Safety Management Terminology

March 2022

This paper was prepared by the Safety Management International Collaboration Group (SM ICG). The purpose of the SM ICG is to promote a common understanding of Safety Management System (SMS) / State Safety Program (SSP) principles and requirements, facilitating their application across the international aviation community. In this document, the term "organization" refers to a product or service provider, operator, business, and company, as well as aviation industry organizations; and the term "authority" refers to the regulator authority, Civil Aviation Authority (CAA), National Aviation Authority (NAA), and any other relevant government agency or entity with oversight responsibility.

The current core membership of the SM ICG includes the Aviation Safety and Security Agency (AESA) of Spain, the National Civil Aviation Agency (ANAC) of Brazil, the Civil Aviation Authority of the Netherlands (CAA NL), the Civil Aviation Authority of New Zealand (CAA NZ), the Civil Aviation Authority of Singapore (CAAS), Civil Aviation Department of Hong Kong (CAD HK), the Civil Aviation Safety Authority (CASA) of Australia, the Direction Générale de l'Aviation Civile (DGAC) in France, the Ente Nazionale per l'Aviazione Civile (ENAC) in Italy, the European Aviation Safety Agency (EASA), the Federal Office of Civil Aviation (FOCA) of Switzerland, the Finnish Transport Safety Agency (Trafi), the Irish Aviation Authority (IAA), Japan Civil Aviation Bureau (JCAB), the United States Federal Aviation Administration (FAA) Aviation Safety Organization, Transport Canada Civil Aviation (TCCA), United Arab Emirates General Civil Aviation Authority (UAE GCAA), and the Civil Aviation Authority of United Kingdom (UK CAA). Additionally, the International Civil Aviation Organization (ICAO) is an observer to this group.

Members of the SM ICG:

- Collaborate on common SMS/SSP topics of interest
- Share lessons learned
- Encourage the progression of a harmonized SMS/SSP
- Share products with the aviation community
- Collaborate with international organizations such as ICAO and civil aviation authorities that have implemented or are implementing SMS and SSP

For further information regarding the SM ICG please contact:

Claudio Trevisan
EASA
+49 221 89990 6019
claudio.trevisan@easa.europa.eu

Andrew Larsen
TCCA
+1-343-551-1446
andrew.larsen@tc.gc.ca

Eugene Huang
FAA, Aviation Safety
(202) 267-7577
eugene.huang@faa.gov

Neverton Alves de Novais
ANAC
+55 61 3314 4606
Neverton.Novais@anac.gov.br

Charles Galea
CASA
+ 07 3144 7487
Charles.Galea@casa.gov.au

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To obtain an editable version of this document, please contact SM ICG.share@gmail.com.

IN MEMORIAM

Our colleague and friend, Dr. Don Arendt, passed away from pancreatic cancer on October 14, 2021. Though he underwent treatment for three years, his passion for his work gave him purpose and endurance. Dr. Don, as he was affectionately known, served for 20 years in the US Army as a warrant officer and followed that with a 24-year career at the Federal Aviation Administration (FAA), where he changed the course of aviation safety both at home and around the world. His name has come to be synonymous with safety management systems (SMS), safety culture, and organizational/human performance around the world. He was a civil servant, academic, author, and world-renowned speaker on SMS.

During his tenure at the FAA, he introduced some major changes to how the agency performs safety oversight. So integral was his work that his colleagues called him "the father of SMS." In the early days of FAA SMS planning and implementation, he not only guided various organizations in the FAA, but his vision and knowledge contributed to aligning SMS practices in other countries. Don served on the International Civil Aviation Organization (ICAO) Safety Management Panel (SMP) and the Safety Management International Collaboration Group (SM ICG). His contributions to aviation safety were extraordinary. The FAA and the international community can thank him for his tireless effort that has forever changed the way air transportation organizations manage risk and regulators perform safety oversight. Few can say that they changed international aviation like Don did.

Don enjoyed working with his teammates, both inside and outside the FAA. He had a special affinity for his international counterparts and they for him. Don Arendt was an internationally recognized speaker and author on SMS and invited by civil aviation authorities around the globe to participate in SMS discussions, including the SM ICG of which he was an original member. For the SM ICG, Don was a principal author of guidance on safety performance, safety culture, SMS oversight, organizational change, and risk management.

His speaking style was friendly, and he was brilliant at making his vast knowledge of complex topics interesting and understandable. He enjoyed intellectual exchanges with his colleagues, including one who remembers him listening to her intently as she wondered, "He is so smart, why does he want to hear from me?" Don was keenly interested in what others had to say. He had a brilliant mind and a passion for aviation safety that truly set him apart from other professionals in the field. He earned his colleagues' respect with his profound knowledge and dedication to the promotion of aviation safety.

Don's SM ICG colleagues have described him as smart, dedicated, knowledgeable, passionate, an expert on safety, and generous with his time and his ideas. Many of us spent hours in Don's "classroom" where he taught us to think differently and shaped our understanding of safety performance and safety culture. There was never enough time pick up all the gems he had to offer. Aviation leaders routinely turned to him for his unrivaled SMS expertise. Someone with such intellectual strength, experience, and breadth of knowledge could easily become self-important, but he did not. He was kind, humble, thoughtful, warm, and witty. He mentored many. Our SMS guru was also prone to self-deprecating humor when presenting or teaching, which only endeared him to us more. Don would joke about his own penmanship and say he had a "face made for radio," as he deftly explained the most complex concepts. He often quoted American journalist H.L. Mencken, "For every complex problem, there is an answer that is clear, simple...and wrong. Perhaps this is where we sort out the novices, the journeymen, and the masters." Don was a master. Yet, he had a way of making everyone feel welcome and valued, regardless of their background or level of expertise. During lunch breaks, he casually told stories that invariably had some profound deeper meaning. He never judged those of us who failed to grasp it.

Above all his professional achievements, Don was a loving husband and father. He shared his passion for flying with his wife Karen, an aviation safety inspector with the FAA Safety Team (FAASTeam), and his daughter Samantha. At his memorial service, Karen described her remarkable husband, "Your footprint touched lightly upon this earth, but it is as if you left seismic-size craters in your wake, swallowing us up if we dwell on the thought of your being gone too long." Don, you are wheels up one last time. We will miss you.

