 CFITs, the MTOW < 2.250 Kg • In 2 CFITs, the 2.250 kg < MTOW < 5.700 Kg. • In 1 CFITs, the 5.700Kg < MTOW < 27.000 Kg • In 1 CFITs, the 27.000 kg < MTOW <p>Has your State been exposed to this type of scenarios in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>In addition to that, we have measured the next CFIT-related occurrences:</p> <ul style="list-style-type: none"> • (E)GPWS warnings (by mode and whether genuine, nuisance or false). The reported ground proximity occurrences are: 57 in 2009, 202 in 2010, 234 in 2011, 264 in 2012 and 211 in 2013 (6 months period) • Unstable/de-stabilised approaches: all and proportion that continue to landing. Please see previous answer. • Regarding the deviation from flight path, the reported occurrences are: 8 in 2009, 16 in 2010, 9 in 2011, 12 in 2012 and 4 in 2013 (6 months period). <p>AESA plans to monitor CFIT each 6 months</p>	Partially implemented
Sweden (SE)	No special activities regarding this has taken place. However a session of the AOC NPH-meeting will be held where the accident investigator for a recent military CFIT accident will give information.	Planned
Switzerland (SW)	<p>Occurrences: 2009-2013</p> <p>Collision with terrain: 11, 10 high risk</p> <p>Near Collision: 13, 4 high risk</p>	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
United Kingdom (UK)	<p>Safety improvement activities to mitigate the risk of CFIT will focus on the following areas:</p> <ul style="list-style-type: none"> Risk associated to non-precision approaches. <ul style="list-style-type: none"> examples of UK CAA actions to mitigate this are Global Navigation Satellite System (GNSS) approaches or overlay procedures. Loss of situational awareness. <ul style="list-style-type: none"> examples of UK CAA actions to mitigate this are minimum safe altitude (MSA) minimum safe altitude awareness campaign Mis-setting of altimeters. <ul style="list-style-type: none"> examples of UK CAA actions to mitigate this are awareness campaigns and the NATS BAT tool (Barometric Altimeter Tool). Latest Standards of Enhanced Ground Proximity Warning System (EGPWS) and Standard Operating Procedures (SOPs) to check QNH when radio altimeter alive. Unstable approaches. <ul style="list-style-type: none"> example of UK CAA actions to mitigate this are airline SOPs minimum stabilisation height (rate of decent, speed and configuration profile). <p>CFIT mitigation actions will be tracked using the following key performance metrics:</p> <ul style="list-style-type: none"> Reported EGPWS alerts. Unstable/de-stabilised approaches. Significant deviation below glide slope events. Gross position error events. Deviation below minimum safety altitude events. Proportion of UK aircraft operators to have implemented and actively monitored CFIT precursor measures. Number of APV-type approaches published in the UK Aeronautical Information Publication (AIP) compared with traditional NPAs. Number of APV-type approaches at EU and third-country aerodromes, which are UK operator destinations. Proportion of relevant UK fleet approved for APV-type approaches. Proportion of approaches flown by UK operators, which have some form of vertical guidance. 	Partially implemented

Summary	<p>Many States reported that the precursor events monitored in the last 5 years were not considered high-risk events. However, one State (FI) reported that one high risk event occurred only last year, where a foreign commercial operator descended very significantly below glideslope. Main factors in this case were problems and misunderstandings in the pilot's actions. One State (IR) reported that 17 of these events were considered high-risk in the past 3 years. One State (SW) reported 10 high-risk collisions with terrain and 4 high-risk near collision events. One State (FR) reported an order of magnitude of 2 GPWS warning each week and 4 MSAW alerts each week, most of them in VMC conditions.</p> <p>11 States are taking measures to address CFIT at national level. 3 States (IR, SP, UK and IT) identify these in Safety Plans, 2 States (FI and FR) in SSPs, 2 States (BE, CR) are measuring precursors and establishing mitigating measures on a case-by-case basis. Two States (BU, LT) mitigate the risk through oversight activities. One State (IC) has been following and supporting the ALAR (Approach and Landing Accidents Reduction) at the operators lever. ALAR is addressing CFIT, LOC, landing overrun, Runway excursion and Unstabilised approach as the most common types of Approach and landing Accidents.</p> <p>In the majority of cases States have established safety performance indicators. One State (FI) has also established targets for all aviation stakeholders The achievement of this targets is monitored during the oversight process.</p> <p>As a means to mitigate the risk APV approaches are being introduced in one State (IR). One State (FR) suggests to work on the flight conditions when reaching the final approach point in order to minimise non stabilised approaches. This has lead them to develop an action plan to monitor and control "non-compliant approaches" [see EAPPRE pages 37-38 (appendix C)].</p> <p>5 States (LT, LU, ML, NL) have reported no exposure to these type of scenarios in the past five years.</p> <p>Among the occurrences being monitored by States due to the potential to lead to a CFIT are:</p> <ul style="list-style-type: none"> Fatigue and disorientation of pilots; Misunderstanding in communication with the controller; Weather conditions (eg. rain, turbulence or icing) Unclear approach procedures; Reported errors in aviation charts (e.g. ICAO Aerodrome Obstacle Charts type "B" and Aerodrome Terrain and Obstacle Chart not published) Unstabilised approach Navigation errors GPWS warnings (Operators - Sink Rate or Terrain warnings) MSAW alerts (ANSP) Incorrect pressure settings/Mis-setting of altimeters. Large G/S deviations Risk factors associated to non-precision approaches Loss of situational awareness 	AER3.4																			
		<table border="1"> <thead> <tr> <th>Implementation Status</th> <th>Number of States</th> </tr> </thead> <tbody> <tr> <td>Implemented</td> <td>3</td> </tr> <tr> <td>Partially implemented</td> <td>7</td> </tr> <tr> <td>Planned</td> <td>7</td> </tr> <tr> <td>Not planned/not applicable</td> <td>1</td> </tr> </tbody> </table>	Implementation Status	Number of States	Implemented	3	Partially implemented	7	Planned	7	Not planned/not applicable	1	<table border="1"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AER3.4</td> <td>1</td> <td>7</td> <td>7</td> <td>3</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER3.4	1	7
Implementation Status	Number of States																				
Implemented	3																				
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AER3.4	1	7	7	3																	

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Date	Type	Deliverable (Measure)
4. Loss of Control In Flight (LOC-I)						
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

Guidance	<p>Some of the operational scenarios that precede a LOC-I are deviations from the flight path, unusual aircraft attitudes (e.g. stall, angle of attack/speed outside limits). Has your State been exposed to this type of scenarios in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>Examples of measures:</p> <ul style="list-style-type: none"> • Loss of control events (e.g. number of occurrence reports). • Stick-shake and alpha floor events. • Take-off configuration warnings. • Low speed during approach events. • Low speed during cruise events. • Number of occurrence reports related to loading events. <p>Are you measuring any of the above? Have you implemented other measures related to LOC-I?</p>
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Implementation Reports

State	State's update	Status of the action
Belgium (BE)	<p>The BCAA considers to take risk mitigation actions against unstabilized approaches and to implement recommendations from the new European Action Plan for the prevention of Runway Excursions. These actions will be published in one of the future updates of the safety plan. Mechanisms to address corresponding actions are described in the BCAA Safety Policy and in a number of detailed risk management processes and procedures.</p> <p>Reported occurrences:</p> <ul style="list-style-type: none"> • Deviations from the flight path 2010:8, 2011:15 2012:22 • Stall 2010:2, 2011:0, 2012:1 <p>All of the stall events are considered high risk events.</p> <p>The Belgian CAA is measuring the main factors contributing to LOC-I.</p> <p>Implementation of other measures related to LOC-I are:</p> <ul style="list-style-type: none"> • Annual investigation of the reliability of flight controls for commercial aircraft (among others improved de-icing and greasing procedures); • The prevention of collision with animals (bird and wildlife strikes); • Mitigating measures against targeting of aircraft with laser. 	Partially implemented
Bulgaria (BU)	<p>LOC-I is included in Bulgarian SSPlan 2012-2015. The risk was identified through review of EASA/ECAST analysis and EASP. As part of mitigation actions Bulgarian CAA will perform detailed safety oversight analysis.</p>	Partially implemented
Croatia (CR)	<p>CCAA is measuring LOC since 2012. Until June 2013 we had 85 occurrences related to LOC. We did not consider any of these events high risk event. Mechanisms to mitigate risks have been established on a case-by-case basis. Implementation and effectiveness of mitigating measures are monitored by assigned inspectors and for overall overview by CCAA Safety Board- trend monitoring.</p> <p>According to Croatian SSP hazardous conditions are:- Dangerous weather conditions (icing, wind shear, turbulence, lightning strike, etc.) that can cause damage to the aircraft or loss / malfunction of any essential function;- Defective aircraft associated with the flight controls and operating groups- Mismanagement of automated aircraft (FCU, EFIS, ECAM etc.)- Deviations from the planned Flightpath, etc</p>	Partially implemented
Finland (FI)	<p>There has been ca 20 cases during the last five years relating to deviation from flight path. Two of these were classified as serious incidents and they both involved a foreign operator which descended below vertical flight path during approach. Main factors contributing were an unserviceable ILS system and flight crew errors. There has only been a few unusual aircraft attitude events in CAT, none of which were categorised as serious incidents.</p> <p>Among others, LOC-I events are part of Finnish SSP as safety performance indicators, for which targets are set for all aviation operators to assess the risk of each SPI in their operations and conduct appropriate mitigating actions. The achievement of these targets is monitored during the oversight process. Relating to LOC-I, Finland also measures level busts, TCAS Ras, Airspace infringements and separation minima events, laser interference, wake turbulence events, fire and smoke events in aircraft, de-icing and anti-icing flaws, ground handling errors, aircraft flight control system faults and approx-cases as safety performance indicators.</p>	Implemented
France (FR)	<p>There are numerous reported events which are related to the examples given ; (order of magnitude : several low speed events every week, one alpha floor or stick shaker event every month). However, no aggregated safety indicator has been set up in this domain for the time being.</p> <p>Note that amongst LOC-I precursors which might be under-estimated there is the mismanagement of a go-around (several precursors available in France during the last five years, with scenario comparable to the A330 accident in Tripoli) ; see also the french AIB study : http://www.bea.aero/etudes/parg/parg.php</p> <p>LOC-I is identified in the national Safety Plan as needing actions. Abnormal position of the aircraft (attitude, bank angle, configuration, speed...) is considered as the major undesirable event leading to LOC-I.</p> <p>The SSP action plan includes several items related to LOC-I, including the follow-up of AF447 accident and other incidents. Amongst these actions, DGAC has recently published a Safety information bulletin on this subject : http://www.developpement-durable.gouv.fr/IMG/pdf/IS2013_05_prevention_pertes_controle.pdf</p> <p>A leaflet related to stall recovery has also been produced http://www.developpement-durable.gouv.fr/IMG/pdf/de_crochage-livret-web.pdf</p> <p>This information material aimed specifically at French operators, give a greater emphasis to safety precautions and good practices that have discussed and agreed in international or European fora.</p>	Partially implemented
Iceland (IC)	<p>ICAA has been following and supporting the ALAR (Approach and Landing Accidents Reduction) at the operators lever. ALAR is addressing CFIT, LOC, landing overrun, Runway excursion and Unstabilised approach etc. As the most common types of Approach and landing Accidents. Currently alot of emphasis on high altitude, high speed stalls following AF 447 . .</p>	Implemented
Ireland (IR)	<p>The IAA State Safety Plan 2013-2016 action item FOD.001 addresses LOC-I.</p> <p>The IAA has received reports of 450 LOC-I events over the past three years of which 19 events (ie ~4%) were classified as higher risk (ARMS >10). The vast majority of the reports concern momentary airspeed limitation exceedences typically in turbulent conditions. The small number of higher risk events typically related to speed exceedences to such an extent that stick shaker activation ensued.</p> <p>As part of mitigation actions IAA will perform detailed safety oversight analysis of mitigating measures adopted by each airline in Ireland. Ongoing work includes the further development of precursor identifiers in the risk assessment process to facilitate better safety analysis of the causal factors for LOC-I events.</p> <p>The IAA participates in EASA initiatives to improve understanding of LOC-I and possible mitigating actions and implement EASA endorsed initiatives, such as ICATEE revising and promoting upset recovery guidance material.</p>	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Italy (IT)	LOC-I has been included in ENAC Safety Plan 2012-2015 as action TOP 1.4.1. The action is: to determine national LOC-I indicators and a measuring plan. The LOC-I report is already completed and should be published by the end of 2013r.	Implemented
Latvia (LT)	In last 5 years - 4 events with stall warning triggered. Operators have been asked to perform appropriate activities to identify the existing defences to control safety risks and further actions to reduce safety risks. Excessive roll angle or roll rate, stall protection trigger, excessive speed or excessive vertical speed, insufficient energy at high altitude, low go-around /rejected landing, including indicators of severity should be specified in FDM summaries for further safety trends identification.	Implemented
Lithuania (LI)	The State did not expose these type of scenarios in the past 5 years.	Planned
Luxemburg (LU)	LOC-I is not a significant concern by number and severity of occurrences. Among potential causes, weight and balance issues have been identified as a risk.	Planned
Malta (ML)	NIL incidents	Not applicable
The Netherlands (NL)	LOC-I is not an indicated risks in the Netherlands. There have been accidents and events, mainly related to general aviation. GA will be addressed.	Planned
Portugal (PO)		Planned
Spain (SP)	Spain is monitoring laser interference due to the increasing number of occurrence received.	Partially implemented
Sweden (SE)	The subject will be brought up at industry seminars during this year.	Planned
Switzerland (SW)	Yes - Switzerland has been exposed to operational scenarios that precede a LOC-I in the past 5 years. Due to the low number of events, specific trends are difficult to identify. Single events are investigated by the responsible safety division within FOCA. Occurrences: 2009-2013 Deviation from altitude: 5, 1 high risk Deviation from approach: 20, 6 high risk Deviation flight level/altitude: 326, 26 high risk Stall:0 During inspections, focus was also set on emergency training and the related procedures (e.g. a/r training, night training). Amended authorisations for off airport landings, especially authorisation for landings above 1100 AMSL (off load of PAX in hover flight, dimensions of landing sites, clearance of obstacles).	Partially implemented

