European Aviation Safety Agency

Comment-Response Document 2014-08

AMC/GM for the implementation and measurement of Safety (Key) Performance Indicators (SKPIs)

CRD TO NPA 2014-08 — RMT.0518 — 16.12.2014

Related Decision 2014/035/R

EXECUTIVE SUMMARY

This Comment-Response Document (CRD) contains the comments received on NPA 2014-08 (published on 31.03.2014) and the responses, or a summary thereof, provided thereto by the Agency.

Based on the comments and responses, Decision 2014/035/R was developed, adopted and published with this CRD.

This is the CRD to the second NPA for RMT.0518 and it proposes AMC/GM for the safety performance indicators (with no EU-wide targets) as defined in paragraph 1.2 of Section 2 of Annex I to the performance scheme Regulation (Commission Implementing Regulation (EU) 390/2013). These safety performance indicators introduced in the second reference period (RP2) by Regulation EU) 390/2013 are:

— the application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions;

— the reporting performed by the Member States and air navigation service providers on the level of occurrence reporting on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture; and

— the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units.

Applicability	
Affected regulations and decisions:	Decision 2011/017/R, Decision 2013/032/R
Affected stakeholders:	NSAs and ANSPs
Driver/origin:	Commission Implementing Regulation (EU) No 390/2013
Reference:	

Process map	
Concept Paper:	No
Terms of Reference:	23.04.2013
Rulemaking group:	Yes
RIA type:	None
Technical consultation during NPA drafting:	No
Publication date of the NPA:	31.03.2014
Duration of NPA consultation:	2 months
Review group:	No
Focussed consultation:	No
Publication date of the Opinion:	NA
Publication date of the Decision:	2014/Q4

Table of contents

1.1. Procedural information

1.2. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this Comment-Response Document (CRD) in line with Regulation (EC) No 216/2008[1] (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure[2].

This rulemaking activity is included in the Agency's 4-year Rulemaking Programme under RMT.0518. The scope and timescale of the task were defined in the related Terms of Reference[3] (see process map on the title page).

The draft AMC/GM has been developed by the Agency based on the input of the Rulemaking Group RMT.0518. All interested parties were consulted through NPA 2014-08[4], which was published on 31 March 2014. 187 comments were received from interested parties, including industry, national aviation authorities and social partners.

The text of this CRD has been developed by the Agency.

The process map on the title page contains the major milestones of this rulemaking activity.

1.3. The structure of this CRD and related documents

This CRD provides a summary of comments and responses as well as the full set of individual comments (and responses thereto) received to NPA 2014-08. The resulting rule text is provided in Chapter 3 of this CRD.

1.4. The next steps in the procedure

The Decision containing AMC and GM is published by the Agency together with this CRD.

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1 Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

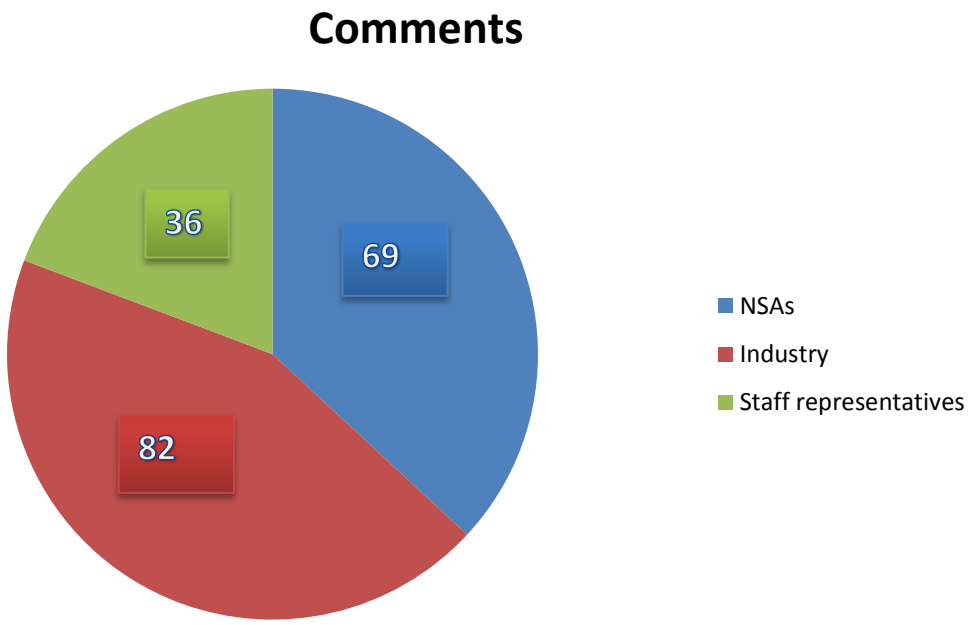
2 The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of Opinions, Certification Specifications and Guidance Material (Rulemaking Procedure), EASA MB Decision No 01-2012 of 13 March 2012.

3 http://easa.europa.eu/document-library/terms-of-reference/tor-rmt0518-issue-1.

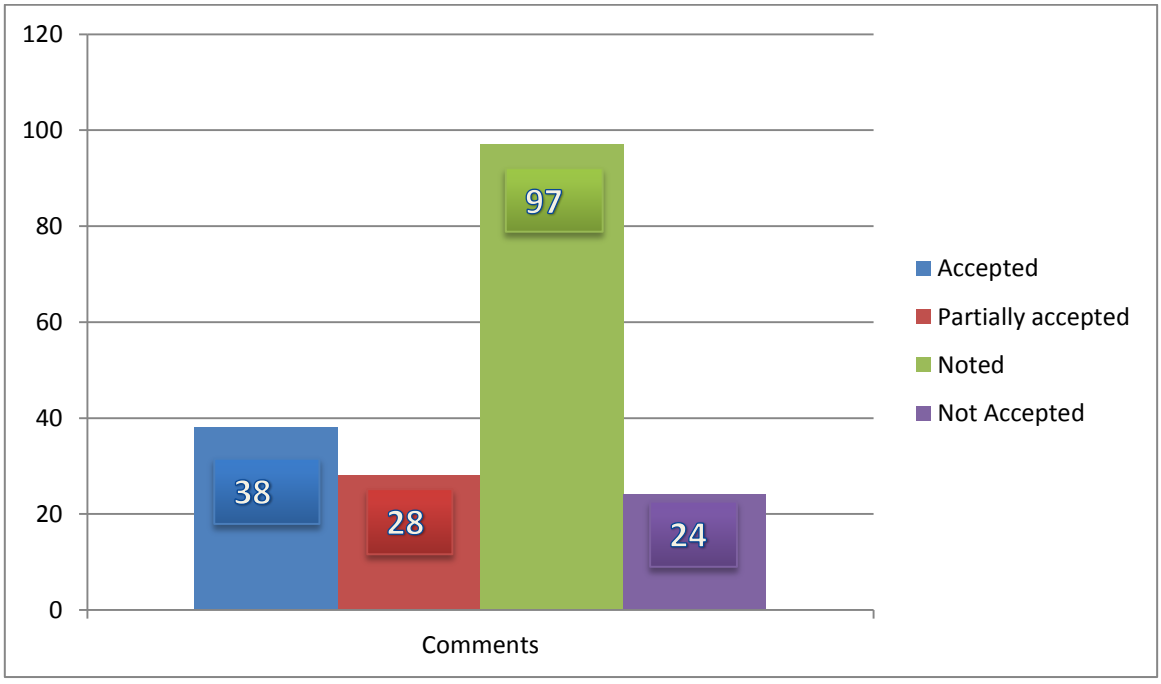
4 http://hub.easa.europa.eu/crt/docs/from_11.

1.5. Summary of comments and responses

During the consultation 187 comments were received by the national authorities, industry and staff representatives. The distribution of the comments is shown in the figure below.



The comments were answered using one of the following options: 'Accepted', 'Partially accepted', 'Noted' and 'Not accepted' with the following distribution:



GM1 SKPI General

The stakeholders answered to the question in the NPA about the new definition on 'Airspace infringement', which is proposed in order to clarify the text in the AMC/GM where this term is used. Based on the input the definition was slightly amended together with

some editorial changes which do not affect the substance. Based on some comments, a new definition was added for 'Separation minima infringement' for clarification.
Based on some comments, abbreviations such as AI – Airspace Infringement, MS – Member State were added into the table in GM1 SKPI to ensure consistency with the text of the AMC and GM.

AMC11 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions

Some editorial changes were introduced in the text as the term 'encounter' was replaced with 'event' and the text in the Figure xx was aligned with the text in the AMC.

GM16 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions. Automated safety data recording systems for monitoring of separation minima infringements (SMIs)

The Safety Performance Indicator (SPI) as defined in the performance scheme Regulation was added to the heading of the GM16. Minor editorial changes were introduced into the text e.g. alignment with the replacement of 'encounter' with 'event' in AMC11 SPI.

GM17 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions. Automated safety data recording systems for monitoring of runway incursions (RIs)

The SPI as defined in the performance scheme Regulation was added to the heading of the GM17. Minor editorial changes were introduced in the text, e.g. with replacement of 'encounter' with 'event' and replacement of the term 'pedestrian' with 'person'.

GM18 SPI The reporting by the Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture

Some comments suggested that the logical order of the this GM should be after the relevant AMC12 SPI, but the Agency considered that, in order to improve the readability of the text, it should be placed before the relevant AMC otherwise it might be difficult to understand the AMC before reading the GM.
Text from the Explanatory Note of the NPA was added to the GM clarifying that not all occurrences that happened may be known.
Some more examples were provided in the part of the GM relevant to the Quantitative Information in the analysis.

AMC12 SPI The reporting by Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture

No changes were introduced based on the comments received.

GM 19 SPI Process for submitting the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units

Minor editorial changes were introduced for better clarification of the text.

AMC 13 SPI The number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units

No changes were introduced based on the comments received.

1.6. Draft AMC, GM

1.7. Amendments to correct formatting errors[5] in the Annex to Decision 2013/032/R.

The text of the corrections is arranged to show deleted text, new or amended text as shown below:

(a) deleted text is marked with ~~strike through~~;

(b) corrected text is highlighted in grey;

(c) an ellipsis (…) indicates that the remaining text is unchanged in front of or following the reflected amendment.

(…)

[5] Please refer to 2.5.2 of the Explanatory Note to Decision 2014/035/R.

Appendix 2 to AMC 2 SKPI — List of Weightings for Evaluation of Effectiveness of Safety Management Questionnaire — State level

	MANAGEMENT OBJECTIVES																			
QUESTIONS	**1.1**	**1.2**	**1.3a**	**1.3b**	**1.3c**	**1.4**	**1.5a**	**1.5b**	**2.1**	**2.2**	**3.1a**	**3.1b**	**3.2**	**3.3**	**4.1a**	**4.1b**	**4.2a**	**4.2b**	**5.1**	**5.2**
Q1.1	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.2	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.3	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.4	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.5	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.6	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.7	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~10~~8	-	-	1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~11~~9	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~12~~10	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~13~~11	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~14~~12	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~15~~13	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~16~~14	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~17~~15	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Q1.~~18~~16	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Q2.1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Q2.2	-	-	-	-	-	-	-	-	-	0.334	-	-	-	-	-	-	-	-	-	-
Q2.3	-	-	-	-	-	-	-	-	-	0.334	-	-	-	-	-	-	-	-	-	-
Q2.4	-	-	-	-	-	-	-	-	-	0.334	-	-	-	-	-	-	-	-	-	-
Q3.1	-	-	-	-	-	-	-	-	-		1	-	-	-	-	-	-	-	-	-
Q3.2	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-	-
Q3.3	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-	-
Q3.4	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-	-
Q3.5	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-	-
Q3.6	-	-	-	-	-		-	-	-	-	-	-	0.25	-	-	-	-	-	-	-
Q3.7	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-
Q3.8	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-
Q3.9	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-

Q3.10	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Q4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Q4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	0.5	-	-
Q4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	0.5	-	-
Q4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Q5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Q5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

(...)

Appendix 1 to AMC 3 SKPI — Questionnaire for Measurement of Effectiveness of Safety Management SKPI — ANSP level

(...)

SA 8.2 An organisation-wide means to record and disseminate lessons learned..		
A Initiating	Safety lessons learned are known only to those who experience them.	○ ***A***
B Planning/Initial Implementation	There is an intention to develop a means to record and share lessons learned. This may already happen, but only on an ad-hoc basis	○ ***B***
C Implementing	The process for sharing safety lessons learned is systematic and operational and the majority of data is shared with appropriate personnel.	○ ***C***
D Managing & Measuring	**All of Implementing plus:** All safety lessons learned are systematically shared across the organisation at all appropriate levels. Corrective actions are taken to address lessons learned.	○ ***D***
E Continuous Improvement	**All of Managing & Measuring plus:** There is clear evidence that the internal lessons learned dissemination process is embedded across the organisation at all levels and is periodically reviewed.	○ ***E***

Please provide justification for selected answer

(…)

Appendix 1 to AMC 10 SKPI — Just Culture Questionnaire — ANSP level

(…)

ANSP.O.5	Does the ANSP provide regular feedback to staff based on occurrence reports? ~~Does the public annual report of the service provider provide statistical feedback on occurrence reports, in particular reports received internally?~~	○ **Yes** ○ **No**
Justification and remarks for selected answer		

ANSP.O.6	Does the public annual report of the service provider provide statistical feedback on occurrence reports in particular reports received internally? ~~Does the public annual report of the service provider provide statistical feedback on occurrence reports?~~	○ **Yes** ○ **No**
Justification and remarks for selected answer		

(…)

1.8. Amendments based on the NPA consultation

The text of the amendment based on the consultation is arranged to show deleted text, new or amended text as shown below:

(d) deleted text is marked with ~~strike through~~;

(e) new or amended text is highlighted in grey;

(f) an ellipsis (…) indicates that the remaining text is unchanged in front of or following the reflected amendment.

1.9. Resulting text

GM 1 SKPI General

(...)

C. Definitions and Abbreviations

Definitions

'Airspace infringement' is a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace ~~(ICAO airspace classes A to E, such as TMAs, and CTRs)~~, restricted airspaces ~~(e.g. Prohibited, Restricted and Danger Areas, Temporary Reserved Airspace)~~ and transponder mandatory zones ~~(TMZ)~~ or radio mandatory zones ~~(RMZ)~~ as implemented by the Member States.

(…)

'Separation minima infringement' ~~is~~ means a situation in which prescribed separation minima were not maintained between aircraft.(…)

Abbreviations

ACC	Area Control Centre
A/D MAN	Arrival/Departure Manager
AI	Airspace Infringement
AMC	Acceptable Means of Compliance
ANS	Air Navigation Service
ANSP	Air Navigation Service Provider
APP	Approach Control Unit
A-SMGCS	Advanced Surface Movement Guidance & Control System
AST	Annual Summary Template

ATC	Air Traffic Control
ATCO	Air Traffic Control Officer
ATM	Air Traffic Management
ATS	Air Traffic Services
CA	Competent Authority
CISM	Critical Incident Stress Management
CWP	Controller Working Position
ECR	European Central Repository
EoSM	Effectiveness of Safety Management
FAB	Functional Airspace Block
ICAO	International Civil Aviation Organisation
JC	Just Culture
IFR	Instrument Flight Rules
GM	Guidance Material
KPI	Key Performance Indicator
MO	Management Objective
MS	Member State
MTCD	Medium Term Conflict Detection
NSA	National Supervisory Authority
PI	Performance Indicator
PRB	Performance Review Body
QMS	Quality Management System
RAT	Risk Analysis Tool
RF	Reliability Factor
RI	Runway Incursion
RP	Reference Period
RMZ	Radio Mandatory Zone
SA	Study Area
SFMS	Safety Framework Maturity Survey
SI	Standardisation Inspection
SIA	civil aviation Safety Investigation Authority

SKPI	Safety Key Performance Indicator
SLA	Service Level Agreement
SMI	Separation Minima Infringement
SMS	Safety Management System
SPI	Safety Performance Indicator
SSP	State Safety Programme
STCA	Short Term Conflict Alert
TCAS RA	Traffic Collision Avoidance System Resolution Advisory
TMA	Terminal Manoeuvring Area , also known as Terminal Control Area
TMZ	Transponder Mandatory Zone
TWR	Tower Control Unit
UAC	Upper Area Control Centre
VFR	Visual Flight Rules

(…)

IV Safety Performance Indicators

AMC11 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions

The application by the air navigation service providers of automated safety data recording systems used for monitoring and recording of separation minima infringements and runway incursions should be reported under this safety performance indicator, where the system has, as a minimum, the following basic functional capabilities:

— Interface with ATC operational systems for detection of candidate events;

— Filter (automatic and manual) to extract only relevant events, based on pre-determined technical and operational criteria; and

— Recording of retained ~~encounters~~ events in a local database for further analysis and reporting.

Those functions are captured in Figure xx below and detailed in the associated guidance material.

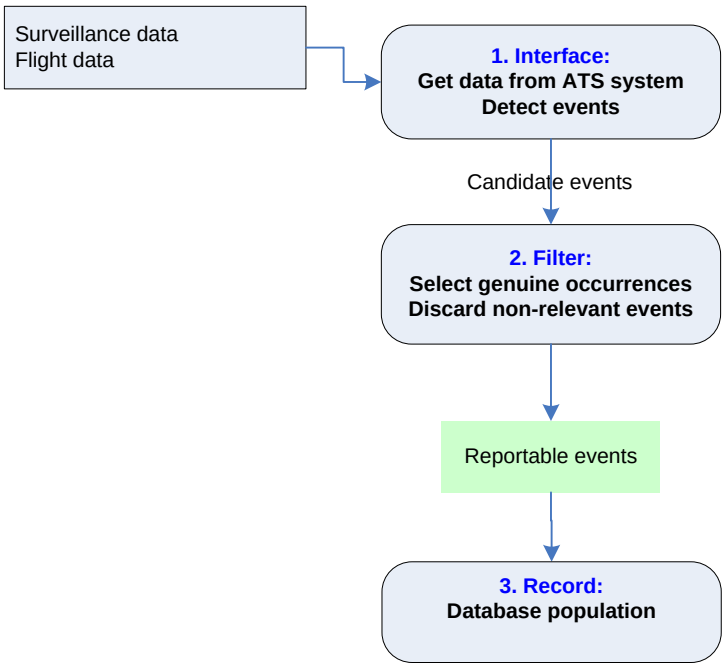


Figure xx — Automated monitoring of separation minima infringements and runway incursions

An ANSP should report to their Competent Authorities the beginning of the application period and, subsequently, on an annual basis, the application of automatic safety data recording systems at their individual ATS units. If such systems are in use, the ANSP should report, as a minimum, the following data:

— The unit at which the system is used (which ACC, APP, TWR, etc.);

— Type of reportable ~~occurrences~~ events recorded and associated definitions for each type, which should include, but may not be limited to, the minimum required by the performance scheme Regulation; and

— The number of reportable ~~occurrences~~ events recorded in the local databases by type (SMI, RI ~~etc.~~);

The Competent Authorities should:

— collect the reports on the application of automatic safety data recording systems submitted by the ANSPs;

— review the data contained in the above mentioned reports from the ANSPs; and

— provide the information to EASA/PRB for this safety performance indicator for the preceding year by the end of May each year.

GM16 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions. Automated safety data recording systems for monitoring of separation minima infringements (SMIs)

General

The automated safety data ~~occurrences~~ recording systems should be used in a Just Culture environment to improve the information and analysis used by the organisation's SMS.