PURPOSE

The purpose of this paper is to provide a common set of safety management related terms and definitions for use by the civil aviation community and to assist in effective communication and safety information sharing. The SM ICG encourages the civil aviation community to strive to use these terms and definitions in their safety management-related activities.

1. BACKGROUND

Service providers and civil aviation authorities both need to manage risk, although the nature and scope of the hazards may be different. For example, while a service provider may identify hazards specific to its unique organization, a civil aviation authority may be identifying hazards from emerging trends across an entire aviation system, based on aggregate data from multiple service providers' safety management systems. Thus, in order to allow managers in any type of organization to make decisions based on risk, these organizations must possess and analyze safety data in order to identify hazards that exist in their systems. Consequently, utilizing common terminology and definitions is essential for aggregating these data.

2. INTRODUCTION

While considering the need for organizations to collect, aggregate, and share safety information, SM ICG members decided that it was necessary to agree on a set of safety management-related terms and definitions for them. The SM ICG utilized its own and outside expertise to identify pertinent safety management related terms and definitions. These terms and definitions were developed through a detailed and deliberate process.

The document was initiated in 2015 with the support of an expert group and validated in 2017 by the SM ICG members, utilizing various sources to identify safety management related terms, but not limited to:

- International Civil Aviation Organization (ICAO)
- U.S. Federal Aviation Administration (FAA)
- European Aviation Safety Agency (EASA)
- Transport Canada Civil Aviation (TCCA)
- Civil Aviation Authority of New Zealand (CAANZ)
- Civil Aviation Safety Agency (CASA) of Australia
- Agência Nacional de Aviação Civil (ANAC), Brazil
- Federal Office of Civil Aviation (FOCA), Switzerland
- Direction Générale de l'Aviation Civile (DGAC), France
- United Kingdom Civil Aviation Authority (UK CAA)
- Eurocontrol
- Flight Safety Foundation (FSF),
- SKYbrary

Furthermore, the group attempted to develop definitions where none were available.

In 2020, a few SM ICG members reviewed the document in light of the updated definitions from the second edition of ICAO Annex 19, the ICAO Safety Management Manual (Doc 9859 4th Edition); ICAO Global Aviation Safety Plan (GASP) 2020-2022 and ICAO Safety Management Panel (SMP)/ Working Group (WG)/3-Working Paper (WP)/5 dated 23 January 2017 as well as some SM ICG documents developed between the 1st and 2nd edition of this document. Some various additional sources were also considered, such as ISO 31000:2018 or use instructions of Bow-Tie software.

Feedback to SM ICG about the accuracy of the definitions and suggestions how to improve them can be sent to smicg.share@gmail.com.

3. SAFETY MANAGEMENT TERMINOLOGY

#	Term	Definition	Source	Notes
1	Acceptable Level of Safety Performance (ALoSP)	The level of safety performance agreed by State authorities to be achieved for the civil aviation system in a State, as defined in its State Safety Program, expressed in terms of safety performance targets and safety performance indicators. *Note: An acceptable level of safety performance for the State can be achieved through the implementation and maintenance of the SSP as well as safety performance indicators and targets showing that safety is effectively managed and, built on the foundation of implementation of existing safety-related Standards and Recommended Practices (SARPs).*	ICAO Doc.9859, *Safety Management Manual* *The note comes from ICAO Annex 19, Standard 3.4.2.1*	Definition also used in ICAO Global Aviation Safety Plan (GASP) 2020-2022 See further explanations in Guidance for Comprehensive Safety Performance Management in an SSP.
2	Accident	An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which: a) a person is fatally or seriously 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; or b) the aircraft sustains damage or structural failure which: — adversely affects the structural strength, performance or flight characteristics of the aircraft, and — would normally require major repair or replacement of the affected component,	ICAO Annexes 13 and 19	

#	Term	Definition	Source	Notes
		except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or c) the aircraft is missing or is completely inaccessible. *Note 1: 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.* *Note 2: An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.* *Note 3: The type of unmanned aircraft system to be investigated is addressed in 5.1 of Annex 13.* *Note 4: Guidance for the determination of aircraft damage can be found in Attachment E of Annex 13.* Also see *Incident, Occurrence.*		
3	Accountable Executive	A single, identifiable person having final responsibility for the effective and efficient performance of an organization's SMS.	ICAO Doc.9859	
4	"Accountability" versus "Responsibility"	In the context of Annex 19, when it relates to "Service Providers," an "accountability" refers to an "obligation" which cannot be delegated, and "responsibilities" refers to functions and activities that may be delegated.	ICAO Annex 19, Appendix 2, Note 3	
5	Adequate	The state of fulfilling minimal requirements; satisfactory; acceptable; sufficient.	ICAO GASP 2020-2022	Used in Annex 19, Standard 3.1.
6	Aeroplane	A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight. Also spelled *Airplane*.	ICAO Annexes 6 and 19	
7	Aircraft	Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.	ICAO Annexes 6 and 19	

#	Term	Definition	Source	Notes
8	Alert Level	An established level or criteria value outside of the normal operating range or out-of-control region that triggers a warning that an adjustment or evaluation is needed.	SM ICG	
9	Approval	An action granting permission; an indication of agreement with a proposal; an acknowledgement that a person, thing or event meets requirements. *Note: there is no approval of an SMS as such; SMS is an integral part of the approval for which a certificate has been issued: as soon as the organization complies with the SMS requirements, the certificate remains valid.*	ICAO Doc 9734, *Safety Oversight Manual*, Section 3.6	Annex 19 only refers to the acceptability of a Service Provider's SMS.
10	Assessment	An appraisal of procedures or operations based largely on experience and professional judgment. *Note: "Assessment" is the term recommended for the evaluation of an SMS or "safety culture" or a "positive safety culture" policy.*	ICAO Doc. 9735	Note developed by SM ICG.
11	(SMS) Assessment	A process that goes beyond "checking compliance" and aims at evaluating the Suitability, Operability, and Effectiveness of the organization's SMS. It refers to the review of an analysis and other safety intelligence. The activity combines both analysis and expert judgment. *Note: here it refers to the PSOE grading system as proposed in the SM ICG SMS Evaluation Tool*	SM ICG	Note: SMS assessment or evaluation is preferred to "SMS audit" to differentiate from the traditional compliance-based approach. Refer to the SM ICG SMS Evaluation Tool and to Safety Oversight Following Implementation of SMS.
12	Audit	A systematic, independent, and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements and audit criteria are fulfilled.	ISO 19011:2018	
13	Aviation System	The people, organizations, equipment, technology, and regulatory environment that interact to enable the development, production, operation, maintenance, and training associated with aircraft and aircraft components.	SM ICG	
14	Barrier	Barriers are limits or boundaries in place to control the risk, maintain a desired state, and prevent the associated event from happening. *Note: A "barrier" may be physical, procedural, or individual actions that people take. The term "control" is used in other problem-solving*	Bow-Tie model From dictionary	

