



| ICAO

Guidance on GASP Indicators

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Unedited version

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TABLE OF CONTENTS

	<i>Page</i>
Glossary	(ii)
Chapter 1. Introduction	1
Chapter 2. GASP Indicators	3
Appendix to Chapter 2. GASP Indicator Forms	5

GLOSSARY

DEFINITIONS

Contributing factors. Actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil or criminal liability.

Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note.— The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in Annex 13, Attachment C.

Maximum mass. Maximum certificated take-off mass.

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety enhancement initiative (SEI). One or more actions to eliminate or mitigate risks associated with contributing factors to a safety occurrence or to address an identified safety deficiency.

Safety oversight. A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.

Safety performance. A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

Safety performance indicator. A data-based parameter used for monitoring and assessing safety performance.

Safety performance target. The State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

State safety programme (SSP). An integrated set of regulations and activities aimed at improving safety.

ABBREVIATIONS AND ACRONYMS

GASP	Global Aviation Safety Plan
HRC	High-risk category of occurrence
NASP	National aviation safety plan
RASG	Regional aviation safety group
RASP	Regional aviation safety plan
RSOO	Regional safety oversight organization
SARP	Standards and Recommended Practices
SEI	Safety enhancement initiative
SSC	Significant Safety Concern
SSP	State safety programme



Chapter 1

INTRODUCTION

1.1 BACKGROUND

1.1.1 Safety is aviation's top priority and Assembly Resolution A40-1: *ICAO Global planning for safety and air navigation* recognizes the importance of a global framework in support of the Safety Strategic Objective of ICAO. The *Global Aviation Safety Plan* (GASP, Doc 10004), available at www.icao.int/gasp, sets forth ICAO's safety strategy, which supports the prioritization and continuous improvement of aviation safety. Its purpose is to continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonized safety strategy and the implementation of regional and national aviation safety plans.

1.1.2 The GASP establishes a global safety strategy, including goals, targets and indicators. The GASP goals are the results toward which efforts in aviation safety are directed. They present the desired outcomes that ICAO's Safety Strategy (as presented in the GASP) aims to produce. The GASP goals are written in a manner that describes high-level outcomes that States, regions or industry aim to achieve. Each of the GASP goals contains specific targets. Targets are specific desired outcomes from the actions taken by States, regions and industry to achieve the goals, at a certain point of time. The GASP targets are written in a manner that identify who the specific actions are directed to (e.g. States). Each GASP target also includes examples of indicators that stakeholders may use to measure progress towards achieving the respective GASP goal. Some goals contain more than one target and each of the GASP targets is linked to a series of sample indicators. Indicators are a measurement index used to evaluate if the GASP yields the expected results by States, regions and industry.

1.1.3 Although the GASP provides a global perspective, regional aviation safety plans (RASP) should be developed and coordinated through the regional aviation safety groups (RASGs) to address specific regional safety issues, in line with the GASP goals and targets. The RASP should contain indicators, to measure progress towards achieving the respective RASP goal(s).

1.1.4 Assembly Resolution A40-1 also calls for each State to develop and implement a national aviation safety plan (NASP), in line with the GASP goals, targets and high-risk categories of occurrences (HRCs). The NASP should also be developed having close regard for the RASP, while acknowledging that each State may have its own, specific safety concerns and priorities, including addressing significant safety concerns (SSCs). The NASP presents the strategic direction for the management of aviation safety at the national level, for a set period (e.g. over the next five years). The NASP should contain indicators, to measure progress towards achieving the respective NASP goal(s).

1.1.5 Indicators being used to measure safety performance of a RASP or NASP should be consistent with, or linked to those in, the GASP. However, the indicators presented in the GASP are only examples, unlike the goals and targets. When the GASP is adapted at the regional and national levels, respectively, regions and States may use the examples of indicators to develop regional and national indicators found in the RASP and NASP. However, not all indicators presented in the GASP need to be duplicated in a RASP or NASP.

Note.— In the context of the GASP and the RASP, the term "region" refers to a group of States and/or entities working together to enhance aviation safety within a geographic area. The RASG is the regional entity responsible for the development and implementation of the RASP.

1.1.6 ICAO received feedback on the 2020-2022 edition of the GASP, noting that States needed assistance on

how to use GASP indicators in the context of their NASP and national safety performance measurement. Feedback included requests for additional guidance on how to measure each of the GASP indicators and clarify some of them, in terms of aspects such as data source or calculations. Feedback also suggested that GASP indicators are mistakenly viewed as mandatory; these are only examples (refer to 1.1.5).

1.2 PURPOSE

This document was developed to provide States and regions with guidance on data sources for indicators used to measure the achievement of the NASP and RASP goals, respectively. To address the feedback received, ICAO and its GASP Study Group (GASP-SG) conducted a review of all the indicators in the 2020-2022 edition of the GASP. The review showed that the majority of GASP indicators are clear and readily measurable – the “who, when and how” are known and the information needed to measure them is provided by ICAO or International Organizations who run industry programmes. Several GASP indicators are fully available and readily measurable. A few GASP indicators were identified as needing more work to make them clear and readily measurable – this includes guidance on how to measure them and how to gather the data. A GASP Indicator Form was developed for each indicator, to provide States and regions with clear guidance and definitions, and to ensure ICAO collects consistent, reliable data.

1.3 APPLICABILITY

The content of this document is presented as guidance and should not be considered as the sole means to develop and use indicators to measure safety performance in the context of a NASP or RASP. States should consult specific requirements within their region and align their efforts with their respective RASP, where applicable.

Chapter 2

GASP INDICATORS

2.1 GENERAL

This chapter provides additional guidance for States and regions (and the RASGs) to gather data for each indicator and measure the progress made towards achieving the goals and targets, presented in NASPs and RASPs, respectively. It clarifies the use of the GASP indicators, which serve as examples that may be used to measure progress in achieving goals and targets, in line with the GASP.

2.2 CONTENT

The GASP indicators provide evidence about whether the desired outcomes occurred, and measure the progress in the activities related to the GASP targets. They are written in a manner that references quantitative data (e.g. number or percentage). Some indicators refer to occurrences (e.g. number of accidents) that are deemed an outcome of deficient management of aviation safety. Others refer to activities conducted by States or other stakeholders (e.g. completion of corrective action plans (CAPs)), deemed to improve management of aviation safety. Ultimately, the indicators are used to measure the achievement of the GASP goals. Data sources are needed to measure the status of GASP indicators, and subsequently for those of NASPs and RASPs. Currently, some data sources are readily available to ICAO, others reside with individual States, regional entities or industry. Challenges in obtaining this data may render the measurement of safety performance difficult. Therefore, a series of the GASP Indicator Forms are presented in this document.

2.3 LAYOUT OF INDICATORS

The appendix to this chapter presents the GASP Indicator (GASP-I) Form. Indicator Forms were created for all 42 indicators presented in the 2020-2022 edition of the GASP. Use of this form is not mandatory and is not intended to replace any existing Standards and Recommended Practices (SARPs). Below is guidance on how to complete the form and on the terms presented in it:

- a) Rationale: an explanation of how the indicator connects to the identified ICAO Strategic Objective and what the measurement and monitoring of the indicator supports;
- b) Limitations: the scope or the extent of the variable or entity that the indicator measures;
- c) Definition of terms: if applicable, a definition of any technical, specific or project-related terminology used in naming or defining the indicator that may not be widely known or understood;
- d) Calculation method: if applicable, the specific or technical formula available for the calculation of the indicator value;
- e) Data set(s): the data that is needed for measuring the indicator;

- f) Availability: the listed datasets may have different levels of availability, varying from 0 for unavailable data to 5 for fully available data;
 - g) Granularity: the lowest level into which the data can be broken down to a more detailed level. For example, the data may be available on a global, regional or national level; in that case, the disaggregation level is the national data;
 - h) Provider: the provider of the data or the source where the data comes from; and
 - i) Custodian: the organization that manages or controls the data; referring to a specific programme (instead of a person) will be helpful.
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Appendix to Chapter 2

GASP INDICATOR (GASP-I) FORMS

**GASP Indicator (GASP-I) Form
GASP-I.1.1.01**

GASP-I.1.1.01	Number of accidents
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate The number of accidents is a key reactive safety indicator. States where accidents occur are required to notify ICAO if the aircraft is of maximum mass of over 2250 kg.
Limitations	<ul style="list-style-type: none"> -The State of Occurrence shall forward a notification of an accident to ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1. -The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7 -ICAO maintains an ADREP database with the notifications and ADREP it receives. -A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SISG) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg. -Validated ADREP data for year <n> available in March of year <n+1>
Definition of terms	'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions ADREP: Accident Data Report
Calculation method	Count accidents involving scheduled commercial operations if: <ul style="list-style-type: none"> -The date of occurrence in between 01 January and 31 December of the year in question; and -A notification and/or an ADREP report was forwarded to and received by ICAO; and -The circumstances of the accidents match the definition of Annex 13 definition of 'Accident'; and -The aircraft involved in the accident is of maximum mass of over 5 700 kg;
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.1.1.02