Implementation Reports		
State	State's update	Status of the action
United Kingdom (UK)	<p>The UK CAA safety improvement activities to mitigate the risk of Loss of Control focuses on the following areas:</p> <ul style="list-style-type: none"> • Training and assessment of pilot monitoring skills. • The understanding and appropriate use of aircraft automation. • Instructor and Examiner standardisation. • Maintenance and competence of manual flying skills. <p>Loss of Control mitigation actions will be tracked using the following key performance metrics:</p> <ul style="list-style-type: none"> • Loss of control events. • Stick-shake and alpha floor events. • Take-off configuration warning events. • Low speed during approach events. • Low speed during cruise events. • Proportion of UK aircraft operators to have implemented, embedded and actively monitored Loss of Control precursor measures. • Proportion of UK AOC holders to have implemented and firmly embedded within their recurrent training programs pilot monitoring skills training as detailed in CAA document 'Monitoring Matters'. • Proportion of pilots employed by UK AOC holders that have received initial and recurrent pilot monitoring skills training as detailed in CAA document 'Monitoring Matters'. 	Partially implemented

Summary	<p>Many States reported exposure to operational scenarios that precede LOC-I in the past 5 years, some of them leading to high-risk events. One State (IR) reported that 19 out of 450 of these events were considered high-risk in the past 3 years. The vast majority of the reports concern momentary airspeed limitation exceedences typically in turbulent conditions. The small number of higher risk events typically related to speed exceedences to such an extent that stick shaker activation ensued.</p> <p>12 States are taking measures to address LOC-I at national level. 4 States (BU, IR, UK and IT) identify these in Safety Plans, 2 States (FI and FR) in SSPs. One State (FR) includes several items related to LOC-I in the SSP including a leaflet related to stall recovery. 4 States (BE, CR, LT, SW, SP) are measuring precursors and establishing mitigating measures on a case-by-case basis. One State (IC) has been following and supporting the ALAR (Approach and Landing Accidents Reduction) at the operators lever. ALAR is addresses CFIT, LOC, landing overrun, Runway excursion and Unstabilised approach as the most common types of Approach and landing Accidents.</p> <p>In the majority of cases States have established safety performance indicators. One State (FI) has also established targets for all aviation stakeholders. The achievement of this targets is monitored during the oversight process.</p> <p>4 States (LI, LU, ML, NL) have reported no significant exposure to these type of scenarios in the past years due to the low number of events registered</p> <p>Among the occurrences being monitored by States due to the potential to lead to a LOC-I are:</p> <ul style="list-style-type: none"> - Unstabilised approaches - Laser interference - Wake turbulence events - Fire and smoke events in aircraft - De-icing and anti-icing flaws - Ground handling errors (e.g. weight and balance) - Aircraft flight control system faults - Mismanagement of a go-around - Abnormal state of the aircraft (attitude, bank angle, configuration, speed, etc) - Dangerous weather conditions (icing, wind shear, turbulence, lightning strike, etc.) that can cause damage to the aircraft or loss / malfunction of any essential function; - Mismanagement of automation (FCU, EFIS, ECAM etc.) - Deviations from the planned flight path, <p>One State (LT) referred to the need for operators to develop FDM summaries to monitor the above.</p>	<p style="text-align: center;">AER4.6</p> <table border="1" style="margin-top: 10px;"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AER4.6</td> <td>1</td> <td>5</td> <td>8</td> <td>4</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER4.6	1	5	8	4
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AER4.6	1	5	8	4								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
6. Ground Collision						
<i>Runway Incursions</i>						
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.	SP	Audit plan included in SSPs. Progress Report.

Guidance	<p>Are local runway safety teams (LRST) set up at the certified airports in your State? Is their effectiveness being monitored as part of the safety oversight scheme of the CAA? If so, briefly describe how.</p> <p>Example of Measure: What is the proportion of certified aerodromes with a Local Runway Safety Team (LRST) that have been audited for success?</p> <p>Are you measuring the above?</p> <p>Good practices: - Oversight audits to require that LRSTs implement the actions of EAPRR1 2, - Require (some) non-certified aerodromes to also set up a LRST.</p> <p>States report on progress to Eurocontrol, within the European/Local Single Sky Implementation (ESSIP/LSSIP) process at the following website http://www.eurocontrol.int/articles/essip-report.</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	Local Runway Safety Teams are in place at the Belgian certified airports. The SMS audits performed by the BCAA verify their existence and effectiveness. The BCAA is an active member of those teams. All the 6 certified aerodromes with a LRST have been audited for success. Good practices: The BCAA Airports Department already organizes audits on the six certified aerodromes to check their compliance with the EAPRR12 aerodrome operator recommendations.	Implemented
Bulgaria (BU)	LRST's are set up in certified airports. Oversight audits to require that LRST's implement the actions of EAPRR1 2.	Partially implemented
Croatia (CR)	Local runway safety teams are set up at certified airports in Croatia, and they are monitored through regular oversight audits.	Partially implemented
Finland (FI)	There is a named LRST at Helsinki-Vantaa airport, and other airports have a similar function established. CAA monitors the functioning of these teams as part of safety oversight and they have all been audited within the last two years.	Implemented
France (FR)	Completed in 2012 with the following status : A local safety team -including runway safety- is required for any certified airport. This point has already been audited in the framework of the initial certification of each airport. Its effectiveness is not formally monitored, but is examined through the oversight of the incident management process of the airport as well as of the ANSP. In addition, some non certified airports have set up a local safety team.	Implemented
Iceland (IC)	Runway safety team is already an item in ICAA's main checklist for airport auditing. The runway safety team is active at BIKF and was established for BIRK, BIAR and BIEG few years ago but activity has been lower. Is being enforced.	Partially implemented
Ireland (IR)	Local Runway Safety teams have been set up at all certified airports in Ireland which come under the EASA certification applicability criteria, 10 in total. All the above 10 airports have been audited in relation to the operation of the LRST, i.e. 100%. Each airport is audited on a yearly basis, including the operation of the LRST, implementation of EAPRR1 2 and the effectiveness of the LRST including follow-up on any reported runway incursions and measures put in place to prevent re-occurrence.	Implemented
Italy (IT)	The establishment of Local Runway Safety teams is required by ENAC Circular APT-30. Measure of effectiveness of LRST is not yet part of the oversight activities.	Partially implemented
Latvia (LT)	SSP is not implemented yet. The LRST is set up at the IFR/VFR airport "Riga". Inspection plan includes verification whether the LRST is in place. Meetings are regular and are also attended by CAA.	Implemented
Lithuania (LI)	The LRST are established at all 4 certified aerodromes in Lithuania (International Airports). Their effectiveness is monitored during inspections also during participation of the CAA's inspectors in the LRST meetings. There is one LRST of four which have been audited for success.	Planned

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Luxembourg (LU)	An LRST (GT-SAM) is set up at Luxembourg airport with DAC as a member. Auditing of the GT-SAM by DAC is not planned as it would be inconsistent with the current setup.	Implemented
Malta (ML)	Aerodromes: The airport operator has been advised to set up the Local Runway Safety Team according to the established terms of reference. Operator agreed and is in the process of setting up this group.	Planned
The Netherlands (NL)	RST Amsterdam Airport is completed. Reports have been submitted to ESSIP/LSSIP. In other airports the RST activities are addressed in the management system of the airport.	Implemented
Portugal (PO)		Planned
Spain (SP)	In Spain, local runway safety teams (LRST) were established at certified airports. Their effectiveness is being monitored via Spanish Annual Safety Oversight Plan and also via the trend of the occurrences related to runway safety (mainly runway incursions and runway excursions). Oversight audits require to implement the actions of EAPRR1 version 2 and EAPPRE in airport domain. Moreover, non-private airports (including non-certificated airports) have to set up a Local Safety Team. These Local Safety Team includes the LRST functions. States report on progress to Eurocontrol, within the European/Local Single Sky Implementation (ESSIP/LSSIP) process at the following website http://www.eurocontrol.int/articles/essip-report .	Implemented
Sweden (SE)	Sweden has 48 certified instrument aerodromes. In every aerodrome a LRST are established. During the oversight of the aerodromes the implementation and effectiveness of the LRST are reviewed. During the review we check that all representatives from the three main groups associated with manoeuvring area operations (Aerodrome Operator, ANSP, aircraft operators/local pilot associations) are a part of the LRST. We also check the frequency of the meetings, the documentations and actions taken from the meetings.	Implemented
Switzerland (SW)	RST are established at certified airports and activities are monitored by the FOCA. - LRST are required for all certified aerodromes. Currently certified aerodromes include Zürich, Geneva, Lugano, Bern, Sion, St.Gallen-Altenrhein, Les Eplatures, Samedan. Aerodromes which are still in the certification process include Grenchen, Lausanne, Birrfeld, Bressaucourt, Ecuwillens. - FOCA is member of every LRST (observer role) in order to provide regulatory support and monitor effectiveness	Partially implemented
United Kingdom (UK)	The UK CAA has included a runway incursion awareness chapter to its Licensing of Aerodromes publication. This chapter provides information about EAPRR1 2 and recommends that airports form Local Runway Safety Teams. The Aerodrome Oversight Inspectors have visited all the larger UK aerodromes and observed how the recommendations have been implemented. The UK CAA does not believe that it can audit an LRST for success and so chooses to promote the recommendations during its oversight.	Implemented