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		methods such as process hazard analysis (e.g., a barrier that controls a risk). See also *Control, Defense*.		
15	Best Practice	A method, initiative, process, approach, technique, or activity that is believed to be more effective at delivering a particular outcome than any other means. It implies accumulating and applying knowledge about what is working and not working, including lessons learned and the continuing process of learning, feedback, reflection and analysis (what works, how, and why). It is considered as something that, when applied, improves safety levels or operations.	EURO-CONTROL	Air Traffic Management (ATM) Safety Framework Maturity Survey – Methodologies for Air Navigation Service Providers (ANSPs) – Glossary of Terms
16	Causes	Actions, omissions, events, conditions, or a combination thereof, which led to the accident or incident.	ICAO, Annex 13. Also replicated in Regulation (EU) No 996/2010 on the investigation and prevention of accidents and incidents in civil aviation.	The identification of causes does not imply the assignment of fault or the determination of administrative, civil, or criminal liability.
17	Change Management	A formal process to manage changes within an organization in a systematic manner, so that changes that may impact identified hazards and risk mitigation strategies are accounted for, before the implementation of such changes. See also *Management of Change*.	ICAO Doc. 9859	
18	Civil Aviation Authority	The Safety Oversight Manual (SOM) refers to the Civil Aviation Authority (CAA) as the "The governmental entity or entities, however titled, that are directly responsible for the regulation of all aspects of civil air transport, technical (i.e. air navigation and aviation safety) and economic (i.e. the commercial aspects of air transport). The SOM uses "Regulatory Authority" or "an appropriate State aviation regulatory body" interchangeably with the CAA. These terms are also at times used interchangeably in ICAO Doc.9859.	ICAO SMP.WG.3-WP.05 GASP Doc 9734 Doc 9735, *Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Manual* Doc 9859	Note: this is the most commonly used terms in ICAO documents, including Annex 19, the GASP, the USOAP Continuous Monitoring Manual (Doc 9735), and the Safety Oversight Manual (Doc 9734 Parts A and B), are *Civil Aviation Authority* and *Regulatory Authority*". Synonyms: *Appropriate State*

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				Aviation Regulatory Body and *Competent Authority*.
19	Control	Measure that maintains and/or modifies risk. Measures in place to exercise restraint over risk; maintain a desired state; and prevent the associated event from happening. See also *Defense*.	ISO 31000:2018 Bow-Tie Model	
20	Consequence	Actual or potential impact of a hazard that can be expressed qualitatively and/or quantitatively. More than one consequence may evolve from an event. *Note: In a Bow-Tie, "consequences" are placed to the right of the top event. They describe the undesirable events (usually accidents and safety related) that may potentially result from the top event, if the event is not managed with recovery controls.*	SM ICG	Example: unsecure objects in the cabin may injure passengers or cabin crew
21	Contributing Factor	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.	ICAO Annex 13	The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil, or criminal liability.
22	Corrective Action (in the context of Annex 19)	Action to restore the ability of existing defenses to achieve an acceptable level of safety risks; or eliminate the cause of or reduce the effects of a detected hazard or potentially hazardous situation in order to prevent its recurrence	SM ICG	Inspired by ICAO Doc.9859, sections 2.5.7.5 and 7.4.2.4
23	Corrective Action (in the context *Oversight*)	Action taken to address particular safety-related shortcomings or deficiencies, such as an authorization holder who is unable to demonstrate compliance with applicable safety or competency standards. Corrective action may be necessary to bring an authorization holder back into compliance.	SM ICG	Inspired by ICAO Doc.9859, section and 7.4.2.4
24	Corrective Action Plan (CAP)	A plan of action to eliminate the cause(s) of a deficiency or finding.	ICAO Doc. 9735	
25	Defense	Specific mitigating action, preventive control, or recovery measure put in place to prevent the realization of a hazard or its escalation into an undesirable consequence.	ICAO Doc. 9859	

#	Term	Definition	Source	Notes
		See also *Control*. *When using Bow-Tie:* *- Preventive controls are ways in which the top event is prevented from occurring (e.g. weather radar to avoid entering a cumulonimbus).* *- Recovery controls are considered to reduce the likelihood of the (top) event developing into consequence as well as mitigating the severity of the consequence (e.g., after entering the cumulonimbus, the passenger are seated and the cabin is secured).*	Bow-Tie Model	
26	Emergency Response Plan (ERP)	A documented approach to managing aviation-related emergencies, crises, or events. ERPs include mitigating actions, processes, and controls to ensure the safe continuation of operations following an emergency, and the return to normal operations as soon as possible.	SM ICG	Adapted from ICAO Doc.9859, Section 9.3.7 Refers also to ICAO Annex 14 ERP provisions in Chapter 9.1. SMP requested to define "emergency."
27	Emerging Safety Issues	Risks that might impact safety in the future, for which insufficient data exists to complete typical data driven analysis. It is important that the international aviation community remain vigilant on emerging issues to identify potential safety risks, collect relevant data, and proactively develop mitigations to address them.	GASP 2020-2022	
28	Error	An action or inaction by an operational person that leads to deviations from organizational — or the operational person's — intentions or expectations.	ICAO Doc. 9859	
29	Escalation Factor	Condition that leads to increased risk by reducing the effectiveness of controls. An escalation factor cannot directly cause the top event or consequence, rather, it increases the likelihood that the scenario will progress because the associated control will be degraded or fail.	Bow-Tie	
30	Failure	Active failures are actions or inactions, including errors and rule-breaking, that have an immediate adverse effect. They are viewed, with the benefit of hindsight, as unsafe acts. Active failures are associated with front-line personnel (e.g., pilots, air traffic controllers, aircraft maintenance engineers) and may result in a harmful outcome.	ICAO Doc.9859, Section 2.3.2	