GASP-I.1.1.02	Number of accidents per million departures (accident rate)
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate. This safety indicator has been widely used by ICAO since 2008: global Annual Safety Reports, ICAO home page...It is amongst the most common reactive indicator measuring safety levels. It is connected to risk exposure (number of millions departures)
Limitations	<ul style="list-style-type: none"> -The State of Occurrence shall forward a notification of an accident to ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1. -The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7 -ICAO maintains an ADREP database with the notifications and ADREP it receives. -A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SISG) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg. -Validated ADREP data for year <n> available in March of year <n+1> -OAG makes available to ICAO traffic data for scheduled operations with aircraft > 5700 kg -Validated OAG traffic data data for year <n> available in March of year <n+1>
Definition of terms	'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions ADREP: Accident Data Report
Calculation method	Indicator= N / D, where: -N is the number of accidents involving scheduled commercial operations with aircraft of maximum mass of over 5 700 kg for the year in question -D is the number of scheduled commercial departures (from iSTARS 'State Traffic' application), divided by 1000000.
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations OAG dataset for ICAO
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database iSTARS Application "ADREP et al." iSTARS Application "State Traffic"
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.1.1.03**

GASP-I.1.1.03	Number of fatal accidents
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate. The number of accidents is a key reactive safety indicator. States where accidents occur are required to notify ICAO if the aircraft is of maximum mass of over 2250 kg or is a turbojet-powered aeroplane.
Limitations	-The State of Occurrence shall forward a notification of an accident to ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1. -The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7 -ICAO maintains an ADREP database with the notifications and ADREP it receives. -A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SIGS) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg. -Validated ADREP data for year <n> available in March of year <n+1>
Definition of terms	'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions ADREP: Accident Data Report A fatal accident is an accident in which a person is fatally injured as a result of: -being in the aircraft, or -direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or -direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.
Calculation method	Count accidents involving scheduled commercial operations if: a) The date of occurrence in between 01 January and 31 December of the year in question; and b) A notification and/or an ADREP report was forwarded to and received by ICAO; and c) The circumstances of the accidents match the definition of Annex 13 definition of fatal 'Accident'; and d) The aircraft involved in the accident is of maximum mass of over 5700 kg;
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database iSTARS Application "ADREP et al."
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.1.1.04**

GASP-I.1.1.04	Number of fatal accidents per million departures (fatal accident rate)
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate. This indicator complements GASP.SPI.1.1.02 by providing a focus on fatal accidents. It is connected to risk exposure (number of million departures)
Limitations	-The State of Occurrence shall forward a notification of an accident to ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1. -The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7 -ICAO maintains an ADREP database with the notifications and ADREP it receives. -A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SISG) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg. -Validated ADREP data for year <n> available in March of year <n+1> -OAG makes available to ICAO traffic data for scheduled operations with aircraft > 5700 kg -Validated OAG traffic data data for year <n> available in March of year <n+1>
Definition of terms	'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions ADREP: Accident Data Report A fatal accident is an accident in which a person is fatally injured as a result of: -being in the aircraft, or -direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or -direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.
Calculation method	Indicator= N / D, where: -N is the number of accidents involving scheduled commercial operations for which: a) The date of occurrence in between 01 January and 31 December of the year in question; and b) A notification and/or an ADREP report was forwarded to and received by ICAO; and c) The circumstances of the accidents match the definition of Annex 13 definition of fatal 'Accident'; and d) The aircraft involved in the accident is of maximum mass of over 5700 kg; and -D is the number of scheduled commercial departures globally (from iSTARS 'State Traffic' application), divided by 1,000,000.
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations OAG dataset for ICAO
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database iSTARS Application "ADREP et al." iSTARS Application "State Traffic"
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.1.1.05

GASP-I.1.1.05	Number of fatalities
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate. The number of fatalities is a key reactive safety indicator, and is related to the GASP aspirational safety goal of zero fatalities in commercial operations by 2030 and beyond. States where accidents occur are required to notify ICAO if the aircraft is of maximum mass of over 2250 kg or is a turbojet-powered aeroplane.
Limitations	-The State of Occurrence shall forward a notification of an accident the ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1. -The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7 -ICAO maintains an ADREP database with the notifications and ADREP it receives. -A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SIGS) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg. -Validated ADREP data for year <n> available in March of year <n+1>
Definition of terms	'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions ADREP: Accident Data Report A fatal accident is an accident in which a person is fatally injured as a result of: -being in the aircraft, or -direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or -direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.
Calculation method	Count the number of fatally injured persons in all accidents involving scheduled commercial operations for which: a) The date of occurrence in between 01 January and 31 December of the year in question; and b) A notification and/or an ADREP report was forwarded to and received by ICAO; and c) The circumstances of the accidents match the definition of Annex 13 definition of 'Accident'; and d) The aircraft involved in the accident is of maximum mass of over 5700 kg;
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database iSTARS Application "ADREP et al."
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.1.1.06**

GASP-I.1.1.06	Number of fatalities per passengers carried (fatality rate)
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate. The number of fatalities is a key reactive safety indicator, and is related to the GASP aspirational safety goal of zero fatalities in commercial operations by 2030 and beyond. It is connected to risk exposure (number of passengers carried)
Limitations	-The State of Occurrence shall forward a notification of an accident the ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1. -The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7 -ICAO maintains an ADREP database with the notifications and ADREP it receives. -A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SISG) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg. -Validated ADREP data for year <n> available in March of year <n+1> -Validated data for year <n> on passengers carried is available on ICAO DATA+ from ICAO Air Transport Bureau in March of year <n+1>
Definition of terms	'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions ADREP: Accident Data Report A fatal accident is an accident in which a person is fatally injured as a result of: -being in the aircraft, or -direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or -direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.
Calculation method	Indicator = N / D, where: -N is the number of fatally injured persons in all accidents involving scheduled commercial operations for which: a) The date of occurrence in between 01 January and 31 December of the year in question; and b) A notification and/or an ADREP report was forwarded to and received by ICAO; and c) The circumstances of the accidents match the definition of Annex 13 definition of 'Accident'; and d) The aircraft involved in the accident is of maximum mass of over 5700 kg; and e) The accident aircraft was involved in scheduled commercial operations; -D is the total number of passengers carried on scheduled services
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations Traffic data collected by ICAO ATB
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database iSTARS Application "ADREP et al." ICAO DATA+ Air Carrier Traffic
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.1.1.07

GASP-I.1.1.07	Percentage of occurrences related to high-risk categories (HRCs)
Rationale	Related to GASP Target 1.1: Maintain a decreasing trend of global accident rate.
Limitations	<p>-The State of Occurrence shall forward a notification of an accident the ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13, para. 4.1.</p> <p>-The State conducting the investigation shall send an ADREP to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, chapter 7</p> <p>-ICAO maintains an ADREP database with the notifications and ADREP it receives.</p> <p>-A validation of the ADREP database is performed annually by a group of experts (OVSG, formerly SISG) only for accidents and some serious incidents involving civil-operated fixed-wing aircraft of a maximum mass of over 5700 kg. This validation does not include, as of April 2020, helicopter accidents, nor aircraft between 2250 kg and 5700 kg.</p> <p>-Validated ADREP data for year <n> available in March of year <n+1></p>
Definition of terms	<p>'Accident' is defined in ICAO Annex 13, Chapter 1-Definitions</p> <p>ADREP: Accident Data Report</p> <p>The 2020-2022 edition of the GASP defines high-risk categories of occurrences (HRCs) as being:</p> <p>a) controlled flight into terrain (CFIT);</p> <p>b) loss of control in-flight (LOC-I);</p> <p>c) midair collisions (MAC);</p> <p>d) runway excursions (RE); and</p> <p>e) runway incursions (RI)</p> <p>Occurrence Categories are defined by the Commercial Aviation Safety Team/ICAO Common Taxonomy Team (CICTT) taxonomy available at: https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx</p>
Calculation method	<p>Indicator for HRC 'CFIT' = $100 * N / D$, where:</p> <p>-N is the number of accidents involving scheduled commercial operations for which:</p> <p>a) The date of occurrence in between 01 January and 31 December of the year in question; and</p> <p>b) A notification and/or an ADREP report was forwarded to and received by ICAO; and</p> <p>c) The circumstances of the accidents match the definition of Annex 13 definition of 'Accident'; and</p> <p>d) The aircraft involved in the accident is of maximum mass of over 5700 kg; and</p> <p>e) The Occurrence Category has been determined to be CFIT by the OVSG (formely SISG)</p> <p>-D is the value of GASP.SPI.1.1.01 for the year in question</p> <p>Repeat the same operation for LOC-I, MAC, RE and RI</p>
Data sets	Notifications and ADREP reports sent by States to ICAO under Annex 13 obligations
Availability (0-5)	5 Accident notification and ADREP reports are already available in the ICAO ADREP database. No further reporting by States is required.
Granularity	State (of Occurrence)/accident occurrence level
Provider	ICAO ADREP database iSTARS Application "ADREP et al."
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.2.1.01

