



**REPUBLIC OF INDONESIA
MINISTRY OF TRANSPORTATION**

CIVIL AVIATION SAFETY REGULATION (CASR)

**PART 19
SAFETY MANAGEMENT SYSTEM**

LAMPIRAN

PERATURAN MENTERI PERHUBUNGAN REPUBLIK INDONESIA
NOMOR PM 62 TAHUN 2017

TENTANG

PERATURAN KESELAMATAN PENERBANGAN SIPIL BAGIAN 19
(*CIVIL AVIATION SAFETY REGULATIONS PART 19*) TENTANG
SISTEM MANAJEMEN KESELAMATAN (*SAFETY MANAGEMENT
SYSTEM*)

CIVIL AVIATION SAFETY REGULATIONS

CASR 19

SAFETY MANAGEMENT SYSTEM

REPUBLIC OF INDONESIA

MINISTRY OF TRANSPORTATION

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	- 7 -
AMENDMENT RECORD LIST	- 9 -
SUBPART A GENERAL	A-- 11 -
19.0 References	A-- 11 -
19.1 Definitions	A-- 11 -
SUBPART B SAFETY MANAGEMENT SYSTEMS	B-- 16 -
19.15 Regulatory Reference	B-- 16 -
19.17 Scope and applicability	B-- 16 -
19.19 Safety policy and objectives	B-- 17 -
19.21 Organizational structure and responsibilities	B-- 18 -
19.23 SMS implementation plan	B-- 19 -
19.25 Coordination of emergency response planning	B-- 20 -
19.27 Documentation	B-- 21 -
19.29 Safety Data Collection and Processing system	B-7
19.31 Hazard identification	B-- 22 -
19.33 Risk management	B-- 22 -
19.35 Safety assurance	B-- 23 -
19.37 Safety performance monitoring and measurement	B-- 23 -
19.39 Management of change	B-- 23 -
19.41 Continuous improvement of the safety system	B-- 24 -
19.43 Safety promotion	B-- 24 -
19.45 Safety training	B-- 24 -
19.47 Safety communication	B-- 25 -
19.49 Quality policy	B-- 25 -
19.51 Phase of implementation SMS	B-- 25 -
SUBPART C SAFETY DATA AND SAFETY INFORMATION COLLECTION, ANALYSIS, PROTECTION	C-- 28 -
19.53 Regulatory Reference	C-- 28 -
19.55 Applicability	C-- 28 -
C.1 SAFETY DATA COLLECTION AND PROCESSING SYSTEM (SDCPS)	C-- 28 -
19.57. Mandatory reporting	C-- 28 -
19.59 voluntary reporting	C-- 30 -
19.61 Collection and Storage of Information	C-- 31 -
19.63 Quality and content of occurrence reports	C-- 31 -

C.2 SAFETY DATA AND SAFETY INFORMATION ANALYSIS	C-- 32 -
19.65 Flight Data Analysis Program.....	C-- 32 -
19.67 Occurrence analysis and follow-up.....	C-5
C.3 SAFETY DATA AND SAFETY INFORMATION PROTECTION.....	C-6
19.69 Confidentiality and appropriate use of information.....	C-6
19.71 Protection of the information source.....	C-7
APPENDIX A FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)	AA-- 36 -
APPENDIX B LIST CLASSIFYING OCCURRENCES IN CIVIL AVIATION TO BE MANDATORILY REPORTED	AB-1
APPENDIX C LIST OF REQUIREMENTS APPLICABLE TO THE MANDATORY AND VOLUNTARY OCCURRENCE REPORTING SCHEMESAC--	43 -

AMENDMENT RECORD LIST

[illegible]

THIS PAGE INTENTIONALLY LEFT BLANK

SUBPART A GENERAL

19.0 References

This Civil Aviation Safety Regulation (CASR) Part 19 is promulgated under the statutory authority in the Law No. 1 Year 2009 on Aviation, Chapter XIII – Aviation Safety.

19.1 Definitions

For the purpose of this regulation, the term :

1. Accident means an occurrence associated with the operation of an aircraft which takes place between the times any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:
 - (1) a person is fatally or seriously injured as a result of:
 - (i) being in the aircraft, or
 - (ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - (iii) 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
 - (2) The aircraft sustains damage or structural failure which:
 - (i) adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - (ii) would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or
 - (3) the aircraft is missing or is completely inaccessible.
2. Acceptable level of safety performance (ALoSP) means minimum level of safety performance of a service provider, as defined in its safety management system, expressed in terms of safety performance targets and safety performance indicators.