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31	Finding (in the context of oversight and of ICAO USOAP Continuous Monitoring Approach [CMA])	A finding is generated as a result of a lack of compliance with Articles of the Chicago Convention, safety-related provisions in the Annexes to the Convention, Procedures for Air Navigation Services (PANS), or a lack of application of ICAO guidance material or good aviation safety practices. The lack of compliance is expressed in terms of one or more deficiencies. For every finding, ICAO recommends measures to be taken by the State for its resolution.	ICAO Doc.9735	
32	Findings and Observations (in the context of ICAO Annex 19)	Generated during an SMS evaluation as a result of lack of compliance, applicability, suitability, operability, and/or effectiveness. *Note: In the PSOE grading system (see in the SM ICG SMS Evaluation Tool) , use of "observation" is proposed, to complement the traditional approach to "finding" and better address "performance" and "effectiveness."*	SM ICG	Refers to the SM ICG SMS Evaluation Tool suggesting when to issue findings and/or observations See also the SM ICG Safety Oversight Following Implementation of SMS document.
33	Gap Analysis	A technique that assists in identifying the disparity between the current and the desired future state.	SM ICG	
34	Hazard	A condition or an object with the potential to cause or contribute to an aircraft incident or accident. *Note: In aviation, a hazard can be considered as a dormant potential for harm which is present in one form or another within the system or its environment. This potential for harm may appear in different forms, for example: as a natural condition (e.g. terrain) or technical status (e.g. runway markings).*	ICAO Annex 19	Note from ICAO Doc.9859 *Note: Bow-Tie model proposes that a hazard can be focused on a condition (e.g., icing conditions), an object (e.g., another vehicle) or an activity (e.g., driving).*
35	Hazard	A situation or an object with the potential to cause death or injury to a person, damage to equipment or a structure, loss of material, or a reduction of ability to perform a prescribed function.	Regulation (EU) No 376/2014	Rules on the reporting, analysis and follow-up of occurrences in civil aviation.
36	Hazard Analysis	Analysis performed to identify hazards, hazard effects, and hazard causal factors used to determine system risk.	SM ICG	Adapted from Hazard Analysis Techniques for System Safety - Clifton A. Ericson, 2005

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37	Hazard Identification	The process used to determine or identify existing or potential hazards associated with aviation products or services.	SM ICG	
38	Helicopter	A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes. *Note: Some States use the term "rotorcraft" as an alternative to "helicopter."*	ICAO Annex 6, Part III	
39	High Risk	Unacceptable level of risk. The activity cannot be continued unless hazards are further mitigated so that risk is reduced to an acceptable level.	SM ICG	Adapted from FAA System Safety Handbook, Chapter 3
40	Human Factors Principles	Principles which apply to aeronautical design, certification, training, operations, and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.	ICAO Annex 6, Part I, Definitions ICAO Doc.9734	
41	Human Performance	Human capabilities and limitations which have an impact on the safety, security, and efficiency of aeronautical operations.	ICAO Annex 6	
42	Inspection	An examination of specific activities, products or services of an aviation license, certificate, approval, or authorization holder (or applicant) performed by civil aviation inspectors to confirm compliance with requirements for the license, certificate, approval, or authorization already issued (or being issued) by the State. *Note: Inspections include scheduled, unscheduled and unannounced inspections.*	ICAO Doc.9734	
43	Incident	An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.	ICAO Annexes 13 and 19	Note: The types of incidents of interest for safety-related studies include the incidents listed in ICAO Annex 13, Attachment C.
44	Industry	"Industry" or "Aviation Industry" involves all actors engaging in aviation in the private sector, which includes all "service providers," and is sometimes used with the same meaning.	ICAO SMP.WG.3-WP.05	
45	Industry Codes of Practice	Guidance material developed by an industry body, for a particular sector of the aviation industry to comply with the requirements of the International Civil Aviation Organization's Standards and Recommended Practices, other aviation safety requirements, and the best practices deemed appropriate.	ICAO Annex 19	

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		Note: Some States accept and reference industry codes of practice in the development of regulations to meet the requirements of Annex 19, and make available, for the industry codes of practice, their sources and how they may be obtained.		
46	Investigation	A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.	ICAO Annex 13	
47	Just Culture	An atmosphere of trust in which people are encouraged for providing essential safety-related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behavior.	Civil Air Navigation Services Organization (CANSO)	
48	Just Culture	A culture in which front-line operators or other persons are not punished for actions, omissions, or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, willful violations, and destructive acts are not tolerated.	Regulation (EU) 376/2014	From European rules on the reporting, analysis and follow-up of occurrences in civil aviation.
49	Level of Safety	The degree of safety of a system. A measurement of the effectiveness of a system's safety based on the probability of tolerable incidents that can occur.	SM ICG	Adapted from ICAO Doc. 9859
50	Likelihood	Chance of something happening. Note 1:In *risk management* (3.2) terminology, the word "likelihood" is used to refer to the chance of something happening, whether defined, measured or determined objectively or subjectively, qualitatively or quantitatively, and described using general terms or mathematically (such as a probability or a frequency over a given time period). Note 2: The English term "likelihood" does not have a direct equivalent in some languages; instead, the equivalent of the term "probability" is often used. However, in English, "probability" is often narrowly interpreted as a mathematical term. Therefore, in risk management terminology, "likelihood" is used with the intent that it should have the same broad interpretation as the term "probability" has in many languages other than English.	ISO 31000:2018	