It should be recognised, where appropriate, that for various reasons (e.g. the automated system failed to capture some occurrences which were reported by other ~~lines~~ reporting mechanisms) the number of occurrences captured and reported against this performance indicator did not necessarily coincide with the number manually reported in the SPI, namely 'the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units'.

The systems should operate to detect candidate SMIs in the ANSP's designated airspace. To ensure the systems focus on SMIs, the system should be configured to filter out events which can be attributed to standard operating practice. The remaining occurrences, after filtering, should be considered as genuine and should be reported under this PI.

Recorded data in one ATS unit is not comparable and should not be used for benchmarking with that~~ose~~ of another ATS unit ~~because each unit has its specific method of operations, procedures and policies~~.

General description of automated safety data recording systems

In order for such systems to detect reportable occurrences, there are several functionally distinct processes as defined in AMC11 SPI.

1. Interface with the ATS operational systems for detection of candidate events.

   The automated safety data recording system should interface with ATS operational systems (surveillance, flight data processing, etc.). According to the implemented algorithm, this system should detect candidate SMIs in the airspace concerned.

2. Filter for genuine SMIs

   The filtering process should discard those events that are not considered genuine.

All candidate SMIs should be processed to determine if they fall within a pre-determined set of operational rules and procedures permitting identification of true SMIs. This should include both automated and manual filtering and should discard spurious events such as bad plots/tracks or not relevant (i.e. operationally correct).

Automatic filtering should be focussed on risk bearing events and should automatically limit ~~automatically~~ recorded events. Parameters for ~~SMI separation minima infringement~~ detection of the airspace concerned may be eroded by certain values such as the vertical and/or lateral dimensions of the minima (e.g. the error or the resolution capabilities of the surveillance system implemented).

Manual filtering should further discard the automatically recorded events that are not considered genuine. Automatically detected events that are due to normal operating practice should also be filtered out. Normal operating practice may include events such as aircraft encounters in the vicinity of an airport which may not be subject to standard separation, encounters with military aircraft or aircraft employing VFR operations. These operational practices and procedures should be pre-defined.

3. Recording SMIs

The reportable occurrences ~~after~~ for both automatic and manual filtering should be recorded in a database. For the purpose of this performance indicator, the database should be capable of providing, as a minimum, a list of recorded ~~encounters~~ events for a specified period of time and the related data extracted from the system interfaces.

GM17 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions. Automated safety data recording systems for monitoring of runway incursions (RIs)

GENERAL

The automatic detection and monitoring of runway incursions is a complex technical task. The reason~~s~~ for this is ~~are~~ that both the presence and contents of an ATC clearance are essential factors in determining whether an event can be classified as a runway incursion and these are typically not available in an electronic format.

Article 2(14) of the performance scheme Regulation transposes the ICAO definition of runway incursion. ~~as:~~

~~'any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft'.~~

Some typical situations for an RI may be that:

— the aircraft lands/takes off without clearance;

— the controller incorrectly clears an aircraft to land or take-off;

— the aircraft, vehicle or ~~pedestrian~~ person enters the runway at the incorrect holding point; or

— the aircraft lines-up out of instructed sequence.

What makes automated detection of an RI even more complex is the fact that different operations and the relevant interpretation of 'incorrect presence' may lead to cases when similar situations may be considered as an RI in one instance and as normal operation in another instance.

As a consequence, this GM is written with a view to the development of future automated systems. Similar to the systems for automated detection of SMIs, a future system that automatically detects RIs should comprise three functionally distinct processes as defined in AMC11 SPI.

The automated occurrence recording system should be used in a Just Culture environment to improve the information used by the organisation's SMS for the purpose of improving safety.

Recorded data in one ATS unit is typically not comparable to that~~ose~~ of another ATS unit. ~~because each unit may have its specific method of operations, procedures and even policies.~~

In order for systems to detect RIs there are several functionally distinct processes as defined in AMC11 SPI.

1. Interface with the ATS~~C~~ operational systems for detection of candidate events

   The automated safety data recording systems for monitoring of RIs should interface with ATS operational systems (surveillance, flight data processing including ATC clearances, etc.). The system should analyse the position of every aircraft on the airfield relative to every other aircraft and/or vehicle in its vicinity, and ATC aircraft specific clearance information to determine the presence or not of a RI occurrence.

   This still may leave unresolved the issue of the presence of a ~~pedestrian~~ person on the runway, which may not be detectable.

   A number of events scenarios will then need to be defined and incorporated into the system to enable the detection of candidate events. It should be noted that developing the events scenarios requires careful consideration. The scenarios need to take into account the airfield layout, the type of operation taking place (ILS CAT I, II or III), the status of each aircraft (cleared to take off, cleared to cross the runway, cleared to line up, conditionally cleared to line up, cleared to land, etc.), each aircraft's position, the status of all stops bars (when in use), and the sequence with which the clearances have been issued. This will enable the criteria for each runway incursion to be established. This is necessary because there are no consistent criteria that can be used to identify a runway incursion. They can occur with a single aircraft, vehicle or person on the runway and do not necessary occur with a simultaneous presence of aircraft, vehicle or persons on the runway.

2. Filter for genuine RIs

   During this step, the system should filter out genuine events that are due to normal operating practice. Spurious and/or false targets also need to be filtered out by the system. This filtering function should be fulfilled by an automatic filtering followed by manual filtering, given the complexity of potential situations at an airport and the differences between airports in Europe. Each event should be reviewed against applicable scenarios suitable for the operations which are in accordance with the airport policy. ~~Normal operating practice may include events such as the issuing of 'land after' instructions where the pilot is responsible for separation with the aircraft on the ground rather than the controller, the use of conditional clearances where aircraft are cleared to line up once the preceding aircraft has commenced the departure roll, etc.~~

3. Recording RIs

The reportable ~~occurrences~~ events ~~after~~ for both automatic and manual filtering should be recorded in a database. For the purpose of this performance indicator, the database should be capable of providing, as a minimum, a list of recorded ~~encounters~~ events for a specified period of time and the related data extracted from the interfaces.

GM18 SPI The reporting by the Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture

General

The level of occurrence reporting should be defined as the proportion of ~~reported~~ the occurrences received by the ANSP or State occurrence reporting schemes, compared to all the occurrences that happened. This can hardly be evaluated since neither the ANSP nor its Competent Authority may be sure that all occurrences that happened are known, ~~Where this cannot be directly calculated,~~ hence indirect methods should be used to estimate the level of occurrence reporting. As a general principle, it should be recognised that the level of occurrence reporting may be related to a number of different variables, such as the implementation of Just Culture principles, ease of report submission and feedback given to reporters after investigation. Direct comparisons or benchmarking of organisations using the number of occurrence reports are particularly misleading for this reason and, therefore, should not be used.

In order to report on the level of occurrence reporting, ANSPs and States should prepare a written assessment of the level of occurrence reporting on an annual basis. The ANSP analysis should be submitted for review to the relevant Competent Authority, and Member State analysis should be submitted to the Agency ~~EASA~~ for review.

At State level, the preparation of this report should take into account the safety performance indicator, 'the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements and ATM-specific occurrences' (GM19 SPI and AMC13 SPI). Therefore, the data definition used for both performance indicators should be the same.

At both ANSP and State level, the analysis of the level of occurrence reporting should be a combination of quantitative assessment of occurrences and a qualitative assessment of the successes and limitations of reporting within the ANSP or State (as applicable). In addition, the State level analysis should include an overview of the combined ANSP analysis of the level of occurrence reporting, which should be dis-identified.

Example: Document outline for the annual assessment of the level of occurrence reporting

Introduction (Qualitative Information)

A brief introduction should provide basic information as to the nature of the reporting scheme, such as:

— a description of the methods of collecting data and the ways in which reporters can submit occurrence reports;

— whether voluntary reports are incorporated ~~as well as mandatory occurrence reports (for State level assessments)~~; and

— a brief description of the functionality of the database for collection storage and analysis of safety data, system in use, how long it has been in place and who can submit reports.

Data Analysis (Quantitative Information)

The overall rate of ANS occurrences, which should be broken down into categories showing the occurrence type and severity classification:

— For severity classification, the results using the RAT methodology should be presented for, as a minimum, separation minima infringements, runway incursions and ATM-specific occurrences.

— Where other severity classification methodologies are in use, the results may also be presented separately or with an indication that the severity was not evaluated by using RAT methodology.

— Appropriate units of measurement should be used, wherever available, to calculate the rate. For example:

- the rate of runway incursions should be calculated using the number of all IFR/VFR movements under control of the TWR unit (e.g. number of RI/number of arrivals and departures);
- the rate of separation minima infringements should be calculated using the number of IFR flight hours as the flight hours may be calculated as sum of the airborne time of IFRs within the area of responsibility of the ANSP (e.g. number of SMI/number of IFR flight hours);
- ~~•~~ for the airspace infringements (AI), due to their ~~its~~ complex definition, it is difficult to propose a proper rate. However, it is possible to divide the number of reported AI leading to a loss of separation by the total number of AI to identify the rate of infringement resulting in loss of separation. Another measure could be to divide the numbers of reported AI attributable to IFR and VFR aircraft by the total number of AI to identify the rate of infringement by IFR and VFR flights respectively. This would then allow comparisons between the two and help to determine which set of aircraft was a greater infringement risk; ~~into AI of a restricted airspace and other AI or to use the rate number of AI/number of IFR flight hours;~~ and
- the rate of ATM-specific occurrences should be calculated using the number of operating hours of the relevant ATS unit (e.g. number of ATM-specific/number of operating hours). In case some functions (e.g. FDPS, RDPS) are serving several ATS units, the rate of ATM

specific occurrences related to that function number of IFR flight hours could be considered as more suitable

— A comparison of the number of high-severity occurrences and low-severity occurrences should be made, since logically in a system with a high level of reporting there should be many times more low-severity occurrences than high-severity occurrences. Low-severity occurrences are defined as severities C and E, high severity occurrences are defined as severities A and B for SMI, ~~and~~ RI and airspace infringement, and AA, A and B for ATM specific occurrences.

— The variation in the reporting rate between the major reporters should be measured. For example, the different ANSPs reporting to a State scheme or the different units or sectors within an ANSP. The information should be dis-identified since it is the variation that is of note, not the rates themselves.

Conclusions: Assessment of the Level of Occurrence Reporting

A brief summary of the main conclusions should be provided, including the limitations of the data and the perceived impact of variables applicable to the ANSP/State on the results presented.

Using the data analysis results and any gaps in reporting that were identified in the qualitative information, an assessment should be provided of the level of occurrence reporting, as well as a list of actions that should be initiated to improve reporting. ~~a~~At State level these actions should be generally valid for all ANSPs under the CA authority and at ANSP level the actions should be specific taking into account size of the ANSP, services provided, etc. The list of actions provided should include those recently completed, those that are underway and new actions. Timescales for the initiation and completion of the action should be included.

AMC 12 SPI The reporting by Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture

States and ~~air navigation service providers~~ ANSPs should prepare a quantitative and qualitative assessment of the level of occurrence reporting, on an annual basis. The scope of the assessment should be the same as that used for performance indicator 'the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements and ATM-specific occurrences'. The assessment should contain, as a minimum:

— an estimate of the level of occurrence reporting, including both quantitative and qualitative analysis. At State level, this should include an aggregated, qualitative description of the level of occurrence reporting by their ANSPs; and

— details of actions identified to improve reporting culture, including actions that have been completed, those that are underway and newly identified actions.

ANSPs should agree with their State the deadline for submitting their report.

States should combine the preparation of this report with the process of validating the performance indicator 'the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units', ensuring that the final report is submitted by the end of May.

GM 19 SPI Process for submitting the number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units

The purpose of this GM is to explain the process by which the number of occurrences will be measured, including as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units.

It is anticipated that Member States, either directly, or through their air navigation service providers, will submit occurrence reports of separation minima infringements, runway incursions, airspace infringements and ATM-specific occurrences via existing reporting mechanisms, that is the ~~Annual Summary Template (~~AST~~)~~ mechanism or the European Central Repository (ECR). Hence, EASA and the PRB will have the data available in order to be able to evaluate the safety performance indicator 'The number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units.'

~~This safety performance indicator is defined in the performance scheme Regulation, therefore, the Commission is entitled to publish the relevant information.~~

States should anticipate that they will receive an analysis report sent by ~~EASA~~ the Agency/PRB of the data submitted by them, by the end of April each year, containing the number of applicable occurrences in their State per the previous year with the following scope:

— Only occurrences within the territory of a State or its airspace;

— Only occurrences applicable to the performance scheme Regulation; and

— The type of occurrence (as minimum, separation minima infringement, runway incursion, airspace infringement, ATM-specific occurrence).

The number of occurrences for the State will be shown both in total and broken down by type of occurrence. Observations will also be included regarding the quality of the data that the State submitted.

States should, therefore, be prepared to: receive this analysis report, confirm the numbers presented in the report and respond to the observations. To confirm the numbers presented in the report, States may limit this confirmation to a 'gross error check' instead of re-calculating the numbers themselves. Where data has been submitted, which is preliminary and subject to change, States should retain a record of the preliminary data in order to perform this gross error check.

AMC 13 SPI The number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units

To facilitate the implementation of this safety performance indicator, the CA ~~Competent Authority~~ of each Member State should nominate to the Agency ~~EASA~~ and PRB a national focal point.

When receiving from the Agency ~~EASA~~/PRB an analysis report of the reported occurrences data measuring this performance indicator for the preceding year, the Member State should:

— validate the numbers presented in the report and advise of any identified discrepancies;

— respond to all the observations in the report; and

— send a confirmation of the numbers presented and responses to the observations to the Agency ~~EASA~~ by the end of May each year.

1.10. Individual comments and responses

In responding to comments, a standard terminology has been applied to attest the Agency's position. This terminology is as follows:

(a) **Accepted** — The Agency agrees with the comment and any proposed amendment is wholly transferred to the revised text.

(b) **Partially accepted** — The Agency either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.

(c) **Noted** — The Agency acknowledges the comment but no change to the existing text is considered necessary.

(d) **Not accepted** — The comment or proposed amendment is not shared by the Agency.

(General Comments)	-

comment	*32* comment by: *Swiss International Airlines / Bruno Pfister* Swiss Intnl Airl Lines takes note of the NPA 2014-08 without further comments.
response	*Noted*

comment	*33* comment by: *René Meier, Europe Air Sports* Europe Air Sports (EAS). European Powered Flying Union (EPFU) and the Aero-Club of Switzerland joined Forces to comment on NPA 2104-08. Many thanks for taking note and for the preparation of this NPA. A "European Ballooning Federation" is about to be founded. The present Provisional Board's opinions are integrated in these comments. We believe reducing the comment period (page 3/21) was not an appropriate measure thinking of the importance of the definition of airspace infringement (page 10/21) you propose, which we reject: It is not in-line with what we read on page 55/170 of NPA 2014-05 SERA Part C where a clear difference is made between VFR and IFR taffic in aispace class E, where no radio communication is asked for, except in RMZ of course.
response	*Noted* The duration of the consultation period is considered by the Agency based on the volume and complexity of the proposed amendment. In this case, where the existing AMC/GM material is already well established, it was considered that the proposed period should be enough for the stakeholders to insert their comments. Regarding the proposed definition for airspace infringement we do not see any contradiction with existing or proposed provisions in SERA with regard to radio communication capability and two-way communication in the different airspace classes.

comment	*69* comment by: *CAA-NL* General comments: The relation between the various GM and AMC with the Implementing rule is unclear, as it is

with the original document . It is difficult to establish a relation between the numbers used and the specific requirements in the IR. AMC should always have a direct reference with the rule compliance is established with.
During RP1 a lot of data has been collected and it appeared that a great variety exists between relevant actors regarding the interpretation of several definitions. Also in the area of analyses there are lots of differences between the relevant actors. Presently the quality improvement, based on lessons learned, is fully ongoing and in some areas still not mature enough.
The introduction of the extended reporting requirements for RP2, the chance on a growing variety between the actors will be increased. Confidence in the usefulness of constructing, understanding and providing the data may be lost, and this will obstruct further improvement on safety.
The existing variety regarding interpretation on definitions will have its influence on the processing of automated collected data, and can result in a dataset which will be of less or no use at all (rubbish in = rubbish out).
It is not clear what will be done with collected data in RP2. Based on the new rules more data will go to EASA. However the business case for the increased reporting requirements in the performance regulations, will result in more administrative overhead and by itself not in more safety.
AMC's and GM's need to define the reasons and goals for the automated collection of data. The statement that automatic data collection will improving safety needs substantiation, specifically where automated data collection require substantial investments as well as changes to the functional system which requires a safety case in itself.

response *Noted*

The reference to the relevant provisions in the performance scheme Regulation (Commission Implementing Regulation (EU) No 390/2013) is made in the relevant Decision of the Executive Director of the Agency. The logic behind the AMC/GM structure is more based on practical considerations and tries to improve the readability .
Reporting requirements for RP2 are stemming from the Regulation (EU) No 390/2013. The Agency wishes to propose proportional AMC/GM, but obviously without diluting the provisions of the Implementing Rule. When it comes to the proposed definitions, the Agency will duly consider any proposals made to amend them. Regarding the need to define the reasons and goals for the automated collection of data, this performance indicator is already established in the performance scheme Regulation. The NPA establishes means of compliance and guidance to the affected stakeholders. It cannot provide the reasons for including such performance indicator in the Implementing Rule.

comment *83* comment by: *UK CAA*

Page No: COMMISSION REGULATION (EU) No 390/2013
Paragraph No: Article 2 Definitions
Comment: New definitions for 'airspace infringements' and 'separation minima infringements' are required in the IR, rather than as currently proposed in the supporting AMC and GM. Both are used in IR (EU) No 390/2013 but not defined, unlike 'runway incursions'.
The proposed definition of 'airspace infringement' warrants some refinement through the removal of the exemplar airspace. Adoption of the Eurocontrol ATM Lexicon definition of 'separation minima infringements' (Definition Source EUROCONTROL (2000) ESARR 2 - Edition 1.1 - 30.03.2000, Attachment C to Annex 1 ("Glossary of terms and definitions")) is

advocated.
Justification: Harmonised application and understanding of specific terms.
Proposed Text:
Regulation (EU) No 390/2013 Article 2
'Airspace infringement' means a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace, restricted airspaces, transponder mandatory zones or radio mandatory zones as implemented by the Member States.
'Separation minima infringement' means a situation in which prescribed separation minima were not maintained between aircraft.

response *Accepted*

The intent of the proposed AMC/GM is to support the stakeholders in the implementation of the performance scheme Regulation not to amend it.
Proposed changes to the definitions for 'Airspace infringement' and for 'Separation minima infringement' are accepted.

comment *84* comment by: *UK CAA*

Page No: General comment
Paragraph No: N/A
Comment: Given the increasing amount of aviation-related EU regulatory material that is both created by EASA and/or derived from ICAO, an EASA-owned lexicon of common terms – essentially a compendium of all definitions and abbreviations that appear in regulatory material 'parented' by the EASA Basic Regulation (as amended), is considered necessary. Incorporation of terms used in material 'parented' by the Single European Sky legislation should also be incorporated. Such a lexicon could be hosted on the EASA and Eurocontrol websites and amended as terms are introduced, amended or withdrawn. As such it would be the EASA equivalent of ICAO Doc 9713 — International Civil Aviation Vocabulary.
Justification: Such a lexicon would ensure consistency of understanding and application of the terms and abbreviations used within aviation-related EU regulatory material by the EU, its agencies, Member States and industry alike.
Proposed Text:
A compendium of all definitions that appear in regulatory material 'parented' by the EASA Basic Regulation (as amended) should be made available.