3. Accountability means obligation or willingness to account for one's actions.
4. Accountable Executive means a single, identifiable person which might be a Chief Executive Officer, a Chairperson Board of Directors, a partner or a proprietor who has full responsibility for the organization's SMS and have full authority for human resources issues, major financial issues, direct responsibility for the conduct of the organization's affairs, final authority over operations under certificate, and final responsibility for all safety issues.
5. Aircraft means 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;
6. Anonymisation means the removal from occurrence reports of all personal details relating to the reporter and to the persons mentioned in occurrence reports and any details, including the name of the organization (s) involved in the occurrence, which may reveal the identity of the reporter or of a third party or lead to that information being inferred from the occurrence report;
7. Aviation personnel is certified personnel, assigned and responsible in aviation.
8. Consequence means potential outcome(s) of the hazard.
9. Disidentified information means information arising from occurrence reports from which all personal data such as names or addresses of natural persons have been removed;
10. Hazard means condition, object or activity with the potential of causing injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.
11. Incident an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.
12. Just culture means 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;

13. Komite Nasional Keselamatan Transportasi (KNKT) is the permanent national transportation safety investigation authority conducting or supervising safety investigations;
14. Mitigation means measures to address the potential hazard or to reduce the risk probability or severity.
15. Predictive means a method that captures system performance as it happens in real-time normal operations.
16. Proactive means the adoption of an approach which emphasizes prevention through the identification of hazards and the introduction of risk mitigation measures before the risk-bearing event occurs and adversely affects safety performance.
17. Probability means the likelihood that an unsafe event or condition might occur.
18. Reactive means the adoption of an approach where safety measurement is as a responds to the events that already happened, such as incidents and accidents.
19. Reporter means a natural person who reports an occurrence or other safety-related information pursuant to this regulation;
20. Risk means the assessment, expressed in terms of predicted probability and severity, of the consequence(s) of a hazard taking as reference the worst foreseeable situation.
21. Risk management means the identification, analysis and elimination, and/or mitigation to an acceptable level of risks that threaten the capabilities of an organization.
22. Safety means the state in which the risk of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management.
23. Safety assessment means a systematic analysis of a proposed change to equipment or procedures to identify and mitigate weaknesses before change is implemented.
24. Safety assurance means what the service providers do with regard to safety performance monitoring and measurement.
25. Safety audit means what the Civil Aviation Authority performs with regard to its safety programme, and the service providers perform with regard to the SMS.

26. Safety Management System (SMS) means a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.
27. Safety manager means a person who is responsible for providing guidance and direction for the operation of the organization's safety management system.
28. Safety oversight means the activities of Civil Aviation Authority as part of its safety programme, performed with regard to the service providers SMS, in order to confirm the organization's continuing fulfillment of its corporate safety policy, objectives, goals and standards.
29. Safety performance indicator means established objectives of a services provider SMS, linked to major components of a services provider SMS, and expressed in numerical terms.
30. Safety performance monitoring means the activities of a service provider as part of its SMS, in order to confirm the organization's continuing fulfilment of its corporate safety policy, objectives, goals and standards.
31. Safety performance target means medium or long-term objectives of a services provider SMS, determined weighing what is desirable and what is realistic for an individual services provider, and expressed in numerical terms.
32. Safety policy means a statement reflecting the organization's philosophy of safety management, and become the foundation on which the organization's SMS is built. The safety policy outlines the methods and processes that the organization will use to achieve desired safety outcomes.
33. Safety programme means an integrated set of regulations and activities aimed at improving safety.
34. Safety requirement means the operational procedures, technology, systems and programmes to which measures of reliability, availability, performance and/or accuracy can be specified are needed to achieve the safety performance indicators and safety performance targets.
35. Serious incident an incident involving circumstances indicating that an accident nearly occurred.

36. Service provider means approved/ certificated organizations providing aviation services
37. Severity means the possible consequences of an unsafe event or condition, taking as reference the worst foreseeable situation.
38. State Safety Programme means an integrated set of legal acts and activities aimed at managing civil aviation safety in the State;
39. System means organized set of processes and procedures.
40. Systematic means that safety management activities will be conducted in accordance with a pre-determined plan, and applied in a consistent manner throughout the organization.

SUBPART B SAFETY MANAGEMENT SYSTEMS

19.15 Regulatory Reference

This Civil Aviation Safety Regulation (CASR) Part 19 is promulgated under the statutory authority in the Law No. 1 Year 2009 on Aviation, Chapter XIII – Aviation Safety, Part Four – Safety Management System for Aviation Service Provider.