GASP-I.2.1.01	Overall global EI score
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) for a State is: $EI (\%) = \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}} \times 100$</p>
Calculation method	<p>Indicator = $100 \times \frac{N}{D}$, where:</p> <p>-N is the number of satisfactory PQs -D is the number of applicable PQs</p>
Data sets	<p>USOAP CMA PQs and EIs Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5 EIs of every State are available on the USOAP CMA OLF and in iSTARS</p>
Granularity	<p>State/PQ level</p>
Provider	<p>USOAP CMA Online Framework (OLF) ICAO iSTARS Application "USOAP DataTables"</p>
Custodian	<p>ICAO</p>

GASP Indicator (GASP-I) Form
GASP-I.2.1.02

GASP-I.2.1.02	Overall EI score per State
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p> <p>This SPI is actually 193 SPIs: one for each of the 193 ICAO Member States.</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) for a State is: $EI (\%) = 100 * \frac{\text{Number of Satisfactory PQs}}{\text{Total Number of Applicable PQs}}$</p>
Calculation method	<p>Indicator for State <n>=$100 * \frac{N}{D}$, where:</p> <p>-N is the number of satisfactory PQs for State <n> -D is the number of applicable PQs for State<n></p>
Data sets	<p>USOAP CMA PQs and EIs</p> <p>Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5</p> <p>EIs of every State are available on USOAP CMA OLF and in iSTARS</p>
Granularity	State/PQ level
Provider	<p>USOAP CMA Online Framework (OLF)</p> <p>ICAO iSTARS Application "USOAP DataTables"</p>
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.2.1.03

GASP-I.2.1.03	Overall regional EI score
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) for a State is: $EI (\%) = 100 * \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}}$</p>
Calculation method	<p>This SPI is actually 5 SPIs: one for each of the RASGs (EASPG-REST (RASG-EUR), RASG-AFI, RASG-APAC, RASG-MID and RASG-PA)</p> <p>Indicator for RASG <n>=$100 * \frac{N}{D}$, where:</p> <ul style="list-style-type: none"> -N is the number of satisfactory PQs for States in RASG <n> -D is the number of applicable PQs for States in RASG <n>
Data sets	<p>USOAP CMA PQs and EIs Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5 EIs of every State are available on USOAP CMA OLF and in iSTARS</p>
Granularity	<p>State/PQ level</p>
Provider	<p>USOAP CMA Online Framework (OLF) ICAO iSTARS Application "USOAP DataTables"</p>
Custodian	<p>ICAO</p>

GASP Indicator (GASP-I) Form
GASP-I.2.1.04

GASP-I.2.1.04	Number of States that met the EI score as per the timelines
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) for a State is: $EI (\%) = \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}} \times 100$</p>
Calculation method	<p>Number of States that have an overall EI equal or above the threshold (75% by 2022; 85% by 2026; 95% by 2030) as of 31 December of each year in the reference period (defined as 2022-.2025 for the 75% target, 2026-2029 for the 85% target and starting 2030 for the 95% target).</p>
Data sets	<p>USOAP CMA PQs and EIs Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5 EIs of every State are available on USOAP CMA OLF and in iSTARS</p>
Granularity	<p>State/PQ level</p>
Provider	<p>USOAP CMA Online Framework (OLF)</p>
Custodian	<p>ICAO</p>

GASP Indicator (GASP-I) Form
GASP-I.2.1.05

GASP-I.2.1.05	Number of States that have fully implemented the priority PQs related to a safety oversight system
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) for a State is: $EI (\%) = \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}} \times 100$</p> <p>.</p> <p>Priority PQs: Set of PQs which are fundamental for a State safety oversight system. These PQs are highlighted in the ICAO OLF System and are available in the 2020 edition of the USOAP CMA PQs.</p>
Calculation method	Count the number of States whose EI for priority PQs is 100%
Data sets	<p>USOAP CMA PQs and EIs</p> <p>Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5</p> <p>EIs of every State are available on USOAP CMA OLF and in iSTARS</p>
Granularity	State/PQ level
Provider	<p>USOAP CMA Online Framework (OLF)</p> <p>ICAO iSTARS Application "USOAP DataTables"</p>
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.2.1.06

GASP-I.2.1.06	Percentage of priority PQs implemented by a State
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Priority PQs: Set of PQs which are fundamental for a State safety oversight system. These PQs are highlighted in the ICAO OLF System and are available in the 2020 edition of the USOAP CMA PQs.</p> <p>Overall Effective Implementation (EI) for a State is: $EI (\%) = 100 * \frac{\text{Number of Satisfactory PQs}}{\text{Total Number of Applicable PQs}}$</p>
Calculation method	<p>Indicator = $100 * \frac{N}{D}$, where:</p> <p>-N is the number of satisfactory priority PQs of all States -D is the number of applicable priority PQs multiplied by the number of States ($D=212*193=40916$)</p>
Data sets	<p>USOAP CMA PQs and EIs</p> <p>Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5 EIs of every State are available on USOAP CMA OLF.</p>
Granularity	<p>State/Priority PQ level</p>
Provider	<p>USOAP CMA Online Framework (OLF)</p>
Custodian	<p>ICAO</p>

GASP Indicator (GASP-I) Form
GASP-I.2.1.07

GASP-I.2.1.07	Percentage of each priority PQs implemented globally
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>ICAO may not have enough resources to update the EI of each State on a yearly basis or in particular in the years 2022, 2026 and 2030. This will result in an inaccurate result.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Priority PQs: Set of PQs which are fundamental for a State safety oversight system. These PQs are highlighted in the ICAO OLF System and are available in the 2020 edition of the USOAP CMA PQs.</p> <p>Overall Effective Implementation (EI) is: $EI (\%) = \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}} \times 100$</p> <p>This SPI is actually one SPI for each priority PQ</p>
Calculation method	<p>For priority PQ<n>, Indicator = $100 \times \frac{N}{D}$, where:</p> <p>-N is the number of States where priority PQ<n> is satisfactory -D is the number of States where priority PQ<n> is applicable</p>
Data sets	<p>USOAP CMA PQs and EIs Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap.</p>
Availability (0-5)	<p>5 Individual PQ result of every State is available on USOAP CMA OLF.</p>
Granularity	<p>State/PQ level</p>
Provider	<p>USOAP CMA Online Framework (OLF)</p>
Custodian	<p>ICAO</p>

**GASP Indicator (GASP-I) Form
GASP-I.2.1.08**

GASP-I.2.1.08	Number of States timely updating the filing of differences
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>The link between the indicator and the target is not clear.</p> <p>No distinction is made depending on the type of difference notified, if any.</p> <p>The indicator does not take account of possible regional organizations built on a common set of regulations with specific coordination procedures applicable to the notification of differences.</p>
Definition of terms	<p>In accordance with Article 38, a Contracting State must notify ICAO at all times (or at any time) if it does not comply with a Standard in all respects; does not bring its regulations or practices into full accord with any Standard; or adopts regulations or practices differing in any particular respect from the Standard.</p> <p>See Manual on Notification and Publication of Differences (ICAO Doc 10055).</p> <p>Timeliness can be defined as filing of the difference before the applicability date of a new or amended SARP.</p>
Calculation method	<p>Number of States with no SARPS marked as "No Information Provided" or "Insufficient Information Provided" in CC/EFOD for all Annexes to the Convention on International Civil Aviation (except Annex 17).</p>
Data sets	<p>USOAP CMA OLF/EFOD module</p>
Availability (0-5)	<p>5</p>
Granularity	<p>National and per ICAO Annexes</p>
Provider	<p>USOAP CMA Online Framework (OLF)</p>
Custodian	<p>ICAO</p>

GASP Indicator (GASP-I) Form
GASP-I.2.1.09

GASP-I.2.1.09	Percentage of required corrective action plans (CAPs) submitted by States
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>This indicator measures the fulfillment of CAP by States on OLF, but ICAO may not necessarily have validated the CAP.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) is: $EI (\%) = \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}} \times 100$</p> <p>Corrective action plan (CAP): A plan of action to eliminate the cause of a deficiency or finding. When ICAO issues a finding, i.e. when the status of a PQ changes to not satisfactory as a result of a USOAP CMA activity, in response the State must develop a corrective action plan (CAP). The State shall develop an acceptable CAP and submit it to ICAO through the USOAP CMA online framework (OLF).</p>
Calculation method	<p>Indicator = $100 \times \frac{N}{D}$, where:</p> <p>-N is number of CAPs submitted by States on the OLF. -D is the number of Non-Satisfactory PQs of all States</p>
Data sets	<p>USOAP CMA PQs and EIs</p> <p>Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap.</p>
Availability (0-5)	<p>5 CAPs of every State are available on USOAP CMA OLF.</p>
Granularity	<p>State/CAP level</p>
Provider	<p>USOAP CMA Online Framework (OLF)</p>
Custodian	<p>ICAO</p>