response *Accepted*

The proposal is considered reasonable and useful and it is communicated to the Agency's management for further consideration.

comment *102* comment by: *Naviair*

SPI are generally internally affairs for an ANSP.
Only in case they are absolutely necessary to be used for benchmark SPI should be reported.
In such a case definition needs generally to be much more clear in order to get proper statistics and basis for evaluation.
Is it for instance SPI only with ATM involvement, direct or indirect that should be reported ? and what kind of algoritm can filter whether it was with or with out

ATM involvement.
Is it all kind of RWY inc. ore only those with avoiding action ?
Why should only Air Ports/ATS/ATCC units with automated monitoring tool be exposed to part of the NPA, will the drive safety forward.
The purpose for the SPI´s I not validated or motivated.
For example – why should we measure the level of occurrence reporting – for incidents which now are automatically monitored.
Does that bring safety forward or does it impose an atmosphere with mistrust jeopardizing reporting in general.
Such safety monitoring is internal affairs and centr5al reporting and benchmark is not validated to bring safety forward.
The NPA 2014-08 need to be much clearer on whether it is or it is only recommended to have automated monitoring tool.
The motivation for why only data from already available tools shall be reported does not bring safety forward at those sites
nor does it bring safety forward where tools are not implemented.
The NPA should to a much higher degree focus on initiatives that are not already in place and initiatives that bring safety forward
rather than the amount of collected data.
The NPA could instead focus on initiatives that support the reporting in relation to Reference Periods.
That would say supporting the Performance Based approach rather than the Compliance approach.
This also because the definitions in RP2 are insufficient – and surely will lead to different content of the statitics in the benchmark.
Just note the term "Runway Occurrence" used – it is as undefined as Runway Incursion are in this NPA.

response

Noted

The safety (key) performance indicators are already established in the performance scheme Regulation (Regulation (EU) No 390/2013). Proposed NPA establishes means of compliance and guidance to facilitate the affected stakeholders. It cannot provide the reasons for including such performance indicators in the Implementing Rule.

comment

105 comment by: *AIRBUS*

This NPA should establish the links with the ICAO SARPs on Safety Management (Annex 19), and in particular the Chapter 5. on "Safety data collection, analysis and exchange".

response

Noted

The safety (key) performance indicators are already established in the performance scheme Regulation (Regulation (EU) No 390/2013). Proposed NPA establishes means of compliance and guidance to facilitate the affected stakeholders. It cannot provide the reasons for including such performance indicators in the Implementing Rule.
Links with ICAO SARPs concerning the ICAO Safety Management Framework is already provided in Decision 2013/032/R.

comment

184 comment by: *CANSO*

	General comments 1. CANSO supports the principle of automated safety reporting, but feels that the AMC is too detailed i) given the level of maturity reporting system in the industry and ii) as the IR requires the data to be provided only where available. It would be more appropriate to put the material in to GM and allow organisations some flexibility in how to report data. This will allow a level of maturity in automated reporting to develop through RP2. CANSO feels that being too prescriptive in the reporting methods will NOT deliver the information EASA, the PRB and Commission desire. 2. EC 390/2013 states that, with reference to the SPIs local means at functional airspace block level with an indication for monitoring purposes of the contribution at national level. It is not clear how the data provided in response to the SPIs by the ANSPs will be aggregated at the national level, or in fact at the FAB level. Further guidance is required for each SPI.
response	*Noted* The proposed AMC for automated safety reporting performance indicator is drafted to be as general, flexible and proportionate as possible without diluting the purpose of the actual Implementing Regulation. For example, if no automated reporting tool is available, any unit with radar data recording could be seen implementing the performance indicator. AMC provides the minimum information to be reported for the application of automated safety data recording systems and nothing prevents the ANSPs from providing more information which is considered useful. The term 'local', as mentioned in your comment, is defined for the purposes of target setting and it is considered that the local targets setting process is not part of this NPA.

comment	*200* comment by: *CAA CZ* 1. As the Czech Republic is part of Central Europe (FAB CE) functional airspace block, we have already started to prepare procedures for monitoring and reporting for Reference period 2 (RP2), so the performance indicators mentioned in this NPA will be incorporated as a part of these procedures. 2. We are waiting for the RP2 monitoring template prepared in close cooperation with EASA and PRU to fully oblige and satisfy the requirements set in Regulation (EU) No. 390/2013 and Regulation (EU) No. 376/2014 within Safety KPA; we expect and strongly believe that EASA requirements proposed in this NPA will be incorporated to the PRU Monitoring template, so we will not be obliged to prepare duplicates monitoring reports. 3. We would like to extend the list of abbreviations, some abbreviations from the text are missing (CTR, ECR, AI, etc.). 4. We agree with the Airspace infringement definition.
response	*Partially accepted* 1.1. Noted. 2.2. It is foreseen that during 2015 the reporting template will be finalised and communicated to competent authorities and duplication will be avoided wherever possible. 3.3. List of abbreviations is updated. 4. Please refer to the response to comment 83.

Executive Summary p. 1

comment	*31* comment by: *CAA-Denmark* The assumption is that RAT is in place and functioning.
response	*Noted* The assumption is correct since there are EU-wide targets for RAT SKPI.

comment	*37* comment by: *NATS National Air Traffic Services Limited* General Comment: EC 390/2013 states that, with reference to the SPIs local means at functional airspace block level with an indication for monitoring purposes of the contribution at national level. It is not clear how the data provided in response to the SPIs by the ANSPs will be aggregated at the national level, or in fact at the FAB level. Further guidance is required for each SPI.
response	*Noted* Please refer to the response to comment 184.

1. Procedural Information p. 3-4

comment	*77* comment by: *Romanian CAA* Replace text “this NPA is a follow-up of NPA *2014-14*” with “this NPA is a follow-up of NPA *2013-14*”.
response	*Noted* The related text in the NPA was erroneous, as noted by this comment.

2. Explanatory Note p. 5

comment	*165* comment by: *ENAIRE* If the proposed amendments to the ED Decision 2011/017/R include Guidance Material on Safety Performance Indicators and not only on Safety Key Performance Indicators the title should also be changed accordingly.
response	*Accepted* The Agency Decision title will be amended to reflect the insertion of safety performance indicators.

comment	*167* comment by: *ENAIRE* As a general rule, and for the potential introduction of additional performance indicators in the performance scheme in the future, it seems to be a good practice to develop the indicators until a common understanding and an harmonized measure method has been reached at European level prior to their introduction in the Regulations.

response | *Noted*

The safety (key) performance indicators are already established in the performance scheme Regulation (Regulation (EU) No 390/2013). Proposed NPA establishes means of compliance and guidance to facilitate the affected stakeholders. It cannot provide the reasons for including such performance indicators in the Implementing rule.

2.1. Overview of the issues to be addressed p. 5-6

comment | *38* comment by: *NATS National Air Traffic Services Limited*

Page 5, section 2.1, first paragraph, last sentence
EC 390/2013 does not allow for Member States setting local targets against the SPIs. Suggest delete this sentence.

response | *Accepted*

This text in the Explanatory Note will not affect the final text of the AMC/GM. Such a text will not be used in the other supporting documents.

comment | *85* comment by: *UK CAA*

Page No: 5
Paragraph No: 2.1. Overview of the issues to be addressed
Comment: UK CAA believes the penultimate sentence should be deleted as shown below.
Justification: Whilst Regulation (EU) 390/2013 does not either explicitly recommend or explicitly prevent Member states from setting national targets in relation to safety, the addition of this sentence could promote confusion on this topic in relation to National Performance Plans.
Proposed Text:
"2.1. Overview of the issues to be addressed
With regard to the Safety Performance Indicators (SPIs)[14], there are certain new performance requirements introduced by Regulation (EU) No 390/2013 for the second reference period (RP2) compared to the first reference period (RP1)[15]. For the new safety performance indicators (SPIs) introduced during the second reference period, there are no EU-wide safety performance targets. ~~However, Member States (MS) may set targets corresponding to these SPIs.~~ The newly introduced SPIs for RP2 are: "

response | *Accepted*

This text in the Explanatory Note will not affect the final text of the AMC/GM. Such text will not be used in the other supporting documents.

comment | *106* comment by: *GE Aviation*

GE recognizes that it would be desirable to understand the level of reporting. It is very important that any metrics be actually measurable. The numbers of reports submitted annually can be measured readily. The number of events which were not reported cannot be measured and should not be incorporated into a metric.
We strongly recommend that EASA not mandate a requirement which cannot be met; this is

	likely to reduce the credibility of all metrics , which would be undesirable. Direction to guess a number may well be extended to other metrics so that everything becomes a guess, and essentially loses its usefulness.
response	*Noted* The safety (key) performance indicators are already established in the performance scheme Regulation (Regulation (EU) No 390/2013). Proposed NPA establishes means of compliance and guidance to facilitate the affected stakeholders. It cannot provide the reasons for including such performance indicators in the Implementing rule.

comment	*185* comment by: *CANSO* Page 5 Section 2.1, first paragraph, last sentence EC 390/2013 does not allow for Member States setting local targets against the SPIs. Suggest delete this sentence.
response	*Partially accepted* Please refer to the responses to comments 38 and 85.

2.3. Overview of the proposed amendments p. 6-9

comment	*39* comment by: *NATS National Air Traffic Services Limited* GM16 and GM17 We believe that this GM should have the same title as the related AMC and then qualified as SMIs or RI in order to conform to the EASA convention?
response	*Accepted* Titles will be amended.

comment	*40* comment by: *NATS National Air Traffic Services Limited* GM17 As the title includes “runway incursions” (plural) should it be RIs (as in SMIs)?
response	*Accepted* The abbreviation is also plural.

comment	*41* comment by: *NATS National Air Traffic Services Limited* GM18 As this is GM to AMC13 should it come after it (both here and subsequently) as is the case with AMC11 and its GM?
response	*Noted* In this case it was considered that the GM should be placed before the relevant AMC. We believe that in this way the readability will be improved otherwise it might be difficult to

understand the AMC before reading the GM.

comment *42* comment by: *NATS National Air Traffic Services Limited*

GM19
As this is GM to AMC12 should it come after it (both here and subsequently) as is the case with AMC11 and its GM?

response *Noted*

Please refer to the response to comment 41.

comment *70* comment by: *CAA-NL*

The stakeholders are invited to provide their views on the proposed definition for airspace infringement.
Where the cover regulation normally contains the relevant definition of terms, it seems not appropriate to introduce definitions at the level of AMC or GM. Moreover the definition of Airspace Infringement as included in ESARR 2 is appropriate. If there are any doubts in respect of the implications of this definition an explanation of the airspaces where permission of the appropriate authorities is required or the nature of the authorization, this may be introduces as such in GM. Normally the interpretation of the ESARR 2 definition excludes TMZ and RMZ, however a pilot is not authorized to enter these area's without the required equipment and abilities.
In general we would like the use of a dedicated set of terms. More specifically a choice should be made between ATM Specific Occurrences and ATM Technical Events
EC 390/2013, annex V states: "National supervisory authorities shall ensure that the use of a common list of causal/contributing factors for the occurrence analysis is mandatory. Further details for a list of causal/contributing factors at AMC/GM level would be helpful to implement the intended common list.

response *Noted*

For the definition of Airspace Infringement we consider also the development of European regulations (Regulation 923/2012 SERA) and that is why the TMZ and RMZ are mentioned in the proposed definition. Please also refer to the response to comment 83.
With regard to the list of causal/contributing factors for occurrences we consider that this should be part of the regulatory framework relevant to occurrence reporting and analysis and not to be part of performance scheme package.

comment *87* comment by: *UK CAA*

Page No: 6
Paragraph No: 2.3. Overview of the proposed amendments
Comment: Incorporation of the proposed definition 'airspace infringement' as GM is inappropriate. There are numerous references to the term in Regulation (EU) No 390/2013 but it is not defined in the rule. It is essential that it appears in the rule otherwise it has no legal foundation (similar to 'runway incursions', which is defined in the rule). If it is to be retained merely as GM, then the wording needs to be amended to reflect its status as guidance only. The UK CAA also notes that the NPA states that the definition as proposed "uses the terms 'airspace restriction or reservation'", which is in fact not the case.

The term 'separation minima infringements' is used within Regulation (EU) No 390/2013 but the NPA does not propose a definition of this term, either for incorporation into the IR or as GM; this is inconsistent with the approach taken regarding definition of the term 'airspace infringement'.
Justification: The term is used in IR (EU) No 390/2013 but is not defined, unlike 'runway incursions'. Therefore a definition needs to be incorporated into the IR.
If retained as GM then reword 'airspace infringement' to begin with, 'should be considered to be…'.
Proposed Text:
If incorporated into the rule:
'Airspace infringement' means a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace, restricted airspaces, transponder mandatory zones or radio mandatory zones as implemented by the Member States.'
If retained as GM:

'Airspace infringement' should be considered to be a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace, airspace restrictions and transponder mandatory zones or radio mandatory zones as implemented by the Member States.'

response

Partially accepted

Based on the 'soft law' nature of the AMC/GM material it is a common practice of the Agency to place the definitions in the GM. However, the definitions are still worded in a way to ensure a harmonised understanding of the text.
Please also refer to the response to comment 83.

comment

88 comment by: *UK CAA*

Page No: 6
Paragraph No: 2.3. Overview of the proposed amendments
Comment: The term 'separation minima infringements' is used but not defined in Regulation (EU) No 390/2013. It is therefore surprising to note the Agency does not propose a definition of the term in the same manner as 'airspace infringement'.
The scope of definitions to be incorporated into the rule is incomplete and in any case the proposal as GM is inappropriate. There are numerous references to 'separation minima infringements' in Regulation (EU) No 390/2013 but the term is not defined in the rule. It is essential that it appears in the rule to provide legal foundation (similar to 'runway incursions', which is defined in the rule). If it is to be retained merely as GM, then appropriate wording is required to reflect its status as guidance only.
Adoption of the Eurocontrol ATM Lexicon definition of 'separation minima infringements' (Definition Source EUROCONTROL (2000) ESARR 2 - Edition 1.1 - 30.03.2000, Attachment C to Annex 1 ("Glossary of terms and definitions")) is advocated.
Justification: The term should be incorporated into Regulation (EU) No 390/2013 and used throughout the regulation and the proposed AMC and GM. The definition is required to add clarity and surety to the IR and/or the proposed AMC/GM.
Proposed Text:
If incorporated into the rule:

	'Separation minima infringement' means a situation in which prescribed separation minima were not maintained between aircraft. If retained as GM: 'Separation minima infringement' should be considered to be a situation in which prescribed separation minima were not maintained between aircraft.
response	*Partially accepted* Please refer to the responses to comments 83 and 87.

comment	*89* comment by: *UK CAA* **Page No:** 7 **Paragraph No:** GM18 SPI **Comment:** UK CAA agrees with the following statement and believes it should be retained and strengthened: '*This can hardly be evaluated since neither the ANSP nor its Competent Authority may be sure that all occurrences that happened are known*'. The UK CAA recommends that the recognition of the difficulty in evaluating this measure should be more widely reflected throughout the decision document. **Justification:** Conclusions drawn from this exercise need to be treated with caution and do not set a benchmark as variables in service, airspace complexity and traffic density can be significant.
response	*Accepted* The sentence from the Explanatory Note will also be included in GM18.

comment	*126* comment by: *ANA Luxembourg* ANA agrees with the proposed definition for airspace infingement
response	*Partially accepted* Please refer to the response to comment 83.

comment	*133* comment by: *Malta Air Traffic Controllers' Association* ATCEUC would like to point out the need to keep the man in the loop in the automated detection of candidate events and their consideration of occurrences. The human assessment should never be removed from this. Is EASA planning to continue using ECCAIRS as a repository to collect the automatically collected occurrence data as per 376/2014?
response	*Noted* As it is described in the relevant AMC/GM the manual filtering is also needed for the automated reporting. The Agency will keep repository for occurrence data. With respect to Regulation (EU) No 376/2014, the Regulation mandates that data shall be collected and stored using ECCAIRS compatible software.

comment	*134* comment by: *Malta Air Traffic Controllers' Association* Acknowledgment of the impossibility to measure this is quite relevant. The consideration of the existence of a level of reporting also implies the existence of underreporting. ATCEUC would like to know which are the basis supporting this.
response	*Noted* The safety (key) performance indicators are already established in the performance scheme Regulation (Regulation (EU) No 390/2013). Proposed NPA establishes means of compliance and guidance to facilitate the affected stakeholders. It cannot provide the reasons for including such performance indicator in the Implementing Rule.

comment	*135* comment by: *Malta Air Traffic Controllers' Association* Following the approval of Regulation 376/2014 everything related to this NPA should be revisited. ATCEUC considers a big mistake leaving the NPA and the previous AMC/GM on SKPI without taking into account the new regulation. The AMC/GM will have to be adapted eventually and if it is not done soon, it will imply a lot of work for NSAs and ANSPs who will have to duplicate work on some areas. In particular, the reporting of statistical data regarding occurrences is to be collected by applying the RAT methodology, whose extension is to be measured as a safety indicator itself. The new regulation identifies a new risk classification scheme that has not been developed yet. Will EASA take the steps so that this new risk classification scheme is consistent with the existing criteria to avoid new adaptations and further work for stakeholders? On the other hand, the new regulation identifies the need to report not only data but also the reports via the ECCAIRS. Does EASA expect an adaptation of the SKPI that take the usage of ECCAIRS into account to measure both occurrences numbers and the level of reporting? Is the AST usage to provide occurrence numbers to be replaced by another tool by 2015 in accordance to 376/2014? Changes in the ways, tools and schedules imply a big adaptation effort for the stakeholders, and ATCEUC believes that every change in this sense will slow down the collection of real safety performance data and move backwards in time the real safety analyses. AMC/GM is not consistent with already existing regulation (even though entering into force in one year time) creates a lot of confusion and uncertainties in all stakeholders.
response	*Noted* The occurrence reporting and investigation should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. In addition, the two Regulations are in different stages of development and maturity with respect to supporting materials. While Regulation (EU) No 376/2014 will enter into force as of November 2015 it is not foreseen that all related supporting materials (e.g. Risk Classification Scheme) will be adopted by that time. Please also refer to at the response to comment 134. The SPIs as defined in Regulation 390/2013 should not change during RP2. The commencement of RP2 is 1 January 2015. The coming into force of Regulation (EU) No 376/2014 is November 2015. The common Risk Classification Scheme, an element of 376/2014 shall be developed by 15 May 2017. It is not yet possible to comment as to the form of the new risk classification scheme.