19.17 Scope and Applicability

(a) Scope

- (1) This regulation describes the requirements for an approved service provider as follow:
 - (i) Approved Training Organization;
 - (ii) Aircraft Operator Certificate (AOC) in accordance with CASR Part 91, 121, 135;
 - (iii) Approved Maintenance Organization (AMO) in accordance with CASR Part 145 providing services to operators;
 - (iv) Organization responsible for the type design or manufacture of aircraft , engines or propellers in accordance with CASR Part 21;
 - (v) ATS provider in accordance with CASR Part 170, 171, 172, 173, 174, 175, and 176;
 - (vi) Operator of a certified aerodrome, in accordance with CASR Part 139.
- (2) This regulation addresses aviation safety-related processes, procedures and activities of the service provider, rather than occupational safety, environmental protection or other non-aviation-related activities.
- (3) The service provider is responsible for the safety of services or products contracted to or purchased from other organizations.
- (4) This regulation establishes the minimum acceptable requirements; the service provider can establish more stringent requirements.

- (5) The Service provider shall establish, maintain and adhere to a Safety Management System (SMS) that is appropriate to the size, nature and complexity of the operations authorized to be conducted under its operations certificate and the safety hazards and risks related to the operations.

(b) Applicability and acceptance

A service provider shall have in place a Safety Management System (SMS) that is acceptable to the Directorate General of Civil Aviation (DGCA) that, as a minimum:

- (1) identifies safety hazards and assesses and mitigates risks;
- (2) ensures that remedial action necessary to maintain an acceptable level of safety is implemented;
- (3) provides for continuous monitoring and regular assessment of the safety level achieved; and
- (4) aims to make continuous improvement to the overall level of safety.

19.19 Safety policy and objectives

- (a) A service provider shall define the organization's safety policy.
- (b) The safety policy shall be signed by the Accountable Executive of the organization.
- (c) The safety policy shall be in accordance with all applicable legal requirements and international standards, best industry practices and shall reflect organizational commitments regarding safety.
- (d) The safety policy shall reflect organizational commitment regarding safety, including of a positive safety culture.
- (e) The safety policy shall clearly indicate which types of behaviors are unacceptable related to the service provider's aviation activities and include the circumstances under which disciplinary action would not apply;
- (f) The safety policy shall be communicated, with visible endorsement, throughout the organization.
- (g) The safety policy shall include a clear statement about the provision of the necessary human and financial resources for its implementation.

- (h) The safety policy shall, among other things, include the following objectives:
 - (1) Commitment to implement an SMS;
 - (2) Commitment to continual improvement in the level of safety;
 - (3) Commitment to the management of safety risks;
 - (4) Commitment to encourage employees to report safety issues; and
 - (5) Identification of responsibilities of management and employees with respect to safety performance.
- (i) The safety policy shall be reviewed periodically to ensure it remains relevant and appropriate to the organization.
- (j) A service provider shall establish safety objectives for the SMS.
- (k) The safety objectives should be linked to the safety performance indicators, safety performance targets and safety requirements of the service provider SMS.

19.21 Organizational Structure and Responsibilities

- (a) A service provider shall identify an Accountable Executive to be responsible and accountable on behalf of the service provider for meeting the requirements of this regulation, and shall notify the DGCA the name of the person.
- (b) The Accountable Executive shall be a single, identifiable person who, irrespective of other functions, shall have the ultimate responsibility for the implementation and maintenance of the SMS.
- (c) The Accountable Executive shall have:
 - (1) full control of the human resources required for the operations authorized to be conducted under the operations certificate;
 - (2) full control of the financial resources required for the operations authorized to be conducted under the operations certificate;
 - (3) final authority over operations authorized to be conducted under the operations certificate;

- (4) direct responsibility for the conduct of the organization's affairs; and
- (5) final responsibility for all safety issues.
- (d) A service provider shall establish the safety structure necessary for the implementation and maintenance of the organization's SMS.
- (e) A service provider shall identify the safety responsibilities of all members of senior management, irrespective of other responsibilities.
- (f) Safety-related positions, responsibilities and authorities shall be defined, documented and communicated throughout the organization.
- (g) A service provider shall identify a Safety Manager to be the member of management who shall be the responsible individual and focal point for the development and maintenance of an effective SMS.
- (h) The Safety Manager shall:
 - (1) ensure that processes needed for the SMS are established, implemented and maintained;
 - (2) report to the Accountable Executive on the performance of the SMS and on any need for improvement; and
 - (3) ensure safety promotion throughout the organization.

