



Annex B

EASp implementation in the States 2014

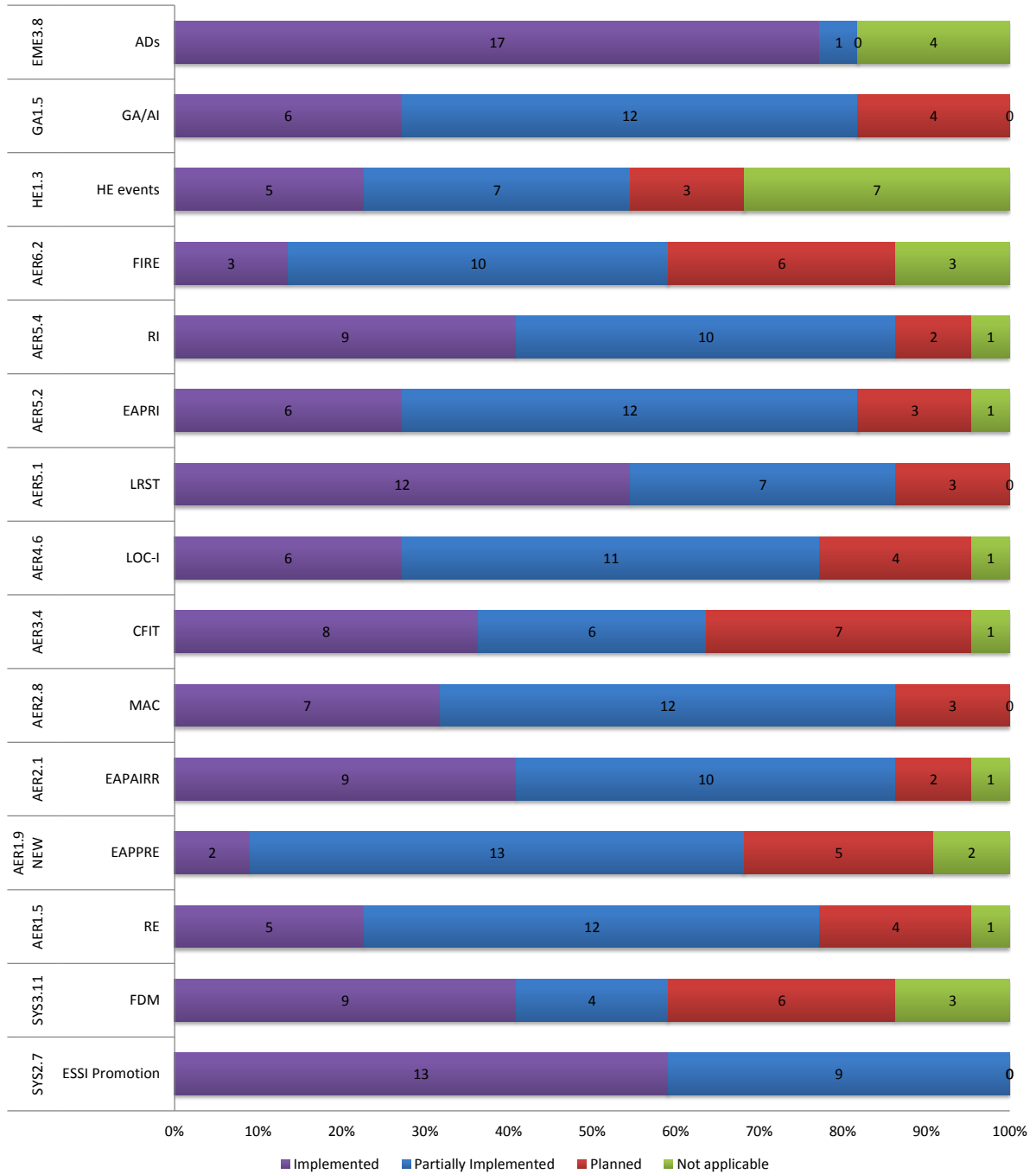
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This document provides a summary of the action reports provided by various States as part of the implementation of the European Aviation Safety Plan (EASp).

SPIs	Safety performance indicators (SPIs) focus either on monitoring the hazards (e.g. rate of abnormal runway contacts) or the mitigation measures (e.g. number of ATCOs who have undergone unstable approach awareness training)	
	Reported Hazard	Example of Action taken to mitigate the risk
Runway Excursions - AER1.5	<ul style="list-style-type: none"> • Lateral excursions • Overrun events • Unstable/de-stabilised approaches • Deep landing events • high-speed rejected take-off events (inability to stop aircraft) • Adverse weather during approach (lack of updated information) • Runway surface condition and contamination • Problems with the landing gear or thrust reversers • Abnormal runway contacts • Landings and takeoffs performed over the approved wind component • Flight crew errors • Foreign Object Debris (FOD) • Impossibility to perform a go-around • Reduced visibility 	<ul style="list-style-type: none"> • Implement unstable approach awareness training to traffic controllers, • Conduct a survey on unstabilised approaches with AOC holders, • Encourage licensed aerodromes to report runway surface condition, standardise its reporting and provide an estimating braking action to pilots • Support aerodromes on completing a risk assessments on RESAs that only meet minimum requirements • Establish and adhere to SOPs; • Adresse RE as part of the proactive and/or reactive safety management process (identification of hazards and non-compliances including risk mitigation, analysis of occurrences) at certified aerodromes. • Authority to monitor effectiveness of taken measures through participation in LRST and oversight activities (audits, inspections), if required. • Authority to follow-up EAPPRE recommendations and encourage implementation and monitoring of Runway Excursion precursor measures (e.g. through an information notice to industry, establishing an EAPPRE compliance map to identify improvement areas) • Create a combined group between authority and industry (airlines/ANSPs/airports) to tackle specific issues like FDM precursor parameters and best practice
Airspace Infringement (CAT) - AER2.1	<ul style="list-style-type: none"> • Airspace complexity (design, restriction areas) • Lack of familiarity with airspace • Coordination problems within ATC units, • Pilot-ANS communications, • Deviation from clearance. • Routine • ATM procedures 	<ul style="list-style-type: none"> • Publishing of yearly awareness leaflet, • Sending questionnaire to pilots causing airspace infringements and analysing responses, • Publishing VFR guide, • Updating maps and charts to be available to flying clubs and schools, • Promoting membership of flying clubs and federations among private pilots, • Establishing provisions for correct GPS equipment installation and maintenance, • Implement Area Proximity Warning, • Introduce code assignment, • Improve R/T coverage • Review controlled airspace structure and simplify boundaries where possible (ASP-R-06) • Introduce, where necessary, standard VFR entry, exit and crossing procedures and/or routes in busy controlled airspace (ASP-P-10) • Ensure that airspace change processes take due account of the different airspace users' requirements (REG-R-03): Intensify contacts between CAA and airspace users and engage in consultation with them for any proposed changes to airspace • Harmonise lower airspace classification in line with the strategic airspace design principles (REG-R-04) • Undertake periodic reviews of airspace allocation and structures within the respective FIRs and improve oversight of airspace management (REG-P-02). • Harmonise regulation of flights by ultra-lights, micro-lights and gliders (REG-P-05) (including hang-gliders and para-gliders). • Establish an Airspace Infringement Working Group to analyse infringement reports and data in order to identify hot spot areas and critical issues
Mid-Air Collisions - AER2.8	<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 (e.g. carelessness and expectancy) • Different interpretation of procedures (pilots vs ATC) • Improper conflict detection/resolution • ATM radar working technique • aircraft performance misjudged 	<ul style="list-style-type: none"> • Developing of precursor identifiers in the risk assessment process to facilitate better safety analysis of the causal factors for MAC/MAC-TCAS events. • ANSP apply relevant measures to minimise the risk through their SMS • Create a transponder mandatory zone in the vicinity of and below busy airport terminal area to reduce the severity of the consequences of possible airspace infringements • Limit the maximum allowed traffic rate around busy airports • Recording and analyses of STCA events • Use ground based safety nets (short term conflict alert (STCA) and airspace proximity warning (APW)) for airspace infringement prevention. • Safety alerts, awareness sessions, training, and briefing on one to one basis to ATCOs • Establish a national FDM working group to identify airspace points in which the number of ACAS RA alerts is higher and take subsequent action. • Establish an Airborne Conflict Action Group to co-ordinate work for all types of air operations within and outside own airspace. • Publish guidance on ACAS use • Publish articles on how aircraft should best join the airfield circuit • Develop guidance on the implications of reduced radar and procedural air traffic control provision on aircraft operations in class G airspace • Develop guidance material to reduce level busts and seek for feedback from users
Controlled Flight Into Terrain - AER3.4	<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/non-compliant approach • Navigation errors • GPWS warnings (Operators - Sink Rate or Terrain warnings) • MSAW alerts (ANSP) • Incorrect pressure settings • Large G/S deviations • Existence of difficult terrain at high altitude 	<ul style="list-style-type: none"> • Implementing of approaches flown by operators, which have some form of vertical guidance (APV approaches) instead of on-precision (NPA) approaches • Identify aerodromes where APV approaches would be of the greatest safety benefit. • Provide guidance to industry on the benefits of Approach with Vertical Guidance (APV); • Implementing and active monitoring CFIT precursor measures to aircraft operators . • Promote the importance of compliant approaches • Operators to use FdM to monitor GPWS alerts and the unstabilised/de-stabilised approaches, • ANSP to use FDM to monitor the number of MSAW alerts at each equipped airport. • Implement ALAR (Approach and Landing Accidents Reduction) at operators lever • ANSP to introduce Approach Path Monitor (APM) safety net
Loss of Control in Flight - AER4.6	<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 	<ul style="list-style-type: none"> • Implementing, embedding and active monitoring Loss of Control precursor measures at aircraft operators, • Implementing and embedding within recurrent training programs pilot monitoring skills training at AOC holders, • Task the inspectorate to assess as part of normal oversight pilot Monitoring skills and whether training is addressing the issue • Receiving initial and recurrent pilot monitoring skills training by pilots, • Investigating of the reliability of flight controls for commercial aircraft (among others improved de-icing and greasing procedures) annually, • Preventing of collision with animals (bird and wildlife strikes), • Mitigating measures against targetting of aircraft with laser. • Publish awareness material on stall recovery • Establish a LOC working group to tackle specific issues at State level • Encourage crew to manually fly where circumstances permit • Permit operators to train, test and assess based upon the principles of ATQP and EBT (In doing so it would free up valuable simulation time to ensure that relevant exercises are being assessed based upon current technology, operating practices and operating environment)

	Reported Hazard	Example of Action taken to mitigate the risk
Runway Incursions - AER5.4	<ul style="list-style-type: none"> • Deviation from ATC clearance/ pilot's misunderstanding between a taxi clearance and a take-off clearance/taxi clearance confusion • Miscommunication between ATC and pilots (ATC phraseology and phraseology of the crew, pilots read back) • Miscommunication between ATC and Ground Handling • Weather conditions • Design of airports • Several places to enter the runway, • (Wild) animals on the runway, • ATCO human errors, • poor flight preparation, • stopbar/holding point violations, • go around during landing due to occupied runways, • ATC procedures, • Loss of communication and runway incursions, • Aerodrome Control Phraseologies-READ-BACK, • Familiarisation with the airport is not adequate. 	<ul style="list-style-type: none"> • Sending a letter to all licence holders highlighting the severity of potential consequences of runway incursions; • Organising a dedicated symposium to raise awareness on the issue or an EAPPRI implementation meeting with safety managers of ANSPs; • Implement EAPPRI recommendations and verify effectiveness during oversight; • Organise a combined 'Runway Safety Group' which has both CAA and industry (airlines, ANSPs and airports) representation to address both EAPPRI and EAPPRI recommendations and/or to analyse the occurrence reports of RI and quickly identify any immediate or local safety trends and to follow up with necessary mitigation measures; • Distribute EAPPRI/EAPPRI to the airports through the LRST and provide instructions on how to fill out the documents and tracks the results; • Assess aerodromes and operators for compliance with EAPPRI recommendations through a dedicated questionnaire. Evaluated responses as part of the inspection procedure; • Elaborate and update an EAPPRI compliance map with the results of the questionnaires provided to establish comparisons, areas for improvement, etc; • Include, in ATC Operation Manual, a procedure regarding occupied runway in order to reduce runway incursions; • Address RI as part of the hazard identification and risk mitigation process of each certified aerodrome (hazard library); • Update airspace driving standards and audit aerodromes against it. • Introduce "penalty points" and more training in the driving permit.
Uncontrolled fire, smoke or fumes on-board aircraft - AER6.2	<p>Potential sources of smoke and fire are:</p> <ul style="list-style-type: none"> • Electrical systems and wiring, • Equipment failures, • Insulation blankets, • Lithium batteries, • Hot Components/Powerplants, • Oxygen Systems, • Actual fire/smoke from electrical parts in the cockpit or cargo (cargo aircraft) causing diversion, • Mist in the cabin, misdiagnosed as smoke, • Engine fires, • Multiple electrical failure, • IFE fire in cabin. 	<ul style="list-style-type: none"> • Training of all flight crews in firefighting, actions to be taken in case of in-flight smoke; • Sending of systematic failures to IORS; • Course internal Aircraft Fuel Tank System Safety; • Special awareness campaigns requiring to address item in recurrent training such as Hot Components/Powerplants or oxygen Systems; • Produce media clips: for example in support of continuation training / EWIS training for maintenance personnel highlighting the importance of following the manufactures maintenance instructions to reduce fire, smoke fume events or to raise awareness of the hazards from lithium batteries and the importance of ensuring they are transported in accordance with the Technical Instructions, both as cargo and by passengers; • Safety promotion: publishing information to AOC operators and passengers regarding hazards related to Lithium Batteries and other fire related issues.
Airspace Infringements (GA) - GA1.5	<ul style="list-style-type: none"> • 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) 	<ul style="list-style-type: none"> • Publishing of yearly awareness leaflets; • Sending a questionnaire to pilots causing airspace infringements and analysing results; • Publishing of VFR guide; • Investigating by Task Force composed of the CAA, the national ANSP and the Ministry of Defence the possibility to restructure the lower airspace to make it less complex; • Intensifying of contacts between CAA and airspace users; • Extending the use of transponder (e.g. Transponder Mandatory Zones, lightweight transponders and position broadcasting technologies); • Require nearby uncontrolled aerodrome operations to have two way radio communications and operating transponder Mode C; • Establish an Airspace Infringement Working Group to analyse local AI data in order to identify hot spot areas and critical issues; • Implementation of the European Action Plan for Airspace Infringement Risk Reduction; • Carry out road shows in Registered Training Facilities (RTF) and Approved Training Organisations (ATO) to target infringements; • Improve the clarity and communication of aerodrome circuit joining procedures.

SUMMARY OF IMPLEMENTATION of EASp ACTIONS



EASp Implementation in the States - 2014

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 ESSI Teams (ECAST, EHEST and EGAST) and SMICG.	MS	2012 Cont.	SP	Best Practice published by MS.
Guidance	Please provide examples on how SMS material developed by ECAST, EHEST or SMICG is being promoted within your State. Which products are you promoting? Which ones have been best/worst received by the audience? Have you identified any gaps in terms of SMS promotion/training in your State?					
	Examples of implementation: - Establish a link to the ESSI/SMICG material on the CAA's website. - Distribute ESSI/SMICG material to the industry via safety bulletins, dedicated seminars, presentations at the appropriate fora, through oversight activities, dedicated working groups, electronic distributions, etc. - Develop and provide training material that includes ESSI/SMICG products. - Create a specific action item at State level addressing the promotion of ESSI/SMICG material - Translate ESSI/SMICG material into national language. Have you developed your own material to promote SMS? If so, provide at least one example of type of material (link/document when appropriate) and how it was delivered.					
Implementation Reports						
State	State's update					Status of the action
Albania (AL)	According to Minister Order no.92 (which transpose EU-OPS) and the the Inspecting Staff Manual of Flight Ops division the SMS is promoted to operators. (Safety Directory)/According to Minister Order no. 115 Service Providerof ANS has in place it's SMS. CAA oversight the Service Provider according Minister Order no. 180. The Service Provider regarding the promotion of SMS issue safety buletins, safety workshops and safety meetings development					Partially implemented
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. SMICG material and ESSI leaflets 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) and SMICG material on the BCAA's website.					Implemented
Bulgaria (BU)	BG CAA has established a link to the ECAST, EHEST, SMICG - ESSI/SMICG material on the CAA's website: Safety Management Terminology; Risk Based Decision Making Principles; The Senior Manager's Role in SMS(1); The SeSM ICG Evaluation Tool.					Implemented
Croatia (CR)	Link to the ESSI material is on Croatian CAA website - http://www.ccaa.hr/hrvatski/linkovi_16/ . CCAA is also publishing "Infolist" on web page. "Infolist" provides basic information on training organizations, training data, exams, licences, equipment use and maintenance, landing and take-off sites, rules of air, practical and legal flight limitations and all other details concerning flight safety and SMS. Link: http://www.ccaa.hr/english/publications_8/					Partially implemented
Estonia (EE)	Estonian CAA has established a link on the website several years ago. This year CAA aviation safety manager opened a account Yammer portal dedicated for Safety Managers (not all managers are involved) where related guidance material is distributed. Material is also distributed via e-mails as there is a small community of people responsible for the implementation of safety management. There are also quite frequently communication with safety managers directly on their operator issues. Estonian CAA does not currently consider specialised promotional activities (like bulletins, dedicated seminars or working groups) relevant for Estonian aviation industry.					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 . Trafi has established guidance material on SMS implementation on its website at http://www.trafi.fi/ilmailu/saadokset/easa/hallintojarjestelman_%28sms-osa%29_implementointi website and to SMICG material is on Trafi website at http://www.trafi.fi/tietopalvelut/analyysitoiminta The link to ESSI					Implemented
France (FR)	SMS managers are informed of the available material during different meetings with DGAC representatives, including during the specific SMS audits. In addition, practical guides in french language to implement SMS are available on the DGAC website http://www.developpement-durable.gouv.fr/Guides-des-systemes-de-gestion-de.html since many years. Links to material developed by ECAST, EHEST or SMICG are also available on the DGAC website on this page : http://www.developpement-durable.gouv.fr/Liens-externes-utiles.html ; these documents are however not translated in french.					Implemented
Iceland (IC)	ICAA has promoted EHEST/ECAST material and implementad 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 by 8th of April 2014 IR. 965/2012 was fully implemented in Iceland and thereby SMS.					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 2014-2017 - M.004). The IAA is an active participant in both ECAST and EHEST and uses the associated guidance to promote SMS best practice and provides SMS courses (consistent with SMICG SMS material) for Irish industry. 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 it's use by Irish Industry.					Partially Implemented
Italy (IT)	1. ECAST, EHEST and EGAST 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 . 2. A link to ECAST, EHEST and EGAST web pages has been introduced in the ENAC web page promoting Safety Information http://www.enac.gov.it/La_Regolazione_per_la_Sicurezza/Flight_Safety/Safety_information/index.html 3. ECAST, EHEST and EGAST material has been presented to ENAC inspectors during internal SMS basic training courses held in 2014 and in workshops/meetings where ENAC Safety Office participated in 2013 and 2014.					Implemented
Latvia (LT)	1. A link to the ESSI/SMICG material on the CAA's website was developed. 2. Procedures on the safety management manual assessment and safety management system assessment, that include component of safety promotion, implemented through oversight activities.					Partially implemented
Lithuania (LI)	CAA promotes ECAST, EHEST, SMICG SMS material during the meetings and consultations with the representatives of industry. All information on SMS is very useful on the EASA website including Current rulemaking status regarding SSP and SMS also Safety Management at the EU level. CAA did not received any negative response related to the SMS products. A link established on the CAA's website: http://www.caa.lt/index.php?467881435 - 10. Nuorodos Europos strateginė saugos iniciatyva (ESSI) and 11. Dokumentai SMICG We are promoting SMS material developed by SMICG, ICAO, EASA, UK CAA, FAA, CASA, SKYbrary etc. Due to the limited resources we do not develop own material presently. That could be identified as a gap in terms of SMS promotion. Seeking to avoid any misinterpretations or misunderstandings we use all SMS material in the original language (English). CAA's SMS website is continuously updated.					Partially implemented
Luxembourg (LU)	Promotion of SMS is being done, however not on the base of ESSI material.					Partially implemented

Implementation Reports		
State	State's update	Status of the action
Montenegro (ME)	A link to the dedicated European Strategic Safety Initiative website http://www.easa.eu.int/essi/ is provided from the CAA website. Also, a link to the dedicated SMICG website http://www.skybrary.aero/index.php/Safety_Management_International_Collaboration_Group_(SM_ICG) is provided from the CAA website, too.	Implemented
Malta (ML)	1) All relevant material is circulated especially SM ICG products/documents which are all uploaded to the CAD website. (available for download) 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. 5) A number of presentations have been delivered during appropriate fora organised for safety managers and flight ops inspectors during which details of the SSP, SSp, EAPPRI, EAPPRE etc were given. These meetings are usually organised three times a year.	Implemented
The Netherlands (NL)	ESSI and SMICG are being promoted. Links have been established on www.government.nl/issues/aviation/safety The industry is advised to use the SMICG SMS assessment tool for assessing their SMSs. A SMS Light manual has been established for small organisations. The tool offers a manual and a risk assessment and management approach. The SMICG tool is received positive, though the tool is based on Annex 19 and not on EU Organisation requirements.	Implemented
Portugal (PO)	We have developed our own material regarding workshops, seminars, meetings with stakeholders, etc.	Implemented
Romania (RO)	Romanian Civil Aviation Authority (RCAA) developed the document "Present European developments in the field of civil aviation safety", that includes links to the materials developed by ESSI Teams. The document was posted on RCAA website (www.caa.ro) and all service providers have been informed accordingly. The materials developed by ESSI teams were discussed and promoted in the Technical Safety Committee, that includes representatives of the aviation industry. In order to promote SMS implementation by the industry, RCAA has issued and published on RCAA web site the Safety Leaflets "Structure and implementation of Safety Management Systems at aerodromes", and "Guide for the implementation of Safety Management Systems".	Partially implemented
Spain (SP)	Spain promotes SMS material developed by ESSI Teams (ECAST, EHEST and EGAST) and SMICG, through different via: - AESA is a member of SMICG and has translated the most of SM ICG products into Spanish. And such documents are available to industry via web at: http://www.seguridadeaerea.gob.es/lang_castellano/g_r_seguridad/actividades_grupos/default.aspx - Also, there is a link in our website to the English version of the SM ICG products. - There is a link to the ESSI material on AESA's website. Please visit our webpage: http://www.seguridadeaerea.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 improve CAT operators safety level and "GHETA" that is dedicated to improve helicopter operators/aerial works companies. And we plan to set up another working group to deal with General Aviation issues. - In addition to that, we plan to launch a survey, between Spanish service providers, in order to know if these products are known and usefull. - In the "Comisión de Estudio SMS" framework AESA is developing the guidance material requested by CAT operators. Currently, we are working in two guides: a "just culture" guide and another one regarding "safety assessment to manage changes".	Implemented
Sweden (SE)	SMICG material is being promoted on web and seminars to operators. This is part of the training and industry seminars that we are doing every year, where the introduction of SMS has been a major issue lately. At these meetings implementation problems are being discussed with stakeholders. SMICG checklists and supporting material are being promoted at the seminars and being used in the oversight.	Partially implemented
Switzerland (SW)	The FOCA developed its own material to promote and to request SMS implementation - a requirement for CAT operators. Additionally, a detailed SQMS guidance material was developed and published on a special FOCA SMS implementation web-page. 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 ECAST safety culture working group was supported in the development of their safety culture guidance material. When it is completed this will be provided to the industry.	Implemented
United Kingdom (UK)	We promote some of the SMICG products such as the 10 things you need to know about SMS, senior manager and front line managers role in SMS. This is distributed as a handout at all safety related conferences and training courses for inspectors and industry. In addition we provide our own guidance material and use an SMS evaluation tool based on the SMICG evaluation tool. We do not promote ESSI products as they have not been found useful by industry or our staff and we have already produced sufficient guidance material. Refer to www.caa.co.uk/sms for our guidance and tools for industry.	Partially implemented

Summary

- 16 States (BE, BU, CR,EE, FI, FR,IC, IR, IT, LT, LI, ME, NL, RO, SP, SW) have already established a link to the ESSI material on the CAA's website.
- 14 States (BE, EE, FI, FR, IC, IR, IT, LT, LI, ML, NL, SP, SW, UK) have distributed or discuss ESSI material with the industry. This has been done in various forms like consultative meetings with representatives from various domains, dedicated safety symposiums and other industry safety events, including specific actions in national safety plans, publishing informative notes or via electronic distribution to the industry, direct communication during oversight audits and using the material to organise SMS courses.
- 7 States (BE, BU, FI, FR, IC, IR, IT) 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, IR, LI, LT, IT, RO.
- The ARMS methodology (endorsed by ECAST) is being used and promoted in IR and LU.
- 10 States (BE, BU, FR, LI, SP, SW, SE, ML, ME, UK) are also actively promoting SMICG products. 7 States (+ EASA) participate in the developing the products.