Summary	<p>LRST have been set up at the certified aerodromes in 15 States (BE, BU, CR, FI, FR, IC, IR, LT, LI, LU, SP, SE, SW, NL, UK) . 11 States (BE, CR, FI, FR, IC, IR, LI, SP, SE, SW, UK) verify their effectiveness on a regular basis. One State (FR) does not formally monitor effectiveness, but examines it through the oversight of the incident management process of the airport as well as of the ANSP. One State (SP) monitors the effectiveness of LRST via Annual Safety Oversight Plan and also via the trend of the occurrences related to runway safety (mainly runway incursions and runway excursions). One State (SE) checks that all representatives from the three main groups associated with manoeuvring area operations (Aerodrome Operator, ANSP, aircraft operators/local pilot associations) are a part of the LRST, the frequency of the meetings, the documentations and actions taken from the meetings.</p> <p>In various cases States are active members of LRST in order to provide regulatory support and monitor effectiveness.</p> <p>In one State (IT) the establishment of LRST is a requirement. Measure of effectiveness is not yet part of oversight activities. In one State (ML) the aerodrome operator is in the process of setting up a LRST.</p> <p>In 3 States (IR, SP, UK) oversight audits require that LRST's implement the actions of EAPRR1 2. This will be required in the future in BU.</p> <p>In FR and SP some non-certified aerodromes have set up a local runway safety team.</p>	<div style="text-align: center;"> <h3>AERS.1</h3> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AERS.1</td> <td>0</td> <td>3</td> <td>5</td> <td>10</td> </tr> </tbody> </table> </div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AERS.1	0	3	5	10
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AERS.1	0	3	5	10								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
6. Ground Collision						
<i>Runway Incursions</i>						
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

Guidance	<p>The progress of your State against the European Action Plan for the Prevention of Runway Incursions (EAPPRI) is reported within the European/Local Single Sky Implementation (ESSIP/LSSIP) process at the following website http://www.eurocontrol.int/articles/essip-report.</p> <p>The latest available report includes the activities carried out in 2011. Please indicate whether any progress has been made towards the objective in 2012 and 2013 and what is the expected situation at the end of the year. Please report the completion status (Completed/Partially Completed/Planned/No Plan) in the Authority, ANSP, Airport Operator and the Military when applicable.</p> <p>Example of Measure: What is the proportion of certified aerodromes that have implemented recommendations from and/or audited themselves against EAPPRI2?</p> <p>Are you measuring the above? Have you implemented other measures related to EAPPRI implementation?</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	The implementation of the EAPPRI has been introduced in the Belgian Safety Plan 2010-2014. One of the SPI's measures the proportion of EAPPRI recommendations implemented. In the course of September-October 2013 the BCAA will organize an EAPPRI meeting. The Belgian CAA will then have a complete overview of the EAPPRI recommendations already implemented. All EAPPRI airport related recommendations are already implemented and followed-up.	Partially implemented
Bulgaria (BU)	Runway incursions is one of the risk areas. According to the LSSPI, monitoring of the implementation of these actions are part of continuous oversight process.	Partially implemented
Croatia (CR)	In accordance with Croatian SSP activities related to the implementation of recommendation of EAPPRI will start by the end of this year.	Planned
Finland (FI)	According to the LSSIP, Finland has implemented all the requirements in EAPPRI by the regulator and ANSP in 12/2011. Monitoring of the implementation of these actions are part of continuous oversight process. The "example of measure" mentioned is not specifically measured.	Implemented
France (FR)	The Runway Incursion part of the SSP safety action plan has been established in the framework of EAPPRI (including its second version). The status of the implementation within authorities, ANSP and Military is found in the 2012 french LSSIP (partially completed). As far as aircraft operators and airports are concerned, the way the EAPPRI plan is managed is assessed during SMS audits.	Partially implemented
Iceland (IC)	Work on this started few years ago and continued for airport operators and ANSP. Main actions are planned to be specified by end of year 2012 using the European Action Plan for the Prevention of RWY safety as a reference. The SMS is the key together with safety teams.	Partially implemented
Ireland (IR)	The IAA has implemented seven of the nine recommendations for regulators included in Section 1.7 of the EAPPRI A detailed report on the effective implementation of the EAPPRI2 is being completed by the IAA in 2013 in conjunction with the review of the effectiveness of the Runway Safety Teams.	Partially implemented
Italy (IT)	RI are included in ENAC Safety Plan 2012-2015 (see action TOP 1.5.2). See LSSIP (Italy 2012) for progress made.	Implemented
Latvia (LT)	SSP is not implemented yet. 3 main factors that contributed to the risk were: - Loss of communication and runway incursions - Aerodrome Control Phraseologies-READ-BACK - Familiarisation with the airport is not adequate SOPs should include appropriate procedures that clearly specify the crew working technology on the ground, such as, familiarisation with the airport, briefing, taxiing - navigating on the ground, communication, crossing or entering a runway. SOPs should be supported by the sterile cockpit for safety concept (the taxi phase should be treated as a "critical phase of flight"). Operator's safety manager facilitates hazard identification, risk analysis and management. LV CAA conducts organisation risk profile review and proposes improvement actions.	Planned
Lithuania (LI)	A-SMGCS level 2 (SMR and MLAT) is installed at EYVI - VILNIUS/International and approved by the CAA. The EAPPRI2 is included in the CAA Safety Plan (2013-2016), ref. to http://www.caa.lt/index.php?467881435 Civilinės aviacijos administracijos aviacijos saugos planas 2013-2016 m.:įsakymas, planas, No. 18. The appropriate detailed CAA action plan for Prevention of Runway Incursions will be issued in November 2013. We intend to start to measure the effectiveness of implemented actions from 2014.	Planned

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Implementation Reports		
State	State's update	Status of the action
Luxembourg (LU)	Preventive actions at Luxembourg airport: - some safety recommendations applicable for runway incursion prevention are being implemented, most notably a single frequency for aircraft and vehicles on the runway - access permits for runway and taxiway are only issued after safety training - driving permit will be changed to a "penaltypoints" system with more training	Partially implemented
Malta (ML)	Flight Ops: This process is in the planning stage. Aerodromes: The airport operator has been advised to set up the Local Runway Safety Team according to the established terms of reference. Operator agreed and is in the process of setting up this group.	Planned
The Netherlands (NL)	EAPPRI Amsterdam Airport is completed. Reports have been submitted to ESSIP/LSSIP. In other airports the EAPPRI activities are addressed in the management system of the airport.	Implemented
Portugal (PO)		Planned
Spain (SP)	Spain is implementing the European Action Plan for the Prevention of Runway Incursions. The EAPPRI recommendations will be promoted via safety oversight inspections and dedicated working groups. For details about the progress of Spain against the European Action Plan for the Prevention of Runway Incursions (EAPPRI), please take a look at the reported progress within the European/Local Single Sky Implementation (ESSIP/LSSIP) process at the following website http://www.eurocontrol.int/articles/essip-report . Regarding the proportion of certified aerodromes that have implemented EAPPRI2 recommendations, as mentioned before, in airport domain, AESA decided to require airports to comply with EAPPRI and EAPPRE recommendations.	Partially implemented
Sweden (SE)	The Swedish Transport Agency has published a national action plan, based on EAPPRI, with recommendations to Aerodrome Operator, Air Navigation Service Provider, Aircraft Operator and National Authority. During the oversight shall the actions taken by the different actors been reviewed.	Implemented
Switzerland (SW)	The majority of recommendations in relation to the Authority, are currently part of the surveillance of the aerodrome certification process. Currently have RST at Zurich, Genf, Lugano, Altenrhein, Sion, Bern, Grenchen and Samedan. Project SARPS (Compliance Management for Standards and Recommend Practices) is carried out by certified aerodromes - Based on FOCA initiative the implementation of EAPPRE recommendations is discussed in every local Runway Safety Team for all addressed domains - All EAPPRI 2.0 recommendations to regulators have been addressed by FOCA (all items completed)	Partially implemented
United Kingdom (UK)	The UK CAA continues to monitor runway incursion prevention techniques during its oversight of aerodromes. Inspectors assess the measures applied by the aerodrome and suggest best practise where necessary.	Implemented

Summary	<p>12 States (BE, BU, FI, FR, IC, IT, LI, SP, SE, SW, NL, UK) reported to be implementing the recommendations of EAPPRI in order to mitigate the risk of RI. In various States EAPPRI implementation is part of the Safety Plan (BU, IT, LI) or SSP (FR). One State (SE) has published a national action plan based on EAPPRI. In one State (CR) implementation of EAPPRI is planned to start in the future.</p> <p>7 States (BE, BU, FI, FR, SP, SE, SW) reported to be following-up the implementation of the EAPPRI recommendations on a regular basis through oversight activities. One State (LI) will start in the future.</p> <p>In one States (BE) a dedicated SPI to measure the level of EAPPRI implementation has been created.</p> <p>In various cases all certified airports are required to implement EAPPRI and EAPPRE recommendations. LRST play a key roles in discussing and facilitating implementation.</p>	<h3>AERS.2</h3> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AERS.2</td> <td>0</td> <td>5</td> <td>8</td> <td>5</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AERS.2	0	5	8	5
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AERS.2	0	5	8	5								
ESSIP Report 2012	<p>AOP03 Improve runway safety by preventing runway incursions</p> <p>The overall implementation status at European level reflects the stagnated implementation of European Action Plan for the Prevention of Runway Incursions (EAPPRI) in 2012. Although majority of States report that this objective will be implemented on time, there is a reasonable doubt that this will be achieved as planned (3 States have already reported delays in their implementation and additional 6 still report "planned" although there is less than a year until objective reaches its FOC date).</p> <p>The overall assessment of progress shows that around 30 % of States have implemented the provisions of the Action Plan at their national airports (FI, TR, AT, AZ, SE, PL, BG, DE, CY, IE, MT, DK, EE). Almost 40% of the States have reported the "partially completed" status (CH, HR, ES, FR, AL, LT, LU, LV, CZ, BE, GE, GR, IT, NL, NO, RO, PT, UK, SK). This is because all these States have implemented some of the parts of the Action Plan. Some of the States have even reported "partially completed" status although they have implemented all recommendations appropriate to their local operating environment (e.g. CH). In these cases the objective could have been considered as "completed". Only three (3) States have reported "late" implementation (ME, HU, RS).</p> <p>Comparing to last years, there is a marginal progress in implementation comparing to 2011. However, it should be taken into account that the new version of European Action Plan for the Prevention of Runway Incursions (EAPPRI 2.0) came out in 2011 adding significant number of recommendations to already existing Action Plan. This is the main reason that implementation was hampered and progresses slowly.</p> <p>Link: http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/essip-report-2012.pdf</p>											