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		The frequency, in quantitative or qualitative terms, that an unsafe event may occur.	SM ICG	
51	Likelihood - Extremely Improbable	Almost inconceivable that the event will occur.	ICAO Doc. 9859	
52	Likelihood - Frequent	Likely to occur many times.	ICAO Doc. 9859	
53	Likelihood - Improbable	Very unlikely to occur.	ICAO Doc. 9859	
54	Likelihood - Occasional	Likely to occur sometimes.	ICAO Doc. 9859	
55	Likelihood - Remote	Unlikely, but may possibly occur.	UK CAA Safety Regulation Group (SRG)	
56	Low Risk	A level of risk in which the identified hazards are not usually required to be actively managed, but are documented.	SM ICG	Adapted from FAA Advisory Circular (AC) 150/5200-37
57	Management of Change	Managing the implementation of change in an organization in a planned and communicative manner to minimize any negative consequences and maximize the opportunities presented. A synonym for Change Management.	CASA 3	Referred to formally in ICAO Doc. 9859 as Management of Change, the management of change under SSP focuses on those changes (operation and organization) which could have a significant impact on the State's ability to fulfil its legal obligations (process change) and on the State safety management capabilities.
58	Medium Risk	A level of risk that may be acceptable with review by the appropriate authority, but tracking and management are required.	SM ICG	Adapted from FAA AC 150/5200-37
59	Mitigation Measure	See also *Risk Mitigation*, *Risk Control.*	ICAO SMP.WG.3-WP.05	The ICAO Secretariat has indicated that this term may cause confusion with "measuring something".

#	Term	Definition	Source	Notes
60	Occurrence	An accident or incident or other undesired safety-related event, which endangers or — if not corrected or addressed — could endanger an aircraft, its occupants or any other person.	Regulation (EU) 376/2014	In line with CAST/ ICAO Common Taxonomy Team http://intlaviationstandards.org/
61	Open Reporting Culture	An organizational perspective that actively encourages effective safety reporting by defining acceptable behavior (often unintended errors) and unacceptable behavior (such as recklessness, violations, or sabotage), and provides fair protection to reporters.	SM ICG	Adapted from ICAO Doc. 9859
62	Operational Personnel	Personnel involved in aviation activities who are in a position to report safety information. Such personnel include, but are not limited to: flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; aircraft, engine and propeller designers and manufacturers; cabin crews; flight dispatchers; apron personnel, and ground handling personnel.	ICAO Annexes 13 and 19	Added *ground handling personnel* to ICAO Annex 13 Attachment E.
63	(Air) Operator	The person, organization or enterprise engaged in or offering to engage in an aircraft operation. *Note: The two terms "air operator" and "aircraft operator" are used interchangeably. Aircraft operator is the term more commonly used in the GASP, whereas "air operator" is more commonly used in the Universal Safety Oversight Audit Programme Continuous Monitoring Manual (Doc. 9735), and the Safety Oversight Manual (Doc. 9734 Parts A and B)*	ICAO GASP 2020-2022 ICAO Doc.9734	Note from ICAO SMP/WP/3-WP/5
64	Organizational Hazard	Hazards which arise from an organization's policies, priorities and the manner in which work is carried out.	SM ICG	
65	Oversight (as used by ICAO) (Safety) Oversight (as used by ICAO)	The active control of the aviation industry and service providers by the competent regulatory authorities to ensure that the State's international obligations and national requirements are met through the establishment of a system based on the ICAO critical elements (CE). A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations	ICAO Doc. 9735 ICAO Annex 19	ICAO Doc. 9735 covers ICAO CEs 1 to 8.

#	Term	Definition	Source	Notes
66	(Safety) Oversight or Surveillance (as used in the SM ICG documents)	A function performed by a regulator that ensures that an aviation organization complies with and uses safety-related standards, requirements, regulations, and associated procedures. This also includes the assessment of an organization's safety management. It generally refers to ICAO Critical Elements 6, 7 and 8	SM ICG	Word of caution: *Surveillance* and *Oversight* may be used interchangeably in SM ICG documents. To alleviate confusion, each SM ICG document in its introductory paragraph should indicate whether the terms used only refer to ICAO CE6, CE7 and CE8 or whether their use is broader.
67	Performance-Based Standard	Standard which is characterized by its focus on a desired outcome rather than a prescriptive standard which outlines both the desired outcome and the manner in which it must be achieved.	SM ICG	Adapted from ICAO Doc. 9859, Sec 8.3.5.6, The resulting performance-based standards require that the service provider demonstrate that its proposed approach will achieve the desired outcome.
68	Performance-Based Oversight (PBO)	PBO relies on measurement of the performance of an organization's management system (e.g., SMS, QMS) in achieving the set safety objectives. It assesses the effectiveness of that management system.	SM ICG	See SM ICG document Risk-Based and Performance-Based Oversight Guidance.
69	Predictive	Any method that continuously analyzes current and historical information to forecast potential future occurrences. See also *Proactive, Reactive*.	SM ICG	
70	Prescriptive Standard	A standard that specifies a method for complying with safety requirements.	SM ICG	Adapted from ICAO Doc. 9859, Sec 6.4
71	Preventive Action	Action taken to eliminate or mitigate the cause or reduce the effects of a potential non-conformity (or other undesirable situation), or prevent the occurrence or recurrence of an event or a hazard that poses a risk to safety or reduce the future consequence of a hazard.	Inspired from ICAO Doc.9859 Section 7.4.2	Also adapted from FAA Manufacturers SMS. Other sources use a similar definition such as FAA AC 120-92.