**GASP Indicator (GASP-I) Form
GASP-I.2.1.10**

GASP-I.2.1.10	Percentage of completed CAPs per State
Rationale	<p>Related to GASP Target 2.1: States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows:</p> <p>by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent</p>
Limitations	<p>USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements (CEs) of a safety oversight system, which enable the State to ensure the implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.</p> <p>This indicator measures the fulfillment of States in completing CAPs on the USOAP CMA OLF, but the CAP may not necessarily been validated by ICAO as Acceptable or Not.</p> <p>Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.</p> <p>Migration from 2017 to the 2020 PQ edition, will affect the Effective Implementation (EI) values for all the USOAP activities of States and Regional Organisations, as indicated on the USOAP CMA online framework.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out USOAP CMA activities in line with ICAO Doc 9735 to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) is: $EI (\%) = \frac{\text{Number of Satisfactory PQs}}{\text{Total Number of Applicable PQs}} \times 100$</p> <p>Corrective action plan (CAP): A plan of action to eliminate the cause of a deficiency or finding. When ICAO issues a finding, i.e. when the status of a PQ changes to not satisfactory as a result of a USOAP CMA activity, in response the State must develop a corrective action plan (CAP). The State shall develop an acceptable CAP and submit it to ICAO through the USOAP CMA online framework (OLF).</p>
Calculation method	<p>Indicator for State<n>=$100 \times N/D$, where:</p> <p>-N is number of CAP submitted and reported as "completed" by State<n> on the OLF. -D is the number of Non-Satisfactory PQs of State<n></p>
Data sets	<p>USOAP CMA PQs and Eis</p> <p>Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap</p>
Availability (0-5)	<p>5</p> <p>CAPs of every State with indication of their status are available on USOAP CMA OLF.</p>
Granularity	<p>State/PQ level</p>
Provider	<p>USOAP CMA Online Framework (OLF)</p>
Custodian	<p>ICAO</p>

**GASP Indicator (GASP-I) Form
GASP-I.2.2.01**

GASP-I.2.2.01	Number of States maintaining a safety oversight index greater than 1 in all categories
Rationale	Related to GASP Target 2.2: By 2022, all States to reach a safety oversight index greater than 1, in all categories
Limitations	Concerns were raised about the validity of the Safety Oversight Index (SOI) in terms of concept and with regards to possible misinterpretation, in particular when the traffic level of a State is low, making the SOI value abnormally high. An SOI greater than 1 may also lead decision-makers to calling for lower investment in the SSP.
Definition of terms	<p>The safety oversight index is a mathematical function comparing a State's EI score and traffic volume to a safety oversight target EI score which is computed using a global log-linear regression. The safety oversight index will tend to decrease over time if traffic increases and the EI score remains unchanged.</p> <p>The safety oversight index is broken down into three functional categories, as follows: a) operations (SOI_OPS) – this category groups EI scores for PEL, OPS and AIR audit areas; b) air navigation (SOI_ANS) – this category groups EI scores for AGA and ANS audit areas; and c) support functions (SOI_SUPP) – this category groups EI scores for LEG, ORG and AIG audit areas.</p> <p>SOI-OPS is calculated taking into consideration only flights performed by carriers from the State, whereas the other SOIs are calculated using all departures from the State.</p>
Calculation method	<p>Details on the mathematical model used for the SOI, as well as the rationale behind the model, are available via the iSTARS at www.icao.int/safety/iStars.</p> <p>Count States for which: -SOI_OPS is greater than 1, AND -SOI_ANS is greater than 1, AND -SOI_SUPP is greater than 1</p>
Data sets	USOAP CMA EIs Traffic data
Availability (0-5)	5 The Safety Oversight Index application is available on iSTARS
Granularity	State
Provider	Safety oversight index application on iSTARS
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.2.2.02**

GASP-I.2.2.02	Percentage of States maintaining a safety oversight index greater than 1 in all categories
Rationale	Related to GASP Target 2.2: By 2022, all States to reach a safety oversight index greater than 1, in all categories
Limitations	Some concerns were raised about the validity of the Safety Oversight Index (SOI), in particular when the traffic level of a State is low, making the SOI value abnormally high.
Definition of terms	<p>The safety oversight index is a mathematical function comparing a State's EI score and traffic volume to a safety oversight target EI score which is computed using a global log-linear regression. The safety oversight index will tend to decrease over time if traffic increases and the EI score remains unchanged. Details on the mathematical model used, as well as the rationales behind the model, are available via the iSTARS at www.icao.int/safety/iStars.</p> <p>The safety oversight index is broken down into three functional categories, as follows: a) operations (SOI_OPS) – this category groups EI scores for PEL, OPS and AIR audit areas; b) air navigation (SOI_ANS) – this category groups EI scores for AGA and ANS audit areas; and c) support functions (SOI_SUPP) – this category groups EI scores for LEG, ORG and AIG audit areas.</p> <p>SOI-OPS is calculated taking into consideration only flights performed by carriers from the State, whereas the other SOIs are calculated using all departures from the State.</p>
Calculation method	Indicator = 100*(Value for GASP.SPI.2.2.01) / 193
Data sets	USOAP CMA EIs Traffic data
Availability (0-5)	5 The Safety Oversight Index application is available on iSTARS
Granularity	National
Provider	Safety oversight index application on iSTARS
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.2.2.03

GASP-I.2.2.03	Percentage of each category with a safety oversight index greater than 1 globally
Rationale	Related to GASP Target 2.2: By 2022, all States to reach a safety oversight index greater than 1, in all categories
Limitations	Concerns were raised about the validity of the Safety Oversight Index (SOI) in terms of concept and with regards to possible misinterpretation, in particular when the traffic level of a State is low, making the SOI value abnormally high. An SOI greater than 1 may also lead decision-makers to calling for lower investment in the SSP.
Definition of terms	<p>The safety oversight index is a mathematical function comparing a State's EI score and traffic volume to a safety oversight target EI score which is computed using a global log-linear regression. The safety oversight index will tend to decrease over time if traffic increases and the EI score remains unchanged. Details on the mathematical model used, as well as the rationales behind the model, are available via the iSTARS at www.icao.int/safety/iStars.</p> <p>The safety oversight index is broken down into three functional categories, as follows: a) operations (SOI_OPS) – this category groups EI scores for PEL, OPS and AIR audit areas; b) air navigation (SOI_ANS) – this category groups EI scores for AGA and ANS audit areas; and c) support functions (SOI_SUPP) – this category groups EI scores for LEG, ORG and AIG audit areas.</p> <p>SOI-OPS is calculated taking into consideration only flights performed by carriers from the State, whereas the other SOIs are calculated using all departures from the State.</p>
Calculation method	<p>This SPI is actually 3 SPIs: one of each functional category (OPS, ANS and SUPP).</p> <p>Indicator OPS = $100 \cdot N / 193$, where N is the number of States for which SOI_OPS is greater than 1 Indicator ANS = $100 \cdot N / 193$, where N is the number of States for which SOI_ANS is greater than 1 Indicator SUPP = $100 \cdot N / 193$, where N is the number of States for which SOI_SUPP is greater than 1</p>
Data sets	USOAP CMA EIs Traffic data
Availability (0-5)	5 The Safety Oversight Index application is available on iSTARS
Granularity	State
Provider	Safety oversight index application on iSTARS
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.2.2.04**

GASP-I.2.2.04	Safety oversight index per State, per category
Rationale	Related to GASP Target 2.2: By 2022, all States to reach a safety oversight index greater than 1, in all categories
Limitations	Concerns were raised about the validity of the Safety Oversight Index (SOI) in terms of concept and with regards to possible misinterpretation, in particular when the traffic level of a State is low, making the SOI value abnormally high. An SOI greater than 1 may also lead decision-makers to calling for lower investment in the SSP.
Definition of terms	<p>The safety oversight index is a mathematical function comparing a State's EI score and traffic volume to a safety oversight target EI score which is computed using a global log-linear regression. The safety oversight index will tend to decrease over time if traffic increases and the EI score remains unchanged. Details on the mathematical model used, as well as the rationales behind the model, are available via the iSTARS at www.icao.int/safety/iStars.</p> <p>The safety oversight index is broken down into three functional categories, as follows: a) operations (SOI_OPS) – this category groups EI scores for PEL, OPS and AIR audit areas; b) air navigation (SOI_ANS) – this category groups EI scores for AGA and ANS audit areas; and c) support functions (SOI_SUPP) – this category groups EI scores for LEG, ORG and AIG audit areas.</p> <p>SOI-OPS is calculated taking into consideration only flights performed by carriers from the State, whereas the other SOIs are calculated using all departures from the State.</p>
Calculation method	<p>This SPI is actually 579 (=193*3) SPIs: one SPI for each of the 193 ICAO States and each SOI functional category (OPS, ANS and SUPP).</p> <p>Obtain SOI_OPS, SOI_ANS and SOI_SUPP of each State using the Safety Oversight Index application available on iSTARS</p>
Data sets	USOAP CMA EIs Traffic data
Availability (0-5)	5 The Safety Oversight Index application is available on iSTARS
Granularity	State
Provider	Safety oversight index application on iSTARS
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.3.1.01**