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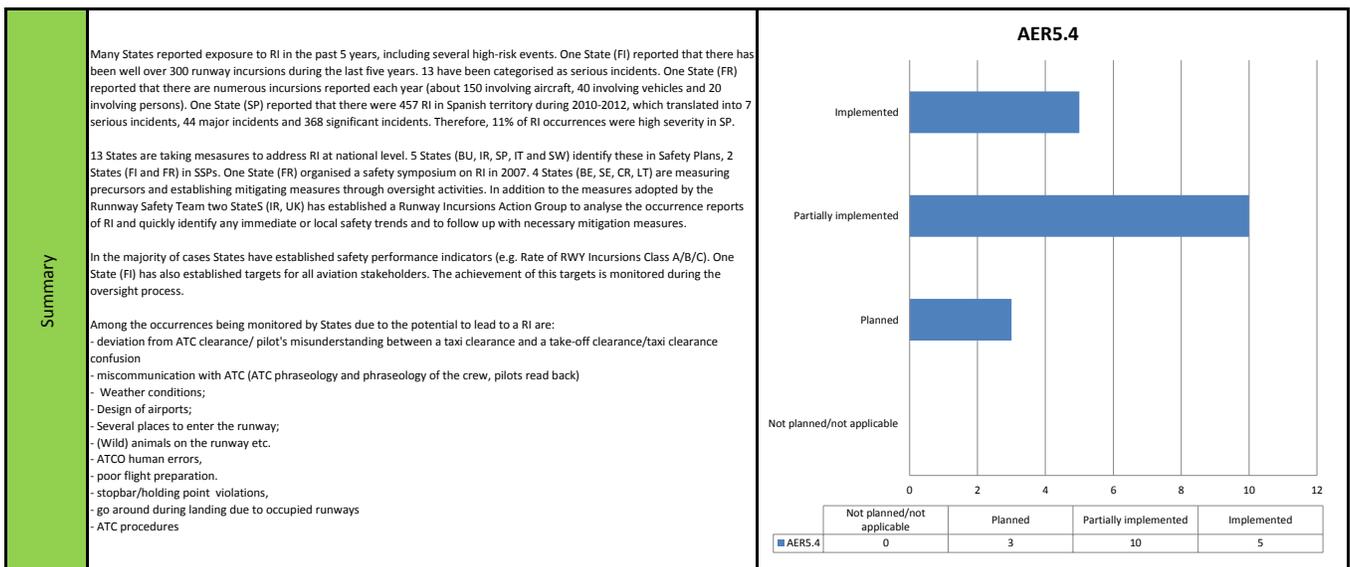
No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
6. Ground Collision						
<i>Runway Incursions</i>						
AER5.4	Include RI in national SSPs.	Runway incursions should be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.	MS	2012 Cont.	SP	SSP Publication

Guidance	<p>Have there been any runway incursions in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>Example of measure:</p> <ul style="list-style-type: none"> Runway incursions at State aerodromes or involving State operators broken down by severity grade. <p>Are you measuring the above? Have you implemented other measures related to RI?</p>
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	<p>Reported Occurrences: RI 2010:29 of which 8 with high risk RI 2011:21 of which 4 with high risk RI 2012:19 of which 3 with high risk</p> <p>The main factors that contributed to the risk are deviation from ATC clearance and miscommunication with ATC.</p> <p>Mechanisms to address corresponding actions are described in the BCAA Safety Policy and in a number of detailed risk management processes and procedures.</p>	Partially implemented
Bulgaria (BU)	Runway Incursions is included in the Bulgarian State Safety Plan 2012 - 2015. Potential consequences of a RI are serious. Prevention and mitigation of these events is a part of continuous oversight process.	Partially implemented
Croatia (CR)	<p>CCAA is measuring RI since 2012. Until June 2013 we had 11 occurrences related to RI. We did not consider any of these events high risk event. Mechanisms to mitigate risks have been established on a case-by-case basis. Implementation and effectiveness of mitigating measures are monitored by assigned inspectors and for overall overview by CCAA Safety Board- trend monitoring.</p> <p>According Croatian SSP hazardous conditions are:</p> <ul style="list-style-type: none"> - Weather conditions; - Design of airports; - ATC phraseology and phraseology of the crew; - More places to enter the runway; - (Wild) animals on the runway etc. 	Planned
Finland (FI)	<p>There has been well over 300 runway incursions during the last five years. 13 have been categorised as serious incidents. Contributing factors have been ATCO human errors, pilot's misunderstanding between a taxi clearance a take-off clearance and poor flight preparation.</p> <p>Among others, runway incursions are part of Finnish SSP as Safety performance indicators, for which targets are set for all aviation operators to assess the risk of each SPI in their operations and conduct appropriate mitigating actions.</p> <p>In 2013 Trafi sent a letter to all holders of any Finnish aviation license (including ATCOs, UPL, GPL as well as PPL, CPL, ATPL etc), which highlighted the severity of potential consequences of runway incursions to draw the attention of aviation community into this issue. So far during 2013 the number of runway incursions has decreased compared to 2012.</p>	Implemented
France (FR)	<p>There are numerous incursions reported each year (about 150 involving aircraft, 40 involving vehicles and 20 involving persons). RI risk is monitored and controlled by the French ANSP or by AFIS providers at non controlled airports.</p> <p>Each runway incursion is analysed, classified and leads to actions if needed.</p> <p>Although aggregated national statistics are published in the annual DGAC safety report, it is considered that relevant conclusions are only possible in checking the data airport by airport.</p> <p>Runway incursions appear within the SSP risk-portfolio as requiring actions at the national level.</p> <p>A DGAC safety symposium on this matter has been organised in 2007; see http://www.developpement-durable.gouv.fr/Securite-les-incursions-sur-piste.html</p> <p>Local runway safety teams are in place at every significant airport.</p>	Implemented
Iceland (IC)	See item AER5.2 / Addressed as relevant in the SSP.	Partially implemented
Ireland (IR)	<p>The IAA State Safety Plan Action Item M.007 addresses Runway Incursions.</p> <p>The IAA Annual Safety Review for 2012 shows that 112 runway incursions were reported in the period 2009 to 2012. 40 of these occurrences (~36%) were considered higher risk (ESARR 2 Severity Level A to C) although thankfully the annual trend for higher risk events during this period is downwards. The main causal factors noted were stopbar/holding point violations, taxi clearance confusion and go around on landing due to occupied runways.</p> <p>In addition to the measures adopted by the Runway Safety Team (ref AER 5.1 and AER 5.2 above) the IAA has established a Runway Incursions Action Group to analyse the occurrence reports of RI and quickly identify any immediate or local safety trends and to follow up with necessary mitigation measures.</p>	Implemented
Italy (IT)	See AER5.2	Implemented
Latvia (LT)	<p>SSP is not implemented yet. In the last 5 years - 14 runway incursions. Annual safety review is published outlining significant safety concerns. Since all of the airports in Latvia (IFR/VFR and VFR), have each one runway, the risk of runway incursions is not high. Currently, one case was reported in 2008 during airport "Riga" runway extension construction, and one case reported in 2012 related to aerodrome security perimeter breach. Planned airport reconstruction activities are very closely coordinated between the airport and the ANSP, including development of the collaborative safety case for reconstruction activities during various stages at airport "Riga". The safety assessment also covers the risk mitigation for RI. Guidance on development of safety improvement action plan APP 3.1, from 13.07.2012, was developed to manage safety in flight operations area. Aircraft Operators are invited to review the materials put in the EAPPRI, and where necessary, amend their Standard Operating Procedures with regard to ground operations. The oversight activities of LV CAA are to be incorporated in LV CAA plan for actions actively supporting and promoting the EAPPRI activities. LV CAA should ensure that to the issue on RI is given a continuous priority in its oversight activities wherever possible by:</p> <ul style="list-style-type: none"> - Conducting a gap analysis to ensure that all recommendations are implemented where possible; - Ensuring that runway safety and the prevention of runway incursions are addressed in regular safety audits; - Ensuring that the recommendations arising from the audits are implemented wherever possible. 	Planned

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Lithuania (LI)	1 RI took place during the past 5 years. The military aircraft had crossed the STOP line and fully stopped. Another aircraft which was on final was directed by the ATC to go around as the military aircraft was standing too close to the RWY. The level of risk C3 according to the ESARR 2. The main factor which contributed to the risk was the miscommunication between the flight crew and the ATC. The preventive action taken: dissemination of lessons learned, improvement of the ATCOs training programme, installation of SMR (implementation of the A-SMGCS). Effectiveness of the implemented preventive actions were verified by the CAA during the annual ongoing oversight activities.	Planned
Luxembourg (LU)	12 safety recommendations have been issued in Dec. 2012 with the final investigation report re. A serious incident, 21.1.2010, aircraft landed on a vehicle in LVP. The recommendations are being reviewed and/or implemented.	Partially implemented
Malta (ML)	ANS: From an ANSP point of view the same investigative process applied to losses of separation is being applied. This process is the same as declared in no 26. Flight Ops: 10 Runway incursions were made by Aircraft during the last five years. Only 2 required intervention from other aircraft (go-around). As previously advised, the operators involved were contacted on individual basis. Aerodromes: Runway incursions have been relatively few and mostly involved light aircraft. The Aerodrome Operator has always investigated and applied mitigating actions where necessary. The airport operator has been advised to set up the Local Runway Safety Team according to the established terms of reference. Operator agreed and is in the process of setting up this group.	Partially implemented
The Netherlands (NL)	All EAPPRI activities have been taken care of.	Implemented
Portugal (PO)	We are measuring the number of RI	Partially implemented
Spain (SP)	RI has been identified as a major concern in Spain, therefore we have included RI in Spain's risk portfolio or in Spanish Aviation Safety Plan. AESA analysed in depth this issue by means of the occurrences registered in our Spanish MORS during 2010-2012 period. The main conclusions are: • There were 457 RI in Spanish territory during 2010-2012. There were 7 serious incidents, 44 major incidents and 368 significant incidents. Therefore, 11% of RI occurrences were high severity. • AESA analysis includes the number and rate of runway incursions at Spanish aerodromes and also the number and rate of runway incursions involving Spanish and foreign operators. • The main factors that contribute to RI were: ATC clearance infringement (80%), ATC procedures (30%) and pilots read back (20%). • Mitigation measures: follow European Action Plan for the Prevention of Runway Incursions' recommendations. We know if EAPPRI's recommendations are being implemented by means of airports on-site inspections. Regarding recommendations effectiveness, we analyse RI trends. AESA plans to monitor RI each 6 months	Partially implemented
Sweden (SE)	Runway incursions are currently measured with a specific SPI and is followed up by the Aviation Safety Analysis Forum at monthly meetings.	Partially implemented
Switzerland (SW)	Occurrences: 2009-2013 RI: 64, 11 high risk - main reason clearance not followed or obtained A national level SPI has been identified for RI and is being monitored (Rate of RWY Incursions Class A/B/C).	Partially implemented
United Kingdom (UK)	Runway incursions have occurred in the UK during the past 5 years. Mandatory Occurrence Reports for these events are investigated by the UK CAA to identify trends and to decide whether national action is necessary. The UK CAA has formed a Runway Incursion Steering Group which is made up of representatives from airports, airlines safety organisations and the UK CAA. This group meets twice a year to discuss runway incursion and to develop ways to reduce its risk. A sub group meets regularly to assess runway incursions by severity and grade. Activities for the group this year have included the standardisation of UK runway radio phraseology with ICAO, the development of leading and lagging indicators to assess the runway incursion prevention measures at aerodromes and the promotion of new technology trials. The work of the group is ongoing and new priorities will be developed in the years ahead.	Partially implemented



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No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
6. Ground Collision						
<i>Safety of Ground Operations</i>						
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