The AST mechanism will continue to be a data source in 2015 with respect to Regulation (EU) No 390/2013.
Currently there are 2 possible data sources with respect to the Risk Classifying Occurrences: The AST Mechanism and the ECR.

comment

136 comment by: *Malta Air Traffic Controllers' Association*

Is EASA planning to change the AMC/GM to include the extension of the ECCAIRS usage to measure the level of reporting in accordance to 376/2014?
Is EASA planning to use the time parameters in terms of response (72h for reporting, 30 days for feedback) as basic or part of more complex parameters to measure the level of reporting as per 376/2014?

response

Noted

The occurrence reporting and investigation should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. The SKPIs cannot be changed in the course of a reference period.
Time parameters do not form part of the SKPI or SPI as defined under Regulation (EU) No 390/2013.

comment

137 comment by: *Malta Air Traffic Controllers' Association*

In alignment with the Reg 376/2014, we may propose additional GM on Data Analysis for qualitative and quantitative information:
Data analysis (qualitative information)
- a description of the methods of providing employees and contracted personnel with information concerning the analysis and follow-up, occurrences for which preventive or corrective action is taken (ref. EU Reg. 376/2014 art. 13.3)
- a description of the process to monitor the implementation and effectiveness of the action required to address actual or potential aviation safety deficiencies (ref. EU Reg. 376/2014 art. 13.2)
data analysis (quantitative information)
- a comparison of the identified safety hazards associated with identified occurrences or groups of occurrences and the appropriate corrective or preventive action required to improve aviation safety should be made (376/2014 art.13.1)
- a comparison of the preventive or corrective actions taken following the analysis of occurrences and the related information provided employees and contracted personnel should be made (376/2014 art. 13.3)

response

Noted

Please refer to the response to comment 136.

comment

138 comment by: *Malta Air Traffic Controllers' Association*

Airspace infringement definition suits MATCA

response

Partially accepted

Please refer to the response to comment 83.

comment	*186* comment by: *CANSO* Page 6, AMC11 SPI The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions. Data shall be provided separately from each automated system.
response	*Noted* Your comment is provided to the explanatory note in particular the heading of the AMC11 which is equal to the SPI as defined in the performance scheme Regulation. With regard to the data provision, AMC11 states that 'ANSPs should report to their Competent Authorities, on an annual basis, the application of automatic safety data recording systems at their individual ATS units.' Referring to each automated system may create unnecessary complication since one unit may use more than one system.

comment	*187* comment by: *CANSO* GM 16 and GM 17 Page 7 Should not this GM have the same title as the related AMC and then qualified as SMIs or RI in order to conform to the EASA convention? GM 17 Page 7 As the title includes "runway incursions" (plural) should it be RIs (as in SMIs)? GM 18 Page 7 As this is GM to AMC13 should it come after it (both here and subsequently) as is the case with AMC11 and its GM?
response	*Accepted* Please also refer to the responses to comments 39 and 40.

comment	*203* comment by: *CANSO* GM19 Page 8 As this is GM to AMC12 should it come after it (both here and subsequently) as is the case with AMC11 and its GM? GM19 SPI Process Please clarify the reporting timeline for this data. CANSO assume that the data reported at the end of April each year is for the previous calendar year i.e. up to the 31 December).
response	*Noted* GM19 Page 8 Please refer to the response to comment 41. . GM19 SPI Process As it is specified in the GM19 and AMC13 the States will receive summarised data already submitted based on the occurrence reporting obligations by the Agency at the end of April each year. This data should be relevant for the previous calendar year up to 31st December.

Than the MS should send a confirmation of the numbers presented and responses to the observations to the Agency by the end of May each year.

3. Proposed amendments - GM 1 SKPI p. 10-11

comment *1* comment by: *George Knight*

The definition that says 'Airspace infringement' **is** a flight... is not true in all circumstances. For example many restricted areas are applicable to only certain types of aircraft such as helicopters. Furthermore much of the notified airspace, as proposed, has a controlling authority (e.g. danger areas, prohibited areas and rstricted areas).

response *Noted*

Please refer to the response to comment 83.

comment *27* comment by: *CAA-Denmark*

We do not have any comments regarding the definition of “Airspace infringement”.

response *Noted*

Please refer to the response to comment 83.

comment *34* comment by: *René Meier, Europe Air Sports*

3.1 Draft AMC/GM
GM 1 SKPI General
page 10/21
C. Definitions and Abbrebviations
We fully disagree with the proposed wording of this definition: It leads to consider that entry into any kind of notified airspace requires a prior approval. This is not correct.
For example entry into a class E airspace or a TMZ does not require any approval.
We are therefore of the opinion that the proposed definition is too prescriptive, its application would introdruce new constraints for airspace users. We want it to be re-worded as follows:
Counter-proposal:
An "Airspace infringement" is a flight into a portion of airspace where prior clearance is required without previously requesting and obtaining an approval from the relevant authority.
Rationale:
Consistency with other relevant definitions. Freedom to fly within EU airspace. It is not in-line with what we read on page 55/170 of NPA 2014-05 SERA Part C where a clear difference is made between VFR and IFR taffic in aispace class E, where no radio communication is asked for, except in RMZ of course.

response *Noted*

Please refer to the responses to comments 33 and 83.

comment	*35* comment by: *René Meier, Europe Air Sports* 3.1. Draft AMC/GM page 10 and 11/21 Abbreviations APP: "Approach" is in our view sufficient. TWR: "Tower" is in our view sufficient. Rationale: We never ever heard someone speaking or writing of an "Aera Control Center Control Unit", "Approach Control Unit", "approach" is commonly used, so stay with this. The same applies to "Tower Control Unit": "tower" is used.
response	*Not accepted* The proposed abbreviations are based on terms which are used in both ICAO SARPs and EU Regulations e.g. Article 2 of Regulation 923/2012 (SERA).

comment	*36* comment by: *René Meier, Europe Air Sports* 3.1 Draft AMC/GM pages 10 and 11/21 Question: Should the term ""Temporary segregated area" and the accronym "TSA" together with a definition or a reference not be added to the list proposed? Rationale: This term/accronym is in place in at least one of the EASA member states.
response	*Noted* The terms and abbreviations used in this regard are following the ones as defined in Regulation (EC) No 2150/2005 for the flexible use of airspace. TSA is not defined in that Regulation.

comment	*43* comment by: *NATS National Air Traffic Services Limited* Section 3.1 C Definitions It seems odd to have a definition in a GM surely this should be included in the EC 390/2013 IR? If it has to go in the GM it should be reworded to “Airspace infringement should be interpreted as….”
response	*Noted* Based on the ‘soft law’ nature of the AMC/GM material, it is a common practice of the Agency to place the definitions in the GM. However, the definitions are still worded in a way to ensure a harmonised understanding of the text.

comment	*71* comment by: *CAA-NL* Abbreviations There are doubts about the proper interpretation of TMA. Some experts would explain this area as Terminal Control Area. We suggest to include the following in the table:

	TMA Terminal Manoeuvring Area, also known as Terminal Control Area
response	*Accepted*

comment	*81* comment by: *Romanian CAA* The following highlighted text should be added: 'Airspace infringement' is a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace (ICAO airspace classes A to E, such as TMAs, and CTRs, ***airways***), restricted airspaces ***and reserved airspaces*** (e.g. Prohibited, Restricted and Danger Areas, Temporary Reserved ***Areas*** ~~Airspace~~ ***and Temporary Segregated Areas***) and transponder mandatory zones (TMZ) or radio mandatory zones (RMZ) as implemented by the Member States. JUSTIFICATION The modification is in line with the definitions contained in: - Regulation (UE) no. 923/2012 - Regulation (UE) no. 2150/2005 The definition should be inserted in the legislation.
response	*Noted* Please refer to the response to comment 83. It seems that Temporary Segregated Areas are not defined in EU Regulations.

comment	*90* comment by: *UK CAA* **Page No:** 10 **Paragraph No:** 3.1. Draft Acceptable Means of Compliance and Guidance Material **Comment:** Incorporation of the proposed definition 'airspace infringement' as GM is inappropriate. There are numerous references to the term in Regulation (EU) No 390/2013 but it is not defined in the rule. It is essential that it appears in the rule to provide legal foundation (similar to 'runway incursions', which is defined in the rule). If it is to be retained merely as GM, then the wording needs to be amended to reflect its status as guidance only. The UK CAA also notes that the NPA states that the definition as proposed "uses the terms 'airspace restriction or reservation'", which is in fact not the case. The term 'separation minima infringements' is used within Regulation (EU) No 390/2013 but the NPA does not propose a definition of this term, either for incorporation into the IR or as GM; this is inconsistent with the approach taken regarding definition of the term 'airspace infringement'. **Justification:** The term is used in IR (EU) No 390/2013 but neither is defined, unlike 'runway incursions'. Therefore it needs to be incorporated into the IR. If retained as GM then reword 'airspace infringement' to begin 'should be considered to be…'. **Proposed Text:** If incorporated into the rule: 'Airspace infringement' means a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace, restricted airspaces, transponder mandatory zones or radio mandatory zones as

	implemented by the Member States.' If retained as GM: 'Airspace infringement' should be considered to be a flight into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace in accordance with international and national regulations. Notified airspace includes controlled airspace, airspace restrictions and transponder mandatory zones or radio mandatory zones as implemented by the Member States.'
response	*Partially accepted* Please refer to the responses to comments 83 and 87.

comment	*91* comment by: *UK CAA* **Page No:** 10 **Paragraph No:** 3.1 GM 1 SKPI General Definitions 'Airspace Infringement' **Comment:** UK CAA comment on page 6 paragraph 2.3 refers.
response	*Partially accepted* Please refer to the responses to comments 83 and 87.

comment	*92* comment by: *UK CAA* **Page No:** 10/11 **Paragraph No:** 3.1. Draft Acceptable Means of Compliance and Guidance Material **Comment:** The term 'separation minima infringements' is used but not defined in Regulation (EU) No 390/2013. It is therefore surprising to note the Agency does not propose a definition of the term in the same manner as 'airspace infringement'. The scope of definitions to be incorporated into the rule is incomplete and in any case the proposal as GM is inappropriate. There are numerous references to 'separation minima infringements' in Regulation (EU) No 390/2013 but the term is not defined in the rule. It is essential that it appears in the rule to provide a legal foundation (similar to 'runway incursions', which is defined in the rule). If it is to be retained merely as GM, then appropriate wording is required to reflect its status as guidance only. Adoption of the Eurocontrol ATM Lexicon definition of 'separation minima infringements' (Definition Source EUROCONTROL (2000) ESARR 2 - Edition 1.1 - 30.03.2000, Attachment C to Annex 1 ("Glossary of terms and definitions")) is advocated. **Justification:** The term should be incorporated into Regulation (EU) No 390/2013 and used throughout the regulation and the proposed AMC and GM. The definition is required to add clarity and surety to the IR and the proposed AMC/GM. **Proposed Text:** If incorporated into the rule: 'Separation minima infringement' means a situation in which prescribed separation minima were not maintained between aircraft.' If retained as GM: 'Separation minima infringement' should be considered to be a situation in which prescribed separation minima were not maintained between aircraft.'
response	*Partially accepted*

	Please refer to the responses to comments 83 and 87.
comment	*116* comment by: *ATCEUC - Air Traffic Controllers European Unions Coordination* Airspace infringement definition suits us.
response	*Partially accepted* Please refer to the responses to comments 83 and 87.
comment	*121* comment by: *SINCTA - Portuguese Air Traffic Controllers' Union* We agree with the airspace infringement definition.
response	*Partially accepted* Please refer to the responses to comments 83 and 87.
comment	*139* comment by: *Fédération Française Aéronautique* 3.1 Draft AMC/GM GM 1 SKPI General page 10/21 C. Definitions and Abbrebviations We fully disagree with the proposed wording of this definition: It leads to consider that entry into any kind of notified airspace requires a prior approval. This is not correct. For example entry into a class E airspace or a TMZ does not require any approval. We are therefore of the opinion that the proposed definition is too prescriptive, its application would introdruce new constraints for airspace users. We want it to be re-worded as follows: Counter-proposal: An "Airspace infringement" is a flight into a portion of airspace without previously requesting and obtaining an approval from the relevant authority when such approval is requested only. Rationale: Consistency with other relevant definitions. Freedom to fly within EU airspace. It is not in-line with what we read on page 55/170 of NPA 2014-05 SERA Part C where a clear difference is made between VFR and IFR traffic in aispace class E, where no radio communication is asked for, except in RMZ of course.
response	*Not accepted* Please refer to the responses to comments 83 and 87.
comment	*143* comment by: *LFV* · C.Definitions and Abbrevisions, Abbreviations: APP, TWR, TMA: Why do the definitions of TWR and APP cover ”Units”, and not ”Services”? Is this really the definition in other regulations? The definition is not used in e.g. GM18 SPI, Data Analysis third bullet (”TWR units”).

	It must be ensured that the definitions/abbreviations are harmonised in all EU regulations. The abbreviation "SPI" is missing in the list.
response	*Partially accepted* The terms 'aerodrome control service' and 'aerodrome control tower' are defined in Article 2 of Regulation (EU) No 923/2012 (SERA) as 'aerodrome control tower' means a unit established to provide air traffic control service to aerodrome traffic'. We cannot see contradiction in the proposed abbreviation in GM and the definition in SERA. The missing abbreviation will be included in the table.

comment	*145* comment by: *DFS Deutsche Flugsicherung GmbH* The proposed draft AMC/GM text contains abbreviations, which are not listed in the abbreviations table (e.g. AMC, SPI, MS, AST, ECR, ICAO, TMA, CTR, AI). For consistency all abbreviations used should be listed.
response	*Accepted* The missing abbreviations will be included in the table.

comment	*151* comment by: *Finnish Transport Safety Agency* The Finnish Transport Safety Agency proposal; It should be ensured, that the definition also covers situations, where due to f.ex. problems in co-ordination between different ATS units, the aircraft enters the area of responsibility of a different ATS unit without approval by the receiving ATS unit. This would clarify the fact that in some cases it is not the aircraft crew's responsibility to request and obtain approval before flying into notified airspace, as would be implied in the current text.
response	*Noted* It is recognised that your comment is correct and such cases may happen, but then the causing factor should be the ATS units' coordination failure which results in a presence of an aircraft in notified airspace contradicting the relevant rules. Please refer to the response to comment 83.

comment	*179* comment by: *Nicolas VAUNOIS FFVV Airspace Board* C. Definitions and Abbrebviations This definition of "Airspace Infrigement" could be interpreted in a way that an authorisation is requested for VFR flights in airspaces like class E, some Restricted areas, Dangerous areas or TMZ when SERA doesn't require it. We suggest this simple definition : An "Airspace infringement" is a flight into a portion of airspace without previously requesting and/or obtaining an approval from the relevant authority when such approval is requested by international or national regulations.

response	*Noted* Please refer to the response to comment 83.

comment	*181* comment by: *USCA International Secretariat* USCA agrees with the definition
response	*Partially accepted* Please refer to the response to comment 83.

comment	*189* comment by: *CANSO* <u>Section 3.1 Definitions</u> It seems odd to have a definition in a GM surely this should be included in the EC 390/2013 IR? If it has to go in the GM it should be reworded to "Airspace infringement should be interpreted as…." <u>GM 1 SKPI General</u> Please check that these definitions are consistent and harmonized with all EU regulations. Plus add SPI to the definitions list.
response	*Partially accepted* Please refer to the responses to comments 83 and 87.

comment	*199* comment by: *French Civil Aviation Authority (DGAC)* The proposed text may be misleading, as no authorisation or approval is needed to enter a Danger Area. Same remark for entry into TMZ or RMZ which in general does not require an approval. Autorisation for entry into class E is required only for IFR flights.
response	*Partially accepted* Please refer to the response to comment 83.

3. Proposed amendments - AMC11 SPI p. 12-13

comment	*7* comment by: *MOT Austria* **Page No:** 12 **Comment:** NSA Austria suggests adding *'the application of'* to the following sentence – '*The application of* the automated safety data recording systems used for monitoring and recording of separation minima infringements and runway incursions should be reported under this safety performance indicator, where the system has, as a minimum, the following basic functional capabilities:…' **Justification:** To be in line with the definition of the safety performance indicator specified in Commission Implementing Regulation (EU) No 390/2013, Annex1, Section 2.

response	*Accepted*

comment	*8* comment by: *MOT Austria* **Page No:** 12 **Comment:** NSA Austria suggests replacing *'events'* by *'occurrences'* in the following sentence – '- Interface with ATC operational systems for detection of candidate *occurrences*;' **Justification:** To establish a common language the term occurrence should be used throughout the whole document in line with ICAO Annex 13 defining an occurrence either as an incident or an accident. In addition it ensures a clear definition of what is intended to be detected.
response	*Not accepted* What is detected and recorded by an automated system is considered to be an event since it is not yet analysed. Therefore, one cannot say at that stage if the recorded data is about an occurrence or not.

comment	*9* comment by: *MOT Austria* **Page No:** 12 **Comment:** NSA Austria suggests adding *'as far as reasonably practicable'* to and replacing *'events'* by *'occurrences'* in the following sentence – '- Filter (automatic and manual, *as far as reasonably practicable*) to extract only relevant *occurrences*, based on pre-determined technical and operational criteria;' **Justification:** Manual filtering of all occurrences recorded by the automated safety data recording systems would cause a significant increase concerning the resource effort. To establish a common language the term occurrence should be used throughout the whole document in line with ICAO Annex 13 defining an occurrence either as an incident or an accident. In addition it ensures a clear definition of what is intended to be extracted.
response	*Not accepted* Please refer to the response to comment 12. Adding 'as far as reasonably practicable' is not considered appropriate since the AMC defines the capabilities of an automated system not the practical use of it. It is clear that in practice it will be applied 'as far as reasonably practicable' but the possibility for filtering should be available in the system.

comment	*10* comment by: *MOT Austria* **Page No:** 12 **Comment:** NSA Austria suggests replacing *'encounters'* by *'occurrences'* in the following sentence – '- Recording of retained *occurrences* in a local database for further analysis and reporting.' **Justification:** To establish a common language the term occurrence should be used throughout the whole document in line with ICAO Annex 13 defining an occurrence either as an incident or an accident. In addition it ensures a clear definition of what is intended to be recorded.

response	*Not accepted* Please refer to the response to comment 12.

comment	*11* comment by: *MOT Austria* **Page No:** 12 **Comment:** NSA Austria suggests replacing *'candidate encounters'* by *'candidate occurrences'* and *'reportable encounters'* by *'reportable occurrences'* in the figure. **Justification:** To establish a common language throughout the whole document, to be in line with ICAO Annex 13 (defining an occurrence either as an incident or an accident) and the wording used in the description of the basic functional capabilities above.
response	*Partially accepted* The diagram is amended to be consistent but 'events' are not replaced by 'occurrences'. Please refer to the response to comment 12.

comment	*12* comment by: *MOT Austria* **Page No:** 13 **Comment:** NSA Austria suggests adding *'the beginning of the application period and subsequently'* to the following sentence – 'ANSPs should report to their Competent Authorities, *the beginning of the application period and subsequently* on an annual basis, the application of automatic safety data recording systems at their individual ATS units.' **Justification:** The definition of the reporting period is essential to ensure the comparison of occurrences (automatic and manually reported) is significant.
response	*Accepted*

comment	*13* comment by: *MOT Austria* **Page No:** 13 **Comment:** NSA Austria suggests adding *'on the application of automatic safety data recording systems'* to the following sentence – 'The Competent Authorities should: - collect the reports *on the application of automatic safety data recording systems* submitted by the ANSPs;' **Justification:** To clarify which reports are intended to be collected.
response	*Accepted*

comment	*14* comment by: *MOT Austria* **Page No:** 13 **Comment:** NSA Austria suggests adding *'above mentioned'* to the following sentence – 'The Competent Authorities should: - review the data contained in the *above mentioned* reports from the ANSPs;' **Justification:** To clarify which reports are intended to be reviewed.
response	*Accepted*

comment	*15* comment by: *MOT Austria* **Page No:** 13 **Comment:** NSA Austria suggests replacing *'end of May'* by *'1 February'* within the following sentence – 'The Competent Authorities should: - provide the information to EASA/PRB for this safety performance indicator for the preceding year by *1 February* each year.' **Justification:** To simplify the reporting process and therefore establish conformity with the reporting date of the safety key performance indicators (SKPIs) as defined within Commission Implementing Regulation (EU) No 390/2013, Annex V.
response	*Noted* The end date for reporting also takes into account the dates applicable for the other SPIs (e.g. as defined in AMC13). Nothing prevents the ANSPs and the CAs to provide their reports earlier if they wish so.

comment	*44* comment by: *NATS National Air Traffic Services Limited* AMC11 Third bullet – to be consistent with the first two bullets delete encounters and insert events. "Recording of retained events…"
response	*Accepted*

comment	*45* comment by: *NATS National Air Traffic Services Limited* AMC11; The figure xx is unclear Box 1. – delete "Detect occurrences" as it is events that are being detected (not yet analysed so cannot say if occurrence or not). Between Box 1. And Box 2. – delete encounters and insert events to be consistent with textual description. Box 2. – delete occurrences (twice) and insert events (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description. Between Box 2. And Box 3. – delete encounters and insert event so as to be consistent with textual description.
response	*Accepted*

comment	*46* comment by: *NATS National Air Traffic Services Limited* AMC11, Page 13: First sentence – whilst the related PI uses the term air traffic service providers (plural), the actual reporting will be by an individual ANSP to its competent authority, additionally the related PI does not mention ATS units. Second sentence – on the basis that the reports come from individual ANSPs then it should be singular (ANSP) rather than plural. Second and third bullets – delete occurrences and insert events (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description. **Suggested resolution** First sentence: An ANSP should report to its Competent Authority, on an annual basis, the application of automatic safety data recording systems. Second sentence, amend ANSPs to ANSP.