#	Term	Definition	Source	Notes
72	Proactive	Any method that actively searches for potential safety risks through the analysis of an organization's activities prior to occurrence. See also *Predictive, Reactive*.	SM ICG	
73	Quality Management System (QMS)	A management system to direct and control an organization with regard to quality.	ICAO Doc.9735	Refer to ICAO Doc.9859, Section 9.7.6 for QMS/SMS differentiation and integration. Same definition used in FAA AC 120-92.
74	Reactive	Any method that responds to past occurrences. See also *Proactive, Predictive*.	SM ICG	
75	Remedial Action	Action taken to address the underlying causes of particular safety-related shortcomings or deficiencies, such as training. Remedial action might also involve restricting, limiting, suspending or revoking the privileges of an authorization, certificate, or license holder who fails to continue to meet the necessary qualifications to exercise those privileges.	Inspired from ICAO Doc.9859 Section 7.4.2.4	
76	Residual Safety Risk	The remaining safety risk that exists after all control techniques have been implemented or exhausted, and all controls have been verified. Only verified controls can be used for the assessment of residual safety risk	FAA AC 120-92	
77	(Safety) Risk	The assessed predicted probability and severity of the consequences or outcomes of a hazard.	ICAO Annex 19	
78	Risk Analysis	Process whereby possible consequences of hazards are objectively characterized for their severity and probability. The process can be qualitative and/or quantitative.	SM ICG	Adapted from FAA Order 8110.107, *Monitor Safety/Analyze Data (MSAD)*
79	Risk Assessment	The overall process of risk identification, risk analysis and risk evaluation. Notes from ICAO SMP/WP/3-WP/5: 1. Risk assessment means to assess a risk in a consistent and systematic approach, or, the identification, evaluation and estimation of the level of risk. In the SMM, the term *Safety Risk Assessment* is sometimes used interchangeably with *Risk Assessment*. 2. *Safety Assessment* is also used in the SMM and other ICAO documents with a similar meaning and purpose. In paragraph 2.28 of Annex 11, *Air Traffic Services*, *Safety Assessment* is used in the	SM ICG	Adapted from http://www.businessdictionary.com/definition/risk-assessment.html

#	Term	Definition	Source	Notes
		following manner: Any significant safety-related change to the Air Traffic Service (ATS) system, including the implementation of a reduced separation minimum or a new procedure, shall only be effective after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted.		
80	Risk-Based Oversight (RBO)	Risk-Based Oversight is an approach where surveillance activities are prioritized based on the risk profile of the organization. *Note: ICAO Doc.9859, Section 8.5.3.2 proposes some explanations about what ICAO calls Safety Risk-Based Surveillance (SRBS).*	SM ICG	See SM ICG documents Risk-Based and Performance-Based Oversight Guidance and Safety Oversight Following Implementation of SMS.
81	(Safety) Risk Control	An activity that ensures safety policies, procedures, and processes minimize the risk of an aviation accident or incident. Risk control is sometimes used interchangeably with safety risk control in the SMM and in Annex 19.	SM ICG & ICAO SMP/WP/3-WP/5	Though risk control and safety risk control are used with a similar meaning to *Risk Mitigation* in both Section 2.2 and Section 3 of Annex 19, Appendix 2, there are no definitions for these terms in any ICAO document.
82	(Safety) Risk Management (SRM)	An organizational function that assesses the organization's system design and verifies that the system adequately controls safety risks. A formal SRM process describes a system, assesses hazards, analyzes those hazards to evaluate the risks, and establishes controls to manage those risks. *Note 1: Safety risk management is one component of the SMS framework, which contains hazard identification, safety risk assessment and mitigation. The term "risk management" is used, at times, interchangeably with safety risk management in the SMM, though both terms carry the same meaning.* *Note 2: Risk management designates the coordinated activities to direct and control an organization with regard to risk (ISO 31000:2018).*	SM ICG	Refer to ICAO Doc.9859, Section 2.5 for more explanations. Note stemming from ICAO SMP/WG/3-WP/5.
83	Risk Matrix	A table that allows for the identification of the risk tolerability level through the combination of probability and severity.	SM ICG	Inspired by ICAO Doc 9859, Chapters 2 and 9.

#	Term	Definition	Source	Notes
		Note: ICAO Doc. 9859, section 9.4.6.5 indicates that Safety risk assessments sometimes have to use qualitative information (expert judgment) rather than quantitative data due to unavailability of data. Using the safety risk matrix allows the user to express the safety risk(s) associated with the identified hazard in a quantitative format. This enables direct magnitude comparison between identified safety risks. A qualitative safety risk assessment criterion, such as "likely to occur" or "improbable" may be assigned to each identified safety risk where quantitative data is not available.		
84	(Safety) Risk Mitigation	The process of incorporating defenses or preventive controls to lower the severity and/or likelihood of a hazard's projected consequence.	ICAO Doc.9859 ICAO SMP/WP/3-WP/5	"Risk Mitigation" is sometimes used interchangeably with *Safety Risk Mitigation* in the SMM (ICAO Doc.9859). Both terms are used in Annex 19 and in other ICAO documents, including in GASP 2020-2022
85	Risk Profile	The elements of risk that are inherent to the nature and the operations of the regulated entity, this includes: - the specific nature of the organization; - the complexity of its activities; and - the risks stemming from the activities carried out.	EASA (Practices for RBO)	See also the SM ICG document Sector Safety Risk Profiling at the State Level.
86	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.	ICAO Annex 19	
87	Safety Action Plan	A plan that identifies a set of activities to be undertaken to achieve a safer aviation environment.	SM ICG	
88	Safety Audit	A USOAP CMA audit that a State requests and pays for (on a cost-recovery basis). The State determines the scope and date of a safety audit. See also *Audit*.	ICAO GASP 2020-2022	Further details on regulatory safety audits, third party audits, and internal safety audits can be found on SKYbrary.

#	Term	Definition	Source	Notes
89	Safety Assurance	Processes used to ensure risk controls developed under the risk management process achieve their intended objectives throughout the life cycle of a system. This process may also reveal hazards not previously identified and identify or assess the need for new risk control, as well as the need to eliminate or modify existing controls. This is one of the four components of SMS.	SM ICG	
90	Safety Assurance	All planned and systematic actions necessary to afford adequate confidence that a product, a service, an organization or a functional system achieves acceptable or tolerable safety	Regulation (EU) 1035/ 2011	
91	Safety Assurance	Processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information	FAA AC No: 120-92CAP	
92	Safety Case	A documented body of evidence that provides a demonstrable and valid argument that a system is adequately safe for a given application and environment over its lifetime.	UK CAA CAP (regulation) 760	
93	Safety Culture	An enduring set of values, norms, attitudes, and practices within an organization concerned with minimizing exposure of the workforce and the general public to dangerous or hazardous conditions. In a positive safety culture, a shared concern for, commitment to, and accountability for safety is promoted.	CASA 3	
94	Safety Culture	The product of individual and group values, attitudes, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, the organization's management of safety. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures.	FAA AC 120-92	
95	Safety Data	A defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety. *Note.— Such safety data is collected from proactive or reactive safety-related activities, including but not limited to:* *a) accident or incident investigations;* *b) safety reporting;*	ICAO Annex 19	