Guidance	<p>Some of the operational scenarios that stem from Ground Operations are for example loading errors, aircraft wing contamination with ice or near collisions between aircraft on the ground. Has your State been exposed to these type of scenarios in the past 5 years? If so, how many occurrences did take place? How many of those were considered high risk events? What are the 3 main factors that contributed to the risk? What mechanisms are in place to address corresponding mitigation actions? How do you know if they are being implemented? How do you know if they are working?</p> <p>Examples of Measures:</p> <ul style="list-style-type: none"> • Normalized number of high risk bearing airside events. • Ramp occurrences broken down by process during which they occurred and their outcome. • Collisions involving vehicles and parked aircraft at MS reporting aerodromes. • Collisions, near-collisions and conflicts involving vehicles and taxiing aircraft at MS reporting aerodromes. • Loading errors: all reported and those resolved before departure. • Late aircraft type changes. • Late turn-arounds or turn-arounds in less than the minimum scheduled time • Dedicated SPI for ground handling services at major airports. <p>Are you measuring the above? Have you implemented other measures related to safety of Ground Operations?</p>					
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Implementation Reports		
State	State's update	Status of the action
Belgium (BE)	<p>The Belgian CAA is measuring the main factors contributing to ground handling occurrences:</p> <ul style="list-style-type: none"> • Collisions involving vehicles and parked aircraft at MS reporting aerodromes: 2010:39, 2011:53, 2012:54 • Collisions moving aircrafts: 2010:1, 2011:0, 2012:0 • Near-collisions and conflicts involving vehicles and taxiing aircraft at MS reporting aerodromes: 2010:5, 2011:10, 2012:3 • Loading errors: 2010:7, 2011:6, 2012:5 <p>There were 4 high risk events for the collision involving vehicles and parked aircraft. There was 1 high risk event for the near collision involving vehicles and taxiing aircraft.</p> <p>The 2012 risk analysis of the reported occurrences confirms that ground operations remain a safety concern in Belgium. The risk analysis has demonstrated that especially problems related to ground handling are common (incorrect loading procedures, near-collisions between aircraft and ground vehicles, filling up fuel without the necessary authorizations etc.). Risk mitigation actions are already introduced in the Belgian Safety Plan 2010-2014. The BCAA will grant a certificate of recognition in the course of 2014 to ground handling service providers and self-handlers when all requirements in the dedicated Ministerial Decrees are met. The BCAA will create a questionnaire for self-handlers to obtain a clear view on their organizational structure, equipment, activities, etc.</p>	Partially implemented
Bulgaria (BU)	<p>Ground operations is a new risk for the Bulgarian SSP. The risk was identified through analysis of occurrence reports.</p>	Planned
Croatia (CR)	<p>CCAA is measuring GO since 2012. Until June 2013 we had 70 occurrences related to GO. We did not consider any of these events high risk event. Mechanisms to mitigate risks have been established on a case-by-case basis. Implementation and effectiveness of mitigating measures are monitored by assigned inspectors and for overall overview by CCAA Safety Board- trend monitoring.</p> <p>According Croatian SSP hazardous conditions are:</p> <ul style="list-style-type: none"> - The physical characteristics of the aerodrome: inadequate runway inspections / nearby structures - Malfunction of aircraft - Activities on the ground (eg boarding error during refueling); - Activities regarding maintenance (eg error in maintenance, repair aircraft on the ground) - Coordination with ATC, etc. 	Partially implemented
Finland (FI)	<p>During the last five years, there has been over 200 loading error reports. None of these have been categorised as serious incidents. In addition in 2013 there has already been over 100 cases categorised as loading errors, so this is a rising risk area. Factors in these cases are often improper attachment of cargo in aircraft cargo hold and incorrect weight calculations.</p> <p>Among others, ground operations-related events are part of Finnish SSP as Safety performance indicators, for which targets are set for all aviation operators to assess the risk of each SPI in their operations and conduct appropriate mitigating actions. Loading errors, de-icing errors, pushback and taxi interference, inappropriate or missing apron control, FOD-issues, ground handling errors, and ground collisions are measured as safety performance indicators.</p> <p>Trafi has launched a campaign in co-operation with the ANSP Finavia aimed at personnel working in ground operations. The campaign included holding seminars at various airports and a set of posters highlighting various risk areas in ground operations.</p>	Implemented
France (FR)	<p>There are numerous incident reports related to ground operations and to the examples given (order of magnitude 20 a day). However, there is, for the time being, no attempt to aggregate all these data issued by different type of operators (airport operator, ground handling, airlines) to assess a corresponding Safety level.</p> <p>De-icing/anti-icing activity has been considered among all types of ground operations to be of the highest priority in the French SSP. Loading errors may also impact safety ; the other type of events, may induce important costs to the operators, but are considered as impacting safety with a low probability.</p>	Partially implemented
Iceland (IC)	<p>ICAA is addressing this issue as follows: (i) Approvals. Airport- and aircraft operators are encouraged to cover/evaluate risk factors relating to ground operations in their SMS systems. (ii) Through ICAA's continuous oversight; with analysis of findings and reported occurrences that may be interlinked with ground operations, e.g. relating to incorrect loading and flight preparation . (iii) Promotion: ICAA will promote the issue for operators e.g. material issued by EASA on the subject.</p>	Partially implemented
Ireland (IR)	<p>The IAA State Safety Plan 2013-2016 Action Item FOD.004 addresses Safety of Ground operations.</p> <p>The IAA has two separate classification for Ground safety occurrences; RAMP and RAMP-LOADING. The IAA Annual Safety Review 2012 shows that over 600 reports of these occurrences were received in 2012, however less than 3% of these reports were considered high risk (ARMS Score >10). The main risk factors identified by ECAST including loading errors (loading procedures and loadsheets), ground damage and inadequate de-icing procedures are found in the occurrence reports to the IAA as well.</p> <p>The IAA has implemented a detailed audit schedule with focus on the three key risk factors: loading error, undetected/unreported aircraft damage and inadequate de-icing procedures. Ongoing work includes the further development of precursor identifiers in the risk assessment process to facilitate better safety analysis of the causal factors for ground safety events.</p>	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Italy (IT)	GO are included in ENAC Safety Plan 2012-2015, as action TOP 1.5.1. The GO report is already completed and should be published by the end of 2013.	Implemented
Latvia (LT)	SSP is not implemented yet. In last 5 years - 1 collision between aircraft on ground. Regular oversight actions are in place over airport's training process and how they supervise ground operations. Agreed set of actions between the operator and Authority are to be incorporated in LV CAA plan for safety activities in ground operations involving all aspects of aircraft handling at the airport as well as aircraft movement around the aerodrome except when on active runways. During the implementation of SMS Authority's inspectors should be aware that operator has established and maintained safety risk management process in ground operations area ensuring existing defences to control safety risks and further actions to reduce safety risks when accepting ground handling facilities. The following issues shall be considered: - Aircraft are not involved in collisions with other aircraft when moving and that the jet efflux from large aircraft does not hazard small ones; - Aircraft are not damaged by debris left on the aircraft manoeuvring areas; - Safe parking and docking of aircraft; - Impact damage to parked aircraft and ensuring that any such impact, however apparently minor, is reported and subject to maintenance inspection as appropriate prior to any further flight operation; - Maintaining adequate surface friction on manoeuvring areas; - Provision of adequate signage, markings and lighting so that aircraft are able to follow their taxi clearances properly; - Providing ATM capability which matches the complexity of ground operational movements; - Correct loading of the aircraft, and especially of its cargo and baggage, including any Dangerous Goods; - Correct communication of aircraft loading information to the aircraft commander; - Sufficient and verified fuel of adequate quantity and quality; and - Correct use of ground de/anti icing facilities where appropriate; - Effective Quality Assurance systems are used by both the Aircraft Operator and the various service providers.	Planned
Lithuania (LI)	The State did not expose these type of scenarios in the past 5 years.	Planned
Luxembourg (LU)	Specifically, vehicle traffic is considered a risk and is being treated by the LRST (GT-SAM). Introduction of a driving permit with "penalty points" is planned.	Partially implemented
Malta (ML)	Aerodromes: The Aerodrome Operator (AO) has in place an effective monitoring system, whereby Ground Handling Services Providers (GHSP) are continuously overseen. Daily inspections and at least two major audits annually are performed and documented, based on Safety Management, Quality Assurance, and Risk Management programs as agreed upon granting of concession. Safety inspections refer to the IATA Ground Handling manual for guidance and all incidents/accidents are reported and documented in a computerized system. Each incident/accident is investigated by an appointed Safety Board and its findings and recommendations are disseminated to all concerned including the NAA. The NAA is kept in the loop through all the stages of incident/accident investigation process and it can be safely declared that the system is functioning. Nevertheless, there is room for improvement especially in voluntary reporting. Both the AO & GHSP need to promote further a just culture and enhance safety oversight activity. The NAA intends to get actively involved in monitoring GSHPs in conjunction with the AO.	Partially implemented
The Netherlands (NL)	All parties involved in the oversight of safety and environment, have agreed with Amsterdam Airport Authority to improve safety and environment. To this extent an agreement has been signed which allocates responsibilities and accountabilities to the Airport Authority. As a result of this agreement oversight is now taking place 24/7. Ground operations will also be taken into account in the next SSP.	Partially implemented
Portugal (PO)	We have very few occurrences on ground operations.	Not applicable
Spain (SP)	Ground Operations, in particular, collisions involving handling vehicles and aircraft, have been identified as a major concern in Spain. Therefore, we have included them in Spain's risk portfolio and in Spanish Aviation Safety Plan. AESA analysed this issue by means of the occurrences registered in our Spanish MORS during 2008-2012 period. The handling occurrences are classified in the following types below: • Aircraft dispatch. There were 236 occurrences. There were not serious incidents. There were 11 major incidents. Therefore, 5% of aircraft dispatch occurrences were high severity. • Handling equipment (maintenance and availability). There were 47 occurrences. There were not high severity incidents. • Collisions/damages by handling equipment. There were 553 occurrences. There were not serious incidents. There were 11 major incidents. Therefore, 2% of this type of occurrences were high severity. • Dangerous goods. There were 92 occurrences. There were not serious occurrences. There were 10 major incidents. Therefore, 11% of dangerous goods were high severity. • Improper handling vehicle movement. There were 1179 occurrences. There were 1 accident, and 18 major incidents. Therefore, 2% of this type of occurrences were high severity. • Handling/Parking/Pushback procedures. There were 757 occurrences. There was 1 accident, 1 serious and 20 major incidents. Therefore, 3% of this type of occurrences were high severity. Regarding the handling operators, the mitigation actions are: 1.- AESA elaborated a handling safety technical instruction that includes handling procedures and SMS requirements. Therefore, handling operators are required to implement a SMS. 2.- In addition to that, AESA produced a Handling Inspection Plan to inspect handling operators. 3.- The next step is to organize a Working Group with handling operators in order to know their major safety concerns. AESA plans to monitor ground operations occurrences each 6 months.	Partially implemented
Sweden (SE)	The oversight section has held internal training on ground ops issues. This area will also be brought up at industry seminars during this year.	Partially implemented
Switzerland (SW)	Occurrences: 2009-2013 Deicing: 7, 0 high risk Loss of Separation both aircraft on ground: 3, 2 high risk Incorrect loading: 8, 2 high risk No State level SPI have been identified, however FOCA does monitor ground ops occurrences as part of normal SRM analysis & reporting.	Partially implemented