SYS2.7

Implemented

Partially implemented

Planned

Not planned/not applicable

Not planned/not applicable

Planned

0

2

4

6

8

10

12

14

	Planned	Not planned/not applicable	Not planned/not applicable	Planned	Partially implemented	Implemented
■ SYS2.7	0	0	0	0	9	13

EASp Implementation in the States - 2014

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	Note: The action is a safety promotion initiative and it should not be confused with activities conducted in the framework of aircraft operators oversight.	
	1. Please indicate:	
	<ul style="list-style-type: none">• If your State has organised meetings with aircraft operators to promote FDM in 2014 or 2013. If yes, please indicate what were the proportions of your AOC holders operating aeroplanes of over 27 000 kg MCTOM, of those operating aeroplanes with an MCTOM of less than 27 000 kg and of those operating helicopters;• If your State has contributed to any other type of activity to promote FDM, or that makes use of FDM data, in 2014 or 2013;• The plans of your State with regards to FDM promotion.	
	2. Please indicate:	
	<ul style="list-style-type: none">• If collaborative projects with aircraft operators or studies have been conducted to identify FDM events relevant for preventing either Runway Excursions (RE), or Mid-Air Collisions (MAC), or Controlled Flight Into Terrain (CFIT) or Loss of Control in flight (LOC-I). If yes, please sum up what the status of these works are;• If for these works, use was made of the document titled "Developing standardised FDM-based indicators" produced by EAFDM. If applicable, please provide feedback on this EAFDM document;• If other categories of occurrence than RE, MAC, CFIT and LOC-I were considered as part of these works. If yes, please indicate which categories of occurrence were also covered and why;	
3. Please indicate:		
<ul style="list-style-type: none">• If your State has tried any project of voluntary collection of data or of information derived from FDM programmes. If yes, please sum up what type of data/information was collected, what use was made by your State, and the expectations expressed by aircraft operators taking part to this project.		

Implementation Reports		
State	State's update	Status of the action
Albania (AL)	Actually Albania has no air operator but until november 2013 the operator "Balle Air" has initially developed a FDM procedure/system in accordance with M.O. no.92. / Under development of SSP we are consider operational issues identified at the European levels	Not applicable
Belgium (BE)	1. One offshore helicopter operator was encouraged to implement FDM on its fleet, this will (probably) become a requirement under the EASA OPS SPA.offshore approval. The BCAA participates at EAFDM meetings & drafting of documents. Guidance for National Aviation Authorities Setting up a National Flight Data Monitoring Forum will be a good supporting document to guide the BCAA to set-up a forum with the Belgian operators. 2. Operators were requested to identify their FDM events related to the EASp top list.	Planned
Bulgaria (BU)	BG CAA has organised meeting with aircraft operators to promote FDM in march 2014.	Implemented
Croatia (CR)	At this moment, no short term planned activities related to this issue.	Planned
Estonia (EE)	There are 2 operators in Estonia that operate aeroplanes of over 27000kg MCTOM. One of them operates only one aircraft and is a daughter company of a Latvian operator, the other one is Estonian national carrier. Estonian CAA has held meetings with either one of the companies. The national carrier is only starting to implement FDM indicators and analysis. The other operator manages FDM through mother company (all nominated postholders are shared with mother company as well). There have been some interest in FDM among operators with aeroplanes less than 27000kg MCTOM but so far it is considered not practicable measure. So far there are no collaborative projects initiated (until national carrier establishes relevant FDM indicators). EAFDM guidance document has been distributed and operators consider this useful and practicable for implementation.	Planned
Finland (FI)	1. - National operators gather twice annually to discuss FDM programmes. Meetings started in 2010. First meeting of 2014 was in April, next meeting scheduled for 10th October 2014. Two meetings were arranged in 2013. - 0 AOC holders operate helicopters, 1 holder aeroplanes less than 27000kg and the rest aeroplanes over 27000kg. - Finland plans to continue the FDM meetings and the good dialogue that is happening between the operators, military, ANSP and the authority. 2. - Many operators have independently identified precursors from FDM data relating to RE, MAC, CFIT and LOC-I as these are also described in the Finnish Aviation Safety Programme. Information of the events followed has been distributed f.ex. in the FDM meetings. - Finland is closely involved in the work of EAFDM and the mentioned document has been distributed to the operators. Operators are waiting for the standardised FDM-based indicators to be implemented in the different FDM software products. 3. Some operators report regularly their FDM event summaries categorised based on SPI classes. So far this data has been used to complement other gather safety information within the CAA.	Implemented
France (FR)	A working group has been launched at the end of 2013 focusing specifically on FDM. It gathers approximately 15 French companies and now meets on a regular basis. All people participating in these meetings are FDM specialists from aircraft operators, but also from aircraft manufacturers and subcontractors providing FDM services to airlines. The objective of this working group was to build a common understanding of the events which should be monitored and to determine the best ways to technically do it, based on the shared experience of all the participants. A guide synthesizing this work is due to be published in the very near future. The group has taken into account the document produced by EAFDM and provided feedback directly to the people in charge of this document. The working method which was adopted was to list the most interesting events monitored by the operators and to share the algorithms and thresholds used in order to keep the best and determine what is currently the state-of-the-art. In particular, an extensive work was done concerning the monitoring of the deceleration phase of landing in order to identify precursors to RWY-EXC. The priorities of the French SSP (which encompasses the EASp) were also addressed and new techniques, which were not previously implemented by any operator, were developed by the group. An example is the creation of an algorithm aiming at detecting non-compliant approaches. Given the eagerness of the operators to continue to share their experience, new meetings are scheduled in the future. In the framework of this group, it was also offered to share some outputs of FDM. An experiment is being launched aiming at sharing analysed results, such as ACAS RA, GPWS alarms, etc., between voluntary operators.	Implemented
Iceland (IC)	Icetra has established regular meeting with the 4 operators in Iceland that fall under the FDM requirements. The meetings are for information and participation purposes and promoting the material developed by EAFDM. The main issue of the group has been to understand and implement the new document "Developing standardised FDM-based indicators" and also the document for the "Authority Oversight of FDM" in progress. RE, MAC, CFIT and LOC-I were considered as part of these works	Implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Ireland (IR)	<p>Four out of the five main Irish airlines operate aircraft over 27,000kg, and have implemented flight data monitoring programmes and are actively using the data to identify risk precursors and implement mitigating action.</p> <p>1)&2) The IAA, in conjunction with the operators, has reviewed the FDM programmes in all affected Irish AOC holders to confirm they are monitoring the 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 SMS/FDM. More detailed follow up reviews are also conducted. An action item has been added to the SSp 2014-2017 for Ireland to encourage operators to use the EAFDM "Developing standardised FDM-based indicators". The IAA is hosting a seminar to review safety performance and SSp actions with all the post holders from Irish operators in Q3 2014.</p> <p>3) On-going operator occurrence reporting reviews (eg monthly) are conducted which will include SMS/FDM information as appropriate. 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 aggregated report (eg quarterly or annually).</p>	Partially implemented
Italy (IT)	<p>Italy has not yet organised meetings with aircraft operators to promote FDM and no collaborative project or study has been conducted to identify FDM events.</p> <p>An action on FDM promotion should be included in the new edition 2014-2017 of ENAC Safety Plan, that is still at draft level.</p>	Planned
Latvia (LT)	<p>Beyond the oversight function, for the promotion of FDM at national level, and taking into account the EASp and European Authorities Coordination Group on Flight Data Monitoring (EAFDM) activities, LV CAA has established its own approach to FDM, putting in place regular safety communications dedicated to FDM with its national operators. Aircraft Operations Division Communication (AODCOM, No: 01/14, Issue: May 13, 2014) was designed to communicate with operators on the FDM programme improvements, as well as the appointment of the project manager, who will manage the FDM forums at the national level.</p> <p>It was proposed: Operators operating aeroplanes of over 27 000 kg MCTOM were encouraged to include in the FDM programme standardised FDM-based indicators relevant for the prevention of RE, MAC, CFIT and LOC-I. Yet more operators were encouraged on a voluntary basis, regular reporting of standardised FDM-based indicators focused on common risk factors (e.g. FDM events summary, newsletters, crew information lists) to the Authority. Authority collects other data (not only derived from FDM) on: ATC occurrences, RA, crew composition, lightning strike, laser attacks, cargo occurrences, aborted TO, breakdown in communication, urgency PAN, PAN declared, etc. Regular safety meetings or forums to further explore analysis techniques and to share best practice on proper integration of FDM with the SMS are considered as useful tool in the promotion of FDM at national level. Therefore the operators were requested to identify their opportunity to take control of this project in the country, coordinating their activities with LV CAA. The identified expert (Forum Manager) as agreed by all operators should define a confidentiality agreement. Confidentiality agreement for the national FDM forum needs to be adapted to the national context. It should be written in LV CAA working language. All text can be translated in English</p>	Partially implemented
Lithuania (LI)	<p>1. Due to the lack of the CAA's expertise in this field the implementation of SYS3.11 delays. However the FDM issue is included into CAA Aviation Safety Plan (Item No.7): http://www.caa.lt/index.php?467881435 Civilinės aviacijos administracijos aviacijos saugos planas (CAA ASP)2014-2017 m.: •sakymas •planas The inclusion of the FDM issue into the SSP should boost implementation of SYS.3.1.The best practice of the MS on the oversight of the FDM programmes should be very useful. We are familiarised with the EAFDM document Developing Standardised FDM-based Indicators.This explicite and comprehensive document is a really useful tool. CAA promotes FDM on the CAA's SMS website: http://www.caa.lt/index.php?467881435 FDM 1.EAFDM 2.EOFDM veikla 3.Skybrary 4.CAP 739 5.FAA AC120-82 6.FDM booklet for crew 7.Guidance for National Aviation Authorities Setting up a national Flight Data Monitoring forum 8.DEVELOPING STANDARDISED FDM-BASED INDICATORS The answers to the questions No. 2 and 3: 2. Presently the answer is NO. 3. Presently the answer is NO.</p>	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
Montenegro (ME)	At this moment, no planned activities related to this issue.	Not applicable
Malta (ML)	FDM is part of the APFSP (SMS) oversight audit conducted on a yearly basis. No official promotion programme has been setup as it is the policy of FOI to adhere to the requirements of the regulations.	Partially Implemented
The Netherlands (NL)	<p>EAFDM activities have not yet been started by the state.</p> <p>EAFDM will be covered in the next SSP, covering the period 2015-2019.</p>	Planned
Portugal (PO)		Implemented
Romania (RO)	Dialogue with aircraft operators on FDM programmes has been established as part of the RCAA safety evaluation and analysis process. Data obtained through the FDM are used by the aircraft operators when performing internal safety analysis and for the elaboration of the operators' semestrial synthetic safety reports, which are sent to the RCAA according to the requirements of the Romanian Civil Aviation Regulation RACR-REAC "Reporting of Civil Aviation Events".	Partially implemented
Spain (SP)	<p>1. AESA is part of EAFDM working group.</p> <p>2. AESA set up a National FDM working group, equivalent to EOFDM, in 21st October 2013. The National FDM working group is a voluntary initiative that will meet at least two times per year. Currently, all Spanish AOC holders operating aeroplanes of over 27.000 Kg MCTOM are part of the National FDM working group. They are 14 aircraft operators. The proportion of AOC holders operating aeroplanes of over 27000 kg MCTOM of those operating aeroplanes with an MCTOM of less than 27000 kg is 37%. (To compute this proportion, we have only taken into account the aircraft operators allowed to operate air passenger services, cargo and/or mail for remuneration and/or hire).</p> <p>3. FDM programme priorities are operational issues identified at the European and national levels together with operational issues identified by air operators. Currently, we have analysed or are analysing the following issues: • TCAS alerts, that are events relevant for preventing MAC. We have identified the points in our airspace in which TCAS alerts are concentrated. We have shared this analysis with Aena Air Navigation. Some actions are being conducted in order to reduce TCAS alerts. • Landing with tail wind, that are events relevant for preventing RE. Currently we are analysing this issue. More information will be provided in the future. • GPWS/EGPWS alerts, that are events relevant for preventing CFIT. Currently we are analysing this issue. More information will be provided in the future.</p> <p>4. In addition to that, in the scope of the Safety Performance Indicators (SPIs) 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. We are going to update the list of SPIs taking into account the indicators identified by the "Comisión de Estudio SMS". Please see: http://www.seguridadaerea.gob.es/media/4147073/a_dea_rseg_04.pdf</p>	Implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Sweden (SE)	<p>1. A Flight Safety Seminar with Swedish AOC Operators was held in December 2013. The seminar included promotion of FDM in particular and FDM as a critical part in Safety Management and safety culture. FDM training of OPS inspectors was performed 12 Dec 2013. The purpose was to enhance Principal Inspectors knowledge of FDM output in relation to safety management systems. Even though this safety promotion initiative does not directly refer to oversight programs the plan now is to assure the level of implementation of the above presented activities by enhanced oversight audit questions related to FDM.</p> <p>2. No collaborative projects performed. FDM monitoring and performance is a part of the oversight program for the applicable AOC operators and promotion program performed according to above.</p> <p>3. No voluntary collections performed.</p>	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 (EAFDM).</p> <p>Regular meetings with the industry are held (twice per year). The last meeting was held in May 2014. A specific form was created to collect data from the stakeholders, based on the EAFDM document "developing standardised FDM-based indicators with the focus on the following risks identified by EASA: Runway Excursions (RE), Mid-Air Collisions (MAC), Controlled Flight Into Terrain (CFIT) or Loss of Control Inflight (LOC-I). A feedback is expected before autumn 2014.</p>	Implemented
United Kingdom (UK)	<p>Part 1</p> <p>i. Yes - the UK CAA runs and hosts the UK FDM Operators meeting twice a year. Approximately 29% of UK aeroplane AOCs operate aircraft over 27000kg. Approximately 68% of these are members of the UK FDM Operators Group. Approximately 77% of the UK AOCs in the group operate aircraft over 27000 kg and 45% of the UK AOCs in the group operate aircraft under 27000 kg (including those with aircraft fleets above and below 27000 kg). In addition, the UK CAA has started a separate UK FDM forum for its offshore helicopter operators, which currently involves three UK offshore helicopter operators. Approximately 37% of UK AOCs are helicopter operators.</p> <p>ii. The UK CAA's FDM Specialists present FDM modules for CAA International (for Airworthiness and FOI courses), the UK Flight Safety Committee Flight Safety Officer course and present multiple modules for the Cranfield University FDM short course.</p> <p>In addition to this the UK CAA has continued to lead a project to promote the use of FDM among business aviation operators.</p> <p>iii. The UK CAA intends to continue all the aforementioned promotional activities.</p> <p>Part 2</p> <p>i. The CAA has actively supported three projects in this regard. Initially the FDM-based precursors project, which involved voluntary partnership with operators and FDM software developers to develop standardised FDM-based precursor events on Runway Excursions (RE), Mid-Air Collisions (MAC), Controlled Flight Into Terrain (CFIT) and Loss of Control in flight (LOC-I). Following our experience (see Part 3), this has since evolved into supporting the EAFDM's working groups A and B in identifying and developing precursor measures for production into industry 'best practice' guidance for Runway Excursions (RE), Mid-Air Collisions (MAC), Controlled Flight Into Terrain (CFIT) and Loss of Control in flight (LOC-I). Concurrent to these activities the UK CAA has supported the EAFDM in the development of higher level indicators of 'unsafe situations' related to these subjects and thus subsequently in the publication of the document "Developing standardised FDM-based indicators".</p> <p>ii. The document was highlighted to members of the UK Operator's Group with operators being asked about their FDM related to the 'unsafe situations' noted in the document. This is being done as part of the EAFDM action plan which supports addressing action 3.11. In addition, the EAFDM document's contents have been factored into the UK CAA's support in developing the EAFDM's best practice guidance material for FDM-based precursor measures. Feedback on the document has been given via the EAFDM, which the UKCAA is a member of.</p> <p>iii. No other categories of occurrence have yet been considered.</p> <p>Part 3</p> <p>i. The UK CAA has collected voluntarily submitted FDM derived data from aeroplane operators for many years as part of the FDM Operators Group (although this has not been run as a specific project). The data collected was basic e.g. number of late land flap events below 500ft, go-arounds below 1000ft, hard landings; all by airfield location - this also including activity levels in terms of flights scanned per fleet and airfield. The technicalities of the events were not standardised and submissions were based on the operator's judgement. This data has over the years been aggregated to varying degrees and presented to the operators at the FDM Operators Group meetings. It has been found that the data provided has been of limited use as far as gaining actionable information for both the regulator and the operators involved. Having recently discussed the collection of this data, we have found that those who have submitted the data have either expected useful feedback that they could integrate into their own SMS or have expected that we are able to make use of the information for our own action. With very rare exception neither of these aspirations has been possible due to the inherent variability between operations (technical and non-technical) and due to the lack of context for what is submitted. This, together with the inherent unreliability of regular voluntary submission has greatly limited the extent and usefulness of the analyses carried out.</p> <p>• Overall our experience suggests that the concept of a regularly collected, voluntarily submitted FDM data summary, is not an effective means for NAAs to identify and monitor risks at the industry level. The primary reason is the lack of context for the collected data: data summaries only provide a high level picture of "what" happened, but not "why" it happened and what can be done about it. The transformation of FDM summaries into actionable information requires a significant amount of context which is only available at the operator level.</p> <p>• FDM data summaries are outside of the NAA regulatory remit, therefore the data submitted will have to be voluntary, which means inconsistent data which covers only a fraction of an already limited data subset (FDM requirements do not cover all commercial flights, thus voluntary data samples are still limited to a certain extent even when "complete").</p> <p>• The data submitted by Operators has been inconsistent or incomplete despite best efforts to standardise their submissions using a template. Therefore retrospective trend analysis is difficult or impossible due to these inconsistencies.</p> <p>The UK CAA also initiated the FDM-based precursors project, which ran from 2011 onwards. The objective of this voluntary collaborative (with FDM software developers and operators) project was to determine the feasibility of developing standardised FDM-based events for RE, MAC, CFIT and LOC. If these were successfully developed, there were aspirations on both sides that with sufficient operator uptake, eventually it would be possible to collect FDM derived information based on these standardised events to make "like for like" comparisons and gather meaningful intelligence. The UK CAA attempted to collect trial data based on a specific standardised event implemented by a participating FDM software developer, but it was found that the data collected was also very limited and incomplete, with numerous technicalities that could not be readily verified. In general there were also issues with industry capacity to participate in such a project.</p> <p>Based on the lessons and experience accumulated over the years, the UK CAA has decided to stop collecting FDM data summaries from operators. Our approach has been changed to act in several fronts:</p> <p>1) Empower FDM operators to fully explore the potential of their own flight data, through the development of best practices, analysis techniques and guidance material</p> <p>2) Enhance FDM oversight to verify whether FDM operators are employing the resources made available to them in step 1 and the findings from their FDM programmes are adequately fed into their SMS (under development)</p> <p>3) Collect safety intelligence (rather than de-contextualized data summaries) from the operator's SMS and incorporate it in the CAA Safety Plan (under development)</p>	Implemented

Summary	FDM promotion activities:	<div><div>SYS3.11</div><div><div><div>Implemented</div><div>Partially implemented</div><div>Planned</div><div>Not planned/not applicable</div></div><div><div><div>Not planned/not applicable</div><div>Planned</div><div>Partially implemented</div><div>Implemented</div></div><div><div>SYS3.11</div><div>3</div><div>6</div><div>4</div><div>9</div></div></div></div></div>
	• 10 States (BU, EE, FI, FR, IC, IR, LT, SP, SW, SE, SP, UK) have organised meetings with aircraft operators to promote FDM in 2014 or 2013 or establish a regular dialogue with operators on the subject.	
	• FDM promotion (FR, FI, SE, UK). FR is about to publish a guide to build a common understanding of events to be monitored and the best way to do it. SE has organised a flight safety seminar with AoC holders promoting FDM. Also the UK is promoting FDM in various forums and toward business aviation operators.	
	• 9 States (EE, FI, FR, IC, IR, LT, SP, SW, UK) are working with their aircraft operators on defining FDM events relevant for preventing RE, MAC, CFIT and/or LOC-I and are using the guidance developed by EAFDM. FI has incorporated FDM precursors used by their operators into their SSP, while IR has created an action on the State Safety Plan to encourage the use of EAFDM documentation. One State (BE) requested its operators to identify FDM events to cover EASp priorities. SW has created a dedicated form to collect data based on the EAFDM document "developing standardised FDM-based indicators".	
	• 4 States (FI, FR, SP, UK) have tried projects of voluntary collection of data derived from FDM programmes. In FI operators report FDM event summaries to complement information gathered by the Authority. In FR they are experimenting with sharing analysed results such as ACAS RA or GPWS alarms. Some operators are working on developing target levels for certain high risk areas. In SP derived SPIs from FDM data provided by air operators. UK also collected FDM event summaries from aircraft operators for a few years and they caution about the challenges and the limited benefits. Instead, UK would like to 'collect safety intelligence (...) from the operator's SMS' but this is still under development.	
• 3 States (LI, IT, NL) plan to organise meetings with aircraft operators to promote FDM or to include a dedicated agenda item on their flight ops meetings.		