#	Term	Definition	Source	Notes
		c) continuing airworthiness reporting; *d) operational performance monitoring;* *e) inspections, audits, surveys; or* *f) safety studies and reviews.*		
96	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.	ICAO GASP 2020-2022	
97	Safety Information	Safety data processed, organized or analyzed in a given context so as to make it useful for safety management purposes.	ICAO Annex 19	
98	Safety Issues	Any safety deficiencies related to one or more hazards. They are the actual manifestation of a hazard or combination of several hazards in a specific context.	EASA	
99	Safety Library	An organized set of safety-related records including hazards identified, occurrences, actions taken, and lessons learned.	SM ICG	
100	Safety Management	An organizational function that strives to continually identify all safety hazards and to assess and manage the associated safety risks through a systematic approach that includes the necessary organizational structure, accountabilities, policies, and procedures.	SM ICG	Adapted from SKYbrary.
101	Safety Management Implementation Plan	A plan for the implementation of a State Safety Program or Safety Management System (SMS) that will meet regulatory requirements and the organization's safety objectives while supporting effective and efficient delivery of services. The implementation plan details the actions to be taken and includes assignment of tasks and timeframes.	SM ICG	Adapted from ICAO Doc. 9859 In the EU context, for the State, it refers to the State Plan for Aviation Safety (SPAS) as required in article 8 of (EU) Regulation 1139/2018.
102	Safety Management System (SMS)	A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.	ICAO Annex 19	Also Annexes 1, 6, 8, 11 and 14
103	Safety Manager	The responsible individual and focal point for the implementation and maintenance of an effective SMS.	SM ICG	See SM ICG document on Safety Manager's Role in SMS.
104	(State) Safety objective	A brief, high-level statement of safety achievement or desired outcome to be accomplished by the State Safety Programme or service provider's safety management system. *Note.— Safety objectives are developed from the organization's top safety risks and should be taken into consideration during subsequent*	ICAO Doc.9859	

#	Term	Definition	Source	Notes
		development of safety performance indicators and targets.		
105	Safety Oversight Function (in the context of USOAP activities)	Function by which States ensure the effective implementation of the safety-related Standards and Recommended Practices (SARPs), and associated procedures and practices contained in the Annexes to the Convention on International Civil Aviation and associated documents.	ICAO Doc.9735	Here it covers all the USOAP Critical Elements (CE) – the term "function" should be systematically used to differentiate with *Surveillance.*
106	Safety Performance	A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.	ICAO Annex 19	In line with the European Commission definition in Regulation (EU) 1139/2018. Note: *Performance* is a measurement and describes how well an activity or job is achieved. *Effectiveness* better describes the degree to which an activity of job is successful in producing the desired result.
107	Safety Performance Management	A process which involves the ongoing development and monitoring of the strategic safety objectives. This involves identifying and prioritizing risks, setting safety objectives, safety performance indicators and targets; and ultimately determining whether the safety objectives are met or more needs to be done to achieve them.	SM ICG (Guidance for Comprehensive Safety Performance Management in an SSP)	In line with ICAO Doc 9859, Chapter 4
108	Safety Performance Indicator (SPI)	A data-based parameter used for monitoring and assessing safety performance. See also *Safety Performance Target.*	ICAO Annex 19	The distinction between *Safety Performance Indicators* and *Performance Indicators* is likely one of scope, the latter having a tendency to be used in connection with indicators that are not of a safety-related nature.

#	Term	Definition	Source	Notes
109	(Outcome-Based) Lagging Safety Performance Indicator	Metric that measures safety events that have already occurred, including those unwanted safety events you are trying to prevent. Lagging indicators are measures of safety occurrences, in particular the negative outcomes that the organization is aiming to prevent. Lagging indicators are mainly used for aggregate, long-term trending, either at a high level or for specific occurrence types or locations. Because they measure safety outcomes, they can be used to assess the effectiveness of safety measures, actions, or initiatives and are a way of validating the safety performance of the system. Also, trends in these indicators can be analyzed to determine if latent conditions exist in present systems that should be addressed.	SM ICG (Guidance for Comprehensive Safety Performance Management in an SSP)	
110	(Process-Based) Leading Safety Performance Indicator	Metric that provides information on the current situation that may affect future performance. Leading indicators should measure both: things that have the potential to become or contribute to a negative outcome in the future ('negative' indicators), and things that contribute to safety ('positive' indicators).	SM ICG (Guidance for Comprehensive Safety Performance Management in an SSP)	
111	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. See also *Safety Performance Indicator*.	ICAO Annex 19	
112	Safety Policy	An organization's fundamental approach to managing safety that is to be adopted within an organization and further defines the organization management's commitment to safety and overall safety vision. This is one of the four components of SMS.	FAA AC 150/5200-37	
113	Safety Promotion	A combination of training and communication of safety information to support the implementation and operation of an SMS in an organization	FAA AC 120-92	Other sources used the same definition.
114	Safety Risk	The predicted probability and severity of the consequences or outcomes of a hazard.	ICAO Annex 19	
115	Safety Risk Management	A process used to assess system design and verify that the system adequately controls risk. A formal risk management process describes a system, assesses hazards, analyzes those hazards to evaluate the risk, and establishes controls to manage those risks. This is one of the four components of SMS.	EASA	It includes: - identification of safety issues - assessment of Safety issues - definition and programming of

#	Term	Definition	Source	Notes
				Safety actions - implementation and follow-up - Safety performance measurement
116	Sector	A group of related aviation services, organizations, activities or products that have similar characteristics or common features	SM ICG	See SM ICG document on "Sector Safety Risk Profiling at the State Level"
117	Sector Risk Profile	A description of the risks found that may affect a group of related aviation products, services, organizations or activities	SM ICG	See SM ICG document on "Sector Safety Risk Profiling at the State Level"
118	Serious Incident	An incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down. *Note: The difference between an accident and a serious incident lies only in the result.*	ICAO Annex 13	ICAO Annex 13, Attachment C has examples of serious incidents.
119	Serious Injury	An injury which is sustained by a person in an accident and which: a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or c) involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage; or d) involves injury to any internal organ; or e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or	ICAO Annexes 13 /19	