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
United Kingdom (UK)	<p>Ground Handling Operations Safety Team (GHOST) is a group whose aim is to work with global partners to develop strategies to mitigate ground handling and support activity safety risks.</p> <p>With the exception of dangerous goods, ground-handling activities are currently not directly regulated in the UK.</p> <p>The majority of occurrences classified under the ground-handling criteria are classified as low risk. However, those with the potential to cause the greatest harm to aircraft safety are:</p> <ul style="list-style-type: none"> • Loading errors. • Serious collisions between vehicles and aircraft undetected prior to flight. <p>The majority of GHOST's activity this year is geared towards fostering a just reporting culture, and reducing loading errors, so as to reduce the potential incidents that may cause greatest harm to aircraft safety.</p> <p>Ground Handling mitigation actions will be tracked using the following key performance metrics:</p> <ul style="list-style-type: none"> • The number of loading errors by error type, including dangerous goods events. • Collisions involving vehicles and parked aircraft at UK reporting aerodromes. • Collisions, near-collisions and conflicts involving vehicles and taxiing aircraft at UK reporting aerodromes. • Number of de-icing related occurrences. • Number of loading errors involving dangerous goods. 	Partially implemented

Summary	<p>Most of the States reported exposure to ground operation events in the past 5 years, with very few high-risk events. One State (FI) reported over 200 loading error reports in the last five years. None of these have been categorised as serious incidents. In addition in 2013 there has already been over 100 cases categorised as loading errors in FI, so this is a rising risk area. One State (FR) reported that there is an order of magnitude of 20 incident reports related to ground operations a day. One State (IR) reported that the Annual Safety Review 2012 showed that over 600 reports of these occurrences were received in 2012, however less than 3% of these reports were considered high risk.</p> <p>14 States are taking measures to address the safety of ground operations at national level. 4 States (BE, IR, SP and IT) identify these in Safety Plans, 2 States (FI and FR) in SSPs. 7 States (BE, SE, CR, LT, LU, SW, UK) are measuring precursors and establishing mitigating measures through oversight activities. One State (ML) reported that the Aerodrome Operator (AO) has in place an effective monitoring system to monitor Ground Handling Service Providers. One State (BE) will grant a certificate of recognition in the course of 2014 to ground handling service providers and self-handlers when all requirements in the dedicated Ministerial Decrees are met. The BCAA will create a questionnaire for self-handlers to obtain a clear view on their organizational structure, equipment, activities, etc.</p> <p>One State (UK) has established a Ground Handling Operations Safety Team (GHOST), which is a group whose aim is to work with global partners to develop strategies to mitigate ground handling and support activity safety risks.</p> <p>One State (SP) has implemented the following mitigation actions regarding the handling operators,</p> <ol style="list-style-type: none"> 1.- AESA elaborated a handling safety technical instruction that includes handling procedures and SMS requirements. Therefore, handling operators are required to implement a SMS. 2.- In addition to that, AESA produced a Handling Inspection Plan to inspect handling operators. 3.- The next step is to organize a Working Group with handling operators in order to know their major safety concerns. <p>One State (BU) plans to incorporate the risk in the Safety Plan. Two States (LI, PO) reported that they were not exposed to these type of scenarios in the past 5 years due to the low number of occurrences.</p> <p>In the majority of cases States have established safety performance indicators. One State (FI) has also established targets for all aviation stakeholders. The achievement of this targets is monitored during the oversight process.</p> <p>Among the occurrences being monitored by States related to ground operations are:</p> <ul style="list-style-type: none"> - filling up fuel without the necessary authorizations/boarding error during refueling - The physical characteristics of the aerodrome: inadequate runway inspections / nearby structures - Activities regarding maintenance (eg error in maintenance, repair aircraft on the ground) - Coordination with ATC, - Loading errors (incorrect loading procedures/loadsheets, improper attachment of cargo in aircraft cargo hold and incorrect weight calculations) - inadequate de-icing procedures, - inappropriate or missing apron control/Handling/Parking/Pushback procedures (e.g. pushback and taxi interference) - FOD-issues, - ground handling errors (e.g. Improper handling vehicle movement) - ground collisions (e.g. near-collisions between aircraft and ground vehicles) - undetected/unreported aircraft damage (Collisions/damages by handling equipment) - Aircraft dispatch. - Handling equipment (maintenance and availability). - Dangerous goods. <p>One State (FR) reported that de-icing/anti-icing and loading errors may impact safety ; whereas the other type of events, may induce important costs to the operators, but are considered as impacting safety with a low probability.</p>	<p style="text-align: center;">AERS.9</p> <table border="1"> <thead> <tr> <th></th> <th>Not planned/not applicable</th> <th>Planned</th> <th>Partially implemented</th> <th>Implemented</th> </tr> </thead> <tbody> <tr> <td>AERS.9</td> <td>1</td> <td>3</td> <td>12</td> <td>2</td> </tr> </tbody> </table>		Not planned/not applicable	Planned	Partially implemented	Implemented	AERS.9	1	3	12	2
		Not planned/not applicable	Planned	Partially implemented	Implemented							
AERS.9	1	3	12	2								

EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
4. Helicopters						
HE1.3	Further implement EHEST recommendations.	NAA's 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

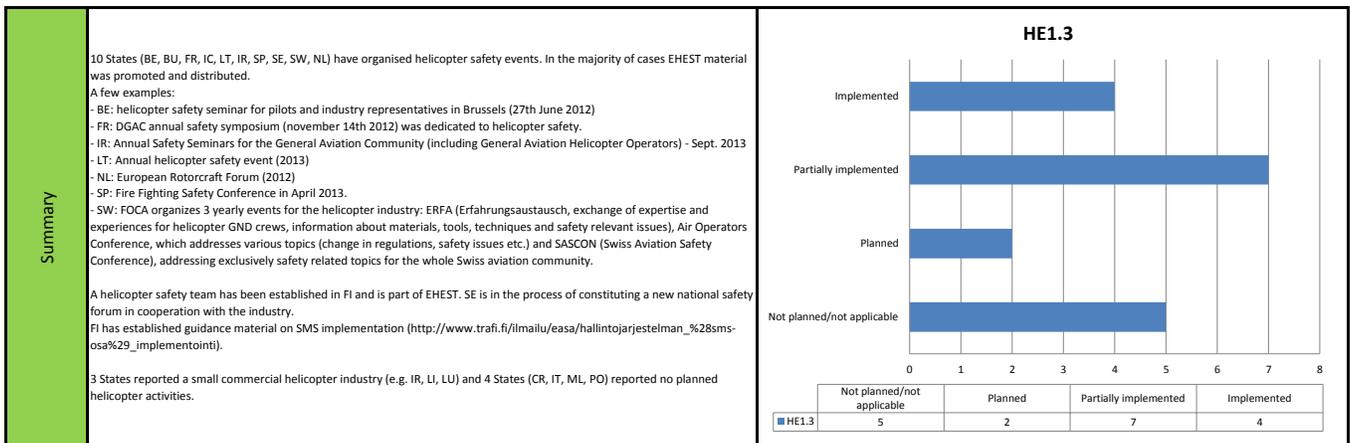
Guidance	<p>EHEST has published the following recommendation in 2011: EHEST recommends the NAA's in partnership with industry representatives, to organise Helicopter Safety events annually or every two years. The EHEST materials could be freely used and promoted.</p> <p>What type of helicopter safety events have you organised in 2012/2013 or plan to organise? Do you plan to do it frequently?</p>
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Implementation Reports

State	State's update	Status of the action
Belgium (BE)	Upon request from the BCAA, representatives from EHEST, the Aviation Safety Department of Defence (ASD), Belgocontrol, the Belgian Air Accident Investigation Unit and the BCAA held a helicopter safety seminar for pilots and industry representatives in Brussels (27th June 2012). The topics covered included the presentation of the EHEST safety leaflets, the analysis of helicopter accidents and recommendations, the BCAA occurrence reporting system, safety considerations of a defaulting paperwork, the relationship between accidents and human factors and finally the increasing safety awareness by means of flight preparation. The BCAA has the intention to continue with the periodic organization of these useful seminars. The BCAA will most probably organize a new helicopter safety event in the course of 2014.	Implemented
Bulgaria (BU)	The DG CAA established link to EHEST materials. Helicopter Safety meeting is planned to be organised in the end of the 2013.	Partially implemented
Croatia (CR)	At this moment, no planned activities related to this issue.	Not applicable
Finland (FI)	Please see SYS 2.7 A Finnish helicopter safety team has been established and is a part of EHEST which among other actions promotes nationally the material developed by EHEST. There is a dedicated section for this at CAA website: http://www.trafi.fi/ilmailu/lentoturvallisuus/helikopterit . A link to ESSI website will be established on the CAA's website. Trafi has established guidance material on SMS implementation on its website at http://www.trafi.fi/ilmailu/easa/hallintojarjestelman_%28sms-osa%29_implementationointi	Implemented
France (FR)	In 2012, the DGAC annual safety symposium (November 14th 2012) was dedicated to helicopter safety. See the corresponding webpage. The action plan following the safety symposium are currently being developed.	Partially implemented
Iceland (IC)	There are 4 Helicopters operators in Iceland and they have all been approached with EHEST material by the ICAA and encouraged to use it. Iceland will also participate in EHEST meetings at EASA.	Partially implemented
Ireland (IR)	IAA State Safety Plan 2013-2016 Action Item FOD.015 addresses Helicopter Safety. In addition to promulgating EHEST (and IHST) information to the helicopter community the IAA is working closely with the General Aviation Safety Council of Ireland to organise annual Safety Seminars for the General Aviation Community (including General Aviation Helicopter Operators). The first of these events is planned for September 2013. The intention is that the EHEST material will be promulgated at these events and presentations will be facilitated on specific areas of interest or concern by both IAA and industry representatives (ie both EGAST and EHEST material). The Commercial Helicopter Industry in Ireland is considered too small to merit a specific event and the EHEST information is promulgated to these organisations as part of normal safety oversight activities. It is noted that some personnel involved in Commercial Helicopter operations are also involved in the Helicopter GA community.	Implemented
Italy (IT)	No events performed in 2012. For 2013 no events have been yet planned.	Planned
Latvia (LT)	In 2013, annual helicopter safety event was held, in which the EHEST materials were distributed and presented.	Partially implemented
Lithuania (LI)	Not applicable as the activity of the helicopters operations is very low currently. However, the Helicopter Safety events certainly will be organised in the future if the activity of the helicopters operations increase.	Not applicable
Luxembourg (LU)	No helicopter safety event planned as Luxembourg has only 1 helicopter operator.	Not applicable

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Malta (ML)	N/A	Not applicable
The Netherlands (NL)	European Rotorcraft Forum 2012 http://erf2012.nlr.nl/	Implemented
Portugal (PO)		Not applicable
Spain (SP)	In March and in April 2013, AESA organised Fire Fighting Safety Conferences in several Spanish locations in order to promote safety. Fire Fighting is the aerial work of greater safety risk concern in Spain. The agenda of these Conferences can be checked at the following link: http://www.seguridadaerea.gob.es/lang_castellano/g_r_seguridad/jornadas_seg_operac.aspx	Partially implemented
Sweden (SE)	Meetings are held with all operators every year, first part of December. The agenda is focused on safety. EHSAT publications are distributed at the meeting. In addition we are in the process of constituting a new national safety forum in cooperation with the industry, as done in Norway.	Planned
Switzerland (SW)	FOCA organizes 3 yearly events for the helicopter industry: - ERFA (Erfahrungsaustausch, exchange of expertise and experiences for helicopter GND crews, information about materials, tools, techniques and safety relevant issues) - Air Operators Conference, which addresses various topics (change in regulations, safety issues etc.) - SASCON (Swiss Aviation Safety Conference), addressing exclusively safety related topics for the whole Swiss aviation community.	Partially implemented
United Kingdom (UK)	The UK CAA will continue to participate in the European Helicopter Safety Team (EHST) and will also publish a comprehensive analysis of offshore helicopter reportable accidents (publication of CAP) as part of the current UK CAA review of offshore helicopter operations in the UK.	Partially implemented