EASp Implementation in the States - 2014

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.		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. A list with some of the events being monitored by States is available in the spreadsheet named "Hazard List".</p> <p>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/long landing events. • High-speed touchdown events. • High-speed rejected take-off events. • Landings and takeoffs performed over the approved wind component/occurrences with crosswind conditions • Number of landing gear (ATA 32) and revers faults/occurrences • Runway events where runway contamination is a contributory or causal factor. • Deceleration profile of each airplane with a view to identify near runway excursions • Loss of control on the ground • Abnormal runway contacts <p>Based on specific actions being undertaken:</p> <ul style="list-style-type: none"> • Proportion of air traffic controllers to have implemented unstable approach awareness training. • Proportion of aircraft operators to have implemented and actively monitored Runway Excursion precursor measures. • Proportion of licensed aerodromes reporting runway surface condition. <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
Albania (AL)	SSP under development and working close with France CAA Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Planned
Belgium (BE)	<p>Reported Occurrences:</p> <ul style="list-style-type: none"> • CAT Runway excursion and overrun events. 2010:0, 2011:0, 2012:0, 2013:0 • Unstable/de-stabilised approaches: all 2010:42, 2011:71, 2012:52, 2013:57 proportion that continues to land: 2010:13, 2011:41, 2012:26, 2013:22 • Deep landing events: 2010:0, 2011:1, 2012:2, 2013:5 • High-speed rejected take-off events. 2010:3, 2011:2, 2012:1, 2013:0 <p>1 unstabilized approach (deep landing event) in 2013 was considered high risk.</p> <p>Unstable/ De-stabilised approaches are the main factor that contributed to the risk.</p> <p>The BCAA considers to take risk mitigation actions against unstabilized approaches and to implement recommendations from the European Action Plan for the prevention of Runway Excursions. These actions will be published in one of the future updates of the Belgian Safety Plan.</p>	Planned
Bulgaria (BU)	<p>Reported occurrences:</p> <ul style="list-style-type: none"> • Runway excursions. 2013:1 • Go-around events due to unstable approaches. 2013:13 • Go-around events due to wind shear, severe turbulence, low visibility. 2013:32 <p>Unstable/ De-stabilised approaches are the main factor that contributed to the risk.</p> <p>Urgent audit of all international airports in Republic of Bulgaria has been executed.</p> <p>In the pre-shift electronic briefing is included information about the importance of the stable approach and the need to strictly follow the final approach procedures.</p> <p>In the ATCO training program are implemented exercises and included information regarding the runway excursion events.</p>	Partially implemented
Croatia (CR)	<p>CCAA included RE in SSP and starts to measure RE since 2012. Until 30 of June 2014 we had 23 occurrences which might lead to RE. All occurrences except one (landing of DH8D without LDG extended) was considered as low risk event. Prevailing factors of RE are technical malfunctions of landing gear and tire damages. 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:</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. <p>CCAA monitors effectiveness of taken measures through participation in LRST and oversight activities (audits, inspections).</p>	Partially implemented
Estonia (EE)	Estonian CAA has information related to RE high risk events which have been reported but according to our estimation is that not all events are adequately reported by all operators. Air traffic controllers usually indicate in their reports these cases. ATC awareness is considered adequate but aircraft operators don't systematically monitor RE precursors. Aerodrome operators runway surface condition reporting is considered proportionate.	Partially implemented
Finland (FI)	<p>During the last 5 years, there has been ca 125 rejected take off occurrences (about 100 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

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
France (FR)	<p>2013</p> <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> <p>2014</p> <p>The last significant commercial runway excursion with substantial damage but without fatalities occurred march 2013 in Lyon.</p> <p>As a consequence of the study mentioned last year, a software tool to identify near runway excursions within a given period is now available at Charles de Gaulle airport.</p> <p>The major working areas covering this matter are described in the "2018 agenda" in operational objectives B/2 and B/3 http://www.developpement-durable.gouv.fr/IMG/pdf/DGAC-PS-2018-GB-WEB.pdf</p> <p>No indicator has been set up for the time being ; an indicator related to the number of near runway excursion at Charles de Gaulle using the tool mentioned above may be set up in the near future.</p> <p>NB : to be safety relevant, the examples of measures are still to be worked on ; anyway they should not be based on reports only (DGAC stopped "measuring" at national level unstable approaches based on pilot reports, the corresponding data was not found to be useful by the SSP management committee after three years of data processing).</p> <p>Several major French airlines have amended their FdM analysis in 2013 and 2014 in order to detect near runway excursions (criteria used : to fast towards the end of the runway)</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
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 2014-2017 in action item FOD.002.</p> <p>The IAA collects, classifies and analyses Runway Excursion events. A specific action in the SSp is targeted at ensuring Irish operators are monitoring and reporting the precursors to RE events. In addition the IAA safety analysis tools are being developed to enable easier access to the precursor events.</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. None of the RE reports involving large transport aircraft were considered high risk (using ARMS RM Score > 10). Abnormal Runway Contact events are separately categorised as ARC events. There were 138 ARC events reported in the past three years, 13 of which were considered high risk using ARMS. The majority of the ARC events were actual, or suspected, hard landings or tail strikes and none of these events lead to a runway excursion.</p> <p>In respect of unstable approaches the IAA is also developing further guidance and training on the ADREP categorisation of unstable approach events (eg when to select CFIT, LOC-I, RE or other categories following an unstable approach or go-around event)</p>	Implemented
Italy (IT)	<p>RE was included in ENAC Safety Plan 2012-2015 as action TOP 1.1.1.</p> <p>The safety action was to determine national RE indicators and a measuring plan.</p> <p>A KPI was established at experimental level and it was applied to the only three events occurred in 2012.</p> <p>Such method is now under re-evaluation and, therefore, a new safety action on RE should be introduced in the new edition 2014-2017 of ENAC Safety Plan, that is still at draft level.</p>	Partially implemented
Latvia (LT)	<p>RE included in SSP.</p> <p>3 main areas that contributed to RE risk:</p> <ul style="list-style-type: none"> - Un stabilised approaches; - Establishing and adhering to SOPs; - Combination of risk factors, such as abnormal winds, high-speed touchdown and thrust reverser issues. <p>Follow-up on occurrence reports addresses corresponding mitigation actions carried out by LV CAA using AOD Database (FACTOR/SIB/AD).</p>	Partially implemented
Lithuania (LI)	According to the CAA Aviation Safety Plan 2014-2017 item. No 9 RE will be included in the SSP in 2014. The State did not exposed the RE scenarios in the past 5 years. We are measuring the RE.	Planned
Luxembourg (LU)	Due to the configuration of Luxembourg airport (runway 4000x60m, no significant obstacles), runway excursions are rare and of low severity. All of the few runway excursions in recent years were caused by GA single engine aircraft and all without injury to persons, with the RE as consequential event after an abnormal runway contact (ARC). DAC considers that no specific action for runway excursions is required and does not plan to include this topic in the SSP.	Not applicable
Montenegro (ME)	<p>Runway Excursions do not feature highly in the analysis of mandatory and voluntary occurrences reported to the CAA but nevertheless due to the broader European and Worldwide experiences reported by ICAO/EASA RE is included in the CAA SSp 2013-2016 in action item 2.2.1.</p> <p>The CAA collects, classifies and analyses Runway Excursion events. The CAA 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 CAA has not recorded any RE events for the past three years.</p>	Implemented
Malta (ML)	<p>Yes. Number of RE: 5.</p> <p>All ATCOs have been exposed to briefing sessions on The European action Plan for RE and RI.</p> <p>The only licensed aerodrome on the island reports the RWY surface conditions to ATC. This information is broadcast on the ATIS.</p> <p>These are measured by occurrence reports. Mitigated measures are taken following the investigation process.</p>	Human Error. Partially implemented
The Netherlands (NL)	<p>Runway Safety Teams have been established.</p> <p>On Amsterdam Airport, the Safety Platform Schiphol applies the EAPPRE.</p> <p>RE have not been identified as a risk in The Netherlands.</p> <p>Runway excursions are not one of the safety concerns in the SSP.</p>	Partly implemented
Portugal (PO)		Planned

Implementation Reports												
State	State's update	Status of the action										
Romania (RO)	<p>The first edition of the Romanian SSP (in force) does not include Acceptable Levels of Safety (ALoS). A second edition of the document has been elaborated by the Technical Safety Committee and is currently being analyzed in order to be approved by the Safety Evaluation Committee (in accordance with the provisions of the Romanian SSP). This second edition includes several safety indicators and the related ALoS, one of these being RE. At present, RE are addressed by service providers through their SMS. RCAA is analyzing specific RE occurrences, establishes measures accordingly and verifies their implementation as part of the oversight process.</p> <p>Numbers of RE occurrences reported to RCAA:</p> <p>2009 - 2 2010 - 1 2011 - 0 2012 - 4 2013 - 2</p>	Partially implemented										
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 the RE occurrences that are registered in our Spanish MORS during 2009-2013 period. In this period, there are 19 accidents, 23 serious incident and 26 major incidents (NOTE: We have considered ALL the RE occurrences, therefore we have not filtered by airspace or Spanish AOC)</p> <p>Regarding the hazards under RE, the number of occurrences, during the 2009-2013 period, is:</p> <p>- Fatigue an (NOTE: We have considered ALL the hazards without analysing if these hazards have as consequence a RE event)</p> <p>2.- Regarding the hazards in the RE area, there are::</p> <p>- Lateral excursions: 76 - Overrun events: 8 - Unstable/de-stabilised approaches: 1033 - Deep landing events: 8 - High-speed rejected take-off events: 3 - Adverse weather during approach: 1987 - Runway surface condition and contamination: 4 - Braking action by flight crew: 32 - Problems with the landing gear or thrust reversers: 716 - Abnormal runway contacts: 174 - Landings and takeoffs performed over the approved wind component: 0 - Flight crew errors: 0 - FOD: 539 - High speed touch down: 1 - LOC-G: 21</p> <p>3.- Regarding specific actions being undertaken:</p> <p>• In the Safety Performance Indicators Programme, that we have established with aircraft operators, all the operators monthly report us the nº of unstabilised approaches and, in addition to that, we plan to request the nº of runway excursions and the nº of long landing</p> <p>• In the Safety Performance Indicators Programme, that we have established with aerodromes, all the aerodromes monthly report us the airport runway revisions done versus the planned ones.</p>	Implemented										
Sweden (SE)	<p>The results are being communicated with AOC-holders but not with air traffic control, airport operators and pilot representatives.</p>	Partially implemented										
Switzerland (SW)	<p>Occurrences 2010-2014 Runway Side Excursion: 22, 11 high risk Aircraft Overrun: 11, 7 high risk Unstable approaches: 93, 1 high risk High speed rejected takeoffs: 27, 2 high risk</p> <p>RE are included in Switzerland's SPI's.</p> <p>Based on the FOCA initiative the implementation of EAPPRE recommendations is discussed in every local Runway Safety Team for all addressed domains.</p> <p>- At certified aerodromes REs are addressed as part of the proactive and/or reactive safety management process (identification of hazards and non-compliances including risk mitigation, analysis of occurrences).</p> <p>- Effectiveness of taken measures is monitored by FOCA through participation in LRST and oversight activities (audits, inspections), if required.</p>	Implemented										
United Kingdom (UK)	<p>The UK CAA continues with its work in reducing the risks associated with runway excursions. Runway excursions are included in the draft UK Safety Plan. A combined 'Runway Safety Group' has been formed which includes both CAA and industry (airlines / ANSPs / airports) representation. Completed work includes: FDM unstable /de-stabilised approach parameters developed and shared with industry, guidance provided to industry to raise awareness and reduce the occurrences of ATC contributing to unstable approaches, a trial to standardise the reporting of runway contamination and provide an estimated braking action to pilots, guidance produced to support aerodromes completing a risk assessment where the runway end safety area (RESA) only meets the minimum requirements, a survey on unstabilised approaches conducted with AOC holders, runway safety leading indicator survey conducted at appropriate UK Aerodromes. The UK CAA receives mandatory occurrence reports related to runway excursions but does not have access to precursor information, such as FDM, which is held by organisations. The UK CAA continues to work with organisations to improve sharing of safety related information.</p> <p>Future work will focus on: supporting efforts to align international standards/practices associated with both runway braking action and aircraft performance so that clear, appropriate information is passed to operators; developing the use of safety performance indicators related to runway excursions.</p> <p>Key performance metrics:</p> <ul style="list-style-type: none">• number of runway excursions and overruns• number of unstable/de-stabilised approaches that continue to a landing• number of 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 Air Navigation Service Providers to have completed unstable approach awareness training through Training in Unusual Circumstances and Emergencies (TRUCE)• 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. One State (FI) reported ca 125 rejected take off occurrences (about 100 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>Various States have expressed concerns with reporting levels.</p> <p>12 States are addressing RE at national level in the following ways: 6 States (IR, IT, ME, SP, SW, UK) in Safety Plans, 5 States (CR, FI,LT, RO and FR) in SSPs and 1 States (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>In two states (NL, LU) RE have not been identified as a risk. Runway excursions are not one of the safety concerns in the SSP.</p> <p>4 States (AL, BE, LI, PO) have plans to address the issue in the future.</p> <p>Various States (UK, 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>	<div><div><div><div><div><div></div><div>AER1.5</div></div><div><div></div><div>Implemented</div></div><div><div></div><div>Partially implemented</div></div><div><div></div><div>Planned</div></div><div><div></div><div>Not planned/not applicable</div></div></div><div><div></div><div>0</div><div>2</div><div>4</div><div>6</div><div>8</div><div>10</div><div>12</div><div>14</div></div></div><table><tr><th></th><th>Not planned/not applicable</th><th>Planned</th><th>Partially implemented</th><th>Implemented</th></tr><tr><td>AER1.5</td><td>1</td><td>4</td><td>12</td><td>5</td></tr></table></div></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER1.5	1	4	12	5
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AER1.5	1	4	12	5								

EASp Implementation in the States - 2014

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		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> <p>Best practice examples:</p> <ul style="list-style-type: none"> - Issue an Information notice to industry promoting EAPPRE in order to encourage organisations to review and implement appropriate recommendations. - Assess EAPPRE recommendations, establish priorities and include them in a dedicated State Safety plan. - Assess organisations (e.g. ANSPs, aerodrome, aircraft operators, etc) for compliance with EAPPRE recommendations. - Assess compliance with EAPPRE through aerodrome certification process, the State Safety Program, oversight activities and SMS oversight activities. - Discuss the implementation of EAPPRE in every local Runway Safety Team for all addressed domains. - CAA to monitor effectiveness of taken measures through participation in LRST and oversight activities (audits, inspections), if required. <p>The European Single Sky Implementation Plan (ESSIP 2013) has established objective SAF11 - Improve runway safety by preventing runway excursions to monitor EAPPRE implementation.</p> <p>ESSIP 2013 - http://www.eurocontrol.int/articles/essip-plan.</p>					
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Implementation Reports		
State	State's update	Status of the action
Albania (AL)	SSP under development and working close with France CAA / Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Planned
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 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 (BG)	BULATSA is performing constant monitoring of the go-around events in order to determine the causes and to identify the possible risk of more serious events.	Partially implemented
Croatia (CR)	In 2014 CCAA has planned in SSP to publish Aviation Safety Information letter to implement the European Action Plan for the Prevention of Runway Excursions.	Planned
Estonia (EE)	Estonian CAA considers the recommendations stated in the EAPPRE sufficiently addressed by relevant stakeholders, there are no specific activities planned in relation to EAPPRE. Related information has been distributed to industry. Runway Safety Team has been actively operational for several years with representation of ECAA.	Implemented
Finland (FI)	Some EAPPRE recommendations have been implemented. In Finnish Aviation Safety Plan contains an action item for this issue.	Partially implemented
France (FR)	<p>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.</p> <p>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.</p> <p>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.</p> <p>2014: See response made last year (above) which is still valid.</p> <p>In addition, operational objective B/5 of the "2018 agenda" is focusing on establishing local safety teams.</p>	Partially implemented
Iceland (IC)	Icetra 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 Icetra's continuous oversight; with analysis of findings and reported occurrences that may be interlinked with MAC e.g. loss of separation occurrences. (iii) Promotion: Icetra aims to further promote for initiatives and studies conducted at international level; in particular relating to NAT and ER region. Icetra 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)	The IAA State Safety Plan SSP 2014-2017, action item FOD.002 addresses the implementation of the recommendations for regulatory authorities contained in the EAPPRE which are substantially complete in the state. An assessment of the affected Irish organisations for compliance with EAPPRE is currently in progress.	Partially implemented
Italy (IT)	EAPPRE Recommendations should be implemented in the new edition 2014-2017 of ENAC Safety Plan, that is still at draft level.	Planned
Latvia (LT)	Recommendations made by the EAPPRE have been coordinated with operators and included in internal LV CAA procedures, taking into account the published SSP.	Partially implemented
Lithuania (LI)	According to the Lithuanian LSIP 2013 Report, SAF11 Objective all applicable measures of the EAPPRE are reflected in SE "Oro navigacija" (ANSP) Business Plan for 2014. Applicable measures of the EAPPRE, Parts 3.1, 3.2 and 3.3 are reflected in SE Int. Vilnius Airport Business Plan for 2014. Aerodrome is fully certified according to the ICAO Annex 14 requirements. The CAA verifies effectiveness of implementation of respective parts of EAPPRE by stakeholders.	Partially implemented
Luxembourg (LU)	Due to the configuration of Luxembourg airport (runway 4000x60m, no significant obstacles), runway excursions are rare and of low severity. All of the few runway excursions in recent years were caused by GA single engine aircraft and all without injury to persons, with the RE as consequential event after an abnormal runway contact (ARC). DAC considers that no specific action for runway excursions is required and does not plan to include this topic in the SSP.	Not applicable
Montenegro (ME)	In accordance with Montenegrin SSP activities related to the implementation of recommendation of EAPPRE will start by the end of this year.	Planned

Implementation Reports		
State	State's update	Status of the action
Malta (ML)	Oversight activities are in the planning phase. A Local Runway Safety Plan document has been released by the Aerodrome Operator. The effectiveness will be measured during the planned oversight activities.	Partially implemented
The Netherlands (NL)	In the Safety Platform Amsterdam Airport Schiphol (VPS) and its related Runway Safety Team all safety partners are represented: aerodrome operator, ANSP, aircraft operators and ground handlers. The VPS applies the EAPPRE.	Partly implemented
Portugal (PO)		Not planned
Romania (RO)	EAPPRE developments are included in the document "Present European developments in the field of civil aviation safety", posted on the RCAA site, and the industry was informed accordingly (see SYS 2.7 above). LSSIP 2013 Romania: SAF 11 - Improve runway safety by preventing runway excursions (By:01/2018) - REG (By:01-2018) The applicable measures contained in the European Action Plan for the Prevention of Runway Excursion are partially implemented. Partly Completed - ASP (By:12-2014) Most of the applicable measures of the European Action Plan for the Prevention of Runway Excursions have been already implemented. Related actions are in progress to implement the appropriate parts of the European Action Plan for the Prevention of Runway Excursions that have not been yet implemented. Partly Completed - MIL (By:01-2018) Most of the applicable measures of the European Action Plan for the Prevention of Runway Excursions have been already implemented for civil-military airport Henry Coanda. Related actions are in progress to implement the appropriate parts of the European Action Plan for the Prevention of Runway Excursions that have not been yet implemented. Partly Completed - APO (By:12-2014) Most of lines of action are implemented. Few remaining ones will be timely implemented. Partly Completed	Partially implemented
Spain (SP)	"The European Plan for the Prevention of Runway Excursions (EAPPRE) document has been internally distributed and its recommendations have been analysed by AESA staff. 1.- In aerodrome domain, AESA has decided to require to the Spanish airports to comply with EAPPRE recommendations. In fact, we have included in our Spanish Safety Plan the next actions: - Perform specific inspections to prevent runway excursions at airports. - Assess aerodromes for compliance with EAPPRE recommendations: AESA has produced an EAPPRE questionnaire that has been delivered to airport managers. The questionnaires will be evaluated as part of the inspection procedure. - Elaborate and update an EAPPRE compliance map with the results of the questionnaires provided by the airport managers. With this map, AESA will get an overview and will be able to establish comparisons, areas for improvement, etc.. 2.- In aircraft operators domain, AESA has included in its Spanish Safety Plan the next actions: - Develop an EAPPRE compliance questionnaire and deliver it to aircraft operators. - Develop a roadmap to implement EAPPRE recommendations by the operators, according to the compliance questionnaire provided by each operator. - Review compliance with the roadmap of each operator during the inspection procedure. - Develop and disseminate guidance material on preventing runway excursions aimed at flight crews The progress in this area is being provided in the LSSIP. Regarding the plan to measure its effectiveness, AESA monitors the trend of these type of occurrences."	Partially Implemented
Sweden (SE)	Performed activities: Runway Excursion safety promotion is being performed through the publication of a report for related operators and stakeholders ("Recommendations to prevent Rwy Excursion"). The authority's oversight activities have been enhanced to include specific checks of performance to ensure the effectiveness of the promotion performed according to above. Further safety promotion on the issue of Runway Excursions was performed at the Flight Safety Seminar in December 2013.	Implemented
Switzerland (SW)	Currently, all authority related actions are being addressed either through aerodrome certification process, the Swiss State Safety Program, oversight activities and SMS oversight activities. 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.	Partially implemented
United Kingdom (UK)	The UK CAA has supported and promoted the EAPPRE which is used as the source document for this work. Information Notice issued to UK industry to encourage organisations to review and implement appropriate recommendations.	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>10 States have already included the EAPPRE recommendations as new action in their Safety Plans (BU, FI, IR, LI, ML, SE, SP) or SSPs (FR, LT, SW). 5 States (AL, BE, CR, ME, 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> <p>1 State (SP) has analysed the EAPPRE recommendations and is following up its implementation specifically with airports and aircraft operators.</p>	<div><div><div><div><div><div></div><div>AER1.9 NEW</div></div><div><div></div><div></div><div></div><div></div></div><div><div>Implemented</div><div>Partially implemented</div><div>Planned</div><div>Not planned/not applicable</div></div><div><div></div><div></div><div></div><div></div></div><div><div>0</div><div>2</div><div>4</div><div>6</div><div>8</div><div>10</div><div>12</div><div>14</div></div></div></div><div><table><tr><td></td><td>Not planned/not applicable</td><td>Planned</td><td>Partially implemented</td><td>Implemented</td></tr><tr><td>AER1.9 NEW</td><td>2</td><td>5</td><td>13</td><td>2</td></tr></table></div></div></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER1.9 NEW	2	5	13	2
		Not planned/not applicable	Planned	Partially implemented	Implemented							
AER1.9 NEW	2	5	13	2								
ESSIP Report 2013	<p>SAF11 Improve runway safety by preventing runway excursions</p> <p>With regards to the implementation of the appropriate parts of the European Action Plan for the Prevention of Runway Excursions, 11 national regulators have already completed or partly completed this task, whereas 24 plan to do it within the proposed deadline (January 2018). However 6 national regulators have no plans at this moment to implement the action plan (AM, DK, HR, LU, MK, UA).</p> <p>Link: http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/2013-essipreport.pdf</p>											