#	Term	Definition	Source	Notes
		f) involves verified exposure to infectious substances or injurious radiation.		
120	Service Provider	An organization providing aviation products and/or services. The term thus encompasses approved training organizations that are exposed to safety risks during the provision of their services, aircraft operators, approved maintenance organizations, organizations responsible for type design or manufacture of aircraft, engines or propellers, air traffic service providers and other air navigation service providers and aerodrome operators.	ICAO Doc.9734	
121	Severity	The extent of loss or harm associated with consequences of a hazard.	SM ICG	
122	Severity - Catastrophic	Results in multiple fatalities and/or loss of the aircraft.	SM ICG	Adapted from UK CAA SRG
123	Severity - Hazardous	A large reduction in safety margins, physical distress, or workload such that organizations cannot be relied upon to perform their tasks accurately or completely. Serious injury or death to a small number of aircraft occupants, ground personnel, and/or general public. Major equipment damage.	SM ICG	Adapted from UK CAA SRG and E.R. Vaidogas Lecture, 2009, Vilniaus Gedimino Technikos Universitetas
124	Severity – Major	A significant reduction in safety margins and a reduction in the ability of organizations to cope with adverse operating conditions as a result of an increase in workload, significant discomfort, or conditions impairing their efficiency. Serious incident with physical distress to occupants of aircraft, injuries, and equipment damage.	SM ICG	Adapted from UK CAA SRG and E.R. Vaidogas Lecture, 2009, Vilniaus Gedimino Technikos Universitetas
125	Severity - Minor	Does not significantly reduce system safety and operator actions are well within their capabilities. May include slight reduction in safety margins, operating limitations, slight increase in workload, some physical discomfort, and/or minor equipment damage.	SM ICG	Adapted from UK CAA SRG and E.R. Vaidogas Lecture, 2009, Vilniaus Gedimino Technikos Universitetas
126	Severity - Negligible	Little consequence. Has no effect on safety.	SM ICG	Adapted from UK CAA SRG and E.R. Vaidogas Lecture, 2009, Vilniaus Gedimino Technikos Universitetas
127	State of Design	The State having jurisdiction over the organization responsible for the type design.	ICAO Annex 19	
128	State of Manufacture	The State having jurisdiction over the organization responsible for the final assembly of the aircraft.	ICAO Annex 19	

#	Term	Definition	Source	Notes
129	State of the Operator	The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.	ICAO Annex 19	
130	State Safety Programme (SSP)	An integrated set of regulations and activities aimed at improving safety. Also spelled *State Safety Program.* *Note: SSP refers not only to the "SMS" part of the State's responsibilities, but encompasses the full range of a State's safety responsibilities.*	ICAO Annex 19	Note inspired by ICAO SMP.WG.3 – WP.05
131	Surveillance (as used by ICAO)	The State activities through which the State proactively verifies through inspections and audits that aviation license, certificate, authorization, or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State. *Note: Surveillance activities generally includes audits, inspections, tests, assessment, surveys, desk top reviews, safety events analyses; review of whistle-blower reports, and analysis of significant changes.*	ICAO Annex 19	Note inspired by ICAO Doc. 9734 Section 3.7 This generally refers to ICAO Critical Elements (CE) 6, 7, and 8.
132	Surveillance (as used by SM ICG)	A function performed by a regulator that ensures that an aviation organization complies with and uses safety-related standards, requirements, regulations, and associated procedures. This also includes the assessment of an organization's safety management. It generally refers to ICAO CE6, CE7 and CE8	SM ICG	Word of caution: *Surveillance* and *Oversight* may be used interchangeably in the SM ICG documents. To lift confusion, each SM ICG document in its introductory paragraph should indicate whether the terms used only refer to ICAO CE6, CE7 and CE8 or whether their use is broader.
133	System	An organized, purposeful structure that consists of interrelated and interdependent elements and components, and related policies, procedures and practices created to carry out a specific activity or solve a problem.	ICAO Doc.9859	
134	System	An integrated set of constituent elements that are combined in an operational or support environment to accomplish a defined objective. These elements include people, hardware, software, firmware, information, procedures, facilities, services, and other support facets	FAA AC 120-92	

#	Term	Definition	Source	Notes
135	Systemic Issue	Issue that is system-wide rather than relating to a particular component. Systemic issues are often organizational or human performance issues.	EASA	
136	System Description	A description of an aviation organization's system including its structure, policies, communications, processes, products, and operations to understand critical factors for the purpose of identifying hazards. It is updated whenever there is a newly introduced element or change to the internal or external situation that could affect risk.	SM ICG	
137	Threat	Describes events that may cause an unsafe state if not managed with preventive controls. It addresses the Top Event and ask the question "why" or "how" could this occur.	Bow Tie	These causes are the threats and need to be "direct" Example: "severe turbulence" that may cause the loss of control of the aircraft
138	Tolerable Risk	Safety risks are conceptually assessed as "tolerable" or "intolerable", based on the safety risk mitigations that can be justifiably engaged, which may require management decision from the accountable manager, considering what can reasonably and practically be achieved. The level of risk that individuals or groups are willing to accept given the benefits gained. - This is a balance between the risk reduction benefits and the sacrifices required to achieve them. - Each organization determines its own tolerable risk level, which is derived from its societal expectations, its legal and regulatory compliance responsibilities, its risk profile and sector risk controls achievement as well as its financial/business/organizational drivers and impacts.	Proposed by SM ICG Inspired from ICAO Doc.9859	ICAO Doc.9859 proposes recommended actions for "intolerable risk."
139	Top Event	The point where there is no longer adequate control over the hazard.	Bow-Tie	It is usually an unsafe state that is not yet an accident. Top events, while not being disasters themselves, have the potential to become disasters if nothing is done to control them. This is the undesired system state Example: loss of control of the aircraft

#	Term	Definition	Source	Notes
140	Trigger	An established level or criteria value for a particular safety performance indicator that serves to initiate an action required, (e.g., an evaluation, adjustment or remedial action).	ICAO Doc.9859	