	Second and third bullets – delete occurrences and insert events
response	*Accepted*

comment	*72* comment by: *CAA-NL* **AMC11 The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions** · We are of the opinion that an AMC for a rule system which is not mandatory is not the appropriate way to regulate. When details are to be mentioned in the soft law it could not be more than GM and should be formulated as such. So no minimum aspects as a prerequisite but as an advice. · What is considered environmental data? Could some examples be given of environmental data that should be recorded? · Where one of the issues is the improvement of just culture, it would be helpful not only to report on the actual number of reportable occurrences in the database. It could give added value to evaluate the possible impacts of automatic reporting on the preparedness for manual reporting. · The collection of data will be different for every ANSP, which will have its influence on the quality of data at the central data repository at EASA. It would be advisable to harmonize the definitions of the types of reportable occurrences to enhance the comparability of figures throughout Europe. · Regarding Runway Incursions the automated recording will be extra difficult. It is expected that a lot of initial reports will be collected which will appear not to be a Runway Incursion, as aspects like R/T and "authorised" cannot be dealt with by automated systems without implementation or adaption of other systems (e.g. a digital flight strip system). The pressure to introduce such a difficult and costly system are in contrast with the cost objectives of the performance regulation.
response	*Noted* - The Agency is tasked by the performance scheme Regulation to provide AMC and GM. This material shall be 'fit for purpose' but such an exclusion based on the nature of the provisions in the implementing rule is not justified; - Environmental data is for example data for ATC sectors, way points, routes SIDs, STARs etc. Since it is understood that this may create confusion the text, 'Environmental data' is removed from the diagram; - The SPI is defined in the performance scheme Regulation; - This matter should be addressed in the legislation relevant to reporting and analysis of occurrences; Your concern is shared and we believe it is also properly addressed in the GM. This NPA does not provide obligations for implementing such systems.

comment	*78* comment by: *ENAV* *ENAV, generally speaking is in favor with the use of automated safety monitoring tools.* *Nevertheless, ENAV does not support the introduction with this wording of the new AMC11 SPI related to the application of automated safety data recording systems including a minimum monitoring of separation minima infringements and runway incursions because:*

- *We should avoid the perception of automated monitoring tool as a big brother*
- *Experience shows that a soft approach is needed to obtain an effective implementation*
- *Experience shows that only a soft and high-level use of the instruments (hot spots, aggregated events, analysis etc.) can ensure the existence of an open reporting environment in line with Just Culture principles.*
- *We should avoid a too stringent regulation in the field of reporting (e.g. notification to CAA)*
- *Same objectives can be reached with AMC12 and AMC13*
- *Safety monitoring tools risk to overcome human reporting*
- *ENAV has already faced important costs and has already implemented an ASMT policy*
- *AMC doesn't take into consideration, with present wording, the amount of human resources to be dedicated;*
- *AMC should have been preceded by a cost assessments and a cost benefit analysis*
- *An automated reporting could be acceptable only with statistic purposes.*
- *Generally speaking and unless provided and implemented with robust "safety nets" Just culture doesn't apply to a "machine" reporting philosophy*

response | *Noted*

The SPIs are defined in the performance scheme Regulation not in the proposed AMC and GM which, the Agency believes, will anyhow support the implementation of the SPIs by the affected stakeholders.
Your view for careful implementation of automated reporting systems which shall support the improvement of just culture is shared and the relevant GM was drafted in such spirit.

comment | *82* comment by: *Romanian CAA*

The paragraph describing automated safety data recording systems should be deleted (including figure).
JUSTIFICATION
It seems more or less like a technical specification for such systems. This approach is not appropriate due to lack of flexibility.

response | *Not accepted*

The proposed means of compliance including the diagram provide general specifications for such tool which is based on already existing practices in different MS.
If such general requirements are not specified, any unit could show compliance based on the fact that radar data is recorded in accordance with ICAO SARPs.

comment | *93* comment by: *UK CAA*

Page No: 13
Paragraph No: IV Safety Performance Indicators (3rd bullet point page 13)
Comment: UK CAA suggests remove 'etc' from '(SMI, RI etc)'
Justification: This bullet only refers to SMI and RI – therefore the use of 'etc' is superfluous. .

response | *Accepted*

comment	*108* comment by: *SwissATCA* SwissATCA would like to point out the need to keep the man in the loop in the automated detection of candidate events and their consideration of occurrences. The human assessment should never be removed from this. Is EASA planning to continue using ECCAIRS as a repository to collect the automatically collected occurrence data as per 376/2014?
response	*Noted* Regulation (EU) No 390/2014 is quite distinct from Regulation (EU) No 376/2014. As stated in the AMC 8 SKPI RAT methodology – Monitoring mechanism '…Member States should provide the data by making use of existing safety data reporting mechanisms, that is, either the European Central Repository and/or the Annual Summary Template Mechanism with enhancements where necessary'.

comment	*117* comment by: *ATCEUC - Air Traffic Controllers European Unions Coordination* ATCEUC would like to point out the need to keep the man in the loop in the automated detection of candidate events and their consideration of occurrences. The human assessment should never be removed from this. Is EASA planning to continue using ECCAIRS as a repository to collect the automatically collected occurrence data as per 376/2014?
response	*Noted* Regulation (EU) No 390/2014 is quite distinct from Regulation (EU) No 376/2014. As stated in the AMC 8 SKPI RAT methodology – Monitoring mechanism '…Member States should provide the data by making use of existing safety data reporting mechanisms, that is, either the European Central Repository and/or the Annual Summary Template Mechanism with enhancements where necessary'.

comment	*122* comment by: *SINCTA - Portuguese Air Traffic Controllers' Union* It's necessary to have an ATCO analysing the automated detection of candidate events and their consideration of occurrences. Is EASA planning to use ECCAIRS as a repository to collect the automatically collected occurrence data resulting from the implementation of reg. 376/2014?
response	*Noted* Regulation (EU) No 390/2014 is quite distinct from Regulation (EU) No 376/2014. As stated in the AMC 8 SKPI RAT methodology – Monitoring mechanism '…Member States should provide the data by making use of existing safety data reporting mechanisms, that is, either the European Central Repository and/or the Annual Summary Template Mechanism with enhancements where necessary'.

comment	*127* comment by: *ANA Luxembourg*

	ANA has the opinion that not only the implementation but also the fine tuning of an automated safety data recording system increases the cost of the system, has an impact on human ressources, for little added value on safety. Also to put in place an automatically filter will need a lot of fine tuning when a manual filter will have an impact on the human ressources.
response	*Noted* The SPI is established by the performance scheme Regulation. The proposed AMC and GM specify the capabilities of such system but the extent of the use of these capabilities should be based on the available resources.

comment	*140* comment by: *ATM-PP* ATM-PP thinks it is necessary maintain an human point of view about the detection of the events
response	*Noted* Please refer to the response to comment 127.

comment	*142* comment by: *LFV* · Last paragraph, 2nd bullet: The section talks about the Competent Authorities' review of the data contained in the reports from the ANSPs. We would appreciate a clarification on the area/criteria for the review.
response	*Noted* It is up to the relevant CA how and at what extend to review the reports provided by the ANSP. However, the CA should be at least confident that if application of an automated system is reported that is correct i.e. the reporting ANSP really has implemented such system.

comment	*147* comment by: *DFS Deutsche Flugsicherung GmbH* Last bullit "provide the information to EASA...": While GM19 contains information about the analysis of the reported occurences by EASA, this AMC11 on automated safety data recording does not contain any indication of EASA's/PRB's further processing of these data and the added value and purpose of collecting them. Additionally, also well stated in GM16, recorded data is not comparable and should not be used for benchmarking anyway. In case that further action/processing on the collected data will be done by EASA/PRB, ANSPs shall be involved and kept informed about this activity and its purpose. EASA should indicate whether and how ANSP's involvement in the follow-up process will be ensured.
response	*Noted*

The SPI is about 'The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions' and it is not considered appropriate to provide further details in AMC and GM for the follow-up process. The use of such automated systems may vary based on the local conditions.

comment

160 comment by: *ENAIRE*

There are concerns about the fact that automation could potentially jeopardize the Just Culture benefits.
It is not well understood that a manual filtering is introduced as a part of an automated system specification.
It seems that the importance of automation is related to the acquisition of data rather that the data recording as the name suggests.
A definition of "genuine" needs to be given if we are really aiming to homogenize the criteria to retain occurrences.
For RI, the text shows a high degree of immaturity. Issues that are under development could be avoided in this sort of guidance material.

response

Noted

The SPI is established by the performance scheme Regulation and RI are already in the SPI. Regarding the need for manual filtering, according to the existing practices it should be done since it may contain records which are not related to and event which is occurrence (SMI or RI).

comment

168 comment by: *aesa*

We do not agree with that the competent authorities should review the data contained in the reports from the ANSPs.
In a first place, we do not understand the scope of the "review" task. Please clarify what do you ask us.
Secondly, this activity could require a lot of work load. The data come from an automatic source so we do not know the amount of data to be reviewed. Therefore, we can not commit to review them.

response

Noted

It is up to the relevant CA to how and to what extend to review the reports provided by the ANSP. However, the CA should be at least confident that if application of an automated system is reported that is correct, i.e. the reporting ANSP really has implemented such system.

comment

171 comment by: *BAF-M.Jancokova*

The AMC does not clearly specify its applicability: the way to report partly implemented automated safety data recording systems has not been considered.
Furthemore, a concept of data recording, data flow and the protective mechanism is needed, inter alia due to the different responsibilities (airports-installation, ATSPs - reporting).

response

Noted

The SPI is about 'The application by the air navigation service providers of automated safety data recording systems where available, which shall include, as a minimum monitoring of separation minima infringements and runway incursions' and it is not considered appropriate to provide further details in AMC and GM for partial implementation. Data flow and protection are considered to be out of the scope of the proposed AMC and GM.

comment

175 comment by: *USCA International Secretariat*

USCA would like to point out the need to keep the man in the loop in the automated detection of candidate events and their consideration of occurrences. The human assessment should never be removed from this.
Is EASA planning to continue using ECCAIRS as a repository to collect the automatically collected occurrence data as per 376/2014?

response

Noted

Regulation (EU) No 390/2014 is quite distinct from Regulation (EU) No 376/2014. As stated in the AMC 8 SKPI RAT methodology – Monitoring mechanism '…Member States should provide the data by making use of existing safety data reporting mechanisms, that is, either the European Central Repository and/or the Annual Summary Template Mechanism with enhancements where necessary'.

comment

190 comment by: *CANSO*

AMC 11 Page 12 IV Safety Performance Indicators

Third bullet – to be consistent with the first two bullets delete encounters and insert events. "Recording of retained events…"

Figure xx – is unclear
Box 1. – delete "Detect occurrences" as it is events that are being detected (not yet analysed so cannot say if occurrence or not).
Between Box 1. And Box 2. – delete encounters and insert events to be consistent with textual description.
Box 2. – delete occurrences (twice) and insert events (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description.
Between Box 2. And Box 3. – delete encounters and insert event so as to be consistent with textual description.

AMC11 Figure xx — Automated monitoring of separation minima infringements and runway incursions – Box 3, record: Database function other analysis functions
Please expand on the "other" analysis functions required in Box 3.
AMC 11 page 13 3rd bullet
Please amend to read:
The number of reportable occurrences recorded in the local databases by type (SMI, RI, ~~etc.~~);

AMC 11 Page 13
First sentence: An ANSP should report to its Competent Authority, on an annual basis, the application of automatic safety data recording systems.
Second sentence, amend ANSPs to ANSP.

	Second and third bullets – delete occurrences and insert events AMC11 Page 13 last paragraph. Please provide clarification on the criteria for the review.
response	*Partially accepted* AMC 11 Page 12 IV Safety Performance Indicators Third bullet – accepted Figure xx – is unclear Accepted AMC11 Figure xx — Database function 'other analysis functions' was intended to describe that once recorded the data may be used also for other purposes e.g. evaluating the complexity of the traffic or monitoring of traffic volume evolution etc. However, since it creates ambiguity it was deleted by the diagram. AMC 11 page 13 3rd bullet Accepted AMC 11 Page 13 Accepted AMC11 Page 13 last paragraph. It is up to the relevant CA to how and to what extend to review the reports provided by the ANSP. However, the CA should be at least confident that if application of an automated system is reported that is correct i.e. the reporting ANSP really has implemented such system.

3. Proposed amendments - GM16 SPI p. 13-14

comment	*16* comment by: *MOT Austria* **Page No:** 14 **Comment:** NSA Austria suggests adding *'as far as reasonably practicable'* and *'events'* to the following sentence – 'This should include both automated and manual filtering, *as far as reasonably practicable*, and should discard spurious events such as bad plots/tracks or not relevant *events* (i.e. operationally correct).' **Justification:** Manual filtering of all occurrences recorded by the automated safety data recording systems would cause a significant increase concerning the resource effort. In addition *'events'* should be added to increase the readability.
response	*Not accepted* Please refer to the responses to comments 9 and 12. Regarding the need for manual filtering, according to the existing practices it should be done since it may have records which are not related to and event which is occurrence (SMI or RI).
comment	*25* comment by: *MOT Austria* **Page No:** 14 **Comment:** NSA Austria suggests replacing *'encounters'* by *'occurrences'* in the following sentence – '- For the purpose of this performance indicator, the database should be capable of providing, as a minimum, a list of recorded *occurrences* for a specified period of time and

	the related data extracted from the system interfaces.' **Justification:** To establish a common language the term occurrence should be used throughout the whole document in line with ICAO Annex 13 defining an occurrence either as an incident or an accident. In addition it ensures a clear definition of what is intended to be recorded.
response	*Not accepted* Please refer to the response to comment 9.

comment	*47* comment by: *NATS National Air Traffic Services Limited* GM16 Should not this GM have the same title as the related AMC and then qualified as SMIs or RI in order to conform to the EASA convention?
response	*Accepted*

comment	*48* comment by: *NATS National Air Traffic Services Limited* GM16: In order for such systems to monitor separation minima infringements there are several functionally distinct processes as defined in AMC11 SPI. First sentence – how can Just Culture apply to an automated event recording system (albeit the environment)? It is more that there is automated recording taking place and how the ANSP reacts to the events. Just culture is to encourage reporting which is not a requirement for an automated system. Delete "occurrences" and insert "events" throughout text (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description. Second paragraph – the events need to be analysed to see if they are occurrences. **General description of automated safety data recording systems** First sentence – the system itself is not detecting reportable occurrences, it is recording the events that need to be analysed to see if they are reportable occurrences. 1. – the introductory text refers to ATC operational systems whereas the subsequent text refers to ATS operational systems. ATS is probably correct given the PIs, in which case Fig xx Box 1. needs to be amended as well. 3. – delete "occurrences" and insert "events" so as to align with textual description.
response	*Accepted*

comment	*49* comment by: *NATS National Air Traffic Services Limited* GM16 para 1 + 2 Move first and second paragraphs to the general section it is applicable to both automated recording of SMIs and RIs, not just SMIs.
response	*Not accepted* GM16 and GM17 are respectively for recording of SMIs and RIs and in this regard there are some repetitions which are intended to allow the reader to read only one of the GMs either relevant to SMIs or to RI.

comment	*50* comment by: *NATS National Air Traffic Services Limited* GM16 para 2 Delete “lines” replace with “other reporting mechanisms”.
response	*Accepted*

comment	*51* comment by: *NATS National Air Traffic Services Limited* GM16 para 2 Delete “runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units” as they are not applicable to this GM.
response	*Not accepted* This is reference to the SPI as defined in performance scheme Regulation and in AMC13 and the text is identical with the text in the Regulation.

comment	*53* comment by: *NATS National Air Traffic Services Limited* para 3 first sentence Reword as follows: The reportable occurrences ~~after~~ for both automatic and manual filtering should be recorded in a database.
response	*Accepted*

comment	*73* comment by: *CAA-NL* We suggest to change the title as follows: **Automated safety data recording systems for monitoring of separation minima infringements (SMI) when available**
response	*Partially accepted* The title of the GM is changed to fully reflect the title of AMC11

comment	*94* comment by: *UK CAA* **Page No:** 13 **Paragraph No:** GM16 SPI General **Comment:** UK CAA suggests remove the first paragraph in its entirety and place at the beginning of AMC/GM. **Justification:** This should relate to all SMS and reporting systems. It would be better placed at the beginning of AMC/GM and would not then become repetitious. **Proposed Text:** ~~‘The automated occurrence recording systems should be used in a Just Culture environment ……’~~
response	*Not accepted* The rationale of the comment is understood however, putting such a text in AMC may create

	difficulties and uncertainties about the implementation.

comment	*95* comment by: *UK CAA* **Page No:** 13 **Paragraph No:** GM16 SPI General **Comment:** UK CAA suggests delete the text as indicated below. **Justification:** This GM only refers to SMIs. **Proposed Text:** It should be recognised, where appropriate, that for various reasons (e.g. the automated system failed to capture some occurrences which were reported by other lines) the number of occurrences captured and reported against this performance indicator did not necessarily coincide with the number manually reported in the PI, namely 'the number of, as a minimum, separation minima infringements, ~~runway incursions, airspace infringements, and ATM-specific occurrences~~ at all air traffic services units'.
response	*Not accepted* This is reference to the SPI as defined in performance scheme Regulation and in AMC13 and the text is identical with the text in the Regulation.

comment	*128* comment by: *ANA Luxembourg* Reporting system for separation minima infringement is rather performant and it is rather doubtfull that the automated safety data recording system will improve the analysis/information used by SMS organizations.
response	*Noted* The SPI as defined in the performance scheme Regulation.

comment	*129* comment by: *ANA Luxembourg* Filtering will not be an easy tasks and will consume ressource
response	*Noted*

comment	*148* comment by: *DFS Deutsche Flugsicherung GmbH* Headline and text of GM16 do not match: The term "Automated safety data recording systems" should be used in the whole text. Please replace "automated occurrence recording systems" by this term.
response	*Partially accepted* The title of the GM is changed to fully reflect the title of AMC11.

comment	*150* comment by: *DFS Deutsche Flugsicherung GmbH* The statement in the fourth paragraph, that recorded data is not comparable and should not be used for benchmarking, is absolutely correct and therefore a very valuable content.

response	*Noted*

comment	*191* comment by: *CANSO* GM 16 SPI Page 13 Should not this GM have the same title as the related AMC and then qualified as SMIs or RI in order to conform to the EASA convention? General First sentence – how can Just Culture apply to an automated event recording system (albeit the environment)? It is more that there is automated recording taking place and how the ANSP reacts to the events. Just culture is to encourage reporting which is not a requirement for an automated system. Delete "occurrences" and insert "events" throughout text (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description. Second paragraph – the events need to be analysed to see if they are occurrences. General description of automated safety data recording systems First sentence – the system itself is not detecting reportable occurrences, it is recording the events that need to be analysed to see if they are reportable occurrences. 1. – the introductory text refers to ATC operational systems whereas the subsequent text refers to ATS operational systems. ATS is probably correct given the PIs, in which case Fig xx Box 1. needs to be amended as well. 3. – delete "occurrences" and insert "events" so as to align with textual description. GM 16, page 13 Para 1 and 2 : Move first and second paragraphs to the general section it is applicable to both automated recording of SMIs and RIs, not just SMIs. Para 2 : Delete "lines" replace with "other reporting mechanisms". Para 2: Delete "runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units" as they are not applicable to this GM. General Para 4: Reword the text as follows: Recorded data in one ATS unit is not comparable and should not be used for benchmarking with those of another ATS unit because each ~~unit has its specific method of operations, procedures and policies.~~
response	*Partially accepted* The title of the GM is changed to fully reflect the title of AMC11. Reference to just culture is made in order to underline that misuse of such system may bring negative effect in the just culture. 'Occurrences' in the text could not always be replaced with 'events' e.g. the text '…capture some occurrences which were reported by other reporting mechanisms …' is an example of

such a sentence.
ATC has been replaced by ATS in the diagram.
The text 'runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units' refers to the SPI as defined in the Regulation and AMC13.
The comment for deletion of the text in para 4 is accepted.

comment *201* comment by: *CAA CZ*

It is also important to realise the ATCOs abilities and limits to detect SMI (for voluntary reports within the use of Just Culture principle). If the limits of the system are set extremely strict then we see possible numerical difference in comparison with mandatory reporting. The document is also mentioning: „the automatic filtering should be focussed on risk bearing events"; some kind of „tolerance limit" that is greater than data inaccuracy used for occurence reporting mentioned in the NPA would be highly appreciated (for example the tolerance rate of 10 %).

response *Noted*

Your concern is well understood but there is a variety of practices in the parameterisation of such a system dependent on the local conditions. Such a value should be adjusted to reduce non-genuine events records and hence manual filtering.