EASp Implementation in the States - 2014

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		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 European Single Sky Implementation Plan (ESSIP 2013) has established objective SAF10 - Implement measures to reduce the risk to aircraft operations caused by airspace infringements. The progress of your State against the European Action Plan for Airspace Infringement Risk Reduction is reported as part of the ESSIP/LSSIP mechanism. The latest report is available at http://www.eurocontrol.int/articles/essip-report. It includes the activities carried out in 2012. Please indicate whether any progress has been made towards the objective in 2013 and 2014 and what is the expected situation at the end of the year. Consider the situation at both State and Service Provider Level</p> <p>ESSIP 2013 - http://www.eurocontrol.int/articles/essip-plan.</p> <p>European Action Plan for Airspace Infringement Risk Reduction http://www.eurocontrol.int/sites/default/files/content/documents/nm/safety/european-action-plan-for-airspaceinfringement-risk-reduction.pdf</p>					
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Implementation Reports		
State	State's update	Status of the action
Albania (AL)	Within the existing regulatory framework, CAA will approve and oversee the Alcontrol implementation action plan. The objective is being reviewed and planned that the Airspace Infringement Risk Reduction to be included in the procedures of Alcontrol by Dec 2014. Such occurrences are being investigated and lesson learned disseminated to controllers. There is cooperation with military authorities to review the procedure of military flight. The ANSP has implemented the recommendations of the European Action plan except the harmonization and enhance of AIS provision (more explicitly the VFR charts) to VFR flights. The decision for the enhancement will be done by the end of this year.	Partially implemented
Belgium (BE)	<p>Reported Occurrences Airspace Infringement Commercial Aviation:</p> <p>2010:6 2011:4 2012:1 2013: 4</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> <p>Most important actions:</p> <ul style="list-style-type: none"> * yearly awareness leaflet published * questionnaire sent to pilots causing airspace infringements * analysis of these questionnaires * new VFR guide soon published * Task Force composed of the Belgian CAA, the national ANSP (Belgocontrol) and the Ministry of Defence established to investigate the possibility to restructure the Belgian airspace below 3000 ft to make it less complex. * intensified contacts between BCAA and airspace users... 	Implemented
Bulgaria (BU)	<p>Reported occurrences of airspace infringement. 2013:20</p> <ul style="list-style-type: none"> • Foreign military aircraft: 13 • Non-coordinated para-planner and moto-delta-planner flights: 7 <p>In accordance with EAPAIRR:</p> <ul style="list-style-type: none"> • FIS Coordinators are well trained and licensed former radar ATCO's • TSA defined in the "Safety net" system and APW(Area Proximity Warning) given to ATCO's • Most non-controlled airfield operators signed Letters of Agreement with ATSA • Regular revision of the controlled airspace structure and organization • Regular meetings organized between FIS coordinators, Military ANSP, GA pilots • Air Policing agreement signed between civil and military authorities • SSR code assignment procedure optimized • Adequate radio communication coverage in areas with FIS provided 	Implemented
Croatia (CR)	Reported occurrences for AI are: in 2012: 25 (including 7 occ. related to GA), in 2013: 14 (including 4 occ. related to GA). In 2014 until June 30 there was no AI reports. Implementation of the European Action Plan for Airspace Infringement Risk Reduction has been started during 2013. All of the occurrences are considered as low risk events. Prevailing cause was errors and disruptions in ATM/CNS system. In March 2013 Croatian State Safety Program has been published, to ensure general framework for Airspace infringement LSSIP SAF 10 implementation. In November 2013 Croatian Civil Aviation Agency has published Air Safety Information Letter ASIL 2013-001 to facilitate further implementation. In 2014 ANSP and state air operator delivered implementation plans for AI Risk Reduction. CCAA implementation plan was produced for Airspace users and training organizations. In CCAA implementation plan significant steps are made towards harmonization of requirements for microlight aircraft, gliders (including paragliders and hang gliders) through publishing of "Ordinance of sport-recreational aircraft flying". In 2014, next activities are planned: AI analysis, harmonization of rules and requirements for AFIS, workshops for requirements for updating of GPS data in aircraft and VFR expanded and alternative route planning.	Partially implemented
Estonia (EE)	There have been total 7 airspace infringement in the past 5 years. There were no high-risk events. Contributing factors: poor communication, airspace design and restriction areas, unfamiliar airspace and routine. The implementation of the European Action Plan for Airspace Infringement Risk Reduction is in progress and will be part of the State Safety Programme development. Estonian CAA is harmonising coordination between civil and military procedures, as well as flexible use of airspace.	Partially implemented
Finland (FI)	<p>During last 5 years there has been ca 35 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 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 is considered in Finnish Aviation Safety Plan.</p>	Partially implemented
France (FR)	<p>2013</p> <p>Airspace infringement not involving GA are very marginal. EAPAIRR focuses on GA ; see response GA1.5</p> <p>2014</p> <p>In addition, operational objective B/4 of the "2018 agenda" is focusing on reducing the risk of mid-air collision involving commercial aircraft.</p>	Partially implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Iceland (IC)	Icetrea 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)	The IAA Annual Safety Review 2013 reports 89 cases of airspace infringements in Irish Airspace over the period 2010-2013. 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 15 of these were Severity C. 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 clearance confusion. The IAA has completed all of the thirteen recommendations for regulators in the EAPAIRR. A specific action is included in the SSP 2014-2017 to review the level of implementation of the EAPAIRR in affected organisations over the next audit oversight cycle (2 years) The IAA also engages in 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.	Implemented
Italy (IT)	According to our records we don't have specific UPA apart from General Aviation. As already reported in LSSIP, which has been written to be read by those who want to derive info, Italy introduced all actions for the regulator and the ANSP. Nevertheless is our opinion that the action to prevent UPA should not be left to a Eurocontrol document, but EASA should turn the measures into requirements in the various regulations, in accordance with the principle of the total system approach. As a matter of fact, Eurocontrol recommendations are often too generic and go beyond what is currently required by existing EASA regulation, therefore violating the principle of the "nothing less, nothing more".	Implemented
Latvia (LT)	Airspace infringements included in SSP. During the past 5 years there have been no commercial air traffic airspace infringements, except infringements of noise sensitive area restriction in very close proximity to the SIDs and STARs, which do not generate safety risks. Number of noise sensitive area infringements have decreased due to redesign of the airspace. Current safety measures implemented by the ANSP are deemed sufficient. 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; - 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. Hazard identification and risk assessment was performed concerning the General Aviation aircraft flights. Following actions were proposed for Airspace Infringement Risk Reduction: - 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).	Partially implemented
Lithuania (LI)	There were not any airspace infringements in the past 5 years. According to the Lithuanian LSSIP 2013 Report, SAF10 Objective Lithuania implemented the respective measures of European Action Plan related to the Airspace Infringement Risk Reduction. SE "Oro navigacija" has implemented the objective according to the "Strategic Business Plan 2011-2015". Military measures to reduce the risk to aircraft operations caused by airspace infringements are set in the LoA with NATO Air Policy functions in the three Baltic States and within Lithuania (Military and SE "Oro navigacija")	Partially implemented
Luxembourg (LU)	Airspace infringements by CAT aircraft are not a concern.	Not applicable
Montenegro (ME)	Implementation of the European Action Plan for Airspace Infringement Risk Reduction will start by the end of this year.	Planned
Malta (ML)	One airspace infringement has been reported. This has been attributed to pilot error. A good number of the action plans have been implemented e.g Area Proximity Warning, introduction of standard VFR entry/exit points and procedures, code assignment, better R/T coverage etc.	Planned
The Netherlands (NL)	Airspace infringements are a safety concern in The Netherlands. AI is considered as an indicator for Safety Performance. Progress is reported through ESSIP/LSSIP reports. AI is primarily a General Aviation issue which impact on ANSP's, Commercial and military airspace users.	Implemented
Portugal (PO)	We had developed a workshop about RE regarding EAPRE with Eurocontrol and NAV. E.P.	Partially implemented
Romania (RO)	LSSIP 2013 Romania SAF 10 - Implement measures to reduce the risk to aircraft operations caused by airspace infringements - Completed No airspace infringement occurrences involving commercial transport has been reported to RCAA.	Implemented
Spain (SP)	1.- 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 2009-2013 period. The results are: • There were 148 AI in which GA was not involved. In other words, in the 25% of AI occurrences there were not GA involvement. • There were 9 AI occurrences with serious or major severity. Therefore, 6% of AI occurrences had high severity. • The main factors that contributed to AI were: pilot-ANS communications (in 25 occurrences), operational issues (in 6 occurrences) and other ATM procedure (in 5 occurrences). 2.- Spain is implementing the European Action Plan for Airspace Infringement Risk Reduction. In particular, we have included in our Spanish Aviation Safety Plan, the next recommendations: • ASP-R-06. Review controlled airspace structure and simplify boundaries where possible. • ASP-P-10. Introduce, where necessary, standard VFR entry, exit and crossing procedures and/or routes in busy controlled airspaces. • REG-R-03. Ensure that airspace change processes take due account of the different airspace users' requirements. • REG-R-04. Harmonise lower airspace classification in line with the strategic airspace design principles. • REG-P-02. Undertake periodic reviews of airspace allocation and structures within the respective FIRs and improve oversight of airspace management. • REG-P-05. Harmonise regulation of flights by ultra-lights, micro-lights and gliders. Moreover, 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 .	Partially Implemented

Implementation Reports		
State	State's update	Status of the action
Sweden (SE)	An actionplan for airspace infringement has been developed and implemented.	Implemented
Switzerland (SW)	Occurrences 2010 - 2014 284, 26 high risk An AIWG (Airspace Infringement Working Group) is in place and is analysing local OIR's and data in order to identify hot spot areas and critical issues. Each identified pilot having done an AI receives a questionnaire to fill in data concerning the flight preparation, the flight conduction and the use of navigational aids. A detailed AI statistics for Switzerland is available. The situation improved by 12.4% in 2013. The European Action Plan for Airspace Infringement Risk Reduction is used as a guideline in the AIWG.	Partially implemented
United Kingdom (UK)	Implementation of the European Action Plan for Airspace Infringement Risk Reduction is undertaken through the CAA-led Airspace Infringement Working Group. All infringements and rectification actions are considered in that group, regardless of the aviation sector associated with them. See responses to ESSIP/LSSIP SAF10 and EASp GA1.5.	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. One State (SP) reported that during 2009-2013, 25% of AI occurrences in which GA was not involved had high severity.</p> <p>EAPAIRR is already being implemented in 18 States (AL, BE, BU, CR, EE, FR, IR, FI, IT, LT, LI, NL, PO, RO, 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, IR, LI, SP). SP has included 6 actions of the EAPAIRR in their Safety Plan. 2 States (ME, ML) 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>The EAPAIRR recommendations are being promoted via safety oversight inspections. Dedicated AI groups exists in SW and UK.</p>	<div><div><div>AER2.1</div><table><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>1</td><td>2</td><td>10</td><td>9</td></tr></tbody></table></div></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER2.1	1	2	10	9
		Not planned/not applicable	Planned	Partially implemented	Implemented							
AER2.1	1	2	10	9								
ESSIP Report 2013	<p>SAF10 Implement measures to reduce the risk to aircraft operations caused by airspace infringements</p> <p>The deadline provided for national regulatory authorities has already been exceeded by 3 years and at this moment still almost half of the authoritiesreport this objective as Late. The following national regulators have not yet promulgated or are still considering the promulgation of the European Action Plan - Airspace Infringement Risk Reduction: AL, AZ, BA, BE, BG, CZ, EE, GR, HU, LV, MD, ME, MK, PT, RS, SI, TR, UA. For the majority of those NSAs, the work on the promulgation is ongoing and according to the States reports this objective may be closed in 2015.</p> <p>Link: http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/2013-essipreport.pdf</p>											

EASp Implementation in the States - 2014

Operational Issues						
Commercial Air Transport by Aeroplanes						
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.		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). They can happen both in controlled and non-controlled airspace. A list with some of the events being monitored by States is available in the spreadsheet named "Hazard List".</p> <p>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 (e.g. Rate of SMI Class A/B) • Lateral deviations from clearance <p>Are you measuring any of the above? Have you implemented other measures related to MAC?</p>

Implementation Reports		
State	State's update	Status of the action
Albania (AL)	SSP under development and working close with France CAA / Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Planned
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 2013:34 • Level busts events 2010:8 2011:15 2012:22 2013:19 • CAT Airspace Infringement events 2010: 6 2011:4 2012:1 2013:4 • Separation minima Infringements/risk-bearing airprox 2010:9 2011:28 2012:52 2013:45 <p>There were 4 SMI events that were considered as high-risk in 2012.</p> <p>Implementation of 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 CAA 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. • BCAA organizes together with the Belgian Aircraft Accident and Incident Investigation Unit (AAIU) and Belgocontrol a monthly coordination meeting on occurrence reporting, investigation and RAT assessment. 	Partially implemented
Bulgaria (BU)	<p>Reported occurrences:</p> <ul style="list-style-type: none"> • Lost communication: 2013:25 • Deviation of ATCO instructions(level bust): 2013:5 • Separation minima bust: 2013:2 <p>All occurrences are result of HF.</p> <p>After additional training assignment for ATCO's in the Training center is achieved reduction of the events related with HF.</p>	Implemented
Croatia (CR)	CCAA is measuring MAC since 2012 Occurrences related to MAC are: in 2012: 10, in 2013: 16. In 2014 until June 2014 there was 1 MAC report. We did not consider any of these events as 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: ACAS RA, 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
Estonia (EE)	<p>These events are monitored in co-operation with ANSP and operators. Main factors contributing to the risk are different interpretation of procedures (pilots vs ATC), but also human factors related factors like carelessness and expectancy. Quite a lot of military flights also contribute these events.</p> <p>ANSP actively applies relevant measures to minimise the risk through their SMS environment.</p> <p>Air operators also monitor related events but reporting could be better.</p>	Partially implemented
Finland (FI)	<p>In total there's been 180 separation minima infringements in Finland during the last five years. Six 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 airproxes Finland measures level busts, TCAS RAs, Airspace infringements, lateral deviations from clearance and separation minima events and airprox-cases as safety performance indicators.</p> <p>A transponder mandatory zone was established in 2014 in the vicinity of and below Helsinki-Vantaa airport terminal area to reduce the severity of the consequences of possible airspace infringements into the busy Helsinki-Vantaa airspace.</p>	Implemented
France (FR)	<p>2013: Regarding controlled airspace : 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 : 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> <p>2014: See response made last year (above) which is still valid</p> <p>In addition, operational objective B/4 of the "2018 agenda" is focusing on reducing the risk of mid-air collision involving commercial aircraft.</p>	Implemented

Implementation Reports		
State	State's update	Status of the action
Iceland (IC)	<p>Iceetra 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 Iceetra's continuous oversight; with analysis of findings and reported occurrences that may be interlinked with MAC e.g. loss of separation occurrences. (iii) Promotion: Iceetra aims to further promote for initiatives and studies conducted at international level; in particular relating to NAT and ER region. Iceetra 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.</p>	Partially implemented
Ireland (IR)	<p>The IAA State Safety Plan 2014-2017 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. Details of the quantity, severity and annual trends for these KSI's are provided in the IAA Annual Safety Performance Review (www.iaa.ie). Over 90% of the reports were in lower risk category (ie ARMS<20 or ESARR Severity E). The three main causal factors were TCAS-RA's (in many cases due to TCAS RA on converging aircraft levelling off on proximate flight levels where the risk of collision was minimal), Deviation from ATC clearance and unauthorised airspace penetration by GA.</p> <p>The IAA has implemented the recommended actions for regulatory authorities in EAPAIRR as noted in AER 2.1 above.</p> <p>The IAA operational oversight programme specifically addresses this KSI and oversees the mitigating measures adopted by each airline in Ireland. The trend analysis of the safety indicators provides a measure of the success of these actions.</p> <p>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>	Implemented
Italy (IT)	<p>MAC are collected by ANSV (Italian Safety Investigation Board) in its report, while Minimum Airspace Infringement events are collected through the Single European Sky performance system.</p> <p>Obviously our State has been exposed to this scenario in the past years, but indexes are under control.</p> <p>Another source of data is the Annual Summary report sent to Eurocontrol and EASA, which is the actual source of data for EASA analysis.</p>	implemented
Latvia (LT)	<p>MAC is included in SSP. None of the airspace infringement incidents were considered as high-risk events. 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. LV CAA uses AOD Database (FACTOR/SIB/AD) to address the mitigation actions and as well as to determine the effectiveness of the measures.</p>	Partially implemented
Lithuania (LI)	<p>One occurrence (TCAS RA) took place in May, 2014. According to the ESARR2 severity is B5. This occurrence is under investigation by the Civil Aviation Safety Investigation Authority presently. It occurred due to the mistake of the air traffic controller (an inattention). However the main factors contributed to the risk will be known after the completion of the investigation. We are measuring the above. MAC will be included in the SSP. We are measuring the above.</p>	Partially implemented
Luxembourg (LU)	<p>The area of most concern for the risk of mid-air collisions is an area of uncontrolled airspace through which IFR approaches to RWY24 at Luxembourg Airport are flown. 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, but a residual risk remains and is monitored by DAC.</p>	Partially implemented
Montenegro (ME)	<p>CAA is measuring MAC since 2010. Mechanisms to mitigate risks have been established on a case-by-case basis. In accordance with national SSP implementation of action plan for Level bust will start during 2015.</p>	Planned
Malta (ML)	<p>Yes there have been 12 reported occurrences. Main contributing factor has been human error. Investigations are carried out on these occurrences and where required, recommendations are issued. In addition, the ANSP is planning to introduce new tools (MTCD and Monitoring tools) which should help to reduce the number of these occurrences. A new Level Bust monitoring tool should reduce the number of level bust events. The safety nets include the the STCA. Safety alerts, awareness sessions, training, and briefing on one to one basis to ATCOs involved contribute to curtail any shortcomings in the system. The measures mentioned in the examples are monitored by the occurrence reports received.</p>	Partially implemented
The Netherlands (NL)	<p>Set of actions are agreed.</p> <p>Three indicators are considered to address MAC: loss of communication, loss of separation and airspace infringements.</p> <p>Redesign of airspace, lifting the military air operations to 1.200 feet or above and the obligation for General Aviation to use transponders are other actions taken to reduce AI and MAC.</p>	Implemented
Portugal (PO)	<p>Answered in the last question.</p>	Partially implemented
Romania (RO)	<p>The second edition of the Romanian SSP (see AER 1.5 above) does not include MAC. This type of event is addressed by service providers through their SMS. RCAA is analysing specific MAC occurrences, establishes mesures accordingly and verifies their implementation as part of the oversight process.</p> <p>Numbers of MAC occurrences (in accordance with ADREP 2000 taxonomy classification) reported to RCAA:</p> <p>2009 - 14 2010 - 20 2011 - 17 2012 - 11 2013 - 12</p>	Planned

Implementation Reports		
State	State's update	Status of the action
Spain (SP)	<p>In Spain we have identified, in our Safety Plan, two areas of major concern or two safety risk areas that precedes a MAC: ACAS RA alerts & airspace infringement events.</p> <p>1.- ACAS RA issue was analysed in ad-hoc Spanish LEMD TMA group (formed by AENA -Air Navigation- and AESA):</p> <ul style="list-style-type: none"> • In the case of ACAS 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 ACAS 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. <p>In addition, in the National FDM working group, we have identified the airspace points in which the number of ACAS RA alerts is higher. We have analysed the result with Aena Air Navigation and some actions have been agreed.</p> <p>In the 2009-2013 period, there were 665 TCAS RAs alerts and the 21% of them are high severity (major or serious occurrences). Moreover, there were 13 incorrect pilot response to TCAS RA and the 54% of them are high severity.</p> <p>2.- Airspace Infringement. AESA analysed AI in depth using the reported occurrences in our Spanish MORS during 2009-2013 period. The main conclusions are:</p> <ul style="list-style-type: none"> • There were 586 AI in Spanish territory during 2009-2013. 7% of AI occurrences were high severity occurrences. • Mitigation measures: take into account European Action Plan for Airspace Infringement Risk Reduction's recommendations. <p>Regarding the other measures:</p> <ul style="list-style-type: none"> • Loss of communication events. AESA analysed communication failures and loss of communication events using occurrences registered in our Spanish MORS during 2009-2013 period. There were 1046 communication failures. The 2% of communication failures were high severity. And, there were 111 loss of communications events. The 8% of loss of communications events were high severity. • Level busts events. AESA analysed level busts events using occurrences registered in our Spanish MORS during 2009-2013 period. There were 368 occurrences, the 10% of level bust were high severity. In case of level busts higher than 300ft, there were 150 occurrences, the 10% of level bust were high severity. The 3 main factors that contributed to a level bust were: communications, pilot/ANS communications and conflict detection/resolution. • Separation minima infringements/risk-bearing airprox. During 2009-2013 period, there were 586 SMIs. The 28% 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. 	implemented
Sweden (SE)	<p>MAC-indicators are monitored (Airspace infringements and Level bust). MAC is included as one of six common European SPI:s decided by Network of Analysts. Analysis forum has decided to monitor those SPI:s as from September 2014.</p>	Partially implemented

Implementation Reports												
State	State's update	Status of the action										
Switzerland (SW)	<p>State level SPI have been identified and are being monitored (Rate of SMI Class A/B).</p> <p>SMI: 455, 52 high risk</p> <p>Main causes of SMIs are ATM direct involvement:</p> <ul style="list-style-type: none">- ATM radar working technique- ATM coordination- aircraft performance misjudged <p>Pilot Error:</p> <ul style="list-style-type: none">- Level Bust- Airspace Infringements- Other procedural errors <p>As competent authority responsible for oversight over CAT operators we are evaluating LOC, level busts as well as TCAS events of operators irrespective of the location of the event systematically. However: Regarding several events we are often dependent on proper reporting of the operators. Information from ATC providers is getting more and more reliable. The FOCA tracks the follow-up action of the operators and discusses measures taken with the operators. There are examples of TCAS events leading to follow-up action, individual cases are documented within the FOCA and are confidential.</p>	Partially implemented										
United Kingdom (UK)	<p>The UK CAA continues with its work in reducing the risks associated with MAC. MAC are included in the draft UK Safety Plan. A new Airborne Conflict Action Group (ACAG) is co-ordinating work for all types of air operations within and outside UK airspace. Completed work includes guidance on ACAS use published; articles published on how aircraft should best join the airfield circuit; guidance published on the implications of reduced radar and procedural air traffic control provision on aircraft operations in class G airspace; develop guidance material to reduce level busts and introduce an enhanced feedback questionnaire; develop ways to understanding and reduce level bust events.</p> <p>Future work will focus on: measuring the success of training initiatives for correct responses to ACAS; improving guidance on aerodrome circuit joining procedures; publishing guidance aimed at reducing AIRPROX events in class G airspace; research to improve the visibility of light aircraft and gliders; continuing engagement and awareness activities with the business aviation community to ensure a collaborative approach to mitigating airborne conflict events; new DfT-funded research into lightweight transponders and position broadcasting technologies.</p> <p>Key performance metrics are</p> <ul style="list-style-type: none">- a reduction of Airborne Collision Avoidance Systems (ACAS) warnings- collision risk in the aerodrome visual circuit,- airspace infringements and AIRPROX in class G airspace.	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. In the 2009-2013 period, there were 665 TCAS RAs alerts in Spain, 21% of them were high severity (major or serious occurrences). Moreover, there were 13 incorrect pilot response to TCAS RA, 54% of them are high severity. Two areas are identified in the Spanish Safety Plan that precede a MAC: ACAS RA alerts & airspace infringement events. A national FDM working group identifies airspace points in which the number of ACAS RA alerts is higher and agree on actions between the NAA and the ANSP.</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, 4 State (CR, FI,LT,LI) 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.</p> <p>One State (NL) agreed the set of action taken to reduce AI and MAC. The area of most concern for the risk of mid-air collisions in LU is an area of uncontrolled airspace.</p> <p>3 States (AL, ME,RO) 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>	<div><h3>AER2.8</h3><table><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>7</td></tr></tbody></table></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER2.8	0	3	12	7
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AER2.8	0	3	12	7								