GASP-I.3.1.01	Number of States having implemented the foundation of an SSP
Rationale	Related to GASP Target 3.1: By 2022, all States to implement the foundation of an SSP Indicator will be used to motivate States to make necessary action to reach the GASP goal and targets.
Limitations	Indicator is based on the results of previous USOAP CMA activity that might be outdated and do not reflect the current situation with regards to SSP implementation. Also it is dependent on self-reporting by States via the online framework (OLF) of the completion of relevant corrective actions plans for protocol questions that were found unsatisfactory at the time of activity, i.e. even if the State has implemented the foundation but has not reflected it on the OLF then the indicator will be negative.
Definition of terms	<p>See GASP (ICAO Doc 10004) para 4.2.4</p> <p>The term “foundation of an SSP” refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP.</p> <p>The full list of SSP foundational PQs can be found using the SSP Foundation tool available via the ICAO integrated Safety Trend Analysis and Reporting System (iSTARS) at www.icao.int/safety/iStars</p> <p>“SSP foundation indicator” is defined in iStars as the percentage of PQs which are either validated by USOAP or submitted as completed through the corrective action plans (CAP) on the USOAP CMA Online Framework.</p>
Calculation method	Total number of States counted to have reached 100% aggregated SSP foundation indicator (see SSP foundation tool in iStars)
Data sets	<p>List of SSP foundation PQs that were addressed as Satisfactory during the previous USOAP activity</p> <p>List of corrective actions plans marked as 100% completed by States in the OLF for SSP foundation PQs that were not satisfactory as of previous USOAP CMA activity</p>
Availability (0-5)	<p>5</p> <p>Individual PQ status</p> <p>Aggregated percentage of CAP completion as reported by State</p>
Granularity	State/USOAP PQ level
Provider	USOAP CMA Online Framework (OLF)
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.3.1.02

GASP-I.3.1.02	Percentage of each subject area implemented globally
Rationale	Related to GASP Target 3.1: By 2022, all States to implement the foundation of an SSP Indicator will be used to motivate States to make necessary action to reach the GASP goal and targets. Separation by area will give the States understanding where to prioritize its implementation activities.
Limitations	Indicator is based on the results of previous USOAP CMA activity that might be outdated and do not reflect the current reality. Also it is dependent on self-reporting by States via the online framework (OLF) of the completion of relevant corrective actions plans for protocol questions that were found unsatisfactory at the time of the activity, i.e. even if the State has implemented the foundation but has not reflected it on the OLF then the indicator will be negative. Some areas are quite difficult to implement, hence reaching 100% in those areas could be a challenging task.
Definition of terms	<p>The term "foundation of an SSP" refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP (299).</p> <p>The sub-set of PQs are grouped by 17 subjects based on the Annex 19 amendment 1 and the 4th edition of the Safety Management Manual. They are as follows:</p> <ol style="list-style-type: none"> 1. Primary aviation legislation 2. Specific operating regulations 3. State Authorities 4. Exemptions 5. Enforcement 6. State Organizational Structure 7. State functions 8. Delegation 9. Resources 10. Qualified technical personnel 11. Technical guidance, tools and provision of safety-critical information 12. Licensing, certification, authorization and approval obligations 13. Management of safety risks 14. Surveillance obligations 15. Hazard identification and safety risk assessment 16. Accident and incident investigation 17. State safety promotion <p>The full list of SSP foundational PQs aggregated by subject area can be found using the SSP Foundation tool available via the ICAO integrated Safety Trend Analysis and Reporting System (iSTARS) at www.icao.int/safety/iStars</p>
Calculation method	For each subject area percentage is calculated for the linked PQs that are either satisfactory as indicated in OLF or that have CAPs completed for Not Satisfactory (NS) PQs
Data sets	<ul style="list-style-type: none"> -List of SSP foundation PQs that were addressed as Satisfactory during the previous USOAP activity -Matrix linking SSP foundation PQs and subject areas -List of corrective actions plans marked as 100% completed by States in the OLF for SSP foundation PQs that were not satisfactory as of previous USOAP activity
Availability (0-5)	5 Already available in OLF and in iSTARS
Granularity	State/USOAP PQ level Aggregated percentage of CAP completion as reported by State
Provider	USOAP CMA Online Framework (OLF) iSTARS Application "SSP Foundation"
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.3.1.03**

GASP-I.3.1.03	Percentage of satisfactory SSP foundational PQs
Rationale	Related to GASP Target 3.1: By 2022, all States to implement the foundation of an SSP
Limitations	Depending on the time elapsed since the last USOAP audit and the update of the EI for a given State the indicator may not reflect the actual safety oversight capabilities in that State.
Definition of terms	See ICAO Doc 10004 para 4.2.4 The term "foundation of an SSP" refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP. There are, as of April 2020, 299 SSP foundation PQs. Satisfactory is the status of PQ as assessed by the recent ICAO USOAP CMA activity.
Calculation method	Indicator = $100 \times \frac{N}{D}$, where: -N is the number of satisfactory SSP foundation PQs of all States -D is the total number of SSP foundation PQs for all States (299 * 193 States)
Data sets	USOAP CMA activity results and list of SSP foundation PQs
Availability (0-5)	5 Already available in OLF and in iSTARS
Granularity	State/USOAP PQ level
Provider	USOAP CMA Online Framework (OLF) iSTARS Application "SSP Foundation"
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.3.1.04

GASP-I.3.1.04	Percentage of required CAPs related to the SSP foundational PQs submitted by States
Rationale	Related to GASP Target 3.1: By 2022, all States to implement the foundation of an SSP
Limitations	Indicator is based on self-reporting by States via the online framework (OLF) and submission of relevant corrective action plans for protocol questions that were found unsatisfactory at the time of activity. I.e. even if the State has implemented the foundation but has not reflected it on the OLF then the indicator will be negative. Finally the indicator talks about submission of CAPs and not implementation of CAPs hence it is not clear how monitoring of this indicator will contribute to the achievement of the GASP goal.
Definition of terms	See ICAO Doc 10004 para 4.2.4 The term “foundation of an SSP” refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP. Corrective Action Plan – the plan that should be prepared by State to address the specific non-satisfactory PQ, the plan can consist of separate steps Submitted CAP – is the CAP prepared by the State, uploaded into OLF system and actually “submitted” to ICAO by clicking on the submit button.
Calculation method	Indicator = $100 * N / D$, where: -N is the overall number of SSP foundation PQs (initially) identified as non-satisfactory with CAP submitted by States -D is total number of non-satisfactory SSP foundation PQs for all States (299 * 193 States)
Data sets	USOAP CMA activity results and list of SSP foundation PQs List of CAPs developed for NS PQs and submitted to ICAO
Availability (0-5)	5 Already available in OLF and in iSTARS
Granularity	State/USOAP PQ level
Provider	USOAP CMA Online Framework (OLF) iSTARS Application "SSP Foundation"
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.3.1.05

GASP-I.3.1.05	Percentage of required CAPs related to the SSP foundational PQs completed per State
Rationale	Related to GASP Target 3.1: By 2022, all States to implement the foundation of an SSP
Limitations	Indicator is based on self-reporting by States via the online framework (OLF) for completion of relevant corrective actions plans for protocol questions that were found unsatisfactory at the time of activity, i.e. even if the State has implemented the foundation but has not reflected it on the OLF then the indicator will be negative. Since it is self-reporting the data is not validated by ICAO and may not reflect the actual status of PQ implementation in the State.
Definition of terms	See ICAO Doc 10004 para 4.2.4 The term "foundation of an SSP" refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP. Corrective Action Plan – the plan that should be prepared by State to address the specific non-satisfactory PQ, the plan can consist of separate steps. Submitted CAP – is the CAP prepared by State, uploaded onto OLF system and actually "submitted" to ICAO by clicking on submit button. Completed CAP – is the status of the submitted CAP as indicated by the State on the OLF following its actual completion, all steps in the CAP should be reported by State as 100% completed.
Calculation method	Indicator for State<n> = $100 * N / D$, where: -N is the overall number of SSP foundation PQs identified as non-satisfactory with CAP submitted and reported to be 100% completed by State<n> -D is total number of non-satisfactory SSP foundation PQs for State<n>
Data sets	USOAP CMA activity results and list of SSP foundation PQs List of CAPs developed for NS PQs and submitted to ICAO
Availability (0-5)	5 Already available in OLF and in iSTARS
Granularity	State/USOAP PQ level
Provider	USOAP CMA Online Framework (OLF) iSTARS Application "SSP Foundation"
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.3.2.01**