3. Proposed amendments - GM17 SPI p. 14-16

comment *17* comment by: *MOT Austria*

Page No: 15
Comment: NSA Austria suggests to add *'as far as reasonably practicable'* to the following sentence – 'This filtering function should be fulfilled by an automatic filtering followed by manual filtering, *as far as reasonably practicable,* given the complexity of potential situations at an airport and the differences between airports in Europe.'
Justification: Manual filtering of all occurrences recorded by the automated safety data recording systems would cause a significant increase concerning the resource effort.

response *Not accepted*

Please refer to the response to comment 16.

comment *18* comment by: *MOT Austria*

Page No: 16
Comment: NSA Austria suggests replacing *'encounters'* by *'occurrences'* in the following sentence – 'For the purpose of this performance indicator, the database should be capable of providing, as a minimum, a list of recorded *occurrences* for a specified period of time and the related data extracted from the interfaces.'
Justification: To establish a common language the term occurrence should be used throughout the whole document in line with ICAO Annex 13 defining an occurrence either as an incident or an accident. In addition it ensures a clear definition of what is intended to be recorded.

response *Not accepted*

	Please refer to the response to comment 12. 'Encounters' has been replaced with 'events'.

comment	*52* comment by: *NATS National Air Traffic Services Limited* GM17 SPI para 2. Is it necessary to include the definition of runway incursions as it is already in EC 390/2013? Suggest delete.
response	*Accepted*

comment	*54* comment by: *NATS National Air Traffic Services Limited* GM17 As the title includes "runway incursions" (plural) should it be RIs (as in SMIs)?
response	*Accepted*

comment	*55* comment by: *NATS National Air Traffic Services Limited* GM17 Bulleted list – as the list is not exhaustive replace "and" with "or".
response	*Accepted*

comment	*56* comment by: *NATS National Air Traffic Services Limited* GM17 Third paragraph – how can Just Culture apply to an automated event recording system (albeit the environment)? It is more that there is automated recording taking place and how the ANSP reacts to the events. Just culture is to encourage reporting which is not a requirement for an automated system. Delete "occurrences" and insert "events" throughout text (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description. Paragraph 5 – this is mostly a repeat of paragraph 2, second sentence. 1. - the introductory text refers to ATC operational systems whereas the subsequent text refers to ATS operational systems. ATS is probably correct given the PIs, in which case Fig xx Box 1. needs to be amended as well. 1. – second paragraph, change "pedestrian" to "person" so as to align with definition.
response	*Partially accepted* Reference to just culture is made in order to underline that misuse of such system may bring negative effect in the just culture. Not always 'occurrences' in the text could be replaced with 'events' e.g. the text '…capture some occurrences which were reported by other reporting mechanisms …' is about occurrences. ATC replaced by ATS. 'Pedestrian' changed to 'person'.

comment	*57* comment by: *NATS National Air Traffic Services Limited* GM17 3. – delete “occurrences” and insert “events” so as to align with textual description.
response	*Partially accepted* Please refer to the response to comment 56.

comment	*68* comment by: *Martin Timmons* The document makes no reference to a runway incursion by an animal. Recommended change of text ; 'any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, animal or person on the protected area of a surface designated for the landing and take-off of aircraft'. The SPI should also be in the format of ICAO Accident Data Reporting System primary desciptors for ease of analysis and commonality. Replace RI with RI-VAP and RI-A.
response	*Not accepted* The definition of runway incursions is already provided in Regulation (EU) No 390/2013.

comment	*74* comment by: *CAA-NL* We suggest to change the title as follows: **Future automated safety data recording systems for monitoring of runway incursions (RI)**
response	*Noted* The rational for your proposal is well understood but the title follows the title of the SPI as defined in the performance scheme Regulation.

comment	*86* comment by: *Romanian CAA* PARAGRAPH 4 Remove text: „the controller incorrectly clears an aircraft to land or take-off; „ JUSTIFICATION This could be the cause of a RI not a RI typical situation. Even when incorrect clearance is issued, RI could be avoided. Add text: „- the aircraft incorrectly crosses the runway holding point” JUSTIFICATION This is an RI typical situation
response	*Noted* Your comment is correct but the list is about the situations for an RI. The text follows the text adopted in the ‘European Action Plan for the Prevention of Runway Incursions’.

comment	*96* comment by: *UK CAA*

Page No: 14
Paragraph No: GM17 SPI Automated safety data recording systems for monitoring of runway incursions (RI)
Comment: UK CAA suggests sub-paragraphs 2 and 3 should be deleted.
Article 2(14) of the performance scheme Regulation transposes the ICAO definition of runway incursion as: 'any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft'. Repetition of the definition as proposed is unnecessary.
Justification: Superfluous text
Proposed Text:
Delete the following proposed text:
'Article 2(14) of the performance scheme Regulation transposes the ICAO definition of runway incursion as:
'any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft'.'
Retain remainder of GM17 as proposed.

response *Accepted*

comment *114* comment by: *SwissATCA*

The automatic detection and monitoring of runway incursions is a very complex technical task. A-SMGCS has certain tools that can provide functions on detecting RWY proximity, but there is always an ATCO clearance component and a pilot response in the RI detection.
Another problem is that there are no fully homogeneous RI criteria at all units/States.
The highly automated environment may also hamper personal reporting ("because the machine already does it for me...."), and discarding the human opinion in reporting is a big mistake if what we really want to focus on is safety and the root causes.

response *Noted*

The SPI is defined in the performance scheme Regulation.

comment *120* comment by: *ATCEUC - Air Traffic Controllers European Unions Coordination*

The automatic detection and monitoring of runway incursions is a very complex technical task. A-SMGCS has certain tools that can provide functions on detecting RWY proximity, but there is always an ATCO clearance component and a pilot response in the RI detection.
Another problem is that there are no fully homogeneous RI criteria at all units/States.
The highly automated environment may also hamper personal reporting ("because the machine already does it for me...."), and discarding the human opinion in reporting is a big mistake if what we really want to focus on is safety and the root causes.

response *Noted*

The SPI is defined in the performance scheme Regulation.

comment *123* comment by: *SINCTA - Portuguese Air Traffic Controllers' Union*

The automatic detection and monitoring of runway incursions is a very complex technical

	task. A-SMGCS has certain tools that can provide functions on detecting RWY proximity, but there is always an ATCO clearance component and a pilot response in the RI detection. It would be important to have an homogeneous RI criteria at all units/States.
response	*Noted* The SPI is defined in the performance scheme Regulation.

comment	*130* comment by: *ANA Luxembourg* The system proposed is considered as to complex. It should be simplified
response	*Noted* The SPI is defined in the performance scheme Regulation. It was not understood what simplification is proposed.

comment	*146* comment by: *ATM-PP* ATM-PP agrees the automatic detection and monitoring of runway incursions is a very complex technical task and this is why, on this topic too, we think that maintaing an human view is mandatory
response	*Noted*

comment	*149* comment by: *DFS Deutsche Flugsicherung GmbH* Headline and text of GM17 do not match: The term "Automated safety data recording systems" should be used in the whole text. Please replace "automated occurrence recording systems" by this term.
response	*Accepted*

comment	*172* comment by: *BAF-M.Jancokova* The AMC describes the systems to be used for monitoring of RIs. The development and capability of such systems is not a subject of the IR No 390/2013. Even that the use of automated safety data recording systems is not yet required, the responsibility to install such systems will not be at the ANSP's side (airports - installation, ATSPs - reporting).
response	*Noted* The proposed draft provides acceptable means of compliance to the relevant part of the performance scheme regulation. It is also agreed that this AMC/GM material does not imply any responsibility to install such systems.

comment	*182* comment by: *USCA International Secretariat* The automatic detection and monitoring of runway incursions is a very complex technical task. A-SMGCS has certain tools that can provide functions on detecting RWY proximity, but

	there is always an ATCO clearance component and a pilot response in the RI detection. Another problem is that there are no fully homogeneous RI criteria at all units/States. The highly automated environment may also hamper personal reporting ("because the machine already does it for me...."), and discarding the human opinion in reporting is a big mistake if what we really want to focus on is safety and the root causes.
response	*Noted* The SPI is defined in the performance scheme Regulation

comment	*192* comment by: *CANSO* GM 17 SPI Page 14 Para 2: Is it necessary to include the definition of runway incursions as it is already in EC 390/2013? Suggest delete. Para 3 first sentence: Reword as follows: The reportable occurrences after for both automatic and manual filtering should be recorded in a database.µ GM 17, Page 14, As the title includes “runway incursions” (plural) should it be RIs (as in SMIs)? Bulleted list – as the list is not exhaustive replace “and” with “or”.
response	*Accepted*

comment	*193* comment by: *CANSO* GM 17 Page 15 Third paragraph – how can Just Culture apply to an automated event recording system (albeit the environment)? It is more that there is automated recording taking place and how the ANSP reacts to the events. Just culture is to encourage reporting which is not a requirement for an automated system. Delete “occurrences” and insert “events” throughout text (not yet analysed so cannot say if occurrence or not) and to be consistent with textual description. Paragraph 5 – this is mostly a repeat of paragraph 2, second sentence. 1. - the introductory text refers to ATC operational systems whereas the subsequent text refers to ATS operational systems. ATS is probably correct given the PIs, in which case Fig xx Box 1. needs to be amended as well. 1. – second paragraph, change “pedestrian” to “person” so as to align with definition. GM 17 General, Page 15, para 4 General (para 4). Reword as follows: Recorded data in one ATS unit is typically not comparable to those of another ATS ~~unit because each unit may have its specific method of operations, procedures and even policies.~~

	GM 17 Page 15. Filter genueine RIs Please amend text to read: During this step, the system should filter out genuine events that are due to normal operating practice. Spurious and/or false targets also need to be filtered out by the system. This filtering function should be fulfilled by an automatic filtering followed by manual filtering, given the complexity of potential situations at an airport and the differences between airports in Europe. Each event should be reviewed against applicable scenarios suitable for the operations which are in accordance with the airport policy.
response	*Accepted* Reference to just culture is made in order to underline that misuse of such system may bring negative effect in the just culture. Not always 'occurrences' in the text could be replaced with 'events' e.g. the text '…capture some occurrences which were reported by other reporting mechanisms …' is about occurrences. ATC replaced by ATS. 'Pedestrian' has been changed to 'person'. Proposed deletion has been accepted. Proposed deletion in item 2 'Filter for genuine RIs' has been accepted.

comment	*194* comment by: *CANSO* GM 17 Page 16 3. Recording RIs Delete "occurrences" and insert "events" so as to align with textual description.
response	*Accepted*

comment	*202* comment by: *CAA CZ* In our opinion the automatic system for almost 100% detection of RI is not feasible. The detection of potential RIs based on the aircraft position would generate a vast amount of cases we should monitor (98 % of these cases would show that probably everything was OK). The application of such manual filtering of RIs would place a disproportionate burden on human resources, therefore it would lead to influencing other KPAs (especially area of cost-effectiveness). We would rather recommend to monitor other indicators (technically more feasible), such as: • go arounds; • RIMCAS alerts; • crossing stop bars; and • in case of crossing RWYs - exiting RWY into the crossing RWY instead of the selected exit TWY.
response	*Noted* The SPI is already defined in the performance scheme Regulation.

3. Proposed amendments - GM18 SPI p. 16-18

comment	*2* comment by: *George Knight* With the very wide definition of airspace infringements given in this NPA, and the fact that many of the types of airspace (danger areas, prohibited areas and restricted areas are not monitored by anybody, it is unreasonable ask ANSPs to assess occurrence reporting against them. Similarly it would not be cost effective to improve reporting of these areas by establishing procedures to monitor them for violations.
response	*Noted* It is possible not always to detect airspace infringements of low altitude danger or restricted areas where there is no radar coverage. However, this occurrence is explicitly listed in Regulation (EU) No (EU) No (EU) No 390/2013.

comment	*19* comment by: *MOT Austria* **Page No:** 16 **Comment:** NSA Austria suggests replacing *'estimate'* by *'determine'* in the following sentence – 'Where this cannot be directly calculated, indirect methods should be used to *determine* the level of occurrence reporting.' **Justification:** To clarify that the level of occurrence reporting should be determined as precisely as possible and not just estimated.
response	*Noted* It is shared that the levels of reporting should be determined. However, in the proposed draft it is recognised that most likely the stakeholders will not be able to determine this for this reason the Agency prefers using the term 'estimate'.

comment	*20* comment by: *MOT Austria* **Page No:** 16 **Comment:** NSA Austria suggests adding *'if applicable'* to the following sentence – 'In order to report on the level of occurrence reporting, ANSPs and States, *if applicable*, should prepare a written assessment of the level of occurrence reporting on an annual basis.' **Justification:** In case occurrence investigation is done mainly within the ANSP the respective ANSP experts should prepare the assessment.
response	*Not accepted* Regulation (EU) No 390/2013 defines this SPI as 'The reporting by the Member States and air navigation service providers on the level of occurrence reporting…' so adding your proposed text in the AMC will be in contradiction with the said Regulation.

comment	*21* comment by: *MOT Austria* **Page No:** 17 **Comment:** NSA Austria suggests removing the second part of the following sentence – 'A brief introduction should provide basic information as to the nature of the reporting scheme, such as: - whether voluntary reports are incorporated ~~as well as mandatory occurrence~~

~~reports (for State level assessments)~~;'
Justification: Mandatory occurrence reports have to be incorporated in any case.

response *Accepted*

comment *24* comment by: *MOT Austria*

Page No: 16
General comment: The current NPA text proposes to determine the level of human omissions in regard to reporting requirements which in consequence suggests blaming – contradicting just culture principles.
NSA Austria questions the need for comparing occurrences that are recorded by an automated safety data recording system with those that are reported by humans, which is usually a concept proofing method. This can be interpreted as the proving that automated systems are better than humans which could lead to negative effects on reporting culture, and the methods introduced with this NPA are contradicting the intention if the SPI 1.2(b), (EU) No 390/2013, Annex 1, Section 2 .
In long term, automated reporting systems will supersede manual reporting since computers are not subject to human weaknesses.
If the intention of the NPA is to validate the usability of automated safety data reporting systems for a wider application, the proof of concept should be done in a limited but well defined environment rather than experimenting on operational level in general "where automated systems are available". Furthermore double reporting processes (automatic and manual) cause a significant increase of required resources, in particular for those organisations which have such a system in operation.

response *Noted*

Your concern is shared and that is why such a comparison of occurrences that are recorded by an automated safety data recording system with those that are reported by humans is not proposed in this GM. The nonbinding guidance provides some suggestions to the stakeholders on how to evaluate the level of reporting qualitatively and quantitatively.

comment *30* comment by: *CAA-Denmark*

The NPA will, if transformed into law, imply significantly increased tasks for the Danish Transport Authority such as:
EASA introduces new reporting on the level of reporting and reporting culture. ANSPs must send the report to the Member States, then each Member State must, in the light of these reports, issue a report to EASA (annually). The extent of reporting put forward seems a bit unrealistic compared to the smaller ANSPs.

response *Noted*

The SPI 'The reporting by the Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture' is not introduced by the Agency with this NPA but by Regulation (EU) No 390/2013. The nonbinding guidance provides some suggestions to facilitate the stakeholders on how to evaluate the level of reporting qualitatively and quantitatively

comment	*58* comment by: *NATS National Air Traffic Services Limited* GM18 As this GM is associated with AMC12 move the GM to after the related AMC as is the EASA convention.
response	*Noted* The proposed GM precedes the relevant AMC for improved readability. It was considered that the AMC may not be understood well if it was not explained before in a GM.

comment	*59* comment by: *NATS National Air Traffic Services Limited* Page 16, GM18, para 1 first sentence: The level of occurrence reporting should be defined as the proportion of reported occurrences received by the ANSP or State occurrence reporting schemes, compared to all the occurrences that happened. This can never be determined, do you mean the number detected by the automated processes?
response	*Noted* It is agreed that the level of reporting can hardly be determined that is why the term 'estimate' is used throughout the text. No intent in the proposed text to compare number detected by the automated processes and the reported through the reporting lines occurrences and it is not suggested in the GM. However, nothing prevents the stakeholders to use the automatic reporting for improvements in the reporting culture.

comment	*60* comment by: *NATS National Air Traffic Services Limited* Page 16, GM18, para 1 second sentence Suggest delete "where this cannot be directly calculated," It will only ever be possible to use an indirect method. How will you ever know that you have captured all the occurrences that have happened?
response	*Accepted*

comment	*61* comment by: *NATS National Air Traffic Services Limited* Page 16, GM18, para 4 This GM should state that this will be achieved through a comparison of the severity of the RAT scores (Heinrich triangle approach).
response	*Not accepted* The suggestion may unnecessarily increase the complexity of the SPI. There are EU targets for RAT SKPI and it is expected that RAT severity will be used.