EASp Implementation in the States - 2014

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.		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). A list with some of the events being monitored by States is available in the spreadsheet named "Hazard List".</p> <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>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. • "non-compliant approaches", ref. see EAPPRE pages 37-38 (appendix C). • Significant deviation below glideslope events. • Gross position/navigation error events. • Descend below minimum safety altitude events/MSAW alerts. • Incorrect pressure settings <p>Based on specific actions being undertaken:</p> <ul style="list-style-type: none"> • Proportion of relevant fleet approved for APV-type approaches • Number of APV-type approaches published in the Aeronautical Information Publication (AIP) compared with traditional NPAs. • Proportion of approaches flown by operators, which have some form of vertical guidance. • Proportion of aircraft operators to have implemented and actively monitored CFIT precursor measures. <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
Albania (AL)	SSP under development and working close with France CAA / Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Planned
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 2013:63 • (E)GPWS warnings nuisance 2010:14, 2011:11, 2012:18 2013:15 • Unstable/de-stabilised approaches: all 2010:42, 2011:71, 2012:52 2013:57 and proportion that continue to landing. 2010:13, 2011:41, 2012:26 2013:22 <p>None of these events were considered high-risk events.</p> <p>First APV-type approach under development at Antwerp Airport (EBAW)</p>	Planned
Bulgaria (BU)	No reported CFIT occurrences in 2013."Safety Net" system implemented: MSAW of the control unit about aircraft descend below the MSA.	Implemented
Croatia (CR)	CCAA is measuring CFIT since 2012. Occurrences related to CFIT are: in 2012: 22, in 2013: 13. In 2014, until 30. June we had 3 events related to CFIT risk. CCAA 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: the impact of weather conditions (eg. rain, turbulence or icing), misunderstanding in communication with the controller, unclear approach procedures, ICAO Aerodrome Obstacle Charts type "B" and the Aerodrome Terrain and Obstacle Chart not published, unstabilized approach, etc. No operators approved for APV- type approaches.	Partially implemented
Estonia (EE)	This risk is the one that is less managed by State as the indicators to be monitored are not well-established (especially by air operators). Precursor measures are monitored by AOC holders	Planned
Finland (FI)	<p>There has been some cases where the separation between an aircraft and an obstacle has been lost. 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>As indicated in the last year report, the major precursor of CFIT (but also for LOC-I during approach or for RE) is a non compliant approach. While DGAC is working actively to reduce the number of non compliant approaches in France (in liaison with Eurocontrol at CDG airport), DGAC is also promoting the importance of compliant approaches in international Safety fora.</p> <p>As far as indicators are concerned, French aircraft operators required to use FdM are monitoring at least their GPWS alerts and the unstabilised/de-stabilised approaches, and the ANSP is monitoring the number of MSAW alerts at each equipped airport. The proportion of non compliant approaches at CdG airport is also measured by the ANSP,</p> <p>For the time being, there is no national indicator related to the proposed examples ; however, it is anticipated to assess during the coming months whether and how the collection of FdM GPWS data and MSAW data (triggered using radar data) -at the national level- may lead to relevant safety indicators.</p> <p>NB : a national indicator on unstabilised approaches including the proportions of following go around -based on reports- was computed during a three year period ; decision was made to stop this indicator since it was demonstrated not to be relevant to monitor the issue.</p>	Partially implemented
Iceland (IC)	Icetra 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.	Implemented
Ireland (IR)	<p>The IAA State Safety Plan 2014-2017 action item FOD.003 addresses CFIT.</p> <p>The IAA Annual Safety Performance Review 2013 shows that 55 reports of CFIT events have been reported in the past three years, 19 of which 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 (eg in blustery conditions).</p> <p>The IAA operational oversight programme specifically addresses this KSI and oversees the mitigating measures adopted by each airline in Ireland. 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 CFIT events.</p> <p>In respect of unstable approaches the IAA is also developing further guidance and training on the ADREP categorisation of unstable approach events (eg when to select CFIT, LOC-I, RE or other categories following an unstable approach or go-around event)</p> <p>The IAA plan to introduce APV approaches for all current NPA approaches in the next few years. The first APV approach is expected to be published in November 2014 with others to follow in five separate airports during the first half of 2015.</p> <p>Most of the large transport fleet operated in Ireland are APV capable and formal approval for APV approaches (RNP-APCH) has been granted for the majority of these aircraft. All of the main operators are monitoring CFIT and associated precursor events.</p> <p>The IAA currently does not have data on the ratio of APV approaches flown by Irish operators.</p>	Implemented
Italy (IT)	CFIT was included in ENAC Safety Plan 2012-2015 with actions TOP 1.3.1. and TOP 1.3.2.	Partially implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Latvia (LT)	CFIT is included in SSP. LV CAA uses AOD Database (FACTOR/SIB/AD) to address the mitigation actions and as well as to determine the effectiveness of the measures.	Implemented
Lithuania (LI)	The State did not exposed to this type of scenarios in the past 5 years. We are measuring the above.	Planned
Luxembourg (LU)	CFIT is not a significant concern by number and severity of occurrences.	Planned
Montenegro (ME)	The Montenegrin State Safety Plan 2013-2016 action item 2.2.4 addresses CFIT.	Implemented
Malta (ML)	APV approaches have not been published in the AIP. Vertical guidance is provided by the traditional published ILS approaches on 2 Runways. The ANSP will be including the APM safety net which should enhance the provision of ATS. ATCOs will be provided with an alert when the approaching flight is outside the ILS parameters. MSAW safety net has been implemented in the ATC system.	Planned
The Netherlands (NL)	CFIT is not regarded a safety risk in the Netherlands. Risk perception or lack of risk perception is regarded as a major contribution to accidents and incidents, especially for the General Aviation. The SSP will address this risk perception.	Partially implemented
Portugal (PO)		Not applicable
Romania (RO)	The second edition of the Romanian SSP (see AER 1.5 above) does not include CFIT. This type of event is addressed by service providers through their SMS. RCAA is analyzing specific CFIT occurrences, establishes measures accordingly and verifies their implementation as part of the oversight process. Numbers of CFIT occurrences (in accordance with ADREP 2000 taxonomy classification) reported to RCAA: 2009 - 0 2010 - 1 2011 - 1 2012 - 2 2013 - 2	Planned
Spain (SP)	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 that are registered in our Spanish MORS during 2009-2013 period. In this period, there are 36 accidents, 3 serious incident and 1 major incident. (NOTE: We have considered ALL the CFIT occurrences, therefore we have not filtered by airspace or Spanish AOC) Regarding the hazards under CFIT, the number of occurrences, during the 2009-2013 period, is: - Fatigue and disorientation of pilots: 2 - Misunderstanding in communication with the controller: 4 - Weather conditions (eg. rain, turbulence or icing): 2169 - Unclear approach procedures: 3 - Reported errors in aviation charts (e.g. ICAO Aerodrome Obstacle Charts type "B" and Aerodrome Terrain and Obstacle Chart not published): 24 - Unstabilised approach: 1033 - Navigation errors: 15 - GPWS warnings (Operators - Sink Rate or Terrain warnings): 1070 - MSAW alerts (ANSP) :0 - Incorrect pressure settings/Mis-setting of altimeters: 18 - Large G/S deviations:19 - Risk factors associated to non-precision approaches:0 - Loss of situational awareness:8 (NOTE: We have considered ALL the hazards without analysing if these hazards have as consequence a CFIT event)) Regarding the specific actions being undertaken: • AESA has not approved any fleet for APV-type approaches • Currently, there is only one APV-type approach published in the Aeronautical Information Publication (AIP) in Santander. • In the Safety Performance Indicators Programme, that we have established with aircraft operators, all the operators monthly report us the nº of (E)GPWS warnings and nº of unstabilised approaches	Implemented
Sweden (SE)	Safety promotion regarding CFIT was performed at the Flight Safety seminar in December 2013. Checklists for oversight activities have been enhanced to include items related to CFIT (Standard Operating Procedures and relevant Crew Training Programs).	Implemented

Implementation Reports												
State	State's update	Status of the action										
Switzerland (SW)	<p>Occurrences: 2010 - 2014 Collision with terrain: 11, 10 high risk Near Collision: 9, 3 high risk</p> <ul style="list-style-type: none">• Proportion of approaches flown by operators, which have some form of vertical guidance. The vast majority of approaches flown are still ILS approaches. The number of non-precision approaches which are replaced by LPV approaches is still very low. Most of the non-precision-type approaches are flown as "overlay" approaches and as CDFA-approaches (this is a requirement - no step-down-approaches are allowed any more).• Proportion of aircraft operators to have implemented and actively monitored CFIT precursor measures. All of the operators within the scope of CAT operate according to SOP's which are developed also with the aim to reduce CFIT ==> all	Partially implemented										
United Kingdom (UK)	<p>The risk of CFIT was found to be greatest during non-precision approaches. There are also many destinations around the world that combine difficult terrain at high altitude that present a CFIT risk. Completed work in this area includes; guidance provided to industry on the benefits of Approach with Vertical Guidance (APV); 600 process for gaining APV approval has been improved; aerodrome safety hotspots have been identified in order to prioritise implementation of new APVs. The focus of our CFIT activity has been to improve our processes for the implementation of APV approaches and to identify aerodromes where these approaches would be of the greatest safety benefit.</p> <p>Key performance metrics:</p> <ul style="list-style-type: none">• number of Enhanced Ground Proximity Warning System (EGPWS) alerts• number of unstable/de-stabilised approaches• number of significant deviation below glide slope events• number of gross position error events• number of deviations below minimum safety altitude events• number of UK aircraft operators to have implemented and actively monitored CFIT precursor measures• number of APV-type approaches available in the UK compared with traditional NPAs• number of APV-type approaches at EU and third-country aerodromes, used by UK operators• 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. France is working actively to reduce the number of non compliant approaches at CDG airport and promoting the importance of compliant approaches in international Safety fora. One State (IR) reported that 19 of these events were considered high-risk in the past 3 years. The risk of CFIT was found to be greatest in the UK during non-precision approaches.</p> <p>12 States are taking measures to address CFIT at national level. 4 States (IR, ME, SP and IT) identify these in Safety Plans, 4 States (FI,LT, NL 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 Unestablished 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 (FR) is assessing how the collection of FdM GPWS data and MSAW data (triggered using radar data) -at the national level- may lead to relevant safety indicators. In Spain tall the operators monthly report o the NAA the n° of (E)GPWS warnings and n° of unstabilised approaches. UK has a well establish set of metrics on precursors to CFIT.</p> <p>As a means to mitigate the risk APV approaches are slowly being introduced in some States (IR). The focus of UK's CFIT activity has been to improve processes for the implementation of APV approaches and to identify aerodromes where these approaches would be of the greatest safety benefit.</p>	<div><div><div><div><div></div><div>AER3.4</div></div><div><div><div><div></div><div>Implemented</div></div><div><div><div></div><div>Partially implemented</div></div><div><div><div></div><div>Planned</div></div><div><div><div></div><div>Not planned/not applicable</div></div></div></div><div><div><div></div><div>0</div></div><div><div></div><div>1</div></div><div><div></div><div>2</div></div><div><div></div><div>3</div></div><div><div></div><div>4</div></div><div><div></div><div>5</div></div><div><div></div><div>6</div></div><div><div></div><div>7</div></div><div><div></div><div>8</div></div><div><div></div><div>9</div></div></div></div><table><tr><th></th><th>Not planned/not applicable</th><th>Planned</th><th>Partially implemented</th><th>Implemented</th></tr><tr><td>AER3.4</td><td>1</td><td>7</td><td>6</td><td>8</td></tr></table></div></div></div></div></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER3.4	1	7	6	8
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AER3.4	1	7	6	8								

EASp Implementation in the States - 2014

No.	Issue	Actions	Owner	Dates	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.		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. • Unusual aircraft attitudes (increased bank angle or rate, increased roll angle or rate, increased angle of attack). • Unusual configuration or speed. • Number of occurrence reports related to loading events. • Laser interference events • Aircraft flight control system faults/Failure of primary flight instruments/Engine failures • Number of go-arounds that are not well managed <p>Based on specific actions being undertaken:</p> <ul style="list-style-type: none"> • Proportion of aircraft operators to have implemented, embedded and actively monitored Loss of Control precursor measures. • Proportion of AOC holders to have implemented and firmly embedded within their recurrent training programs pilot monitoring skills training. • Proportion of pilots that have received initial and recurrent pilot monitoring skills training <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
Albania (AL)	SSP under development and working close with France CAA / Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Partially implemented
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.</p> <p>Reported occurrences:</p> <ul style="list-style-type: none"> • Deviations from the flight path 2010:8, 2011:15 2012:22, 2013:0 • Stall 2010:2, 2011:0, 2012:1, 2013:2 <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 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 an greasing procedures); • The prevention of collision with animals (bird and wildlife strikes).; • Mitigating measures against targetting of aircraft with laser. 	Partially implemented
Bulgaria (BU)	All SID's and STAR's are designed and issued in accordance with ICAO Doc 8168: Flight inspections are performed in a regular base.	Not planned
Croatia (CR)	CCAA is measuring LOCF since 2012. Occurrences are next: 2012: 67, 2013: 40. In 2014 until 30. June: 23. 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 main causes of 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 devices associated with the flight controls and operating groups - mismanagement of automated aircraft (FCU, EFIS, ECAM etc.), deviations from the planned flight path, etc.	Partially implemented
Estonia (EE)	This risk is the one that is less managed by State as the indicators to be monitored are not well-established (especially by air operators). Precursor measures are monitored by AOC holders	Planned
Finland (FI)	<p>There has been ca 28 cases during the last five years relating to deviation from flight path. Two of these were classified as serious incident and they involved a foreign operator which descended below vertical flight path during approach. Main factors contributing were 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-Is, 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 airprox-cases as safety performance indicators.</p>	Implemented
France (FR)	<p>2013</p> <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 scenarios 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>These 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> <p>2014</p> <p>In addition, this item as been included in th "2018 agenda" as operational objective B/1</p> <p>It may also be noted that the subject of the november 2014 symposium (focused on EBT and ATQP) will be in close relation to the LOC-I operational risk.</p> <p>As far as indicators are concened, French aircraft operators required to use FdM are monitoring at least their stick-shaker /alpha floor events, overspeeds, unusual aircraft attitudes.</p> <p>For the time being, there is no national indicator related to the proposed examples ; however, it is anticipated to assess during the coming months whether and how the collection of stick-shaker /alpha floor data -at the national level- may lead to relevant safety indicators.</p>	Partially implemented
Iceland (IC)	Icetra 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 etc.	Implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Ireland (IR)	<p>The IAA State Safety Plan 2014-2017 action item FOD.001 addresses LOC-I.</p> <p>The IAA has received reports of 458 LOC-I events over the past three years of which 23 events (ie ~5%) 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 excursions to such an extent that stick shaker activation ensued.</p> <p>The IAA operational oversight programme specifically addresses this KSI and oversees the mitigating measures adopted by each airline in Ireland. 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 LOC-I events.</p> <p>In respect of unstable approaches the IAA is also developing further guidance and training on the ADREP categorisation of unstable approach events (eg when to select CFIT, LOC-I, RE or other categories following an unstable approach or go-around event)</p> <p>All main Irish AOC Holders are monitoring the precursors to LOC-I events and have implemented the PM into their training programmes and SOP's and trained their pilots accordingly.</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>	Implemented
Italy (IT)	<p>LOC-I was included in ENAC Safety Plan 2012-2015 with actions TOP 1.4.1. and TOP 1.4.2.</p> <p>Safety action were:</p> <ul style="list-style-type: none"> - (TOP 1.4.1) to determine KPI and KRE (Key Risk Elements) associated - (TOP 1.4.2) to measure KPI and to identify which are the more frequent risk factors <p>Action TOP 1.4.1 has been concluded (a report with proposed KPI is available in Italian Language)</p> <p>Action TOP 1.4.2 has not yet started waiting for the implementation of the new ENAC occurrence reporting system (system eE-MOR - electronic ENAC- Mandatory Occurrence Reporting) based on Ecarrs 5 that should become fully operative since 1 October 2014.</p>	Partially implemented
Latvia (LT)	LOC-I is included in SSP. LV CAA uses AOD Database (FACTOR/SIB/AD) to address the mitigation actions and as well as to determine the effectiveness of the measures.	Partially implemented
Lithuania (LI)	The LOC-I occurrences did not take place. According to the CAA Aviation Safety Plan 2014-2017, item No.14, LOC-I will be included in the SPP in 2014.	Planned
Luxembourg (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 that is being monitored by DAC.	Planned
Montenegro (ME)	The Montenegrin SSP 2013-2016 action item 2.2.5 addresses LOC-I. According to Montenegrin SSP hazardous conditions are:- The impact of weather conditions (eg. rain, turbulence or icing); Disorientation pilots; - Technical failure on aircraft; - Lack of usage of automatization and insufficiently skilled for needed piloting technique	Implemented
Malta (ML)	An OAN has been published about aeroplane go-around training (06/14). All AOC's have included this training material stemming from EASa SIB into their OM.	Partially Implemented
The Netherlands (NL)	LOC-I is not regarded a safety risk in the Netherlands (Amsterdam FIR). Risk perception or lack of risk perception is regarded as a major contribution to accidents and incidents. The SSP will address this risk perception.	Partially implemented
Portugal (PO)		Partially implemented
Romania (RO)	<p>The second edition of the Romanian SSP (see AER 1.5 above) does not include LOC-I. This type of event is addressed by service providers through their SMS. RCAA is analysing specific LOC-I occurrences, establishes measures accordingly and verifies their implementation as part of the oversight process.</p> <p>Numbers of LOC-I occurrences (in accordance with ADREP 2000 taxonomy classification) reported to RCAA:</p> <ul style="list-style-type: none"> 2009 - 3 2010 - 2 2011 - 3 2012 - 9 2013 - 2 	Planned
Spain (SP)	<p>LOC-I has not been identified as a major concern in Spain, however in order to be aligned with EASp, we have included LOC-I in Spain's risk portfolio or in Spanish Safety Plan. AESA has analysed the LOC-I occurrences that are registered in our Spanish MORS during 2009-2013 period. In this period, there are 52 accidents, 7 serious incident and 12 major incident. (NOTE: We have considered ALL the LOC-I occurrences, therefore we have not filtered by airspace or Spanish AOC)</p> <p>Regarding the hazards under LOC-I, the number of occurrences, during the 2009-2013 period, is::</p> <ul style="list-style-type: none"> - Unstabilised approaches: 1033 - Laser interference: 1813 - Wake turbulence events: 111 - Fire and smoke events in aircraft: 333 - De-icing and anti-icing flaws, - inadequate de-icing procedures: 125 - Loading errors (incorrect loading procedures/loadsheets, improper attachment of cargo in aircraft cargo hold and incorrect weight calculations): 309 - Aircraft flight control system faults: 736 - Mismanagement of a go-around: 27 - Abnormal state of the aircraft (attitude, bank angle, configuration, speed, etc.): 317 - Dangerous weather conditions (icing, wind shear, turbulence, lightning strike, etc.) that can cause damage to the aircraft or loss / malfunction of any essential function: 2169 - Mismanagement of automation (FCU, EFIS, ECAM etc.): 27 - Deviations from the planned flight path: 65 <p>(NOTE: We have considered ALL the hazards without analysing if these hazards have as consequence a LOC-I event)</p> <p>In the Safety Performance Indicators Programme, that we have established with aircraft operators, we plan to request the n° of margin to stall events and inappropriate take-off configurations to all aircraft operators.</p>	Implemented
Sweden (SE)	Safety promotion LOC performed during AOC seminar and SE flight examiner seminars. Follow up oversight questions have been established.	Implemented

Implementation Reports		
State	State's update	Status of the action
Switzerland (SW)	<p>Occurrences 2010 - 2014 Deviation from altitude: 4, 1 high risk Deviation from flight level/altitude: 341, 24 high risk Stall: 5 high risk</p> <ul style="list-style-type: none">Proportion of aircraft operators to have implemented, embedded and actively monitored Loss of Control precursor measures. All operators. Operators with fleet equipped with FDRs this can be assured through surveillance. Those Operators with aircraft without FDR are dependent on reporting of such incidents and a reliable figure is not available.Proportion of AOC holders to have implemented and firmly embedded within their recurrent training programs pilot monitoring skills training. This is part of normal pilot recurrent training (LPC and OPC).Proportion of pilots that have received initial and recurrent pilot monitoring skills training - All (assured through FCL)	Partially implemented
United Kingdom (UK)	<p>There is a formal LOC working group. The UK CAA have produced, published and distributed Monitoring Matters. Discussions are being held to ensure this is embedded into training philosophy. The inspectorate are tasked to assess as part of normal oversight how the Monitoring Matters material is being disseminated across crew and whether training is addressing the issue. Manual flying skills is being addressed by both the CAA and industry, a unified approach is being developed to address to issue. Airline carrier are encourage to review the operational manual material to encourage crew to manually fly where circumstances permit.</p> <p>The content of the Licence Skills Test (LST) is such that it reflects legacy aircraft and does not sufficiently address modern technology. Data suggests that many of the mandatory items contained in the LST no longer represent the risk picture. Accordingly the UK CAA believe the time is right to influence EASA to provide flexibility in regulations to permit operators to train, test and assess based upon the principles of ATQP and EBT. In doing so it would free up valuable simulation time to ensure that relevant exercises are being assessed based upon current technology, operating practices and operating environment.</p> <p>In order to determine the success and value in implementing the above work streams the oversight methodology will ensure a robust feedback loop so that we can be assured best practice is being adopted and delivered.</p> <p>Key performance metrics:</p> <ul style="list-style-type: none">number of loss of control eventsnumber of stick-shake and alpha floor events (auto-thrust to prevent stalling)number of take-off configuration warning eventsnumber of low speed during approach eventsnumber of low speed during cruise eventsproportion of UK aircraft operators to have implemented and actively monitored loss of control precursor measuresproportion of UK AOC holders to have implemented pilot monitoring skills training such as that suggested by the CAA's 'Monitoring Matters' programmeproportion of pilots employed by UK AOC holders that have received pilot monitoring skills training as suggested by the CAA's 'Monitoring Matters' programme.	Partially Implemented

Summary	<p>Many States reported exposure to operational scenarios that proceed LOC-I in the past 5 years, some of them leading to high-risk events. One State (FR) reported an order of magnitude of one low speed event every week and one alpha floor or stick shaker event every month. The same State believes that the mismanagement of a go-around (several precursors available in France during the last five years) might be underestimated as a precursor to LOC-I. One State (IR) reported that 23 out of 458 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>16 States are taking measures to address LOC-I at national level. 6 States (BE, FR, IR, ME, SP and IT) identify these in Safety Plans, 4 States (CR, FI, NL and LT) in SSPs. One State (FR) includes several items related to LOC-I in the SSP including a leaflet related to stall recovery. 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 unestablished 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. In SP taircraft operators will start measuring, the margin to stall events and inappropriate take-off configurations. French aircraft operators required to use FdM are monitoring at least their stick-shaker /alpha floor events, overspeeds, unusual aircraft attitudes.</p>	<div>AER4.6</div> <table><tr><th></th><th>Not planned/not applicable</th><th>Planned</th><th>Partially implemented</th><th>Implemented</th></tr><tr><td>AER4.6</td><td>1</td><td>4</td><td>11</td><td>6</td></tr></table>					Not planned/not applicable	Planned	Partially implemented	Implemented	AER4.6	1	4	11	6
			Not planned/not applicable	Planned	Partially implemented	Implemented									
		AER4.6	1	4	11	6									

EASp Implementation in the States - 2014

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
5. 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 practice examples: - Oversight audits to require and observe that LRSTs implement the recommendations of EAPPRI 2 and EAPPRE, frequency of the meetings as well as documentations and actions taken. - Require (some) non-certified aerodromes to also set up a LRST. - CAA is member of every LRST (observer role) in order to provide regulatory support and monitor effectiveness.</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
Albania (AL)	A thorough review of European Runway Safety Plan has taken place and action plans have been developed by each stakeholder to successfully implement the objective by December 2014. A Runway Safety Team, including Military representation, was established in 2008. The Runway Safety Team has been established since October 2008 and Military is part of it. Safety letters for lesson dissemination are produced for tower control. SSP under development and working close with France CAA / Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Partially implemented
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 practice: The BCAA Airports Department already organizes audits on the six certified aerodromes to check their compliance with the EAPPRI2 aerodrome operator recommendations.	Implemented
Bulgaria (BU)	LRST (in accordance with EAPPRI) are established in all international airports in Republic of Bulgaria. Assessment of airports infrastructure, practices and procedures is performed. The implemented EAPPRI recommendations: • Runway safety issues in ATCO training programs • Taxi tracks usage instructions • Both ends of the runway inspections Pending A-SMGCS (stage 2) implementation.	Implemented
Croatia (CR)	In accordance with Croatian SSP activities related to the implementation of recommendation of EAPPRI 2 and EAPPRE have started with the beginning of 2014. All certified airports have assembled Local runway safety teams. Effectiveness is monitored as part of the safety oversight scheme of the CCAA by assigned inspectors and for overall overview by CCAA Safety board through trend monitoring.	Partially implemented
Estonia (EE)	Estonian CAA considers LRST activities sufficiently addressed by aerodrome operators. Runway Safety Teams have been actively operational for several years with representation of ECAA.	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)	Already 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)	IRunway safety team is already an item in Ictetra 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 EAPPRI 2 (and EAPPRE) and the effectiveness of the LRST including follow-up on any reported runway incursions and measures put in place to prevent re-occurrence. IAA participates (observer capacity) in LRST's, wherever possible, using a risk based approach.	Implemented
Italy (IT)	LRST have been set up at the certified airport but their effectiveness is not yet monitored.	Partially implemented
Latvia (LT)	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.	Partially implemented
Lithuania (LU)	The LRST are established at all 4 certified aerodromes in Lithuania (International Airports). Their effectiveness is monitored during inspections also during direct participation of the CAA's inspectors in the LRST meetings. There is one LRST of four which have been audited for success. AER1.5 will be included into the SSP according to the CAA Aviation Safety Plan 2014-2017 item No 9. Until now we do not apply measuring except what was mentioned above.	Partially implemented
Luxembourg (LU)	An LRST (GT-SAM) is set up at Luxembourg airport with DAC as a member so far. Due to recent clarifications of the roles in the Airport operation, it is planned that DAC will no longer be directly involved but will assume its oversight role.	Implemented
Montenegro (ME)	Local runway safety teams will be set up at certified airports in Montenegro, and their will monitored through regular oversight audits. However, certification process of airports in Montenegro will start in October this year.	Planned
Malta (ML)	There is one LRST at the only certified airport. CAA has an observer status during the meetings so as to monitor the effectiveness. Report on the progress is provided to EUROCONTROL through the LSSIP process.	Partially implemented

Implementation Reports		
State	State's update	Status of the action
The Netherlands (NL)	Runway incursions and runway excursions will be treated separately. They have different stakeholders, different responsibilities, different causes and different solutions. Runway incursions are regarded a major risk to aviation safety. The Safety Platform Amsterdam Airport Schiphol (VPS) has indicated RIs as Safety Performance Indicator and has established a safety target. It is regarded a complex issue with many contributing factors. Training, markings, lights and signs have been improved. The target is to reduce RIs with 50%. Recent indicators show that implemented actions contributed to a decline of the number of RIs. As mentioned earlier Runway Excursions is not considered a risk in The Netherlands.	Implemented
Portugal (PO)		Planned
Romania (RO)	LRST are set up at all certified airports according to the procedure PIAC-AD-SPCR "Runway and Taxiway safety" and their effectiveness is monitored, according to the same procedure, as part of the safety oversight scheme, by audits and inspections performed in the airport certification process.	Implemented
Spain (SP)	In Spain, local runway safety teams (LRST) were set up at certified airports. Their effectiveness is being monitored as part of the 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 EAPPRI 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)	We have been running LRST:s for some years and they are an integral part of our oversight routine. We are generally very satisfied with their effectiveness. In addition, we are establishing a National Aviation Safety Analysis Group (NFAG) comprising of authority and industry participation, chaired by the authority. The first meeting will be held in February 2015 and the remit of the group is to cover aviation safety issues within Swedish Commercial Air Transport. This will be a forum to pick up e.g. runway safety issues which may be common to many Swedish airports.	Implemented
Switzerland (SW)	LRST is required for certified aerodromes. Aerodromes with LRST include Zürich, Genf, Bern, Lugano, Altenrhein, Sion, Samedan, Grenchen. LRST not established yet at Ecuvillens, Les Eplatures, Birrfeld, Lausanne and Bressaucourt. The FOCA is member of every LRST (observer role) in order to provide regulatory support and monitor effectiveness	Implemented
United Kingdom (UK)	The UK CAA has published a significant amount of Guidance Material within its CAP168 'Licensing of Aerodromes' publication. This information recommends implementation of EAPPRI 2 recommendations. During oversight Aerodrome Inspectors monitor LRSTs and discuss performance with aerodrome managers. It is not considered that LRSTs can be audited for success but the UK CAA would expect to see a functioning LRST at an EASA scope aerodrome and will use the performance of the LRST in the overall monitoring of the airport's SMS.	Implemented

Summary

LRST have been set up at the certified aerodromes in 17 States (AL, BE, BU, CR, EE, FI, FR, IC, IR, IT, LT, LI, ML, RO, SP, SW, UK) . 10 States (BE, CR, FI, FR, IC, IR, LI, RO, SP, SW) 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).