GASP-I.3.2.01	Number of States having implemented an effective SSP
Rationale	Related to GASP Target 3.2: By 2025, all States to implement an effective SSP, as appropriate to their aviation system complexity
Limitations	<p>-USOAP SSPIA focus on a State's capability in implementing and maintaining an effective SSP by assessing the SSP PQ. ICAO may not have enough resources to update the SSP assessment of each State on a yearly basis and may not have assessed all States by 2025. - This may result in an inaccurate result.</p> <p>Update frequency of USOAP SSPIA does not necessarily provide the actual State's SSP maturity status.</p> <p>-SSPIAs provide implementation levels per PQ, but not an aggregated score for all domains for a State.</p> <p>-States may self-assess whether they have implemented an effective SSP. Pending the availability of 'normalized' data/numerical definition of 'effective SSP', the measurement for this indicator is not possible and as a proxy it is proposed to consider self-reporting by States to their RASGs</p>
Definition of terms	GASP, para.4.3.5.2: An "effective SSP" refers to an SSP that actually achieves the objectives that it is intended to achieve. Effectiveness of an SSP will be measured by the SSP-related PQs, which is included as part of the USOAP CMA activities to assess States' implementation of ICAO safety management provisions (SSPIA programme)
Calculation method	<p>Indicator=N1+N2+N3+N4+N5</p> <p>Where:</p> <p>N1 is the number of EUR States that have reported to EASPG-REST (RASG-EUR) that have implemented an effective SSP.</p> <p>N2 is the same for AFI States to RASG-AFI</p> <p>N3 is the same for APAC States to RASG-APAC</p> <p>N4 is the same for MID States to RASG-MID and</p> <p>N5 is the same for PA States to RASG-PA</p>
Data sets	RASGs meeting documentation (WPs, reports...)
Availability (0-5)	1 Further numerical definition of what makes an SSP effective is needed
Granularity	State
Provider	RASGs
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.3.2.02**

GASP-I.3.2.02	Level of maturity achieved in Annex 19 PQs, per State
Rationale	Related to GASP Target 3.2: By 2025, all States to implement an effective SSP, as appropriate to their aviation system complexity
Limitations	<p>Proper assessment requires field experienced auditors/experts for each area to ensure a meaningful determination of maturity.</p> <p>Maturity versus capability in the context of Annex 19 should be clearly defined and supported by examples.</p> <p>“The Maturity Level for SSPIA PQs ”4: present and effective for years and in continuous improvement” does not specify the exact number of years hence, could be subject to different interpretations.</p>
Definition of terms	<p>SSPIA: State Safety Programme Implementation Assessment</p> <p>Maturity levels for SSPIA PQs are:</p> <p>0: not present and not planned</p> <p>1: not present but being worked on</p> <p>2: present</p> <p>3: present and effective,</p> <p>4: present and effective for years and in continuous improvement</p>
Calculation method	N/A
Data sets	USOAP CMA SSPIA results on OLF
Availability (0-5)	<p>1</p> <p>SSPIA results are not yet widely available, and not all States have undergone an SSPIA yet</p>
Granularity	State
Provider	USOAP CMA SSPIA
Custodian	N/A

GASP Indicator (GASP-I) Form
GASP-I.3.2.03

GASP-I.3.2.03	Number of States that require applicable service providers under their authority to implement an SMS
Rationale	Related to GASP Target 3.2: By 2025, all States to implement an effective SSP, as appropriate to their aviation system complexity Under Annex 19, para. 3.3.2.1, States shall require service providers under their authority implement an SMS.
Limitations	SSPIA PQs include questions on the regulatory requirements that have been promulgated by States for service providers to implement an SMS acceptable to the State. The indicator does not take account of possible regional organisations built on a common set of regulations with specific coordination procedures applicable to the notification of differences.
Definition of terms	Service providers required to implement an SMS in accordance with Annex 19 are: a) approved training organizations in accordance with Annex 1 that are exposed to safety risks related to aircraft operations during the provision of their services; b) operators of aeroplanes or helicopters authorized to conduct international commercial air transport, in accordance with Annex 6, Part I or Part III, Section II, respectively; c) approved maintenance organizations providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with Annex 6, Part I or Part III, Section II, respectively; d) organizations responsible for the type design or manufacture of aircraft, engines or propellers in accordance with Annex 8; e) air traffic services (ATS) providers in accordance with Annex 11; and f) operators of certified aerodromes in accordance with Annex 14, Volume I. SSPIA: State Safety Programme Implementation Assessment SSPIA PQs regarding regulatory requirements on SMS are PQs number: SSP.OPS.01, SSP.AIR.01, SSP.PEL.01, SSP.ANS.01 and SSP.AGA.01.
Calculation method	1) Number of States that have filed in the CC/EFOD for standard 3.3.2.1 of Annex 19: -No difference; OR -A difference more exacting or that exceeds the SARF (Category A); OR -A difference different in character or other means of compliance (Category B) --OR-- 2) Number of States that have made their RASGs aware of their regulatory requirements for the implementation of SMS by applicable service providers under their authority.
Data sets	USOAP CMA Online Framework (OLF) - CC/EFOD module RASGs meeting documentation (Reports, WPs and IPs)
Availability (0-5)	3 -Information on regulatory requirements on the implementation of SMS from all States should be systematically included in RASGs meeting agenda if calculation method #2 is chosen. -SSPIA results are not yet widely available, and not all States have undergone an SSPIA yet
Granularity	State
Provider	RASGs
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.3.2.04**

GASP-I.3.2.04	Number of States that have implemented a national aviation safety plan
Rationale	<p>Related to GASP Target 3.2: By 2025, all States to implement an effective SSP, as appropriate to their aviation system complexity</p> <p>Assembly Resolution A39-12 on ICAO global planning for safety and air navigation resolves that States should develop and implement national aviation safety plans, in line with the goals of the GASP.</p> <p>In line with the 2020-2022 edition of the GASP, each State should develop a national aviation safety plan. Each plan should be developed in line with the GASP goals, targets and high-risk categories (HRCs) of occurrences. The NASP is the means to demonstrate commitment to the implementation of activities for improvement of safety in the State.</p>
Limitations	<p>Information on NASP is sent by States to ICAO on voluntary basis. RASGs therefore need to be the primary source of information, however no database or programme to capture the information is available at RASG level.</p>
Definition of terms	<p>NASP: National Aviation Safety Plan. The national aviation safety plan presents the strategic direction for the management of aviation safety at the national level, for a set time period (e.g. over the next five years). It outlines to all stakeholders where the CAA and other entities involved in the management of aviation safety should target resources over the coming years. The national aviation safety plan should be developed in alignment with the GASP and the regional aviation safety plan. However, priority should be given to national safety concerns, including addressing SSCs. National SEIs should be based on the State's self-assessment.</p>
Calculation method	<p>Number of States that, during the year in question, have made their RASGs aware of the availability of their NASPs and/or have made their NASP publicly available.</p>
Data sets	<p>RASGs meeting documentation (Reports, WPs and IPs)</p>
Availability (0-5)	<p>4 Information on NASPs from States should be systematically included in RASGs meeting agenda.</p>
Granularity	<p>State</p>
Provider	<p>RASGs</p>
Custodian	<p>ICAO</p>

GASP Indicator (GASP-I) Form
GASP-I.4.1.01

GASP-I.4.1.01	Number of States requiring assistance/support
Rationale	<p>Related to GASP Target 4.1: By 2020, States that do not expect to meet GASP Goals 2 and 3, to use a regional safety oversight mechanism, another State or other safety oversight organization's ICAO- recognized functions in seeking assistance to strengthen their safety oversight capabilities</p> <p>This indicator is a proxy based on the number of States that do not meet GASP goals 2 and 3.</p>
Limitations	<p>The relevance of EI score and their accuracy on measuring States' safety oversight capacity is dependent on the timeliness of ICAO USOAP CMA Activities.</p> <p>Concerns were raised about the validity of the Safety Oversight Index (SOI) in terms of concept and with regards to possible misinterpretation, in particular when the traffic level of a State is low, making the SOI value abnormally high. An SOI greater than 1 may also lead decision-makers to calling for lower investment in the SSP.</p> <p>A State with an EI<75% or SOI<1 or not having implemented all SSP foundation PQs is not necessarily in a position requiring assistance.</p>
Definition of terms	<p>USOAP CMA: Universal Safety Oversight Audit Programme Continuous Monitoring Approach ICAO carries out audits and other monitoring activities to determine the safety oversight capabilities of its Member States by assessing their effective implementation of the 8 CEs in 8 audit areas (i.e. LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) through Protocol Questions (PQs).</p> <p>Overall Effective Implementation (EI) is: $EI (\%) = \frac{\text{"Number of Satisfactory PQs"}}{\text{"Total Number of Applicable PQs"}} \times 100$</p> <p>Results for all audited States are recorded in the USOAP CMA Online Framework (OLF) website using the following link: www.icao.int/usoap.</p> <p>Safety Oversight Index (SOI) in Operations, Air Navigation and Support are described in GASP, para.4.2.5 and are available for every State in iSTARS.</p> <p>Not meeting GASP Goals 2 and 3 is defined for this indicator as a State with an overall EI<75%, or with a SOI<1 or without the foundation of an SSP.</p>
Calculation method	<p>Count the number of States for which:</p> <ul style="list-style-type: none"> -the overall EI < 75%, OR -SOI Operations<1, OR -SOI Air Navigation<1, OR -SOI Support <1, OR -Overall SSP Foundation EI <100%
Data sets	<p>USOAP CMA results</p> <p>Safety Oversight Index database</p>
Availability (0-5)	5
Granularity	State
Provider	<p>USOAP CMA OLF</p> <p>iSTARS Application "USOAP DataTables"</p> <p>iSTARS Application "Safety Oversight Index"</p> <p>iSTARS Application "SSP Foundation"</p>
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.4.1.02**