comment	*62* comment by: *NATS National Air Traffic Services Limited* Document template It is unclear who (ANSP or state) is completing what sections of this document, and who is

	responsible for what? Please clarify.
response	*Noted* This SPI is defined by the performance scheme Regulation as 'The reporting by the Member States and air navigation service providers on the level of occurrence reporting…' and hence such reports should be provided by all ANSPs within the scope of the Regulation and by the State. The proposed form in the GM18 is not mandatory and only provides an example to the stakeholders on how to estimate the level of reporting.

comment	*63* comment by: *NATS National Air Traffic Services Limited* Page 17, para 3 bullet 2 Please clarify how the number of IFR flight hours should be calculated.
response	*Accepted* The following clarification, which may clarify the issue, is added in GM18 '… as the flight hours may be calculated as a sum of the airborne time of IFRs within the area of responsibility of the ANSP'.

comment	*64* comment by: *NATS National Air Traffic Services Limited* Page 17, para 3 bullet 3 Airspace infringements may involve VFR flights as well. It will not be possible to work out IFR flight hours in this context. Please clarify. CANSO understands these units are only suggestions but the GM should be recommending viable suggestions.
response	*Accepted* The example provided for AI is reworked to clearly separate infringements of IFRs and VFRs as well as infringements resulting in loss of separation.

comment	*65* comment by: *NATS National Air Traffic Services Limited* Page 17, GM18 general comment Please clarify how this information gets aggregated at the national and at the FAB level.
response	*Noted* The term 'local', is defined for the purposes of target setting and it is considered that the local targets setting process is not part of this NPA. The aggregation at State level will be dependent on the qualitative information provided by the ANSPs. Since the proposed AMC/GM are not prescriptive about this information, it can also not be for the way it will be aggregated.

comment	*66* comment by: *NATS National Air Traffic Services Limited* Page 18, Conclusions para 2 The argument presented for not having an RIA is as follows "Given that there is only one option there doesn't need to be an RIA" that isn't an adequate justification for not having an RIA.

response	*Noted*

comment	*67* comment by: *NATS National Air Traffic Services Limited* Page 18, Conclusions para 2 Typo “as at State level” should read "at State level"
response	*Partially accepted* The sentence is divided to improve readability.

comment	*75* comment by: *CAA-NL* **The reporting by the Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture** The source of the reported incidents is clear, however the source of the unreported incidents remains unidentified. If the GM is focusing at the estimation of the level of reporting, it remains unclear in what manner such estimation may be done. De-identification of the provider is not really an option in the Netherlands due to the very limited number of providers.
response	*Noted* Your concern is shared and the proposed GM acknowledges that indirect methods should be used to estimate the level of occurrence reporting. The SPI as such is defined in the performance scheme Regulation (Regulation (EU) No 390/2013), but not in this NPA. De-identification of the providers should be done where it is possible. It is clear that for some MS this will not be an option but the Agency prefers to put this in GM as part of the general principle for de-identification when safety data is handled.

comment	*97* comment by: *UK CAA* **Page No:** 17 **Paragraph No:** GM18 SPI **Comment:** UK CAA believe ‘airspace infringements’ should be included in the following bullet point: ‘— For severity classification, the results using the RAT methodology should be presented for as minimum, separation minima infringements, runway incursions and ATM-specific occurrences.’
response	*Not accepted* There are EU targets for RAT SKPI and it is expected that RAT severity will be used when reaching the targets.

comment	*98* comment by: *UK CAA* **Page No:** 17 **Paragraph No:** GM18 SPI, Data Analysis (Quantitative Information), 3rd sub-bullet on ‘airspace infringements’

Comment: The UK CAA acknowledges the need for some means of measuring the impacts of airspace infringement, and recognises that the Agency appreciates the difficulties associated with developing such measures; it also recognises that the Agency presents a possible measure within the proposed text. However the UK CAA believes the first example does not provide an infringement rate, rather it will result in an indication of the number of infringements as a proportion of a national (or regional) total. This helps highlight infringement 'hotspots' but not a rate as such. A better exemplar measure would be the number of reported airspace infringements resulting in either a loss of separation or AIRPROX between aircraft.
The second example is possible if reliable data is available, but infringements are attributable to IFR and VFR flights alike; therefore the resultant rate would only apply to IFR aircraft; the wording should indicate this.
Justification: Improved example for clarity.
Proposed Text:
· 'for the airspace infringements (AI), due to its complex definition, it is difficult to propose a proper rate. However, it is possible to divide the number of reported AI leading to a loss of separation by the total number of AI to identify the rate of infringement resulting in loss of separation. Another measure could be to divide the numbers of reported AI attributable to IFR and VFR aircraft by the total number of AI to identify the rate of infringement by IFR and VFR flights respectively. This would then allow comparisons between the two and help determine which set of aircraft was a greater infringement risk.'

response *Accepted*

comment *99* comment by: *UK CAA*

Page No: 17/18
Paragraph No: GM18 SPI
Comment: UK CAA suggest 'airspace infringements' should be included in the following bullet point:
'— A comparison of the number of high-severity occurrences and low-severity occurrences should be made, since logically in a system with a high level of reporting there should be many times more low-severity occurrences than high-severity occurrences. Low-severity occurrences are defined as severities C and E,
high severity occurrences are defined as severities A and B for SMI and RI, and AA, A and B for ATM specific occurrences.'

response *Accepted*

comment *103* comment by: *Romanian CAA*

Example
Introduction (Qualitative Information)
The example, Introduction part should be modified to consider the existing ANSP – NSA (CA) arrangements and information transmitted in the scope of the SMS. The GM should only make reference to these processes and leave the low level details under the local SMS operation and context.
JUSTIFICATION
The reporting of ATM occurrences and safety monitoring are part of the SMS common requirements contained in Regulation (UE) no. 1035/2011.

These requirements are part of the certification requirements, process which is the NSA responsibility.
The implementation of these requirements depends on the national / local culture and legislation.
Example
Data Analysis (Quantitative Information)
4th paragraph
„Appropriate units of measurement should be used, wherever available, to calculate the rate. For example:....."
The example should be deleted.
JUSTIFICATION
The example is not relevant and can be used for benchmarking purposes.
The example is relevant only when comparing to the previous data registered at the same location (TWR)/ organisation.
Some organisations provide services in more than 10 TWR's, several APP's and ACC. Also ACC's have different configurations.
The rate of the RI/SMI, as defined in this GM, is not an objective indication of the performance of that ATS unit.
In the case of RI, this information could be misleading because ATCOs might find themselves in positions not being able to stop an RI even when they anticipate that a RI is about to take place. For example, we could encounter a situation where a car, in charge with security aspects for an official delegation, could leave the convoy and enter the runway without prior notice and approval from the airport authority or ATS unit. Also, RIs due to pilot error where ATCOs are in impossibility to prevent the RI, although the severity of the occurrence could be minimal due to ATCOs intervention, could be encountered.
Therefore, the rate of RI and SMI related to all IFR/ VFR movements / IFR flight hours is not an indication of the level of occurrence reporting.
Example
Conclusions: Assessment of the Level of Occurrence Reporting
The following highlighted text should be added:
„Using the data analysis results and any gaps in reporting identified in the qualitative information, an assessment should be provided of the level of occurrence reporting, as well as a list of actions***, if necessary***, that should...".
JUSTIFICATION
Situations might exist where no actions are necessary.

response

Partially accepted

The examples provided in the GM do not have a binding nature and nothing prevents the stakeholders to use different quantitative information which will help estimation of level of reporting.

comment

107 comment by: *GE Aviation*

GE recognizes that it would be desirable to understand the level of reporting. It is very important that any metrics be actually measurable. The numbers of reports submitted annually can be measured readily. The number of events which were not reported cannot be measured and should not be incorporated into a metric.
We strongly recommend that EASA not mandate a requirement which cannot be met; this is likely to reduce the credibility of all metrics , which would be undesirable. Direction to guess a number may well be extended to other metrics so that everything becomes a guess, and

	essentially loses its usefulness We recommend that the level of occurrence reporting be redefined as only the number of reported occurrences. Attempts to extrapolate non-reported occurrences should be removed from the process.
response	*Noted* Your concern is shared and the proposed GM acknowledges that indirect methods should be used to estimate the level of occurrence reporting. The SPI as such is defined in the performance scheme Regulation (Regulation (EU) No 390/2013) but not in this NPA. The provided guidance only gives some examples and does not have binding nature.

comment	*109* comment by: *SwissATCA* "*The reporting by the Member States … measuring the level of reporting*" Acknowledgment of the impossibility to measure this is quite relevant. The consideration of the existence of a level of reporting also implies the existence of underreporting. SwissATCA would like to know what is the basis supporting this.
response	*Noted* The SPI as such is defined in the performance scheme Regulation (Regulation (EU) No 390/2013), but not in this NPA.

comment	*111* comment by: *SwissATCA* Is EASA planning to change the AMC/GM to include the extension of the ECCAIRS usage to measure the level of reporting in accordance to 376/2014? Is EASA planning to use the time parameters in terms of response (72h for reporting, 30 days for feedback) as basic or part of more complex parameters to measure the level of reporting as per 376/2014?
response	*Noted* This AMC/GM covers only the safety performance indicators and not the occurrence reporting and analysis mechanism. The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. The S(K)PIs cannot be changed in the course of a reference period. Time parameters do not form part of the SKPI or PI as defined under Regulation (EU) No 390/2013.

comment	*112* comment by: *SwissATCA* In alignment with the Reg 376/2014, we may propose additional GM on Data Analysis for qualitative and quantitative information: Data analysis (qualitative information): - a description of the methods of providing employees and contracted personnel with information concerning the analysis and follow-up, occurrences for which preventive or corrective action is taken (ref. EU Reg. 376/2014 art. 13.3) - a description of the process to monitor the implementation and effectiveness of the action required to address actual or potential aviation safety deficiencies (ref. EU Reg. 376/2014

art. 13.2)
data analysis (quantitative information):
- a comparison of the identified safety hazards associated with identified occurrences or groups of occurrences and the appropriate corrective or preventive action required to improve aviation safety should be made (376/2014 art.13.1)
- a comparison of the preventive or corrective actions taken following the analysis of occurrences and the related information provided employees and contracted personnel should be made (376/2014 art. 13.3)

response *Noted*

This AMC/GM covers only the safety performance indicators and not the occurrence reporting and analysis mechanism.

comment *115* comment by: *SwissATCA*

The absence of reporting culture is here considered the main problem but the current regulation followed a different direction.
The proposed GM states that “benchmarking of organisations” is “particularly misleading” and it “should not be used". So the rest of the GM must be consistent and those numbers should only be used for each unit evaluation and not for benchmarking with other units or states.

Proposed change:
Data Analysis (Quantitative Information)
*-The variation in the reporting rate ~~between the major reporters~~ **in each unit** should be measured **and analysed**. ~~For example, the different ANSPs reporting to a State scheme or the different units or sectors within an ANSP.~~ The information should be dis-identified since it is the variation that is of note, not the rates themselves.*

response *Not accepted*

The proposal may increase the burden of the ANSPs. The SPI, as defined in the performance scheme Regulation, requests reporting at ANSP and State levels.

comment *118* comment by: *ATCEUC - Air Traffic Controllers European Unions Coordination*

Acknowledgment of the impossibility to measure level of reporting is quite relevant. The consideration of the existence of a level of reporting also implies the existence of underreporting. ATCEUC would like to know which are the basis supporting this.

Is EASA planning to change the AMC/GM to include the extension of the ECCAIRS usage to measure the level of reporting in accordance to 376/2014? Is EASA planning to use the time parameters in terms of response (72h for reporting, 30 days for feedback) as basic or part of more complex parameters to measure the level of reporting as per 376/2014?

The proposed GM states that “benchmarking of organisations” is “particularly misleading” and it “should not be used". So the rest of the GM must be consistent and those numbers should only be used for each unit evaluation and not for benchmarking with other units or states.

PROPOSED TEXT:

Data Analysis (Quantitative Information)

- *The variation in the reporting rate ~~between the major reporters~~* ***in each unit*** *should be measured* ***and analysed***. *~~For example, the different ANSPs reporting to a State scheme or the different units or sectors within an ANSP.~~ The information should be dis-identified since it is the variation that is of note, not the rates themselves.*

- **a description of the methods of providing employees and contracted personnel with information concerning the analysis and follow-up, occurrences for which preventive or corrective action is taken (ref. EU Reg. 376/2014 art. 13.3); and**

- **a description of the process to monitor the implementation and effectiveness of the action required to address actual or potential aviation safety deficiencies (ref. EU Reg. 376/2014 art. 13.2)**.

Data analysis (quantitative information)

- **a comparison of the identified safety hazards associated with identified occurrences or groups of occurrences and the appropriate corrective or preventive action required to improve aviation safety should be made (376/2014 art.13.1); and**

- **a comparison of the preventive or corrective actions taken following the analysis of occurrences and the related information provided employees and contracted personnel should be made (376/2014 art. 13.3).**

response *Not accepted*

Please refer to the response to comment 155.This AMC/GM covers only the safety performance indicators not the occurrence reporting and analysis mechanism.

comment *124* comment by: *SINCTA - Portuguese Air Traffic Controllers' Union*

The proposed GM states that “benchmarking of organisations” is “particularly misleading” and it “should not be used". So the rest of the GM must be consistent and those numbers should only be used for each unit evaluation and not for benchmarking with other units or states.

Is EASA planning to change the AMC/GM to include the extension of the ECCAIRS usage to measure the level of reporting in accordance to 376/2014? Is EASA planning to use the time parameters in terms of response (72h for reporting, 30 days for feedback) as basic or part of more complex
parameters to measure the level of reporting as per 376/2014?

PROPOSED TEXT:

Data Analysis (Quantitative Information)

- The variation in the reporting rate ~~between the major reporters~~ in each unit should be measured and analysed. ~~For example, the different ANSPs reporting to a State scheme or the different units or sectors within an ANSP.~~ The information should be dis-identified since it is the variation that is of note, not the rates themselves.

- a description of the methods of providing employees and contracted personnel with information concerning the analysis and followup, occurrences for which preventive or corrective action is taken (ref. EU Reg. 376/2014 art. 13.3); and

- a description of the process to monitor the implementation and effectiveness of the action required to address actual or potential aviation safety deficiencies (ref. EU Reg. 376/2014 art. 13.2).

Data analysis (quantitative information)

- a comparison of the identified safety hazards associated with identified occurrences or groups of occurrences and the appropriate corrective or preventive action required to improve aviation safety should be made (376/2014 art.13.1); and

a comparison of the preventive or corrective actions taken following the analysis of occurrences and the related information provided employees and contracted personnel should be made (376/2014 art. 13.3).

response *Not accepted*

Please refer to the response to comment 118..

comment *131* comment by: *ANA Luxembourg*

This reporting is asking additional efforts from both ANSPs and Member states without real added value. Qualitative assessment should be preferable.

response *Noted*

The SPI as such is defined in the performance scheme Regulation (Regulation (EU) No 390/2013), not in this NPA. The GM provides examples and does not have a binding nature.

comment *144* comment by: *ATM-PP*

It is important having a standard parameter for reporting and feedback, e.g the one stated in regulation 376/2014 to measure the level of reporting

response *Noted*

This AMC/GM covers only the safety performance indicators, not the occurrence reporting and analysis mechanism.

comment *161* comment by: *ENAIRE*

	Not well understood how reported occurrences can be compared to the occurrences that actually happened. In particular it is not well understood how the occurrences that actually happened are measured and recorded, in the technical specifications of automated tools it is recognized that there is a filtering to remove automatically identified occurrences that are finally discarded as such. It is suggested that it could be measured (or estimated) from variations in the reporting from different reported but it is clear that this proposed approach is not robust. It is not clear how gaps can be identified in qualitative information.
response	*Partially accepted* GM is slightly amended to indicate better that indirect methods should be used to estimate the level of occurrence reporting. Gaps can hardly be identified in the propose quantitative analysis but it could give some idea for the level of reporting. It should be noted that the GM does not have a binding nature and that different quantitative information may be used.

comment	*169* comment by: *aesa* Please, provide more details regarding the methodology to analyse qualitatively and quantitatively the level of ocurrence reporting. In our opinion, this guidance material is too vague to determinate the level of occurrence reporting based on qualitative and quantitative information. Moreover, REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, should be taken into account. It is important to ensure consistency between the different regulation regarding occurrences, specifically with the minimum information required in this regulation.
response	*Noted* This AMC/GM covers only the safety performance indicators, not the occurrence reporting and analysis mechanism. The Agency does not think that the proposed AMC/GM is not consistent with REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation.

comment	*176* comment by: *USCA International Secretariat* Acknowledgment of the impossibility to measure this is quite relevant. The consideration of the existence of a level of reporting also implies the existence of underreporting. USCA would like to know which are the basis supporting this.
response	*Noted* The SPI as such is defined in the performance scheme Regulation (Regulation (EU) No 390/2013), not in this NPA.

comment	*178* comment by: *USCA International Secretariat* Is EASA planning to change the AMC/GM to include the extension of the ECCAIRS usage to measure the level of reporting in accordance to 376/2014?

	Is EASA planning to use the time parameters in terms of response (72h for reporting, 30 days for feedback) as basic or part of more complex parameters to measure the level of reporting as per 376/2014?
response	*Noted* The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. The SKPIs cannot be changed in the course of a reference period. Time parameters do not form part of the SKPI or SPI as defined under Regulation (EU) No 390/2013.

comment	*180* comment by: *USCA International Secretariat* In alignment with the Reg 376/2014, we may propose additional GM on Data Analysis for qualitative and quantitative information: Data analysis (qualitative information) - a description of the methods of providing employees and contracted personnel with information concerning the analysis and follow-up, occurrences for which preventive or corrective action is taken (ref. EU Reg. 376/2014 art. 13.3) - a description of the process to monitor the implementation and effectiveness of the action required to address actual or potential aviation safety deficiencies (ref. EU Reg. 376/2014 art. 13.2) data analysis (quantitative information) - a comparison of the identified safety hazards associated with identified occurrences or groups of occurrences and the appropriate corrective or preventive action required to improve aviation safety should be made (376/2014 art.13.1) - a comparison of the preventive or corrective actions taken following the analysis of occurrences and the related information provided employees and contracted personnel should be made (376/2014 art. 13.3)
response	*Noted* This AMC/GM covers only the safety performance indicators, not the occurrence reporting and analysis mechanism.

comment	*183* comment by: *USCA International Secretariat*

Data Analysis (Quantitative Information) *-The variation in the reporting rate ~~between the major reporters~~ **in each unit** should be measured **and analysed**. ~~For example, the different ANSPs reporting to a State scheme or the different units or sectors within an ANSP.~~* *The information should be dis-identified since it is the variation that is of note, not the rates themselves.*	The absence of reporting culture is here considered the main problem but the current regulation followed a different direction. The proposed GM states that "benchmarking of organisations" is "particularly misleading" and it "should not be used". So the rest of the GM must be consistent and those numbers should only be used for each unit evaluation and not for benchmarking with other units or states.

response | *Not accepted*

Please refer to the response to comment 118.

comment | *195* comment by: *CANSO*

GM 18 Page 16 Generel

As this GM is associated with AMC12 move the GM to after the related AMC as is the EASA convention.

Para 1 first sentence: "The level of occurrence reporting should be defined as the proportion of reported occurrences received by the ANSP or State occurrence reporting schemes, compared to all the occurrences that happened"

This can never be determined, do you mean the number detected by the automated processes?