In various cases States are active members of LRST in order to provide regulatory support and monitor effectiveness.

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.

In various States (e.g. IR, SP, UK) oversight audits require that LRST's implement the actions of EAPPRI 2. The UK has published a significant amount of Guidance Material within its CAP168 'Licensing of Aerodromes' publication. This information recommends implementation of EAPPRI 2 recommendations. During oversight Aerodrome Inspectors monitor LRSTs and discuss performance with aerodrome managers. It is not considered that LRSTs can be audited for success but the UK would expect to see a functioning LRST at an EASA scope aerodrome and will use the performance of the LRST in the overall monitoring of the airport's SMS.

In one State (NL) runway incursions and runway excursions will be treated separately. They have different stakeholders, different responsibilities, different causes and different solutions.

In FR and SP some non-certified aerodromes have set up a local runway safety team.

AER5.1

	Not planned/not applicable	Planned	Partially implemented	Implemented
AER5.1	0	3	7	12

EASp Implementation in the States - 2014

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
5. 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 European Plan for the Prevention of Runway Incursions (EAPRI) was published in 2003 as a product of the European Runway Safety Initiative (ERSI). In 2011 it was revisited and enhanced with further recommendations and guidance material. Please indicate where you are at with taking the EAPRI recommendations into consideration and how you are doing it in the various domains: authority's oversight activities, ANSP, aerodrome operators, aeronautical information service providers, aircraft operators and military authorities. How do you measure/plan to measure effectiveness?</p>					
	<p>The European Single Sky Implementation Plan (ESSIP 2013) has established objective AOP03 - Improve runway safety by preventing runway incursions. The progress of your State against the European Action Plan for the Prevention of Runway Incursions (EAPRI) is reported as part of the ESSIP/LSSIP mechanism. The latest report is available at http://www.eurocontrol.int/articles/essip-report. It includes the activities carried out in 2012. Please indicate whether any progress has been made towards the objective in 2013 and 2014 and what is the expected situation at the end of the year. Please report the completion status (implemented/Partially implemented/Planned/Not Applicable) in the Authority, ANSP, Airport Operator and the Military when applicable.</p>					
	<p>ESSIP 2013 - http://www.eurocontrol.int/articles/essip-plan.</p>					
	<p>European Action Plan for the Prevention of Runway Incursions (EAPRI) http://www.skybrary.aero/index.php/European_Action_Plan_for_the_Prevention_of_Runway_Incursions</p>					
	<p>Example of Measure: - What is the proportion of certified aerodromes that have implemented recommendations from and/or audited themselves against EAPRI2? Good practice example: - The Runway Incursion part of the State safety plan is established in the framework of EAPRI (including its second version). - The EAPRI recommendations in relation to the Authority are part of the surveillance of the aerodrome certification process. - The implementation of EAPRI recommendations is discussed in every local Runway Safety Team for all addressed domains</p> <p>Are you measuring the above? Have you implemented other measures related to EAPRI implementation?</p>					

Implementation Reports		
State	State's update	Status of the action
Albania (AL)	A thorough review of European Runway Safety Plan has taken place and action plans have been developed by each stakeholder to successfully implement the objective by December 2014. A Runway Safety Team, including Military representation, was established in 2008. The Runway Safety Team has been established since October 2008 and Military is part of it. Safety letters for lesson dissemination are produced for tower control. Albcntrl has planned to implement Aeronautical information management by December 2014.	Partially implemented
Belgium (BE)	The implementation of the EAPRI has been introduced in the Belgian Safety Plan 2010-2014. The Belgian CAA reviewed the implementation of the EAPRI. As the implementation of EAPRI by the Belgian service providers could still be improved, a workshop will be organized in April 2014 with the Belgian service providers to find a new impetus to implement EAPRI as far as practicable. The BCAA will therefore invite the safety managers of the Belgian service providers for an EAPRI implementation meeting to give BCAA's vision on the subject and to discuss the next implementation steps.	Partially implemented
Bulgaria (BU)	No reported RI in 2013. All requirements of radio phraseology correct usage are strictly followed and monitored.	Implemented
Croatia (CR)	In 2013 CCAA has published Air safety information letter with recommendations concerning EAPRI 2 to airport operators, air operators, LRSTs and ANSP. ANSP, certified airports and air operators which operates aircraft with MTOM > 5700 kg and ANSP have developed their own implementations plans which were accepted by CCAA. Implementation of those plans shall be monitored by CCAA through regular oversight. At this moment status of implementation for ANSP, certified airports and air operators are - partially implemented with average score of implemented single recommendations about 50-60 %. CCAA have in plan to organize workshop for small air operators (aircraft less than 5700 kg) and airports with approval (without certificate) concerning EAPRI and will develop generic implementation plan for them.	Partially implemented
Estonia (EE)	Estonian CAA considers EAPRI recommendations as part of surveillance and aerodrome certification, but not following the plan itself. EAPRI2 is currently not part of the State safety plan, however, EAPRI recommendations is discussed in local Runway Safety Team for all addressed domains.	Planned
Finland (FI)	According to the LSSIP, Finland has implemented all the requirements in EAPRI by the regulator and ANSP in 12/2011. Monitoring of the implementation of these actions are part of continuous oversight process. All EAPRI recommendations are not yet implemented or their implementation is not checked particularly within aircraft operators.	Partially implemented
France (FR)	In establishing the "2018 Agenda" the SSP steering committee considered that the actions of EAPRI V2 were completed ; this explain why runway incursion does not appear amongst the chapters of the document related to operational objectives. While runway incursion is still considered as a risk (see UE3,8 of the riskportfolio page 22 of the document), the SSP steering committee considers that the existing structures dealing with the subject (ANSP, Airports, french Aircraft Operator, LRST) as well as oversight in this domain provide the appropriate framework to deal with current issues and to manage the needs for continuous improvement.	Implemented
Iceland (IC)	Work on this started few years ago and continued for airport operators and ANSP. Main actions are being specified 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 all of the nine recommendations for regulators included in Section 1.7 of the EAPRI The IAA has been focusing on the effective implementation of the EAPRI2 by the service providers as part of the oversight audit programme. Currently these recommendations have been substantially implemented at the main international airports in Ireland. Work is on-going to complete this activity in all airports in the state over the next year.	Partially implemented
Italy (IT)	EAPRI is completely implemented in Italy, in some cases the recommendations have been included in the Italian regulation as well in the operations manual of ANSPs and Airport Operators. As already written in the answer to AER2.1, Eurocontrol recommendations are often too generic and go beyond what is currently required by existing EASA regulation, therefore violating the principle of the "nothing less, nothing more". In the case of airports, having been just published the related EASA Airport Regulation, we presume that those regulatory measures not included in this regulation are not to be applied.	Implemented
Latvia (LT)	SSP published. Latvia continued the implementation of the European Action Plan for the Prevention of Runway Incursions, together with a sustained focus on the Runway Safety Programme. The 56 recommendations it contains, when implemented, will enhance runway safety by the consistent and harmonised application of existing ICAO provisions, improving controller - pilot - vehicle driver communications and working procedures at the aerodrome, and by the subsequent increase in situational awareness.	Partially implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Lithuania (LU)	According to the CAA Aviation Safety Plan 2014-2017 item No.16 the appropriate CAA's divisions have to apply EAPPRI (second editions) measures directly. Presently we do not measure effectiveness. We intend to apply the Key performance metrics: e.g., number of runway incursions at the aerodromes of Lithuania, number of runway incursions worldwide (when Lithuanian operators were involved) . According LSSIP 2013 - Lithuania - All Stakeholders - Applicability- All Objectives:AOP03 Improve runway safety by preventing runway incursions - Partly Completed (12-2013). CAA is developing the set of appropriate national legislation to Implement recommendations contained in the EAPRI Edition 2.0 related to data collection and lessons sharing (1.6.1 to 1.6.2), regulatory issues (1.7.1 to 1.7.9) and civil-military joint use of aerodromes (1.10.1, 1.10.2, 1.10.4 and 1.10.12). CAA is involved in Runway safety teams activities as appointed in "Aerodromes Certification Rules" - partly completed (target date - 12/2015). ASP, MIL - completed, APO - partly completed.	Partially implemented
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 and their number has been reduced - driving permit will be changed to a "penalty points" system with more training	Partially implemented
Montenegro (ME)	In accordance with Montenegrin SSP activities related to the implementation of recommendation of EAPPRI will start in 2015.	Planned
Malta (ML)	The CAA has ensured that the LRST adopts the EAPPRI recommendations and follows the guidance material. Oversight exercise has been carried out in the past years. More frequent oversight activities are planned	Planned
The Netherlands (NL)	EAPPRI is applied by local Runway Safety Teams and/or are addressed in the management system of the of the airport, the ANSP and the airlines.	Implemented
Portugal (PO)		Not applicable
Romania (RO)	EAPPRI developments are included in the document "Present European developments in the field of civil aviation safety", posted on the RCAA site, and the industry was informed accordingly (see SYS 2.7 above). LSSIP 2013 Romania AOP 03 - Improve runway safety by preventing runway incursions By:12/2013) - Late - REG (By:12-2013) Regulatory specific actions were implemented. Completed - ASP (By:12-2013) Most of the recommendations contained in the European Action Plan for Prevention of Runway Incursions (EAPPRI) Ed. 2.0 have been already implemented. Related actions are in progress to implement the recommendations contained in the EAPPRI Ed. 2.0 that have not been yet implemented. Late (12/2015) - MIL (By:12-2013) It has been implemented for civil-military operations at Bucharest-Henri Coanda airport. Actions are in place for the implementation of the objective on time. Late (12/2015) - APO (By:12-2013) It has been implemented for Bucharest-Henri Coanda airport. Completed	Partially implemented
Spain (SP)	Spain is implementing the European Action Plan for the Prevention of Runway Incursions (EAPPRI): 1.- In aerodrome domain, AESA has decided to require to the Spanish airports to comply with EAPPRI recommendations. We have identified the next actions: - Perform specific inspections to prevent runway incursions at airports. - Assess aerodromes for compliance with EAPPRI recommendations: AESA has produced an EAPPRI questionnaire that has been delivered to airport managers. The questionnaires will be evaluated as part of the inspection procedure. - Elaborate and update an EAPPRI compliance map with the results of the questionnaires provided by the airport managers. With this map, AESA will get an overview and will be able to establish comparisons, areas for improvement, etc. 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 EAPPRI recommendations. 2.- In aircraft operators domain, AESA has included in its Spanish Safety Plan the next actions: - Develop an EAPPRI compliance questionnaire and deliver it to aircraft operators. - Develop a roadmap to implement EAPPRI recommendations by the operators, according to the compliance questionnaire provided by each operator. - Review compliance with the roadmap of each operator during the inspection procedure. - Develop and disseminate guidance material on preventing runway incursions aimed at flight crews. 3.- In air navigation service providers domain, AESA has included in its Spanish Safety Plan the next actions: - Include, in ATC Operation Manual, a procedure regarding occupied runway in order to reduce runway incursions. Moreover, 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 .	Partially Implemented
Sweden (SE)		Implemented
Switzerland (SW)	EAPPRI (2012) and EAPPRI (2013) have been distributed to the airports through the LRST. The FOCA gave instructions on how to fill out the document and tracks the results. The ESSIP has not yet been discussed at the LRST.	Partially implemented
United Kingdom (UK)	The UK CAA continues with its work in reducing the risk of runway incursion. EAPPRI2 is used as the source document for this work. The CAA has also combined its work in reducing the risk of runway excursion by the promotion of the EAPPRI document. A combined 'Runway Safety Group' has been formed which has both CAA and industry (airlines and airports) representation.	Implemented

Implementation Reports												
State	State's update	Status of the action										
Summary	<p>17 States (AL, BE, BU, CR, FI, FR, IC, IR, IT, LT,LU, NL, RO, SP, SE, SW, 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 (BE, BU, IT, SP) or SSP (FR). In three States (EE, ME, ML) implementation of EAPPRI is planned to 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>	<div><div>AER5.2</div><table><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>AER5.2</td><td>1</td><td>3</td><td>12</td><td>6</td></tr></tbody></table></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AER5.2	1	3	12	6
		Not planned/not applicable	Planned	Partially implemented	Implemented							
AER5.2	1	3	12	6								
ESSIP Report 2013	<p>AOP03 Improve runway safety by preventing runway incursions</p> <p>For the European Action Plan for the Prevention of Runway Incursions, the recommendations contained in it are already implemented by nearly 80% of the regulatory stakeholders. 8 national regulators (BA, ES, HU, ME, PT, RS, SI, UA) declare this objective as 'Late' with the latest reported implementation date in 2016. 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/2013-essipreport.pdf</p>											

EASp Implementation in the States - 2014

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
5. 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. Landing/take-off attempts in an occupied runway/Number of go-arounds caused by occupied runways stopbar/holding point violations Deviations from ATC clearances <p>Best practice examples:</p> <ul style="list-style-type: none"> Send a letter to all licence holders highlighting the severity of potential consequences of runway incursions. Organise a dedicated symposium to raise awareness on the issue <p>Are you measuring the above? Have you implemented other measures related to RI?</p> <p>A list with some of the events being monitored by States is available in the spreadsheet named "Hazard List".</p>					
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Implementation Reports		
State	State's update	Status of the action
Albania (AL)	SSP under development and working close with France CAA/ Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Partially implemented
Belgium (BE)	<p>Reported Occurrences:</p> <p>RI 2010:29 of which 8 with high risk</p> <p>RI 2011:21 of which 4 with high risk</p> <p>RI 2012:19 of which 3 with high risk</p> <p>RI 2013:31 of which 2 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> <p>Current analysis result show that each airport is faced with local specificities depending on the proportion of CAT versus ATO versus leisure aviation and the complexity of airport lay-out. Each LRST will be asked to focus on local solutions where participating partners have management control. BCAA will focus on private pilots and has started contacting each private pilot involved in a RI to draw their attention on the occurrence and ask their version of the facts.</p>	Partially implemented
Bulgaria (BU)		Not planned
Croatia (CR)	Occurrences related to RI are as next: in 2012: 10, in 2013: 8. In 2014 until 30. June: 0. None of those occurrences were considered as high risk events. Mechanisms to mitigate risks have been established on a case-by-case basis. Main factor contributed to the risk of runway incursion is wild animals on the runway. According Croatian SSP other hazardous conditions are: weather conditions, design of airports, ATC phraseology and phraseology of the crew, more places to enter the runway, etc.	Partially implemented
Estonia (EE)	The number of Runway Incursions in the past 5 years is 14, which none of them were considered high-risk event. The three main contributing factors: communication errors between ATCO and GH, poor preparation of flight, wildlife. Mitigating actions: improvement of the ATCO and GH cooperation procedures, dissemination of lessons learned. Implemented actions are monitored during ongoing oversight activities.	Partially implemented
Finland (FI)	<p>There has been ca 350 runway incursions during the last five years. 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 Tafi 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. The number of runway incursions in 2014 has so far been decreasing in comparison with previous years.</p>	Implemented
France (FR)	<p>2013</p> <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. 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> <p>2014: See response made last year (above) which is still valid</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 2013 shows that 126 runway incursions were reported in the period 2009 to 2012. 37 of these occurrences (~29%) 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. The RIAG includes IAA safety regulation inspectors from flight operations, aerodromes and air navigation services as well as relevant experts from the IAA ANSP.</p>	Implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Italy (IT)	<p>RI are monitored for each ANSPs under regulation 1035/2011, through its approved SMS.</p> <p>In addition the SES performance system monitors the development of runway incursion. Duly reporting is made to EASA each year in the SES Report, which contains the national data, which generally match the AST data.</p> <p>In accordance with other EU regulation, Italian Investigating Agency publishes its own report, which contains other data sets.</p> <p>ENAC activity in the field of RI is driven by Circular APT-30, which is under revision due to need to adapt it to the new regulatory environment.</p> <p>Following the adoption of EAPPRI no other actions appear necessary, while some regulatory issues still open and almost uncertain at European level (i.e. the use of a single frequency for airplanes and vehicles on an active runway) are waiting the duly intervention of the European regulator.</p>	Implemented
Latvia (LT)	<p>RI is included in SSP.</p> <p>3 main factors that contributed to the risk were:</p> <ul style="list-style-type: none"> - Loss of communication and runway incursions - Aerodrome Control Phraseologies-READ-BACK - Familiarisation with the airport is not adequate. <p>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 uses AOD Database (FACTOR/SIB/AD) to address the mitigation actions and as well as to determine the effectiveness of the measures.</p>	Partially implemented
Lithuania (LI)	<p>Information from the Action Report of 2013: 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. RI will be included into SSP, ref. to CAA Aviation Safety Plan 2014-2017, item No.17. Currently we plan these key performance metric, e.g.: number of runway incursions at Lithuanian aerodromes (International Airports) or involving Lithuanian operators worldwide, deviations from ATC clearances, stop bar or holding point violations. The latest information: one RI occurred in May 2014: incursion of the RSA by the vehicle which could not move due to the mechanical failure (a gearbox breakdown). Consequently the approaching aeroplane had to wait. The vehicle was immediately and successfully removed. ES according to the ESARR2 (no safety effect) or according to the ICAO Annex-13 - Occurrences which have no safety significance. The preventive measures included the appropriate briefing of the aerodrome vehicles drivers. Effectiveness of the preventive actions will be verified by the CAA during the oversight activities. As the vehicle was properly maintained it was difficult to identified the factors contributed to the risk except maybe the this vehicle was not a new one (?).</p>	Planned
Luxembourg (LU)	<p>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.</p>	Partially implemented
Montenegro (ME)	<p>The Montenegrin State Safety Plan 2013-2016 action item 2.2.6 addresses RI.</p>	Implemented
Malta (ML)	<p>yes. 74. main contributing factors: incorrect phraseology and human error. Investigations of high risk occurrences provide recommendations to prevent the reoccurrence of these events. The CAA is notified of the actions taken after the investigation. One of the objectives of the LRST is to take measures to reduce the number of RWY incursions.</p>	Partially implemented
The Netherlands (NL)	<p>Runway incursions are regarded a major risk to aviation safety.</p> <p>The Safety Platform Amsterdam Airport Schiphol (VPS) has indicated RIs as Safety Performance Indicator and has established a safety target.</p> <p>It is regarded a complex issue with many contributing factors.</p> <p>Recent indicators show that implemented actions contributed to a reduction of the number of RIs.</p>	Implemented
Portugal (PO)		Planned
Romania (RO)	<p>The second edition of the Romanian SSP (see AER 1.5 above) does include RI. This type of event is addressed by service providers through their SMS. RCAA is analyzing specific RI occurrences, establishes measures accordingly and verifies their implementation as part of the oversight process.</p> <p>Numbers of RI occurrences (in accordance with ADREP 2000 taxonomy classification) reported to RCAA:</p> <p>2009 - 6 2010 - 3 2011 - 5 2012 - 6 2013 - 4</p>	Partially implemented
Spain (SP)	<p>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 the occurrences registered in our Spanish MORS during 2009-2013 period. The main conclusions are:</p> <ul style="list-style-type: none"> • There were 763 RI in Spanish territory during 2009-2013. There were 9 serious incidents, 76 major incidents and 607 significant incidents. Therefore, 11% of RI occurrences were high severity. • The main factors that contribute to RI were: ATC clearance infringement (75%), ATC procedures (35%) 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. 	Implemented
Sweden (SE)	<p>This will include as a minimum agreeing a set of actions and measuring their effectiveness</p>	Partially implemented
Switzerland (SW)	<p>A national level SPI has been identified for RI and is being monitored (Rate of RWY Incursions Class A/B/C).</p> <p>Occurrences: 2010 - 2014</p> <p>RI: 236, 20 high risk</p> <p>By an aircraft - not following ATC instruction</p> <p>By a Person - pedestrians at regional and swiss airfields</p> <p>By a vehicle/Equipment - majority Farmes not communicating with ATC at regional and swiss airfields.</p> <p>Proactive - RI are addressed as part of the hazard identification and risk mitigation process of each certified aerodrome (hazard library). This process is overseen by the FOCA to ensure implementation and effectiveness of measures. Reactive - Once a RI is reported (mostly by the aerodrome operator and/or the ANSP), the FOCA contacts the chief of aerodrome or the safety office in order to get a clear statement on the incident by the aerodrome operator. Additionally, all safety relevant incidents in the movement area are discussed in the LRST. If incidents increase significantly on an aerodrome, inspections or other oversight activities are performed. Tracking of each incident is done by the FOCA (SIAP), actions are demanded and tracked where necessary.</p>	Implemented

Implementation Reports												
State	State's update	Status of the action										
United Kingdom (UK)	<p>The UK CAA monitors runway incursion at all licensed airports and follows up reports taking action where necessary. In the UK risk discussions are conducted with Accountable Managers and the CAA uses its 'Significant 7' outcomes as a baseline for these discussions. A sub-group of the Runway Safety Group monitors all incursions to identify trends and take regulatory action if necessary. The SSP contains information on the UK policy for the prevention of runway incursion. Work completed includes EAPPRI2 disseminated to industry; Implementation of appropriate EAPPRI2 recommendations by aerodromes and operators audited; strategy, standards and guidance for airside driver training developed and implemented (CAP 790); reviewing radio communication procedures used around runway. Runway incursion by airside drivers have reduced across the reporting period.</p> <p>Key performance metrics:</p> <ul style="list-style-type: none">• number of runway incursions at UK aerodromes or involving UK operators worldwide (analysed by severity grade)• number of UK licensed aerodromes that have implemented recommendations from and/or audited internally against EAPPRI2• licensed aerodromes will be audited against the new airside driving standard detailed in 'Requirement for an Airside Driving Permit (ADP) Scheme - CAP790	Implemented										
Summary	<p>Many States reported exposure to RI in the past 5 years, including several high-risk events. One State (FI) reported that there has been well over 350 runway incursions during the last five years and the number of runway incursions in 2014 has so far been decreasing in comparison with previous years. One State (FR) reported that there are numerous incursions reported each year (about 150 involving aircraft, 40 involving vehicles and 20 involving persons). One State (SP) reported that there were 763 RI in Spanish territory during 2009-2013, which translated into 9 serious incidents, 76 major incidents and 607 significant incidents. Therefore, 11% of RI occurrences were high severity in SP.</p> <p>The ANS performance scheme dashboard shows 12 severity A RI and 37 severity B in 2012 among the reporting States . In 2013 the numbers are: 62 severity B and 13 severity A RI. Link: http://www.eurocontrol.int/prudata/dashboard/eur_view_2014.html</p> <p>18 States are taking measures to address RI at national level. 5 States (IR, SP, IT,ME and SW) identify these in Safety Plans, 7 States (FI, IC,LT,SP,RO, UK and FR) in SSPs. 4 States (BE, SE, CR, EE) are measuring precursors and establishing mitigating measures through oversight activities. In addition to the measures adopted by the Runway Safety Team, at least two States (IR and UK) have established a Runway Action Group. One State (NL) has indicated Ris as Safety Performance Indicator and has established a safety target.</p> <p>In the majority of cases States have established safety performance indicators (e.g. Rate of RWY Incursions Class A/B/C). One State (FI) has also established targets for all aviation stakeholders. The achievement of this targets is monitored during the oversight process.</p>	<div><h3>AERS.4</h3><table><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.4</td><td>1</td><td>2</td><td>10</td><td>9</td></tr></tbody></table></div>		Not planned/not applicable	Planned	Partially implemented	Implemented	AERS.4	1	2	10	9
	Not planned/not applicable	Planned	Partially implemented	Implemented								
AERS.4	1	2	10	9								