GASP-I.4.1.02	Number of States actively seeking assistance
Rationale	<p>Related to GASP Target 4.1: By 2020, States that do not expect to meet GASP Goals 2 and 3, to use a regional safety oversight mechanism, another State or other safety oversight organization's ICAO- recognized functions in seeking assistance to strengthen their safety oversight capabilities</p> <p>This indicator provides information on the level of assistance requests States make to ICAO, RSOOs, RAIOS or to other States.</p>
Limitations	<p>The term "assistance" may be interpreted differently by various RSOOs, RAIOS or States. The source of this indicator is the information shared during PIRGs and RASGs meetings. PIRG/RASG meeting agenda may not include systematically updates on assistance requested by States.</p> <p>Regional organizations/RSOOs may have implemented specific regulatory provisions that lay down specific conditions for seeking/ providing assistance. The existence of such provisions may bias this indicator.</p>
Definition of terms	<p>RSOO: Regional Safety Oversight Organization RAIO: Regional Accident Investigation Organization</p>
Calculation method	<p>Indicator=N1 + N2 + N3 + N4 + N5 N1: number of EUR States that have reported to EASPG-RESG (RASG-EUR) that they are seeking assistance to strengthen their safety oversight capabilities N2 is the same for AFI States to RASG-AFI N3 is the same for APAC States to RASG-APAC N4 is the same for MID States to RASG-MID and N5 is the same for PA States to RASG-PA</p>
Data sets	RASGs meeting documentation / AFCAC database on implementation of AFI safety targets (under development).
Availability (0-5)	3
Granularity	State
Provider	RASGs
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.4.1.03

GASP-I.4.1.03	Number of States that received assistance
Rationale	<p>Related to GASP Target 4.1: By 2020, States that do not expect to meet GASP Goals 2 and 3, to use a regional safety oversight mechanism, another State or other safety oversight organization's ICAO- recognized functions in seeking assistance to strengthen their safety oversight capabilities</p> <p>This indicator provides information on the level of assistance States receive from ICAO, RSOOs and RAIOS and other States.</p>
Limitations	<p>The term "assistance" may be interpreted differently by various RSOOs, RAIOS or States. The source of this indicator is the information shared during PIRGs and RASGs meetings. PIRG/RASG meeting agenda may not include systematically updates on assistance requested by States.</p> <p>Regional organizations/RSOOs may have implemented specific regulatory provisions that lay down specific conditions for seeking/ providing assistance. The existence of such provisions may bias this indicator</p>
Definition of terms	<p>RSOO: Regional Safety Oversight Organization RAIO: Regional Accident Investigation Organization</p>
Calculation method	<p>Indicator=N1 + N2 + N3 + N4 + N5, where: N1: number of EUR States that have reported to EASPG-RESG (RASG-EUR) that they have received assistance to strengthen their safety oversight capabilities during the year in question N2 is the same for AFI States to RASG-AFI N3 is the same for APAC States to RASG-APAC N4 is the same for MID States to RASG-MID and N5 is the same for PA States to RASG-PA</p>
Data sets	<p>RASGs meeting documentation / AFCAC database on implementation of AFI safety targets (under development).</p>
Availability (0-5)	3
Granularity	State
Provider	RASGs
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.4.1.04**

GASP-I.4.1.04	Number of States offering assistance
Rationale	<p>Related to GASP Target 4.1: By 2020, States that do not expect to meet GASP Goals 2 and 3, to use a regional safety oversight mechanism, another State or other safety oversight organization's ICAO- recognized functions in seeking assistance to strengthen their safety oversight capabilities</p> <p>This indicator provides information on the level of assistance States offer to other States.</p>
Limitations	<p>The term "assistance" may be interpreted differently by various RSOOs, RAIOS or States. The source of this indicator is the information shared during PIRGs and RASGs meetings. PIRG/RASG meeting agenda may not include systematically updates on assistance offered by States.</p> <p>Regional organizations/RSOOs may have implemented specific regulatory provisions that lay down specific conditions for seeking/ providing assistance. The existence of such provisions may bias this indicator.</p> <p>The capacity for States to provide assistance is significantly affected by the economic impact of the current COVID-19 pandemic situation and the time needed for a full recovery remains unclear.</p>
Definition of terms	<p>RSOO: Regional Safety Oversight Organization RAIO: Regional Accident Investigation Organization</p>
Calculation method	<p>Indicator=N1 + N2 + N3 + N4 + N5, where:</p> <p>N1: number of EUR States that have reported to EASPG-RESG (RASG-EUR) that they have offered assistance to strengthen other State's safety oversight capabilities during the year in question</p> <p>N2 is the same for AFI States to RASG-AFI</p> <p>N3 is the same for APAC States to RASG-APAC</p> <p>N4 is the same for MID States to RASG-MID and</p> <p>N5 is the same for PA States to RASG-PA</p>
Data sets	<p>RASGs meeting documentation / AFCAC database on implementation of AFI safety targets (under development).</p>
Availability (0-5)	3
Granularity	State
Provider	RASGs
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.4.2.01

GASP-I.4.2.01	Number of States contributing information on safety risks to RASGs
Rationale	Related to GASP Target 4.2: By 2022, all States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective RASGs The purpose of this indicator is to encourage States to share information on safety risks with RASGs. A growing trend indicates increasing collaboration within RASGs.
Limitations	An improvement in the quality of the safety risks information may be independent of the trend of this number. Safety risk information may be understood differently by different stakeholders. Safety risks may not be reflected in RASGs meeting reports. The definition of the database or programme to capture the information must be decided. Every State should make available safety risk portfolios, providing an overview of the main risks for the types of operations in their State. Within a regional organization/RSSO the safety risk portfolios may be established at regional level based on specific cooperation mechanisms with States and other stakeholders, thereby it would not be meaningful to solely measure this indicator at the level of individual States/the case of regional safety risk management should be acknowledged.
Definition of terms	Information on safety risks is information on any hazard that has the potential of causing harm to aviation safety. Hazard types include: natural/technical/economic/other. Safety risks can be identified through the sharing of information about accidents and incidents investigations. Risks can be linked to Occurrence Categories defined by the Commercial Aviation Safety Team/ICAO Common Taxonomy Team (CICTT) taxonomy available at: https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx
Calculation method	Count of States that have contributed information on safety risks during the year in question. Indicator=N1+N2+N3+N4+N5 N1 is the number of States that have contributed information on safety risks to EASPG-RESG (RASG-EUR) during the year in question N2 is the same for AFI States to RASG-AFI N3 is the same for APAC States to RASG-APAC N4 is the same for MID States to RASG-MID and N5 is the same for PA States to RASG-PA
Data sets	RASGs meeting documentation (Reports, WPs and IPs) ICAO risk register (under development)
Availability (0-5)	3
Granularity	State/Region (for RSOOs)
Provider	RASGs
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.4.2.02

GASP-I.4.2.02	Number of States that are sharing their SSP SPIs with RASGs
Rationale	Related to GASP Target 4.2: By 2022, all States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective RASGs The purpose of this indicator is to encourage States to share information on safety risks with RASGs. A growing trend indicates increasing collaboration within RASGs.
Limitations	An improvement in the quality of the safety risks information may be independent of the trend of this number. The definition of the database or programme to capture the data and the information must be decided. Each state can have its own specific indicators to monitor its specific issues. Sharing this information will not necessarily enable aggregated safety analyzes for the region.
Definition of terms	Safety Performance Indicator: A data-based parameter used for monitoring and assessing safety performance.
Calculation method	Indicator=N1+N2+N3+N4+N5 N1 is the number of EUR States that have shared their SSP SPIs with EASPG-RESG (RASG-EUR) during the year in question N2 is the same for AFI States to RASG-AFI N3 is the same for APAC States to RASG-APAC N4 is the same for MID States to RASG-MID and N5 is the same for PA States to RASG-PA
Data sets	RASG meeting documentation. (ICAO SECURE NASP portal ??)
Availability (0-5)	3
Granularity	State
Provider	RASGs
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.4.2.03**

GASP-I.4.2.03	Number of States forwarding information on safety matters to States, RASGs or other stakeholders
Rationale	Related to GASP Target 4.2: By 2022, all States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective RASGs The purpose of this indicator is to encourage States to share information on safety risks with RASGs. A growing trend indicates increasing collaboration within RASGs.
Limitations	The definition of the database or programme to capture the information must be decided. Within a regional organization/RSOO there may be an established process in place for collecting and processing such information at RSOO level, thereby it would not be entirely meaningful to solely measure this indicator at the level of individual States (this may de-facto exclude those States bound by the processes established for the RSOO).
Definition of terms	Safety matter is defined as the combination of: -safety reports received on the Emerging Issues and Additional Categories of Operational Safety Risks -Safety studies -Safety enhancement initiatives -Best practices for safety management -Emerging issues -Additional categories of safety risks (ref to GASP HRCs)
Calculation method	Indicator= $N1+N2+N3+N4+N5$, where: N1 is the number of EUR States having reported safety matters at EASPG-RESG (RASG-EUR) meeting for the year in question N2 is the same for AFI States to RASG-AFI N3 is the same for APAC States to RASG-APAC N4 is the same for MID States to RASG-MID and N5 is the same for PA States to RASG-PA
Data sets	RASG meeting documentation
Availability (0-5)	3
Granularity	State/RSOO
Provider	RASGs
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.4.3.01