Para 1 second sentence
Suggest delete “where this cannot be directly calculated,” It will only ever be possible to use an indirect method. How will you ever know that you have captured all the occurrences that have happened?

Para 4

This GM should state that this will be achieved through a comparison of the severity of the RAT scores (Heinrich triangle approach).

General para 1,
Change text as follows:
The level of occurrence reporting should be defined as the proportion of reported occurrences received by the ANSP or State occurrence reporting schemes, compared to all the occurrences that happened. Where this cannot be directly calculated, indirect methods should be used to estimate the level of occurrence reporting. As a general principle, it should be recognised that the level of occurrence reporting may be related to a number of different variables, such as the implementation of Just Culture principles, ease of report submission and feedback given to reporters after investigation. Direct comparisons or benchmarking of organisations using the number of occurrence reports are particularly misleading for this reason and, therefore, ~~should~~ will not be used.

response | *Partially accepted*

It was considered that the GM should precede the relevant AMC in order to improve the readability, otherwise the AMC may be difficult to understand.
It was agreed that all the occurrences that happened could not be known. That is why later

	in the text the term 'estimated' is used instead of 'determined'. The intent is not to use number detected by the automated processes since it may not be applied. Deletion in para 1 has been accepted. Mentioning the RAT scores not accepted since there are EU wide targets for RAT SKPI. 'Should' has not been replaced with 'will' because of the non-binding nature of the GM.
comment	*204* comment by: *CANSO* GM 18 Page 17 General Comment Please clarify how this information get aggregated at the national and at the FAB level. Para 3 , bullet 2 Please clarify how the number of IFR flight hours should be calculated. Para 3, bullet 3 Airspace infringements may involve VFR flights as well. It will not be possible to work out IFR flight hours in this context. Please clarify. CANSO understands these units are only suggestions but the GM should be recommending viable suggestions. Data Analysis, 3rd bullet, 4th sub bullet What is the rationale behind this request? Before looking for a rate, this NPA should give a correct definition of the ATM-Specific Occurences to be used Europe wide. Page 17 Document template It is unclear who (ANSP or state) is completing what sections of this document, and who is responsible for what? Please clarify.
response	*Partially accepted* The term 'local', is defined for the purposes of target setting and it is considered that the local targets setting process is not part of this NPA. The aggregation at State level will be dependent on the qualitative information provided by the ANSPs. Since the proposed AMC/GM are not prescriptive about this information it can also not be for the way it will be aggregated. Para 3 bullets 2 and 3 will be reworded to clarify the issues. Para 4 3rd bullet, 4th sub bullet is not a request but only an example in a GM with non-binding nature. ATM specific occurrences are well defined in RAT look-up table used for severity classification. This SPI, as defined in the performance scheme Regulation, is applicable at ANSP and State levels.
comment	*206* comment by: *CANSO* Page 18 Conclusions para 2

	Typo “as at State level”
response	*Partially accepted* Typo in the conclusion – the sentence has been divided to improve the readability.

3. Proposed amendments - AMC 12 SPI p. 18

comment	*22* comment by: *MOT Austria* **Page No:** 18 **Comment:** NSA Austria suggests replacing *‘and’* by *‘or’* in the following sentence – ‘States *or* air navigation service providers should prepare a quantitative and qualitative assessment of the level of occurrence reporting, on an annual basis. **Justification:** In case occurrence investigation is done mainly within the ANSP the respective ANSP experts should prepare the assessment.
response	*Not accepted* This SPI is defined by the performance scheme Regulation as ‘The reporting by the Member States and air navigation service providers on the level of occurrence reporting…’ and hence such reports should be provided by all ANSPs within the scope of the Regulation and by the State. The proposed form in the GM18 is not mandatory and only gives an example to the stakeholders on how to estimate the level of reporting.

comment	*76* comment by: *CAA-NL* The reporting by the Member States and air navigation service providers on the level of occurrence reporting, on an annual basis, aiming at measuring the level of reporting and addressing the issue of improvement of reporting culture The AMC does not clarify how the level of occurrence reporting should be determined. Ref remark to GM 18.
response	*Noted* GM18 provides explanation that the level of reporting can hardly be determined and that is why further on in the text the term ‘estimate’ is used.

comment	*79* comment by: *ENAV* *ENAV supports the introduction of AMC 12 SPI*
response	*Noted*

comment	*104* comment by: *Romanian CAA* The text should be modified to be aligned with the modifications of GM18. JUSTIFICATION AMC12 should be in line with GM18.

response	*Noted* It is not understood which part of AMC12 is not aligned with GM18. It should be noted that the GM provides mainly examples.

comment	*132* comment by: *ANA Luxembourg* Estimate of the level of occurrence reporting should be only qualitative.
response	*Not accepted* Quantitative information could provide also information about the level of reporting.

comment	*162* comment by: *ENAIRE* The fact that the proposed reporting is based on estimations and fundamentally in qualitative description makes this point very weak.
response	*Noted*

comment	*170* comment by: *aesa* Please, provide more details regarding the methodology to analyse qualitatively and quantitatively the level of ocurrence reporting. In our opinion, this guidance material is too vague to determinate the level of occurrence reporting based on qualitative and quantitative information. Moreover, REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, should be taken into account. It is important to ensure consistency between the different regulation regarding occurrences, specifically with the minimum information required in this regulation.
response	*Noted* The level of reporting could hardly be determined and that is why further on in the text the term 'estimate' is used. Please refer to the response to comment 169

3. Proposed amendments - GM 19 SPI p. 18-19

comment	*23* comment by: *MOT Austria* **Page No:** 19 **Comment:** NSA Austria suggests adding *'either directly or through their air navigation service providers'* to the following sentence – 'It is anticipated that Member States, *either directly or through their air navigation service providers*, will submit occurrence reports of separation minima infringements, runway incursions, airspace infringements and ATM-specific occurrences via existing reporting mechanisms, that is the Annual Summary Template (AST) mechanism or the European Central Repository (ECR).' **Justification:** In case occurrence investigation is done mainly within the ANSP the submission of the occurrence reports should be done by the ANSP.

response | *Accepted*

comment | *28* comment by: *CAA-Denmark*

The NPA will, if transformed into law, imply significantly increased tasks for the Danish Transport Authority such as:
EASA sends an analytical report to the Member State concerning separation minima infringements, runway incursion, airspace infringements and ATM specific occurrences in April. EASA requires that the Member State in May will confirm the number and verify data. In addition, EASA expects Member States to comment on the observations given in the report.

response | *Noted*

The intent of the proposed AMC/GM is to reduce the burden of the MS when measuring the SPI 'The number of, as a minimum, separation minima infringements, runway incursions, airspace infringements, and ATM-specific occurrences at all air traffic services units'.
The idea is that the Agency will have all occurrences reported by the MS via the existing reporting lines and that they will send the report back just for checking if the extracted information is correct. We expect that it will normally be the case and the observation will be added in cases where the safety data provided by the MS is not complete. So, if the reporting will be done properly during the year by the MS and the relevant data is entered in ECCAIRS there will not be any additional efforts from the MS.

comment | *100* comment by: *UK CAA*

Page No: 19
Paragraph No: GM19 SPI
Comment: UK CAA believes duplication of reporting needs to be driven out of the reporting system.
UK CAA is strongly in favour of allowing our data to be extracted directly from the ECR.
Currently all MORs submitted to the UK CAA are entered directly into ECCAIRS and are passed to the ECR on a monthly basis, this will become a weekly automatic function in the coming months. A recent update to the ECR/ECCAIRS has added an attribute which identifies whether an event has been RAT scored, this addition completes the data set required to meet this reporting requirement. The UK continues to submit the AST to Eurocontrol annually, with EASA developments on the ECR/ECCAIRS the AST is now seen as duplication. It is understood that Eurocontrol needs access to the ECR to allow removal of the AST submission. Action needs to be taken to facilitate Eurocontrol access to the ECR to ensure the annual SAFREP continues.

response | *Noted*

It is agreed that the duplication of effort should be avoided. That is why in the GM the two possibilities ECR or AST are presented to collect the data. We believe that with the implementation of Regulation (EU) No 376/2014 the duplication will disappear. In addition, it will not be appropriate for all competent authorities to make use of the RAT score attribution in ECCAIRS as it applies to ECCAIRS 5 only. Where a competent authority opts to report only via the ECR this should be communicated to the Agency and the PRB.

comment | *163* comment by: *ENAIRE*

	About the sentence "This safety performance indicator is defined in the performance scheme Regulation, therefore, the Commission is entitled to publish the relevant information." Check if there is really a Commissions right to publish the information just because the performance indicator is defined in the Performance Scheme Regulation.
response	*Noted* The text has been deleted.

comment	*173* comment by: *aesa* We can not compromise to confirm the numbers presented in the report (Annual Summary Template) and respond to the observations due to we do not know the queries that AST employs to obtain the ocurrence numbers. Moreover, it has to be established a common european occurrence coding in order to be able to share data. In addition to that, REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, should be taken into account. It is important to ensure consistency between the different regulation regarding occurrences, specifically with the minimum information required in this regulation.
response	*Noted* The two existing possibilities ECR or AST are anticipated in the GM to collect the data. We believe that with the implementation of Regulation (EU) No 376/2014 the duplication will disappear.

3. Proposed amendments - AMC 13 SPI p. 19

comment	*29* comment by: *CAA-Denmark* The NPA will, if transformed into law, imply significantly increased tasks for the Danish Transport Authority such as: EASA sends an analytical report to the Member State concerning separation minima infringements, runway incursion, airspace infringements and ATM specific occurrences in April. EASA requires that the Member State in May will confirm the number and verify data. In addition, EASA expects Member States to comment on the observations given in the report.
response	*Noted* Please refer to the response to comment 28.

comment	*80* comment by: *ENAV* *ENAV supports the introduction of AMC 13 SPI*
response	*Noted*

comment	*110* comment by: *SwissATCA*

Following the approval of Regulation 376/2014 everything related to this NPA should be revisited.
SwissATCA considers as a big mistake leaving the NPA and the previous AMC/GM on SKPI without taking into account the new regulation. The AMC/GM will have to be adapted eventually and if it is not done soon, it will imply be a lot of work for NSAs and ANSPs who will have to duplicate work on some areas.
In particular, the reporting of statistical data regarding occurrences is to be collected by applying the RAT methodology, whose extension is to be measured as a safety indicator itself. The new regulation identifies a new risk classification scheme that has not been developed yet. Will EASA take the steps so that this new risk classification scheme is consistent with the existing criteria to avoid new adaptations and further work for stakeholders?
On the other hand, the new regulation identifies the need to report not only data but also the reports via the ECCAIRS. Does EASA expect an adaptation of the SKPI that take the usage of ECCAIRS into account to measure both occurrence numbers and the level of reporting?
Is the AST usage to provide occurrence numbers to be replaced by another tool by 2015 in accordance with 376/2014?
Changes in the ways, tools and schedules imply a big adaptation effort for the stakeholders, and SwissATCA believes that every change in this sense will slow down the collection of real safety performance data and move backwards in time the real safety analyses.
AMC/GM is not consistent with already existing regulation (even though entering into force in one year's time) and creates a lot of confusion and uncertainties for all stakeholders.

response *Noted*

The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. In addition, the two Regulations are at differing stages of development and maturity with respect to their supporting material. While Regulation (EU) No 376/2014 is in force as of November 2015 it is not foreseen that all supporting material (e.g. Risk Classification Scheme) will be adopted at that time.
Please also refer to the response to comment 134.
The AST mechanism will continue to be a data source in 2015 with respect to Regulation (EU) No 390/2013.
Currently there are 2 possible data sources with respect to the Risk Classifying Occurrences: the AST Mechanism and the ECR.

comment *119* comment by: *ATCEUC - Air Traffic Controllers European Unions Coordination*

Following the approval of Regulation 376/2014 everything related to this NPA should be revisited. ATCEUC considers a big mistake leaving the NPA and the previous AMC/GM on SKPI without taking into account the new regulation. The AMC/GM will have to be adapted eventually and if it is not done soon, it will imply a lot of work for NSAs and ANSPs who will have to duplicate work on some areas.

In particular, the reporting of statistical data regarding occurrences is to be collected by applying the RAT methodology, whose extension is to be measured as a safety indicator itself. The new regulation identifies a new risk classification scheme that has not been developed yet. Will EASA take the steps so that this new risk classification scheme is consistent with the existing criteria to avoid new adaptations and further work for stakeholders?

On the other hand, the new regulation identifies the need to report not only data but also the reports via the ECCAIRS. Does EASA expect an adaptation of the SKPI that take the usage of ECCAIRS into account to measure both occurrences numbers and the level of reporting?

Is the AST usage to provide occurrence numbers to be replaced by another tool by 2015 in accordance to 376/2014?

Changes in the ways, tools and schedules imply a big adaptation effort for the stakeholders, and ATCEUC believes that every change in this sense will slow down the collection of real safety performance data and move backwards in time the real safety analyses.

response

Noted

The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. In addition, the two Regulations are at differing stages of development and maturity with respect to their supporting materials. While Regulation 376/2014 is in force as of November 2015 it is not foreseen that all supporting materials (e.g. Risk Classification Scheme) will be adopted at that time.
Please also refer to the response to comment 134.
The AST mechanism will continue to be a data source in 2015 with respect to Regulation 390/2013.
Currently there are 2 possible data sources with respect to the Risk Classifying Occurrences: the AST Mechanism and the ECR.

comment

125 comment by: *SINCTA - Portuguese Air Traffic Controllers' Union*

Following the approval of Regulation 376/2014 everything related to this NPA should be revisited. We consider a big mistake leaving the NPA and the previous AMC/GM on SKPI without taking into account the new regulation. The AMC/GM will have to be adapted eventually and if it is not done soon, it will imply a lot of work for NSAs and ANSPs who will have to duplicate work on some areas.

In particular, the reporting of statistical data regarding occurrences is to be collected by applying the RAT methodology, whose extension is to be measured as a safety indicator itself. The new regulation identifies a new risk classification scheme that has not been developed yet. Will EASA take the steps so that this new risk classification scheme is consistent with the existing criteria to avoid new adaptations and further work for stakeholders?

The reg. 376/2014 identifies the need to report not only data but also the reports via ECCAIRS. Does EASA expect an adaptation of the SKPI that take the usage of ECCAIRS into account to measure both occurrences numbers and the level of reporting? Is the AST usage to provide occurrence numbers to be replaced by another tool by 2015 in accordance to 376/2014?

Changes in the ways, tools and schedules imply a big adaptation effort for the stakeholders, and we believe that every change in this sense will slow down the collection of real safety performance data and move backwards in time the real safety analyses.

response | *Noted*

The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. In addition, the two Regulations are at differing stages of development and maturity with respect to their supporting materials. While Regulation 376/2014 is in force as of November 2015 it is not foreseen that all supporting materials (e.g. Risk Classification Scheme) will be adopted at that time.
Please also refer to the response to comment 134.
The AST mechanism will continue to be a data source in 2015 with respect to Regulation 390/2013.
Currently there are 2 possible data sources with respect to the Risk Classifying Occurrences: the AST Mechanism and the ECR.

comment | *141* comment by: *ATM-PP*

ATM-PP thinks it is necessary consider the new Regulation 376/2014 and avoid double works on those topics.

response | *Noted*

The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. In addition, the two Regulations are at differing stages of development and maturity with respect to their supporting materials. While Regulation 376/2014 is in force as of November 2015 it is not foreseen that all supporting materials (e.g. Risk Classification Scheme) will be adopted at that time and shall be developed by 15 May 2017.
Look also at the response to comment 134.
The AST mechanism will continue to be a data source in 2015 with respect to Regulation 390/2013.
Currently there are 2 possible data sources with respect to the Risk Classifying Occurrences: The AST Mechanism and the ECR.

comment | *174* comment by: *aesa*

We can not compromise to validate the numbers presented in the report (Annual Summary Template) and respond to the observations due to we do not know the queries that AST employs to obtain the ocurrence numbers. Moreover, it has to be established a common european occurrence coding in order to be able to share data.
In addition to that, REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, should be taken into account. It is important to ensure consistency between the different regulation regarding occurrences, specifically with the minimum information required in this regulation.

response | *Noted*

Look at the response to comment 173.

comment | *177* comment by: *USCA International Secretariat*

	Following the approval of Regulation 376/2014 everything related to this NPA should be revisited. USCA considers a big mistake leaving the NPA and the previous AMC/GM on SKPI without taking into account the new regulation. The AMC/GM will have to be adapted eventually and if it is not done soon, it will imply a lot of work for NSAs and ANSPs who will have to duplicate work on some areas. In particular, the reporting of statistical data regarding occurrences is to be collected by applying the RAT methodology, whose extension is to be measured as a safety indicator itself. The new regulation identifies a new risk classification scheme that has not been developed yet. Will EASA take the steps so that this new risk classification scheme is consistent with the existing criteria to avoid new adaptations and further work for stakeholders? On the other hand, the new regulation identifies the need to report not only data but also the reports via the ECCAIRS. Does EASA expect an adaptation of the SKPI that take the usage of ECCAIRS into account to measure both occurrences numbers and the level of reporting? Is the AST usage to provide occurrence numbers to be replaced by another tool by 2015 in accordance to 376/2014? Changes in the ways, tools and schedules imply a big adaptation effort for the stakeholders, and ATCEUC believes that every change in this sense will slow down the collection of real safety performance data and move backwards in time the real safety analyses. AMC/GM is not consistent with already existing regulation (even though entering into force in one year time) creates a lot of confusion and uncertainties in all stakeholders.
response	*Noted* The occurrence reporting and analysis should not be mixed with the safety (key) performance indicators established by the performance scheme Regulation. In addition, the two Regulations are at differing stages of development and maturity with respect to their supporting material. While Regulation (EU) No 376/2014 is in force as of November 2015 it is not foreseen that all supporting materials (e.g. Risk Classification Scheme) will be adopted at that time. please also refer to the response to comment 134. The AST mechanism will continue to be a data source in 2015 with respect to Regulation (EU) No 90/2013. Currently there are 2 possible data sources with respect to the Risk Classifying Occurrences: the AST Mechanism and the ECR.

4. Regulatory Impact Assessment (RIA) p. 20

comment	*101* comment by: *UK CAA* **Page No:** 20 **Paragraph No:** 4 Regulatory Impact Assessment (RIA) **Comment:** It could be contended that an RIA should have been undertaken for this NPA as there is an added burden on ANSPs and NSAs/Competent Authorities in relation to collection and reporting of data. **Justification:** To ensure that duplication of effort is driven out of rule making and associated reporting requirements.
response	*Noted*

	The reporting requirements for the stakeholders are established by the performance scheme Regulation. This NPA provides draft means of compliance and the relevant guidance material. During the drafting phase, one of the main driving factors for the rulemaking group was not to generate unnecessary burden for the stakeholders.
comment	*164* comment by: *ENAIRE* Point 5 says that since the Performance Scheme is to improve ATM system interms of safety, capacity, cost-effectiveness and environment the overall impact is expected to be positive. It is agreed that the impact on safety may be positive but impact on costs and investments if there were a need of start developing and using automated tools must not be disregarded.
response	*Noted* Neither in this NPA nor in the performance scheme Regulation there are requirements to start developing and using automated tools. Please also refer to the response to comment 101.
comment	*198* comment by: *CANSO* Page 20, section 4, Bullet 2 The argument presented for not having an RIA is as follows “Given that there is only one option there doesn’t need to be an RIA” that isn’t an adequate justification for not having an RIA.
response	*Noted* Please refer to the response to comment 101.