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
5. Ground Collision						
<i>Safety of Ground Operations</i>						
AER6.2	Uncontrolled fire, smoke or fumes on-board aircraft.	Safety Issue 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 have the greatest potential to lead to fire on-board an aircraft are the incorrect packaging of lithium batteries (or other hazardous material), uncontained engine fires or hidden area fires (for example caused by wires) not detected and extinguished on time. The majority of aircraft fire incidents occur in galleys, passenger and toilet areas but these are usually relatively low risk and unlikely to progress to a catastrophic accident.</p> <p>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>Potential sources of smoke and fire are:</p> <ul style="list-style-type: none"> • Electrical systems and wiring, • Equipment failures, • Insulation blankets, • Lithium batteries • Hot Components/Powerplants • Oxygen Systems <p>Examples of Measures:</p> <ul style="list-style-type: none"> • Aircraft fires. • Aircraft smoke events. • Maintenance-related events involving aircraft wiring. • Number of flight crews that have received training on fire suppression on-board or hazardous material. <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
Albania (AL)	SSP under development and working close with France CAA / Runway incursion team is in place since 2008, participating airport.military, service provider and CAA. The plans for the near future are to include also runway excursions thematics and to discuss issues related to this occurrences.	Partially implemented
Belgium (BE)	All incoming occurrences related to Fire/Smoke will be monitored via the BCAA Occurrence Ecceairs Matrix. (ECCAIRs query = Occurrence category {Occurrence} equal to F-NI: Fire/smoke (non-impact)) Reported Occurrences: 2011: 13 - 2012: 9 - 2013: 13 2 of these events were considered high risk events.	Partially implemented
Bulgaria (BU)	No such an event has been occurred last 5 years. Measures: Maintenance: initial and refreshment training of maintenance staff for EWIS;	Implemented
Croatia (CR)	CCAA has no planned activities related to this issue.	Not applicable
Estonia (EE)	The state has not been exposed to these type of scenarios in the past 5 years.	Planned
Finland (FI)	There has been ca 45 incidents regarding smoke in the aircraft. 12 of these were classified as serious incidents. Typical reasons in serious incidents are malfunctions in electrical wiring or f.ex. ovens. Smoke and fire 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. Fire and smoke issues will be included in the next update of Finnish Aviation Safety Plan.	Partially implemented
France (FR)	This item as been included in th "2018 agenda" as operational objective B/7	Planned
Iceland (IC)	Icettra is monitoring those events. If such things do occur the Operators SMS system is activated and addresses the events and Icettra monitors it to the end.	Partially implemented
Ireland (IR)	The IAA Annual Safety Performance Review 2013 shows that there were 133 occurrences of Fire/Smoke (non impact related) occurrences reported by the main Irish operators between 2011 and 2013, 17 of which were classified as higher risk (ARMS > 10). The majority of the reports were low risk and concerned either actual or suspected smoke in the cabin, galleys and toilets. The higher risk events were mainly actual fire/smoke from electrical parts in the cockpit or cargo (cargo aircraft) causing diversion. There were no reports of fire due to lithium batteries.	Partially implemented
Italy (IT)	An action on "Uncontrolled fire, smoke or fumes on-board aircraft" should be included in the new edition 2014-2017 of ENAC Safety Plan, that is still at draft level.	Planned
Latvia (LT)	LV CAA uses AOD Database (FACTOR/SIB/AD) to address the mitigation actions and as well as to determine the effectiveness of the measures.	Partially implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Lithuania (LU)	<p>Continuous SP SSP Publication "Some of the operational scenarios that have the greatest potential to lead to fire on-board an aircraft are the uncorrect packaging of lithium batteries (or other hazardous material), uncontained engine fires or hidden area fires (for example caused by wires) not detected and extinguished on time. The majority of aircraft fire incidents occur in galleys, passenger and toilet areas but these are usually relatively low risk and unlikely to progress to a catastrophic accident.</p> <p>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>Potential sources of smoke and fire are:</p> <ul style="list-style-type: none"> • Electrical systems and wiring, • Equipment failures, • Insulation blankets, • Lithium batteries • Hot Components/Powerplants • Oxygen Systems <p>Examples of Measures:</p> <ul style="list-style-type: none"> • Aircraft fires. • Aircraft smoke events. • Maintenance-related events involving aircraft wiring. • Number of flight crews that have received training on fire suppression on-board or hazardous material. <p>Are you measuring the above? Have you implemented other measures related to safety of Ground Operations?" "State has not been exposed to these type of scenarios in the past 5 years. AERS 9 issue is included into CAA Aviation Safety Plan 2014 -2017, item 19, ref. to http://www.caa.lt/index.php?467881435, Civilinės aviacijos administracijos aviacijos saugos planas (CAA ASP) 2014-2017 m. įsakymas planas and will be included in the SSP (2014), ref.to CAA Aviation Safety Plan 2014-2017, item No.18 Until now we do not measuring the above. However we plan to apply key performance metrics: number of aircraft smoke events, number of aircraft fires, also number of aircraft maintenance events related to wiring. "</p>	Planned
Luxembourg (LU)	It is planned to address the risk of fire, specifically in relation to lithium batteries, in the SSP.	Planned
Montenegro (ME)	At this moment, no planned activities related to this issue.	Not applicable
Malta (ML)	Not measured yet. 2 MOR's re. smoke in galley due to spillage of catering into galley ovens.	Planned
The Netherlands (NL)	Uncontrolled fire, smoke or fumes on-board aircraft is not one of the safety concerns in the Dutch SSP. There have been fume incidents which lead to concern.	Partially implemented
Portugal (PO)		Not applicable
Romania (RO)	The second edition of the Romanian SSP (see AER 1.5 above) does not include this type of event. It is addressed by service providers through their SMS. RCAA is analyzing specific events of this type, establishes measures accordingly and verifies their implementation as part of the oversight process. Only 1 report of such occurrence has been received by RCAA between 2009-2013.	Planned
Spain (SP)	Uncontrolled fire, smoke or fumes on-board aircraft has not been identified as a major concern in Spain, however in order to be aligned with EASp, we have included it in Spain's risk portfolio or in Spanish Safety Plan. AESA has analysed the occurrences that are registered in our Spanish MORS during 2009-2013 period. In this period, there are 2 accidents, 13 serious incident and 46 major incident. (NOTE: We have considered ALL the occurrences, therefore we have not filtered by airspace or Spanish AOC)	Implemented
Sweden (SE)	Safety promotion has been performed by publishing information to AOC operators and passengers regarding hazards related to Lithium Batteries. Safety promotion was also performed by publishing information regarding other fire related issues. Within the oversight predefined inspection and audit questions have been established to assure AOC Operators procedures for fire mitigation and fire fighting.	Partially implemented
Switzerland (SW)	<p>Special awareness campaigns and requiring to address item in recurrent training</p> <ul style="list-style-type: none"> • Hot Components/Powerplants • Oxygen Systems <p>All flight crews are trained in fire fighting, actions to be taken in case of in-flight smoke. This is part of regular recurrent training requirements.</p> <p>Other actions implemented are:</p> <ul style="list-style-type: none"> - Inspection ACAM - ARC Review - OR System - Systematic Failures sent to IORS - Course internal Aircraft Fuel Tank System Safety 	Partially implemented

Implementation Reports		
State	State's update	Status of the action
United Kingdom (UK)	<p>The UK CAA monitors Fume, Smoke and Fire events, since October 2012 we have separated the these events to more effectively analysis each event type, the operator and aircraft type. This has enable more effective conversations with operators on root cause analysis and to assist in trend monitoring of events and mitigations put in place by the operators</p> <p>Has your State been exposed to these type of scenarios in the past 5 years? Yes</p> <p>If so, how many occurrences did take place? We have only been splitting these events for analysis since Oct 2012, but since then we have had approximately 348 fume events, 167 smoke events and 21 fire events. Note, most cabin event are caused by smoke from the ovens.</p> <p>How many of those were considered high risk events? We have record 5 high risk events since October 2012</p> <p>What are the 3 main factors that contributed to the risk? 2 Engine fires, 1 mist in the cabin, misdiagnosed as smoke, 1 multiple electrical failure and 1 IFE fire in cabin.</p> <p>What mechanisms are in place to address corresponding mitigation actions? Most mitigation are in place by following standard or emergency operating procedures, ref engine fires, IFE system failures are monitored by the major airlines and continued maintenance planned tasks are implemented to mitigate further issues. Where components have failed causing smoke or fire, normally strip reports are requested to understand the cause of the event. Fume events are often not traced to a source such that on going monitor can be difficult.</p> <p>How do you know if they are being implemented? All significant incidents are investigated by surveyors or inspectors to ensure appropriate investigation and mitigations are put in place by the owner /operator. Oversight is monitor through the airlines continued reliability monitoring or / and through review of further incidents.</p> <p>How do you know if they are working? Monitoring incident rate and reliability reports with the operators.</p> <p>Potential sources of smoke and fire are, Electrical systems and wiring, Equipment failures, Insulation blankets, Lithium batteries, Hot Components/Powerplants, Oxygen Systems</p> <p>Examples of Measures: Aircraft fires, Aircraft smoke events, Maintenance-related events involving aircraft wiring, Number of flight crews that have received training on fire suppression on-board or hazardous material.</p> <p>Are you measuring the above?</p> <p>We measure / monitor aircraft Fires, Smoke and Fume events, we are less able to analysis the root cause of the event, e.g. aircraft wiring, as this will become evident throughout the investigation.</p> <p>Have you implemented other measures related to safety of Ground Operations? We monitor events which occur in each phase of flight, which would include Taxi and anything that might endanger the aircraft whilst it is on its arrival / departure gate or remote stand.</p> <p>In addition to the analysis and investigation of incidents the UK CAA has worked with the FAA to produce media clips in support of continuation training / EWIS training for maintenance personnel highlighting the importance of following the manufactures maintenance instructions to reduce fire, smoke fume events. A link to this video is available on the CAA's YouTube Channel. We have also procedure four further videos intended to raise awareness of the hazards from lithium batteries and the importance of ensuring they are transported in accordance with the Technical Instructions, both as cargo and by passengers. The videos explain the specific responsibilities of personnel concerning the safe carriage of lithium batteries and emergency response actions (where appropriate). There are three separate videos aimed at the following categories of personnel:</p> <ul style="list-style-type: none">• Flight and Cabin Crew• Cargo and Ramp• Passenger Handling <p>The forth video has been produced to raise awareness to the Mail community on the carriage of lithium Batteries, these videos will be released shortly</p> <p>We are carrying out research into the ability to detect bulk shipment in cargo of lithium batteries, as we believe there is a fire risk from lithium batteries which are not produced to ICAO standards and often shipped without the correct packaging or being declared.</p>	Partially implemented
Summary	<p>Many States reported exposure to uncontrolled fire, smoke or fumes on-board aircraft in the past 5 years, including several high-risk events. One State (FI) reported that there has been ca 45 incidents regarding smoke in the aircraft. 12 of these were classified as serious incidents. IR had 133 occurrences of Fire/Smoke (non-impact related) occurrences reported by the main Irish operators between 2011 and 2013, 17 of which were classified as higher risk (ARMS > 10). One State (UK) reported since Oct 2012 approximately 348 fume events, 167 smoke events and 21 fire events. 5 of them were classified as high risk events. The higher risk events were fire/smoke from electrical parts in the cockpit or cargo (cargo aircraft) causing diversion or engine fires.</p> <p>12 States are taking measures to address uncontrolled fire, smoke or fumes on-board aircraft at national level. 4 States (SP, LT,FI, UK) identify these in their Safety Plans. FR has included the item on its "2018 agenda". 3 States (CR, ME) do not plan any activities related to this issue.</p> <p>The UK monitors aircraft Fires, Smoke and Fume events, but are less able to analysis the root cause of the event, e.g. aircraft wiring, as this will become evident throughout the investigation. They also monitor events which occur in each phase of flight, which would include Taxi and anything that might endanger the aircraft whilst it is on its arrival / departure gate or remote stand.</p> <p>In addition to the analysis and investigation of incidents the UK has worked with the FAA to produce media clips in support of continuation training / EWIS training for maintenance personnel highlighting the importance of following the manufactures maintenance instructions to reduce fire, smoke fume events (a link to this video is available on the CAA's YouTube Channel). They have also produced four further videos intended to raise awareness of the hazards from lithium batteries and the importance of ensuring they are transported in accordance with the Technical Instructions, both as cargo and by passengers. The videos explain the specific responsibilities of personnel concerning the safe carriage of lithium batteries and emergency response actions (where appropriate). There are three separate videos aimed at the following categories of personnel: Flight and Cabin Crew, Cargo and Ramp and Passenger Handling. The forth video has been produced to raise awareness to the Mail community on the carriage of lithium Batteries. These videos will be released shortly.</p>	<div><div><div><div><div></div><div>AER6.2</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div>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EASp Implementation in the States - 2014

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
1. 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.		Number and frequency of events organised

Guidance	<p>EHEST has published the following recommendation in 2011: EHEST recommends the NAAs in partnership with industry representatives, to organise Helicopter Safety events annually or every two years. The EHEST materials could be freely used and promoted.</p> <p>What type of helicopter safety events have you organised in 2013/2014 or plan to organise? Do you plan to do it frequently?</p> <p>What specific issues related to the safety of Helicopter operations were addressed?</p>
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Implementation Reports		
State	State's update	Status of the action
Albania (AL)	Currently, there are no helicopters.	Not applicable
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 organize an new safety event for General Aviation pilots (including helicopter) in December 2014.	Implemented
Bulgaria (BU)	BG CAA planned to organise Helicopter Safety meeting with Air Operators in November 2014.	Planned
Croatia (CR)	CCAA has no planned activities related to this issue.	Not applicable
Estonia (EE)	The activity of the helicopters operations is currently very low in Estonia. EHEST recommendations will be implemented as helicopters operations increase.	Planned
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/lentoturvallisuus/helikopterit . A link to ESSI website will be established on the CAA's website.	Implemented
France (FR)	Following the 2012 symposium an action plan has been set up; this action plan is depicted in part 2 of the "2018 Agenda"	Partially implemented
Iceland (IC)	There are 4 Helicopters operators in Iceland and they have all been approached with EHEST material by Icettra and encouraged to use it. Icettra has participate in EHEST meetings at EASA.	Partially implemented
Ireland (IR)	IAA State Safety Plan 2014-2017 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). Two GASCI safety evenings were held in 2013 and are being held in 2014 - some of these are held in conjunction with UK equivalent GASCO. EHEST material is 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). Some presentations (eg airmanship, planning, weather avoidance, fuel starvation etc) have relevance to both fixed and rotary wing pilots and the EHEST Safety Leaflet HE4 Decision Making was included in the Safety Data Pack distributed at two Safety evenings in the second quarter of 2014. 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)	Helicopter Safety events should be included in the new edition 2014-2017 of ENAC Safety Plan, that is still at draft level. Such events should start in 2015.	Planned
Latvia (LT)	In 2014, annual helicopter safety event is scheduled to take place.	Implemented
Lithuania (LU)	Presently not applicable as the activity of the helicopters operations is very low. However, the Helicopter Safety events will be organised in the future if the activity of the helicopters operations increase. The EHEST materials are promoted (placed on the CAA website, ref. to http://www.caa.lt/index.php?467881435) 10. Nuorodos Europos strateginė saugos iniciatyva (ESSI) Looking to the future HE1.3 issue is included into the CAA Aviation Safety Plan 2014 -2017, item 19, ref. to http://www.caa.lt/index.php?467881435 , Civilinės aviacijos administracijos aviacijos saugos planas (CAA ASP) 2014-2017 m.: •įsakymas •planas	Planned
Luxembourg (LU)	No helicopter safety event planned as Luxembourg has only 1 helicopter operator.	Not applicable
Montenegro (ME)	At this moment, no planned activities related to this issue.	Not applicable
Malta (ML)		Not applicable
The Netherlands (NL)	Helicopter safety event are organized annually. In 2014 the Netherlands hosted the Helicopter Safety Workshop organized by the National Aerospace Laboratory (NLR) and facilitated by European Helicopter Safety Team (EHEST) and the International Helicopter Safety Team (IHST).	Implemented
Portugal (PO)		Planned

Implementation Reports		
State	State's update	Status of the action
Romania (RO)	EHEST materials are promoted through the document "Present European developments in the field of civil aviation safety", posted on the RCAA site, and the industry was informed accordingly (see SYS 2.7 above).	Planned
Spain (SP)	As in the previous year, AESA has organised, in April and May 2014, 4 Fire Fighting Safety Conferences in several Spanish locations in order to promote safety operations. 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.seguridadarea.gob.es/lang_castellano/n_d/jornadas_seg_operac_ext_incendios.aspx	Partially implemented
Sweden (SE)	An Aviation Safety Forum (Flygsäkerhetsforum) is being planned after a model used by the Norwegian CAA. Due to lack of personnel the forum had to be postponed due to shortage of staff but will likely be implemented during 2015.	Planned
Switzerland (SW)	The FOCA organises 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). In fall 2013 the following topics were discussed: New developments regarding hooks and ropes. Hooking techniques and its impacts on safety (theoretical part as well as a practical part: hooking different loads to helicopters) - 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. Additionally, in 2014 the FOCA organised a CRM course for helicopter pilots. The course addressed various topics like decision making, good airmanship etc. The audience consisted of private and commercial pilots as well as flight instructors.	Implemented
United Kingdom (UK)	The UK CAA supports the General Aviation Safety Council (GASCo) in delivering safety education and events to the aviation community including the helicopter sector. Specific events in 2013-2014 have been: Helicopter Decision Making at Flight Safety International, Farnborough - 16 May 2013 Flight Safety International hosted a helicopter safety day in one of its high tech classrooms and organised a tour of its training centre including part classrooms, cockpit procedures trainer and flight simulator for the S-92 helicopter. There were four main sessions: • Safety data and views from the European Helicopter Safety Analysis Team presented by Keith Reid (CAA Small Helicopter Safety Group) • Single Pilot Helicopter decision making from Captain Richard Craske, CAA • The importance of never flying lower and slower than necessary and not below Vy from GASCo Regional Safety Officer, Geoff Connolly, Test Pilot, Flight Experimentations • The common mistakes helicopter pilots make when making decisions by Gary Spender, Chief Pilot, Sloane Helicopters Helicopter Safety at Alpha Aviation, RAF Linton-on-Ouse - 31 July 2013 The Impact of Bad Decision Making –Improving Decision Making' This event held in July 2013 used simulators to provide practical reinforcement of decision making skills. Two generic helicopter cockpits each able to take two pilots and an instructor on a demanding sortie engineered to provide situations typical of GA flying in the UK albeit using a very different terrain database. The practical sessions in the simulator were well supported by a programme of discussion groups on: • Decision Making, Captain Richard Craske of the CAA • Single Pilot Resource Management/Threat and Error Management, Captain Martin Brookefield, British Airways Small Helicopter Safety Issues - Group discussion led by Mr Keith Reid of the European Helicopter Safety Analysis Team Similar events are planned for 2014-2015 where possible. EHEST safety material has been distributed at events and through direct liaison with operators.	Implemented

Summary

10 States (BE, FI, FR, IC, LT, NL, IR, SP, SW,UK) have organised helicopter safety events. In the majority of cases EHEST material was promoted and distributed.

A few examples:

- NL: In 2014 the Netherlands hosted the Helicopter Safety Workshop organized by the National Aerospace Laboratory (NLR) and facilitated by European Helicopter Safety Team (EHEST) and the International Helicopter Safety Team (IHST).
- IR: Annual Safety Seminars for the General Aviation Community (including General Aviation Helicopter Operators) - 2014
- LT: Annual helicopter safety event (2014)
- SP: Fire Fighting Safety Conference in April and May 2014.
- 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.) and SASCON (Swiss Aviation Safety Conference), addressing exclusively safety related topics for the whole Swiss aviation community.
- UK: Helicopter Decision Making at Flight Safety International, Farnborough - 16 May 2013 and Helicopter Safety at Alpha Aviation, RAF Linton-on-Ouse - 31 July 2013

A helicopter safety team has been established in FI and is part of EHEST. SE is in the process of constituting a new national safety forum in cooperation with the industry.
FI has established guidance material on SMS implementation (http://www.trafi.fi/ilmailu/easa/hallintojarjestelma_%28sms-osa%29_implemintointi).

4 States reported a small commercial helicopter industry (e.g. IR, LI,EE, LU) and 4 States (AL, CR, ME, ML) reported no planned helicopter activities.