EASp Implementation in the States - 2013

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
1. General Aviation						
GA1.5	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

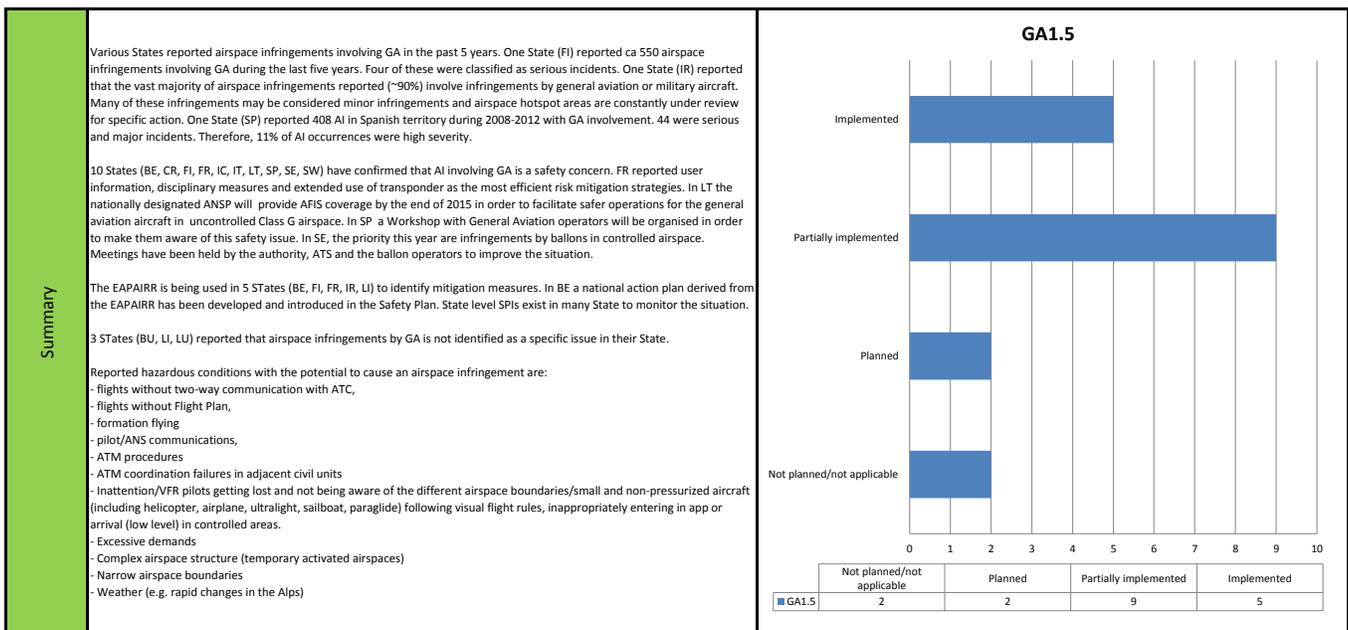
Guidance	<p>Have there been any airspace infringements involving GA in the past 5 years? If so, how many of them were considered high-risk events? what are the main hazards that contribute to it? Where is your State with the implementation of the European Action Plan for Airspace Infringement Risk Reduction?</p> <p>The progress of your State against the European Action Plan for Airspace Infringement Risk Reduction is reported within the ESSIP process at the following website http://www.eurocontrol.int/articles/essip-report. The latest available report includes the activities carried out in 2011. Please indicate whether any progress has been made towards the objective in 2012 and 2013 and what is the expected situation at the end of the year. Consider the situation at both State and Service Provider Level</p>
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Implementation Reports

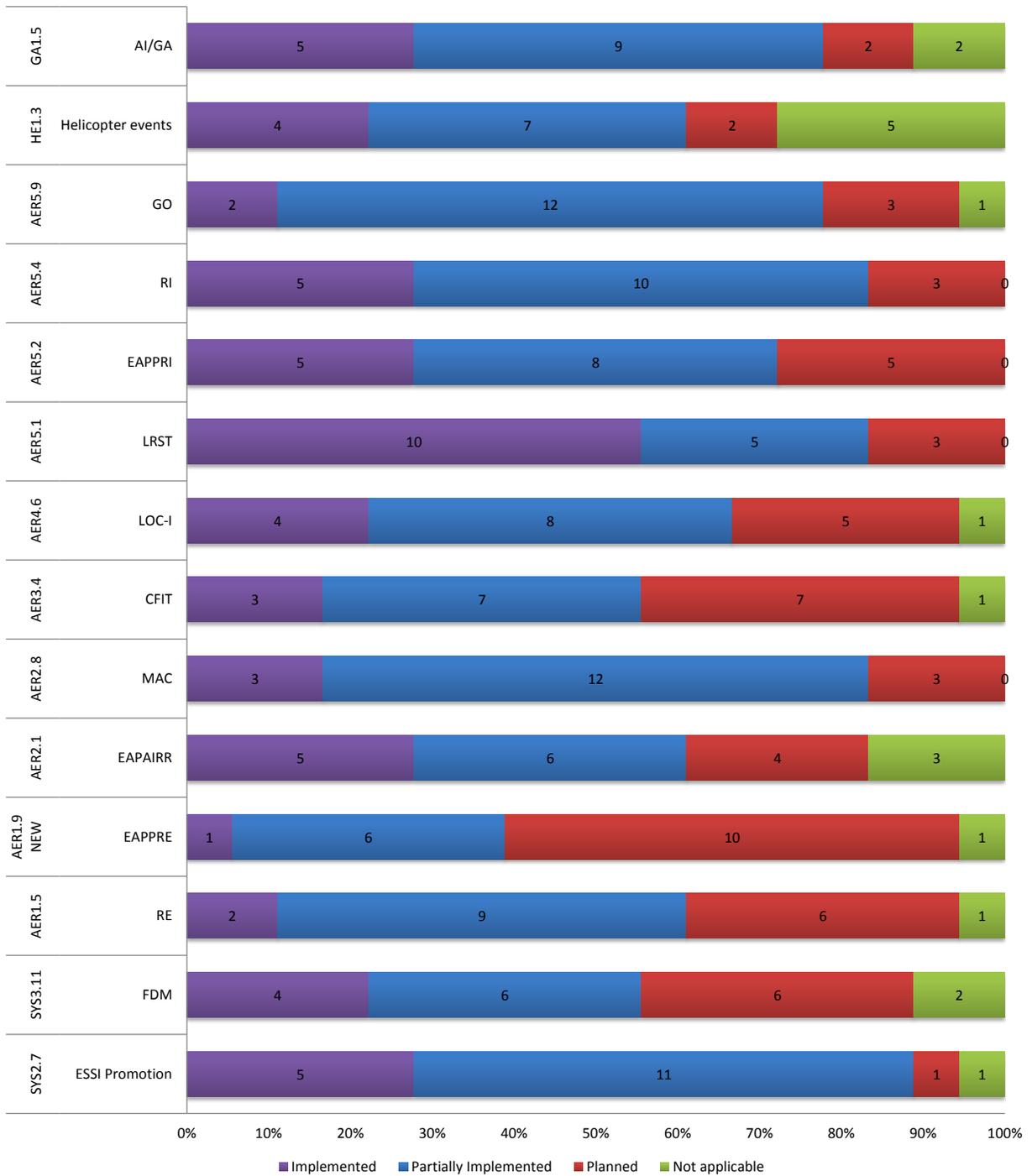
State	State's update	Status of the action
Belgium (BE)	<p>Reported Occurrences for airspace infringements committed by GA: 2010:34 2011:93 2012:109</p> <p>None of these events were considered high-risk events.</p> <p>The BCAA 2012 risk analysis confirms that Airspace Infringement is a safety concern in Belgium. Belgium has therefore developed a national action plan derived from the European Action Plan for Airspace Infringement Risk Reduction. The implementation of this national action plan has been introduced in the 2012 update of the Belgian Safety Plan. The analysis of the reported occurrences clearly indicates that the majority of infringements is committed by General Aviation VFR flights. Therefore the national action plan mainly contains general aviation recommendations like the improvement of the general aviation pilot training (among others improvement of the communication and navigation skills & better knowledge of the Belgian airspace) and the publication of a leaflet to inform pilots about specific problems with regard to the Belgian airspace. The airspace infringement leaflet has already been published on the BCAA website and sent to the Belgian ANS service provider, the Belgian Air Force, Belgian airfields and ATO's, the civil aviation authorities, airfields and ATO's of our neighbouring countries. A current SPI measures the proportion of the national action plan recommendations implemented. In the course of September- In the course of September-October 2013 the BCAA will organize a meeting about the reduction of airspace infringements. The Belgian CAA will then have a complete overview of the national action plan progress.</p>	Partially implemented
Bulgaria (BU)	Airspace infringements by GA aircraft has not been identified as a specific issue in the state.	Not applicable
Croatia (CR)	<p>Croatian SSP recognise safety indicator related to general aviation operations.</p> <p>According to Croatian SSP hazardous conditions are: flights without two-way communication with ATC, flights without Flight Plan, formation flying etc.</p> <p>Some of the measures planned for 2103/2014 : regulation revision, intensive oversight, workshops with industry, safety promotion etc.</p>	Partially implemented
Finland (FI)	<p>There has been ca 550 airspace infringements involving GA during the last five years. Four of these were classified as serious incidents. Main hazards were VFR pilots getting lost and not being aware of the different airspace boundaries.</p> <p>According to LSSIP report, the actions in European Action plan have been implement by the regulator and ANSP in 12/2011. The monitoring of the implementation of these actions are part of continuous oversight process. European Action Plan for Airspace Infringement Risk Reduction will also be considered in Finnish Aviation Safety Plan.</p> <p>In 2012 Trafi sent a letter to all aviation license holders highlighting the severity of potential consequences of airspace infringements.</p> <p>In 2013 an aviation regulation OPS M1-31 was published which requires all aircraft operating to or from the Helsinki-Malmi airport (which is the hotspot in airspace infringements since the bigger Helsinki-Vantaa is only a few miles away) to have and operate a C-mode transponder. This requirement was established to enable air traffic control to notice possible intruders into Helsinki-Vantaa airspace before a MAC or airprox situation can occur between the intruder and other traffic. The regulation will take effect 14th November 2013.</p>	Implemented
France (FR)	<p>Airspace infringement by general aviation is indeed a safety concern in French airspace. User information, disciplinary measures, an extended use of transponder are seen as the most efficient way forward. Detailed action plan is being considered.</p> <p>Within the ANSP SMS risk scheme, airspace infringement has a high priority, the European Action Plan for Airspace Infringement Risk Reduction has been assessed, and relevant actions have been included in the ANSP's plan.</p>	Planned
Iceland (IC)	The airspace infringement in general aviation is generally in lower altitudes than airspace infringement in CAT terms is. ICAA has identified this as a potential hazard as new more lighter aircraft are becoming much more capable than in the past and new types of incidents have often followed. The rules for operations in and out of areas have been refined recently due to the incidents that occurred in the past.	Partially implemented
Ireland (IR)	<p>The IAA Annual Safety Review 2012 reports 81 cases of airspace infringements in Irish Airspace over the period 2009-2012. This includes infringements by large transport aircraft, military aircraft and general aviation aircraft. None of these were classified as high risk Severity A or B, per ESARR 2 Severity Classification, and 26 of these were Severity C. There is no breakdown currently available but the vast majority of airspace infringements (~90%) involve infringements by general aviation or military aircraft. Many of these infringements may be considered minor infringements and airspace hotspot areas are constantly under review for specific action.</p> <p>The IAA has completed twelve of the thirteen recommended and proposed actions for regulation authorities included in the European Action Plan for Airspace Infringement Risk Reduction with the remaining action due for completion in 2013. This includes full consultation with airspace users for any proposed changes to airspace as well as an Annual Review Meeting with users under the FUA Level 1 activity.</p>	Partially implemented
Italy (IT)	<p>There have been some space infringements involving GA.</p> <p>For action performed see See LSSIP (Italy 2012) - ESSIP Objective SAF 10.</p> <p>However, ENAC believes that EASA should provide specific guidance on the use of GPS in GA.</p>	Implemented
Latvia (LT)	<p>In last 5 years - 33 airspace infringements involving GA. In the uncontrolled Class G airspace it is planned by the nationally designated ANSP to provide AFIS coverage by the end of 2015 in order to facilitate more safe operations for the general aviation aircraft. With the implementation of the AFIS in the western part of the Latvian airspace in the Riga FIR, review of the existing published IFR and VFR flight procedures in the Class G airspace were reviewed and updated.</p> <p>Airspace Infringement Prevention activities included in LV CAA plan for actions considering best practices for General Aviation (GA) in the following areas:</p> <ul style="list-style-type: none"> - Pre-flight planning; - En-route flight planning; - Contact with ATC; - Use of transponder; - Use of GPS; - Pilot refresher training. 	Partially implemented
Lithuania (LI)	<p>There were 3 air airspace infringements involving GA in the past 5 years. They were not considered as the high-risk events. The EAPAIRR is included in the CAA Safety Plan (2013-2016), ref. to http://www.caa.lt/index.php?467881435</p> <p>Civilinės aviacijos administracijos aviacijos saugos planas 2013-2016 m.: [sakymas, planas, No. 12. To start to implement the EAPAIRR actions the appropriate detailed CAA plan for the Prevention of Airspace infringement risk including GA will be issued in December 2013.</p>	Planned