GASP-I.4.3.01	Number of States with effective safety oversight capabilities and an effective SSP, leading RASGs' safety risk management activities
Rationale	<p>Related to GASP Target 4.3: By 2022, all States with effective safety oversight capabilities and an effective SSP, to actively lead RASGs' safety risk management activities</p> <p>The intent behind GASP Target 4.3 is to call upon "Champion States" in each region to lead the RASGs' safety risk management activities. As these States have effective safety oversight capabilities and an effective SSP, they are in the best position to contribute to regional safety management activities, including hazard identification.</p>
Limitations	<p>USOAP SSPIA focus on a State's capability in implementing and maintaining an effective SSP by assessing the SSP PQ. ICAO may not have enough resources to update the SSP assessment of each State on a yearly basis or in particular by 2025. This may result in an inaccurate result.</p> <p>Update of frequency of USOAP SSPIA does not necessarily provide the actual State's SSP maturity status.</p> <p>SSPIAs provide implementation levels per PQ, but not an aggregated score for all domains for a State.</p> <p>State may self-assess whether they have implemented an effective SSP. However, the calculation method is a limitation, because of a lack of numerical definition of "effective SSP".</p> <p>SSPIAP provide implementation levels per PQ, but not an aggregated score for all domains for a State.</p> <p>The calculation method is a limitation, because of a lack of numerical definition of "effective SSP".</p> <p>The situation of RSOOs is not considered: In the EASA system Advisory Bodies and CAGs are established and these support EU Safety Risk Management (SRM). The notion of 'leading' State is not used within EU SRM.</p> <p>This indicator does not have enough added value compared to the ones of GASP Targets 4.1 and 4.2.</p>
Definition of terms	<p>"States with effective safety oversight capabilities" is as defined having an overall EI>75% and an SOI>1 in all functional categories and having implemented all SSP foundation PQs.</p> <p>"Effective SSP" refers to a SSP that actually achieves the objectives that it is intended to achieve (self-assessment until State gets its SSPIA).</p>
Calculation method	<p>Indicator=N1+N2+N3+N4+N5</p> <p>Where:</p> <p>N1 is the number of EUR States with effective safety oversight capabilities and an effective SSP and that have reported to EASPG-RESG (RASG-EUR) that they are leading safety risk management activities during the year in question.</p> <p>N2 is the same for AFI States to RASG-AFI</p> <p>N3 is the same for APAC States to RASG-APAC</p> <p>N4 is the same for MID States to RASG-MID and</p> <p>N5 is the same for PA States to RASG-PA</p>
Data sets	<p>-USOAP CMA OLF for number of States with EI>75% and SSP foundation PQs</p> <p>-iSTARS: SSP foundation and SOI Apps</p> <p>-RASGs meeting documentation</p>
Availability (0-5)	1
Granularity	State
Provider	<p>RASGs</p> <p>USOAP CMA OLF</p>
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.4.3.02**

GASP-I.4.3.02	Number of RASGs that have a regional aviation safety plan
Rationale	Related to GASP Target 4.3: By 2022, all States with effective safety oversight capabilities and an effective SSP, to actively lead RASGs' safety risk management activities
Limitations	Unavailability of RASPs.
Definition of terms	RASP=Regional Aviation Safety Plan The role of the RASGs within the GASP includes developing and implementing a RASP consistent with the GASP and coordinating its implementation at the regional level (GASP, 2.5.3 b))
Calculation method	Number of RASGs that have a published regional aviation safety plan
Data sets	ICAO RO's websites
Availability (0-5)	5
Granularity	ICAO Regions/RASGs
Provider	RASGs
Custodian	ICAO

GASP Indicator (GASP-I) Form
GASP-I.5.1.01

GASP-I.5.1.01	Number of service providers in States using globally harmonized metrics for their SPIs
Rationale	Related to GASP Target 5.1: By 2020, all service providers to use globally harmonized SPIs as part of their safety management system (SMS) The use of these harmonized metrics facilitates safety risk management at the regional and international levels.
Limitations	Each service provider should have its own specific indicators to monitor its specific issues. Using globally harmonized metrics will not necessarily support service providers in safety management, as it may not enable them to monitor their specific risks and safety issues. This SPI relies on the availability of data provided by the various industry organizations.
Definition of terms	The term “globally harmonized SPIs” refers to the use of globally harmonized metrics for the development and monitoring of service providers’ SPIs.
Calculation method	Indicator= $100 * (N1 + N2 + N3 + N4) / N$, where: -N is the total number of service providers members of one of the following industry organizations -N1 is the number of ACI members that use harmonized metrics for their SPIs -N2 is the number of CANSO members that use harmonized metrics for their SPIs -N3 is the number of IATA members that use harmonized metrics for their SPIs -N4 is the number of EUROCONTROL members that use harmonized metrics for their SPIs These numbers would be reported by the industry, international organizations, to the various RASGs.
Data sets	ICAO-recognized industry programmes from IATA, ACI, CANSO, etc... RASG meeting documentation (WPs, report) Annual Safety Reports Additional data may come from States to complement the above
Availability (0-5)	2
Granularity	Service provider
Provider	Industry, International Organizations.
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.5.2.01**

GASP-I.5.2.01	Number of service providers in States participating in the corresponding ICAO-recognized industry assessment programmes
Rationale	Related to GASP Target 5.2: By 2022, increase the number of service providers participating in the corresponding ICAO-recognized industry assessment programmes Target 5.2 relates to the increase in the number of service providers participating in the corresponding ICAO-recognized industry assessment programmes. While such programmes do not replace the need for safety oversight by States, ICAO recognizes the benefits of these programmes, which have a positive effect on operational safety among service providers.
Limitations	The definition of the database or programme to capture the information must be decided.
Definition of terms	List of ICAO-recognized industry assessment programmes: -Airports Council International (ACI) Airport Excellence (APEX) in Safety programme -Civil Air Navigation Services Organisation (CANSO) maturity assessment within the Standard of Excellence in Safety Management Systems -Flight Safety Foundation (FSF) Basic Aviation Risk Standard (BARS) -International Air Transport Association (IATA) Operational Safety Audit (IOSA) -International Business Aviation Council (IBAC) International Standard for Business Aircraft Operations (IS-BAO)
Calculation method	Indicator= $(N1 + N2 + N3 + N4 + N5) / N$, where the following numbers are reported annually by the industry international organizations to the RASGs or to ICAO: -N is the number of service providers with membership in one of the ICAO-recognized industry assessment programmes -N1 is the number of ACI members, who use APEX -N2 is the number of CANSO members, who use CANSO SoE SMS -N3 is the number of FSF members, who use BARS -N4 is the number of IATA members, who use IOSA -N5 is the number of IBAC members, who use IS-BAO
Data sets	RASGs meeting documentation (Reports, WPs and IPs) Information from ACI, CANSO, FSF, IATA and IBAC on the participation of their members into their industry assessment programmes should be systematically included in RASGs meeting agenda
Availability (0-5)	3
Granularity	Service provider
Provider	Industry, International Organizations, RASGs
Custodian	ICAO

**GASP Indicator (GASP-I) Form
GASP-I.6.1.01**

GASP-I.6.1.01	Number of States having implemented the air navigation and airport core infrastructure elements
Rationale	Related to GASP Target 6.1: By 2022, all States to implement the air navigation and airport core infrastructure This is linked to the activities outlined in the GANP (refer to GASP Part I, Chapter 3, section 3.4).
Limitations	Unavailability of data on air navigation deficiencies (lack of PIRGs database).
Definition of terms	BBB (Basic Building Blocks) is a baseline defined by the basic services agreed by the States under the Convention on International Civil Aviation so that international civil aviation may be developed in a safe and orderly manner. The BBB framework describes the backbone of any robust air navigation system by defining the essential air navigation services to be provided for international civil aviation according to ICAO SARPs and Procedures for Air Navigation Services (PANS). Air Navigation Deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO SARPs, or Procedures for Air Navigation Services (PANS) and which has a negative impact on safety, regularity and/or efficiency of international civil aviation. The relationship between BBB and USOAP PQs is available at https://www4.icao.int/ganportal/bbbsusoapmapping
Calculation method	Number of States having: -no air navigation deficiency against the regional air navigation plans; AND -having implemented all USOAP CMA PQs linked to the basic building blocks (Note: check if this list of PQs is correctly based on the 2020 edition of the PQs).
Data sets	USOAP CMA OLF PIRGs database for air navigation deficiencies
Availability (0-5)	4
Granularity	State
Provider	PIRGs database for air navigation deficiencies (AANDD for ESAF/WACAF, GANDD for CAR/SAM Regions, APANPIRG AN deficiencies database for APAC Region, MANDD for MID Region) USOAP CMA Online Framework (OLF)
Custodian	ICAO