HE1.3

	Not planned/not applicable	Planned	Partially implemented	Implemented
HE1.3	5	7	3	7

EASp Implementation in the States - 2014

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.		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 European Single Sky Implementation Plan (ESSIP 2013) has established objective SAF10 - Implement measures to reduce the risk to aircraft operations caused by airspace infringements. The progress of your State against the European Action Plan for Airspace Infringement Risk Reduction is reported as part of the ESSIP/LSSIP mechanism. The latest report is available at http://www.eurocontrol.int/articles/essip-report. It includes the activities carried out in 2012. Please indicate whether any progress has been made towards the objective in 2013 and 2014 and what is the expected situation at the end of the year. Consider the situation at both State and Service Provider Level</p> <p>ESSIP 2013 - http://www.eurocontrol.int/articles/essip-plan.</p> <p>European Action Plan for Airspace Infringement Risk Reduction http://www.eurocontrol.int/sites/default/files/content/documents/nm/safety/european-action-plan-for-airspaceinfringement-risk-reduction.pdf</p> <p>Best practice example</p> <ul style="list-style-type: none"> - European Action Plan for Airspace Infringement Risk Reduction is incorporated in the State Safety Plan. - The monitoring of the implementation of EAPPRI actions are part of continuous oversight process.
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Implementation Reports		
State	State's update	Status of the action
Albania (AL)	<p>The objective is being reviewed and planned that the Airspace Infringement Risk Reduction to be included in the procedures of Albcontrol by Dec 2014. Such occurrences are being investigated and lesson learned disseminated to controllers.</p> <p>There is cooperation with military authorities to review the procedure of military flight. The ANSP has implemented the recommendations of the European Action plan except the harmonization and enhance of AIS provision (more explicitly the VFR charts) to VFR flights. The decision for the enhancement will be done by the end of this year.</p>	Partially implemented
Belgium (BE)	<p>Reported Occurrences for airspace infringements committed by GA:</p> <p>2010:34 2011:93 2012:109 2013:123</p> <p>None of these events were considered high-risk events;</p> <p>The BCAA 2013 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 leaflets to inform pilots about specific problems with regard to the Belgian airspace. The airspace infringement leaflets have already been published on the BCAA website and sent to the Belgian ANS service provider, the Ministry of Defence, the 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.</p> <p>Most important actions:</p> <ul style="list-style-type: none"> * yearly awareness leaflet published * questionnaire sent to pilots causing airspace infringements * analysis of these questionnaires * new VFR guide soon published * Task Force composed of the Belgian CAA, the national ANSP (Belgocontrol) and the Ministry of Defence established to investigate the possibility to restructure the Belgian airspace below 3000 ft to make it less complex. * intensified contacts between BCAA and airspace users... 	Implemented
Bulgaria (BU)	<p>Reported occurrences of airspace infringement</p> <ul style="list-style-type: none"> • Non-coordinated para-planner and moto-delta-planner flights: 7 <p>In accordance with EAPAIRR:</p> <ul style="list-style-type: none"> • Most non-controlled airfield operators signed Letters of Agreement with ATSA • Regular revision of the controlled airspace structure and organization • Regular meetings organized between FIS coordinators, Military ANSP, GA pilots 	Implemented
Croatia (CR)	<p>Reported occurrences for AI in GA are: in 2012: 7 occ., in 2013: 4 occ. Implementation of the European Action Plan for Airspace Infringement Risk Reduction has been started during 2013. All of the occurrences are considered as low risk events. Prevailing causes was unintended entering to controlled airspace related to flying without two-way communication with ATC, flights without filled Flight Plan, deviations in formation flying. In CCAA's implementation plan significant steps are made towards harmonization of requirements for microlight aircraft, gliders (including paragliders and hang gliders) through publishing of "Ordinance of sport-recreational aircraft flying". In 2014, next activities are planned: AI analysis, harmonization of rules and requirements for AFIS, workshops for requirements for updating of GPS data in aircraft and VFR expanded and alternative route planning.</p>	Partially implemented
Estonia (EE)	<p>The number of airspace infringements involving GA in the past 5 years is 7, which none of them were considered high-risk event. The main contributing factors: poor preparation of flight and weather conditions (low cloud base, often over restricted areas). Mitigating actions: improved the availability and accessibility of aeronautical and meteorological information to VFR flights. European Action Plan for Airspace Infringement Risk Reduction is going to be part of the State Safety Programme development.</p>	Planned
Finland (FI)	<p>There has been ca 420 airspace infringements involving GA during the last five years. 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 took effect 14th November 2013.</p> <p>Safety bulletin was released in November 2013 looking at the safety of recreational aviation in 2013 and it also highlighted the airspace infringement issue. Available (in Finnish) at http://www.trafi.fi/filebank/a/1385725934/817912d205422788c9e2483088f070bb/13686-Ilmailu_turvallisuustiedote_harrasteilmailu_1-8_2013.pdf</p>	Implemented
France (FR)	<p>Airspace infringement by general aviation is still a safety concern in French airspace. User information, disciplinary measures, and extended use of transponder are seen as an efficient way forward.</p> <p>Work on identifying needs to implement TMZ (Transponder Mandatory zones) has been launched.</p> <p>An information campaign within one of the most exposed region to this risk, involving the ANSP as well as the GA representatives is being launched ; feedback of this campaign will be assessed.</p> <p>In addition, some other specific actions of EPPAIR are addressed in operational objective B/4 of the "2018 agenda"</p>	Partially implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Iceland (IC)	The airspace infringement in general aviation is generally in lower altitudes than airspace infringement in CAT terms is. Iceira 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 2013 reports 89 cases of airspace infringements in Irish Airspace over the period 2010-2013. 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 15 of these were Severity C. The vast majority of airspace infringements (~90%) involve infringements by general aviation or military aircraft however most of these infringements were classified as low risk (ESARR Severity E) reflecting minor incursions to airspace without affecting IFR traffic (eg corner cutting). Whereas the SSP for Ireland item ASD.001 addresses the key risk of mid air collision (MAC), the IAA has decided to include a dedicated item in the latest issue SSP 2014-2017 (FOD.017) to provide specific focus on the risk of GA airspace infringement.</p> <p>The IAA has completed all of the thirteen recommendations for regulators in the EAPAIRR. A specific action is included in the SSP 2014-2017 to review the level of implementation of the EAPAIRR in affected organisations over the next audit oversight cycle (2 years)</p> <p>The IAA also engages in 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. The IAA has also published airspace infringement hot-spot charts on the IAA website.</p>	Partially implemented
Italy (IT)	See AER 2.8.	Implemented
Latvia (LT)	There have been 24 reported airspace infringements involving GA in the period 2010-2014 One of them was considered high-risk event. In order to address the airspace infringements, including high risk airspace infringements in 2013 within specific controlled airspace volumes, nearby uncontrolled aerodrome operations were required to have two way radio communications and operating transponder Mode C. The ANSP initiative involves full FIS coverage in lower Latvian airspace, starting from 500 feet by the end of 2015. Appropriate action items from European Action Plan for Airspace Infringement. Safety issues, including airspace infringement risk is regularly discussed in annual instructor seminar.	Partially implemented
Lithuania (LI)	<p>There were 3 air airspace infringements of the GA in the past 5 years. They were not considered as the high-risk events. This issue is included in the CAA Safety Plan 2014-2017, item No.21, GA1.5. However the EAPAIRR should be included into SSP.</p> <p>1) CAA promulgated the Action plan, and is verifying the implementation of the agreed measures.</p> <p>2) SE "Oro navigacija" has implemented the objective, according to the "Strategic Business Plan 2011-2015".</p> <p>3) Measures to reduce the risk to aircraft operations caused by airspace infringements are set in the LoA with NATO Air Policy functions in the three Baltic States and within Lithuania (Military and SE "Oro navigacija").</p>	Partially implemented
Luxembourg (LU)	The number of airspace infringements involving GA aircraft is being monitored. As an increase has recently been noticed, a Safety Bulletin in collaboration with the local ANSP is planned.	Partially implemented
Montenegro (ME)	<p>Montenegro SSP recognise safety indicator related to general aviation operations.</p> <p>Some of the measures planned for 2013: intensive oversight, workshops with industry, safety promotion etc.</p>	Partially implemented
Malta (ML)	From the last EASp sent last year in GA there were no infringements of this nature and the statistics in the last 5 years are still none. Action has remained unchanged.	Planned
The Netherlands (NL)	<p>A national project team was formed by the Dutch Government to tackle the issue of Airspace Infringements, including ANSPs (both civil and military), GA organisations, flight training schools, aerodromes, as well as the National Aerospace Laboratory (NLR).</p> <p>The EAPAIRR is applied.</p> <p>Military traffic management is involved.</p> <p>Where necessary airspace was adjusted.</p> <p>Reports have been submitted to ESSIP/LSSIP.</p> <p>A reduction in infringements is established.</p> <p>Hotspots are identified.</p>	Implemented
Portugal (PO)		Planned
Romania (RO)	<p>LSSIP 2013 Romania SAF 10 - Implement measures to reduce the risk to aircraft operations caused by airspace infringements - Completed. The appropriate parts of the European Action Plan - Airspace Infringement Risk Reduction were implemented and the airspace infringement risk reduction measures monitored as part of the continuous oversight process. The introduction of additional measures for GA is taken into consideration.</p> <p>Numbers of airspace infringement occurrences involving GA reported to RCAA :</p> <p>2009 - 3 GA</p> <p>2010 - 7 GA + 1 other</p> <p>2011 - 10 GA</p> <p>2012 - 10 GA + 5 other</p> <p>2013 - 14 GA + 5 other</p>	Partially implemented
Spain (SP)	<p>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 2009-2013 period. The main conclusions are:</p> <ul style="list-style-type: none"> There were 438 AI in Spanish territory during 2009-2013 with GA involvement. 35 were serious and major incidents. Therefore, 8% of AI occurrences were high severity. The main factors that contributed to AI were: pilot/ANS communications (in 102 occurrences), operational issues (22 occurrences) and other ATM procedures (20 occurrences). We have organised a Workshop with General Aviation operators in order to make them aware of this safety issue. And we plan to continue this activity. <p>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</p> <p>In particular, please see answer to AER 2.1 action, regarding the European Action Plan for Airspace Infringement Risk Reduction's recommendations that have been incorporated in our State Safety Plan.</p>	Partially implemented
Sweden (SE)		Planned

Implementation Reports		
State	State's update	Status of the action
Switzerland (SW)	<p>Occurrences: 2010 - 2014 GA Airspace Infringement - 1040, 111 high risk</p> <p>The main hazards concerning GA AI's are:</p> <ul style="list-style-type: none">- Inattention- Excessive demands- Complex airspace structure- Narrow airspace boundaries- Weather (rapid changes in the alps) <p>An AIWG (Airspace Infringement Working Group) is in place and is analysing local OIR's and data in order to identify hot spot areas and critical issues. Each identified pilot having done an AI receives a questionnaire to fill in data concerning the flight preparation, the flight conduction and the use of navigational aids. A detailed AI statistics for Switzerland is available. The situation improved (247 AI in 2013 compared to 282 in 2012 showing an improvement by 12.4%). Thereof 1 (2) with a serious risk classification, 21 (18) major, 118 (114) significant and 107 (146) with no safety effect. The European Action Plan for Airspace Infringement Risk Reduction is used as a guideline in the AIWG.</p> <p>Another action being undertaken in regards to General Aviation is training being offered to GA - Fly Top.</p>	Implemented
United Kingdom (UK)	<p>See responses to ESSIP/LSSIP SAF10.</p> <p>CAA has done work to improve</p> <ul style="list-style-type: none">• Safety Notice published on Integrating Traffic in the Vicinity of an Aerodrome.• Improving the clarity and communication of aerodrome circuit joining procedures. (December 2013)• DfT funded research into I. (March 2015)The UK CAA-sponsored combined Regulator/ANSP/MoD/GA Airspace Infringement Working Group (AIWG) continues to develop and implement measures aimed at reducing the number of airspace infringements within the UK FIRs. It also works to increase awareness of the risks associated with infringements and how infringements can be prevented. In this role it supports the joint regulator/MoD/industry Airspace Safety Initiative (ASI) and is supported by ASIs Communications and Education Programme. Although most ongoing AIWG activities predate those contained within the Eurocontrol Action Plan, the Eurocontrol Action Plan serves to inform and assist the UK in its infringement-related activities, including the development of the AIWG Action Plan: <p>1. CAA Weekly Infringements' Monitoring Meeting</p> <p>The weekly meetings in which each MOR is considered by a multi-disciplinary team including representation from FO, Air Traffic Investigations, AAA and Licensing. Each pilot is identified and contacted and asked for their account of the flight. A Flight Examiner (FE) reviews each individual case and recommends the course of action.</p> <p>2. Registered Training Facility (RTF) Road-shows</p> <p>Five national road shows were organised in the latter part of 2013 and presented by the CAA, to those organisations currently operating as Registered Training Facilities (RTF) who must become Approved Training Organisations (ATO) under the EASA requirements by April 2015. A power point presentation produced by FO was given at each location which specifically included the infringement issue. The message given was that we need their help to reduce the infringement problem and that Training Needs Analysis shows training standards relating to navigation training are sometimes inadequate.</p> <p>3. Infringement Review Project</p> <p>Work is underway to analyse the data we have on all the infringement related MORs that occurred during 2013 (some 650 events) to determine trends in relation to PPL training. This will enable the CAA to target its effort on those training establishments where core skills are not delivered to an appropriate standard. T</p> <p>4. On-Line Infringements Training Package & Test</p> <p>The development of the on-line Infringement Training and Test package continues on schedule and the system should become available in April. NATS have contributed to the development of the package that incorporates some of their material.</p>	Partially Implemented

Summary	<p>Various States reported airspace infringements involving GA in the past 5 years. One State (FI) reported ca 420 airspace infringements involving GA during the last five years. Another State (IR) reported that the vast majority of airspace infringements reported (~90%) involve infringements by general aviation or military aircraft. Another State (SP) reported 438 AI in Spanish territory during 2009-2013 with GA involvement. 35 were serious and major incidents. Therefore, 8% of AI occurrences were high severity.</p> <p>18 States have confirmed that AI involving GA is a safety concern. FR reported user information, disciplinary measures and extended use of transponder as the most efficient risk mitigation strategies. In LT the nationally designated ANSP will provide AFIS coverage by the end of 2015 in order to facilitate safer operations for the general aviation aircraft in uncontrolled Class G airspace. In SP a Workshop with General Aviation operators was organised in order to make them aware of this safety issue and they plan to continue this activity.</p> <p>The EAPAIRR is being used in at least 7 States (BU, BE, FI, FR, IR, LI, NL) to identify mitigation measures. In BE a national action plan derived from the EAPAIRR has been developed and introduced in the Safety Plan. State level SPIs exist in many State to monitor the situation.</p>	<h3>GA1.5</h3> <table><tr><th></th><th>Not planned/not applicable</th><th>Planned</th><th>Partially implemented</th><th>Implemented</th></tr><tr><td>GA1.5</td><td>0</td><td>4</td><td>12</td><td>6</td></tr></table>					Not planned/not applicable	Planned	Partially implemented	Implemented	GA1.5	0	4	12	6
			Not planned/not applicable	Planned	Partially implemented	Implemented									
		GA1.5	0	4	12	6									

EASp Implementation in the States - 2014

No.	Issue	Actions	Owner	Dates	Type	Deliverable (Measure)
5. Ground Collision						
<i>Safety of Ground Operations</i>						
EME3.8	Poor level of responsiveness to ADs.	National Authorities to encourage compliance with ADs during meetings with industry on a regular basis and monitor level of responsiveness.	MS	2012 Cont.	SP, O	Report on activities

Guidance	<p>Compliance with Airworthiness Directives (ADs) and other mandatory requirements are critical to ensuring the continued airworthiness of operational aircraft. Experience from regulatory oversight has however shown variable achievement in this regard. In fact, some European aircraft manufacturers are concerned by the level of responsiveness of operators with regards to the implementation of mandatory requirements and the feedback provided to them. National Authorities should encourage compliance with ADs during meetings with industry on a regular basis and monitor level of responsiveness.</p> <p>How do you monitor the level of responsiveness of operators to ADs at State level? Is the level satisfactory? Is your State taking any action to encourage aircraft operators to comply with ADs?</p>					
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Implementation Reports		
State	State's update	Status of the action
Albania (AL)	Previously we had, but currently no Operators	Not applicable
Belgium (BE)	The responsiveness of operators to ADs is continuously monitored via the ACAM program, which collects data from several inputs (Airworthiness Reviews, Reviews done during Export, Product Surveys,...). The level of responsiveness of operators to ADs is considered as satisfactory, but the BCAA keeps monitoring this parameter.	Implemented
Bulgaria (BU)	<ul style="list-style-type: none"> Performing of aircraft surveys in compliance with Aircraft Continuing Airworthiness Monitoring (ACAM) program. Performing of planned audit of all CAMOs i.a.w. approved Airworthiness department annual audit plan which covers all airworthiness aspects and performing of all applicable ADs including. Preliminary preparation of the respective airworthiness inspector for AD status of the aircraft before performing of each airworthiness review. Encourage of the aircraft operators to comply with applicable ADs by sending from Airworthiness department of information for each emergency AD. 	Implemented
Croatia (CR)	CCAA monitors level of responsiveness of operators to ADs at State level through yearly planned oversight for CAT operators. Non CAT operators have ACAM and CCAA is checking ccaa 10-20 % of them on yearly basis. For some of the small operators airworthiness review is done by CCAA. Enforcement system is completely implemented and level of compliance is satisfied. Actions in which CCAA encourage aircraft operators to comply with ADs are workshops (for AD and SMS) - cca 2-3 on yearly basis.	Implemented
Estonia (EE)		Not applicable
Finland (FI)	In audits and ACAMs the responsiveness of operators to ADs is monitored using a sampling method. ADs are sampled during G+I organisation audits while checking the status of monitored aircrafts and via checking Airworthiness review certificate process of organisation.	Implemented
France (FR)	The check of the implementation of airworthiness directives is one of the focal points during audits carried out by OSAC on behalf of DGAC. There are very few findings on non compliance with AD's, and if an operator is not in a position to apply an AD at due time, an exception may be granted by DGAC on the basis of a risk analysis. The responsiveness of French operators is considered satisfactory and there is no need for additional action in this domain.	Implemented
Iceland (IC)	The compliance with AD notes is not a problematic issue in Iceland as oversight has shown. It is a critical element to audit and inspect and the culture is disciplined enough to have this issue under control.	Implemented
Ireland (IR)	The implementation of AD's for every individual aircraft operated on an Irish AOC is subject to EASA Part M requirements including review of compliance with AD's. The IAA aircraft continuous airworthiness monitoring (ACAM) programme has not revealed any concerns over AD compliance by Irish operators at this time.	Implemented
Italy (IT)	<p>The level of responsiveness of operators to ADs is monitored during ACAM inspections.</p> <p>No critical situations have been discovered in Italy up to now and, therefore, the level is considered satisfactory. For such reason no further actions are planned.</p>	Implemented
Latvia (LT)	Handling, including tracking and follow-up on implementation of EASA Safety Information Bulletins (SIB) and related recommendations, including Airworthiness Directives, are carried out using the Aircraft Operations Division Database (FACTOR/SIB/AD). Flight safety follow-up report form should be completed by the operator, indicating the relevant actions taken in response to the issue/recommendation. CAA may require the addressee to complete the form in set time period. If action taken by addressee is determined to be non-satisfactory, CAA may issue a new form for the addressee to complete for the same issue.	Implemented
Lithuania (LI)	Oversight of the appropriate organisations/operators continuously performed according to the approved Annual Plan. Part M organisations are inspected to determine their compliance with M.A.301-5, AMC 301-5 and M.A. 305(d) requirements, and AMOs are inspected to determine their compliance with 145.A.42, 145.A.45, 145.A.70(9)-2.11 requirements, Commission Regulation (EC) 2042/2003. The status of ADs including the level of responsiveness are checked before the issue of the Export C of A and the Standard C of A, Commission Regulation (EC) 748/2012. According to the results of the CAA's inspections the level of responsiveness of operators to ADs at State level is satisfactory. CAA constantly encourages industry to comply with ADs and other mandatory requirements.	Implemented
Luxembourg (LU)	The responsiveness of operators to ADs is satisfactory. DAC considers that no further promotion or encouragement is required.	Not applicable
Montenegro (ME)	CAA monitor the level of responsiveness through oversight activities. Also, CAA published Safety Information with instructions how to follow European Aviation Safety Agency Safety Information Bulletins.	Implemented

EASp Implementation in the States - 2014

Implementation Reports		
State	State's update	Status of the action
Malta (ML)	<p>Compliance with MCAI is mandatory as per Part-M, and therefore in principle we do not have to encourage our operators, as they know they have to comply with the requirements of AD's. On 29 July 2010 the Airworthiness Inspectorate issued an Information and Advisory Notice No 16 entitled 'Airworthiness Directives'. This notice issued to the industry and accessible on Transport Malta website gives a definition of AD referring to the applicable regulations and explains the responsibilities of the State of Design, the responsibility of EASA, the responsibilities of the operator/owner of aircraft. It also provides information about access to AD's, on various websites, Emergency AD's, and AMOC's.</p> <p>TM CAD has started issuing AD's for aircraft and products and parts installed on Annex II (non-EASA aircraft).</p> <p>Compliance with Mandatory Continuing Airworthiness Information is in the forefront of our priorities in our monitoring plan and processes..This is done systematically during import and export of aircraft, verification of airworthiness reviews, ACAM inspections, and organisational inspections as part of our Audit plans.Our monitoring includes reviews of both CAME's and MOE to verify the procedures are robust and meet the requirements, checking that the procedures are followed, checking of AD compliance listings, planning tools and sampling of dirty fingerprints of workpacs. The only issues encountered are usually related to traceability of records of older aircraft who have been transferred from one operator/lessee to another for many years.</p> <p>During our oversight we have not noticed any particular difficulties or systemic in compliance with AD's. Since AD's are mandatory and this subject is checked both internally and externally the level of responsiveness is adequate in compliance with the directives. Also we notify our operators whenever ADs are issued which are applicable to their aircraft and many times they promptly reply on the applicability to their fleet and actions already taken, which is not information which we solicit at the time of issue of the AD. The level of SB incorporation is however low in aircraft operated as business jets, but SB's are not mandatory.</p>	Implemented
The Netherlands (NL)	Compliance with Airworthiness Directives is not considered one of the safety concerns in the SSP.	Not applicable
Portugal (PO)		Implemented
Romania (RO)	The monitoring of the level of responsiveness of operators to ADs is part of the oversight process. The level is found satisfactory.	Implemented
Spain (SP)	AESA assesses compliance with Airworthiness Directives (ADs) in each inspection, among others, aircraft acceptance, ARC or ACAM inspections	Implemented
Sweden (SE)	The AD compliance is controlled during audits of Part M (G) organizations and inspections of aircraft. The audit/inspection results are analyzed in the Analysis Forum. Findings against AD compliance are not at a level where the Swedish Transport Agency has seen it as necessary to have a focused campaign to the operators. The Swedish Transport Agency has acted up on each single finding against an AD that has been identified during audits. Our opinion is that Swedish operators have a mature insight of the importance to comply with an AD.	Implemented
Switzerland (SW)	The responsiveness of operators to ADs at State level is monitored through ACAM check carried out by the FOCA -> Airworthines Review Inspection and OR System in the FOCA. The level is satisfactory.	Implemented
United Kingdom (UK)	<p>CAA Airworthiness undertook a combination of 750 separate Part M Subpart G and aircraft product sample audits during 2013; many of which contained either a process or a product audit, in relation to an aircraft operators / owners compliance with the relevant Airworthiness Directive (AD) requirements.</p> <p>A review of the AD related findings during that period identified that there were 36 AD related non-compliances, of which 11 were related to GA organisations / aircraft and the remaining are 25 associated with large transport / rotorcraft / medium sector - organisations / aircraft.</p> <p>Of the 36 AD's non-compliances, five were identified as having a "high safety severity" classification and were associated with AD overruns or failure to comply with ADs.</p> <p>Review of the non-GA AD 2013 related findings; shows that there are two main areas where non-compliances are identified:-</p> <ol style="list-style-type: none"> 1. Incomplete AD records; i.e. a particular AD has not been identified as being applicable, or it is not recorded as to why it is not considered to be applicable to a particular aircraft; or the records associated with revisions to ADs were not properly recorded; and 2. Failure to properly transfer AD requirements into the aircraft maintenance programme (AMP). This can either be a failure to embody into the AMP, or where the AD controls by more than one parameter i.e. calendar and cycles limits; only one of the limits is incorporated into the AMP. <p>Review of the GA AD 2013 related findings show non-compliance in respect of;</p> <ol style="list-style-type: none"> 1. Errors in identifying applicability of ADs, particularly when they do not directly relate to the aircraft i.e. equipment related ADs. 2. Incomplete or errors in records, including failure to identify / record those ADs which are not applicable to particular aircraft serial number. <p>Overall, the records show that there are relatively low numbers of cases where non-compliance with ADs is identified, when identified these types of finding typically result in significant actions being taken.</p> <p>Additionally, a review of the UK AD related Mandatory Occurrence Reports (MORs) held in the ECCAIRs system for the period was also undertaken. The MORs are submitted by external organisations / individuals. The total number of MORs submitted in 2013 was 17,120, of which 20 were identified as being AD non-compliance related.</p> <p>CAA Surveyors are well aware of the significance of compliance with ADs, as well as the organisations that we regulate and we generally find that most organisations are engaged with the AD process.</p> <p>Errors tend to come from incorrectly identifying the applicability of ADs, particularly when associated with items of equipment; the records associated with the applicability / non-applicability of a particular AD against an individual aircraft; or the transfer of an AD task into the aircraft maintenance programme.</p> <p>As such, the evidence tends to support a position that the operators are generally compliant in implementing ADs.</p> <p>However, we note that the question also highlights the European aircraft manufacturers concerns regarding the feedback on the implementation of ADs provided to them from the operators. We do not have specific data readily available to us in this regard. As such, we plan to initially include a specific review of this question, with the major AOC operators, as part of a Part M Subpart G audit activity and will provide feedback once this activity is completed.</p>	Partially implemented

Summary

Most of the States (19) are monitoring the responsiveness of operators to ADs with satisfactory results. The monitoring of the level of responsiveness of operators to ADs is part of EASA Part M requirements and is carried out via the Aircraft Continuing Airworthiness Monitoring (ACAM) program. At European level EASA checks compliance during Standardisation visits in the NAAs.

As an example, the UK performed a review of the AD related findings during 2013 (750 audits in total) and identified that there were 36 AD related non-compliances, of which 11 were related to GA organisations / aircraft and the remaining are 25 associated with large transport / rotorcraft / medium sector - organisations / aircraft. Of the 36 AD's non-compliances, five were identified as having a "high safety severity" classification and were associated with AD overruns or failure to comply with ADs. Review of the non-GA AD 2013 related findings; shows that there are two main areas where non-compliances are identified:

1. Incomplete AD records; i.e. a particular AD has not been identified as being applicable, or it is not recorded as to why it is not considered to be applicable to a particular aircraft; or the records associated with revisions to ADs were not properly recorded; and
2. Failure to properly transfer AD requirements into the aircraft maintenance programme (AMP). This can either be a failure to embody into the AMP, or where the AD controls by more than one parameter i.e. calendar and cycles limits; only one of the limits is incorporated into the AMP.

Action implementation is considered satisfactory and it will be closed in the next edition of the EASp.

EME3.8

	Not planned/not applicable	Planned	Partially implemented	Implemented
EME3.8	4	0	1	17