EASp Implementation in the States - 2013

Implementation Reports		
State	State's update	Status of the action
Luxembourg (LU)	No significant issue with airspace infringement by local GA aircraft up to 2012 included. The situation is being monitored by DAC.	Not applicable
Malta (ML)	ANS: The period 2011 during the Libyan war was the period when we had some airspace infringements outside IFR traffic. Again the airspace infringement action plan was not considered for implementation due to the fact that we do not have the problem. General Aviation: In the past 5 years the TM-CAD received 4 reports of Airspace Infringement to which none were considered high risk. The main hazards that contribute to these infringements are Lack of proper Radio Phraseology, a lack of sufficient knowledge of aeronautical information publications (AIP) and Notams, a low level of English Language Proficiency, complicated arrival and departure routes with reduced navigational skills, and unnecessary cluttered aeronautical charts. The CAD has organized various meetings with Heads of Training do discuss issues relating airspace infringements and navigational issues and is planning in the pipeline to issue safety sense bulletins with regards to airspace infringements and the better practice of avoiding being a statistic. In addition the CAD will offer guidance as to what to do and who to contact if an infringement has occurred. As all the infringements occurred where under VFR discussions are under way with ATO's to see if possible to offer regular refresher courses for licensed VFR pilots.	Partially implemented
The Netherlands (NL)	The EPAAIRR is applied. Military traffic management is involved to. Where necessarily airspace was adjusted. Reports have been submitted to ESSIP/LSSIP. A reduction in infringements is established. Hotspots are identified: http://www.ilent.nl/Images/Trendanalyse%20airspace%20infringements_tcm334-331587.pdf	Implemented
Portugal (PO)		Implemented
Spain (SP)	AI has been identified as a major concern in Spain, therefore AI are included in Spain's risk portfolio and in Spanish Aviation Safety Plan. AESA analysed in depth this issue by means of occurrences registered in our Spanish MORS during 2008-2012 period. The main conclusions are: • There were 408 AI in Spanish territory during 2008-2012 with GA involvement. 44 were serious and major incidents. Therefore, 11% of AI occurrences were high severity. In fact, the most common occurrence was: small and non-pressurized aircraft (including helicopter, airplane, ultralight, sailboat, paraglide) following visual flight rules, inappropriately entering in app or arrival (low level) in controlled areas • The main factors that contributed to AI were: pilot/ANS communications (in 99 occurrences), ATM procedures (19 occurrences) and ATM coordination failures in adjacent civil units (in 17 occurrences). • One of the mitigation measures that we plan is to organise a Workshop with General Aviation operators in order to make them aware of this safety issue. The progress of Spain against the European Action Plan for Airspace Infringement Risk Reduction is reported within the ESSIP process at the following website http://www.eurocontrol.int/articles/essip-report AESA plans to monitor AI each 6 months.	Partially implemented
Sweden (SE)	Airspace infringements is one of our SPIs and it is followed up continuously in our Aviation Safety Analysis Forum. There are a number of issues identified in our Swedish Action Plan which will be followed up next year. This year our priority in this respect has been infringements by balloons in controlled airspace, and meetings have been held by the authority, ATS and the balloon operators to improve the situation.	Partially implemented
Switzerland (SW)	Occurrences: 2009-2013 Airspace Infringement: 1259, 145 high risk Main hazards concerning General Aviation AI's are: • Inattention • Excessive demands • Complex airspace structure (temporary activated airspaces) • Narrow airspace boundaries • Weather (rapid changes in the Alps) An Airspace Infringement Working Group analyses local data to identify hotspots and critical issues. SB & SRM analyze pilot reports obtained during AI investigations. State level SPI have been identified and are being monitored	Partially implemented
United Kingdom (UK)	See AER2.1 and responses to ESSIP/LSSIP SAF10. CAA has done work to improve • Safety Notice published on Integrating Traffic in the Vicinity of an Aerodrome. New projects to develop mitigation against the Airborne Conflict risk are: • Improving the clarity and communication of aerodrome circuit joining procedures. (December 2013) • DfT funded research into lightweight transponders and position broadcasting technologies. (March 2015)	Implemented



SUMMARY OF IMPLEMENTATION of EASp ACTIONS



EASp Implementation in the States - 2013

SUMMARY OF HAZARDS REPORTED BY STATES

Runway Excursions - AER1.5

Among the occurrences being monitored by States due to the potential to lead to a RE are:

- Lateral excursions
- Overrun events
- Unstable/de-stabilised approaches
- Deep landing events
- high-speed rejected take-off events
- Adverse weather during approach
- Runway surface condition and contamination
- Braking action by flight crew
- Problems with the landing gear or thrust reversers
- Abnormal runway contacts
- Landings and takeoffs performed over the approved wind component
- Flight crew errors
- FOD

Airspace Infringement (CAT) - AER2.1

Among the factors that contribute to AI mentioned by the States we find:

- airspace complexity
- coordination problems within ATC units
- pilot-ANS communications
- deviation from clearance

Mid-Air Collisions - AER2.8

Among the occurrences being monitored by States due to the potential to lead to a MAC are:

- Coordination between or within ATC facilities (missing, non-standard phraseology etc.)
- Deviation from clearances (incl. Level Bust, ROC/ROD/spd instructions, lateral deviations)
- Communications between ATC and aircraft (readback/hearback, misunderstandings, non-standard phraseology, loss of communication)
- Airspace Infringements
- ACAS RAs: all genuine RAs and proportion involving incorrect pilot response
- Separation minima infringements/risk-bearing airprox
- ATCO human errors

Controlled Flight into Terrain - AER3.4

Among the occurrences being monitored by States due to the potential to lead to a CFIT are:

- Fatigue and disorientation of pilots;
- Misunderstanding in communication with the controller;
- Weather conditions (eg. rain, turbulence or icing)
- Unclear approach procedures;
- Reported errors in aviation charts (e.g. ICAO Aerodrome Obstacle Charts type "B" and Aerodrome Terrain and Obstacle Chart not published)
- Unstabilised approach
- Navigation errors
- GPWS warnings (Operators - Sink Rate or Terrain warnings)
- MSAW alerts (ANSP)
- Incorrect pressure settings/Mis-setting of altimeters.
- Large G/S deviations
- Risk factors associated to non-precision approaches
- Loss of situational awareness

Loss of Control in Flight - AER4.6

Among the occurrences being monitored by States due to the potential to lead to a LOC-I are:

- Unstabilised approaches
- Laser interference
- Wake turbulence events
- Fire and smoke events in aircraft
- De-icing and anti-icing flaws
- Ground handling errors (e.g. weight and balance)
- Aircraft flight control system faults
- Mismanagement of a go-around
- Abnormal state of the aircraft (attitude, bank angle, configuration, speed, etc)
- Dangerous weather conditions (icing, wind shear, turbulence, lightning strike, etc.) that can cause damage to the aircraft or loss / malfunction of any essential function;
- Mismanagement of automation (FCU, EFIS, ECAM etc.)
- Deviations from the planned flight path

Runway Incursions - AER5.4

Among the occurrences being monitored by States due to the potential to lead to a RI are:

- deviation from ATC clearance/ pilot's misunderstanding between a taxi clearance and a take-off clearance/taxi clearance confusion
- miscommunication with ATC (ATC phraseology and phraseology of the crew, pilots read back)
 - Weather conditions;
 - Design of airports;
- Several places to enter the runway;
- (Wild) animals on the runway etc.
- ATCO human errors,
- poor flight preparation.
- stopbar/holding point violations,
- go around during landing due to occupied runways
- ATC procedures

Safety of Ground Operations - AER5.9

Among the occurrences being monitored by States related to ground operations are:

- Filling up fuel without the necessary autorizations/boarding error during refueling
- The physical characteristics of the aerodrome: inadequate runway inspections / nearby structures
- Activities regarding maintenance (eg error in maintenance, repair aircraft on the ground)
- Coordination with ATC,
- Loading errors (incorrect loading procedures/loadsheets, improper attachment of cargo in aircraft cargo hold and incorrect weight calculations)
- inadequate de-icing procedures,
- inappropriate or missing apron control/Handling/Parking/Pushback procedures (e.g. pushback and taxi interference)
- FOD-issues,
- ground handling errors (e.g. Improper handling vehicle movement)
- ground collisions (e.g. near-collisions between aircraft and ground vehicles)
- undetected/unreported aircraft damage (Collisions/damages by handling equipment)
- Aircraft dispatch.
- Handling equipment (maintenance and availability).
- Dangerous goods

Airspace Infringements in General Aviation - GA1.5

Reported hazardous conditions with the potential to cause an airspace infringement are:

- flights without two-way communication with ATC,
- flights without Flight Plan,
- formation flying
- pilot/ANS communications,
- ATM procedures
- ATM coordination failures in adjacent civil units
- Inattention/VFR pilots getting lost and not being aware of the different airspace boundaries/small and non-pressurized aircraft (including helicopter, airplane, ultralight, sailboat, paraglide) following visual flight rules, inappropriately entering in app or arrival (low level) in controlled areas.
- Excessive demands
- Complex airspace structure (temporary activated airspaces)
- Narrow airspace boundaries
- Weather (e.g. rapid changes in the Alps)