19.23 SMS Implementation Plan

- (a) A service provider shall develop and maintain an SMS implementation plan.
- (b) The SMS implementation plan shall be the definition of the approach the organization will adopt for managing safety in a manner that will meet the organization's safety needs
- (c) The SMS implementation plan shall include the following:
 - (1) Safety policy and objectives;
 - (2) Safety planning,
 - (3) System description;
 - (4) Gap analysis;
 - (5) SMS components;
 - (6) Safety roles and responsibilities;
 - (7) Safety reporting policy;

- (8) Means of employee involvement;
- (9) Safety training;
- (10) Safety communication;
- (11) Safety performance measurement; and
- (12) Management review of safety performance.
- (d) The SMS implementation plan shall be endorsed by senior management of the organization.
- (e) A service provider shall, as part of the development of the SMS implementation plan, complete a system description.
- (f) The system description shall include the following:
 - (1) The system interactions with other systems in the air transportation system;
 - (2) The system functions;
 - (3) Required human performance considerations of the system operation;
 - (4) Hardware components of the system;
 - (5) Software components of the system;
 - (6) Related procedures that define guidance for the operation and use of the system;
 - (7) Operational environment; and
 - (8) Contracted and purchased products and services.
- (g) A service provider shall, as part of the development of the SMS implementation plan, complete a gap analysis, in order to:
 - (1) identify the safety arrangements and structures that may be already exist throughout an organization; and
 - (2) determine additional safety arrangements required to implement and maintain the organization's SMS.
- (h) The SMS implementation plan shall explicitly address the coordination between the SMS of the service provider and the SMS of other organizations the service provider must interface with during the provision of services.

19.25 Coordination of emergency response planning

A service provider shall develop and maintain, or coordinate, as appropriate, an emergency response/contingency plan that shall ensure:

- (a) orderly and efficient transition from normal to emergency operations;
- (b) designation of emergency authority;
- (c) assignment of emergency responsibilities;
- (d) coordination of efforts to cope with the emergency; and
- (e) safe continuation of operations, or return to normal operations as soon as possible.

19.27 Documentation

- (a) A service provider shall develop and maintain SMS documentation, in paper or electronic form, to describe the following:
 - (1) Safety policy;
 - (2) Safety objectives;
 - (3) SMS requirements, procedures and processes;
 - (4) Responsibilities and authorities for procedures and processes; and
 - (5) SMS outputs.
- (b) A service provider shall, as part of the SMS documentation, develop and maintain a Safety Management System Manual (SMSM), to communicate the organization's approach to safety throughout the organization.
- (c) The SMSM shall document all aspects of the SMS, and its contents shall include the following:
 - (1) scope of the Safety Management System;
 - (2) safety policy and objectives;
 - (3) safety accountabilities;
 - (4) key safety personnel;
 - (5) documentation control procedures;
 - (6) hazard identification and risk management schemes;
 - (7) safety performance monitoring;
 - (8) emergency response/contingency planning;
 - (9) management of change; and
 - (10) safety promotion.
- (d) An air carrier under CASR Part 121 and Part 135 shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

19.29 Safety Data Collection and Processing systems

- (a) A service provider shall develop and maintain Safety Data Collection and Processing systems (SDCPS) that provide for the identification of hazards and the analysis, assessment and mitigation of safety risks.
- (b) A service provider's SDCPS shall include reactive, proactive and predictive methods of safety data collection.

19.31 Hazard Identification

- (a) A service provider shall develop and maintain formal means for effectively collecting, recording, acting on and generating feedback about hazards in operations, which combine reactive, proactive and predictive methods of safety data collection. Formal means of safety data collection shall include mandatory, voluntary and confidential reporting systems as required by sections 19.57 and 19.59 of this part.
- (b) The hazard identification process shall include the following steps:
 - (1) reporting of hazards, events or safety concerns;
 - (2) collection and storing the safety data;
 - (3) analysis of the safety data; and
 - (4) distribution of the safety information distilled from the safety data.

19.33 Risk management

- (a) A service provider shall develop and maintain a formal risk management process that ensures the analysis, assessment and mitigation of risks of consequences of hazards to an acceptable level.
- (b) The risks of the consequences of each hazard identified through the hazard identification processes described in section 19.31 of this part shall be analyzed in terms of probability and severity of occurrence, and assessed for their tolerability.
- (c) The organization shall define the levels of management with authority to make safety risk tolerability decisions.
- (d) The organization shall define safety controls for each risk assessed as tolerable.

19.35 Safety assurance

- (a) A service provider shall develop and maintain safety assurance processes to ensure that the safety risks controls developed as a consequence of the hazard identification and risk management activities under section 19.31 achieve their intended objectives.
- (b) Safety assurance processes shall apply to an SMS whether the activities and/or operations are accomplished internally or outsourced.

19.37 Safety performance monitoring and measurement

- (a) A service provider shall, as part of the SMS safety assurance activities, develop and maintain the necessary means to verify safety performance of the organization in comparison with the approved safety policies and objectives, and to validate the effectiveness of implemented safety risk controls.
- (b) Safety performance monitoring and measurement means shall include the following:
 - (1) safety reporting;
 - (2) safety audits;
 - (3) safety surveys;
 - (4) safety reviews;
 - (5) safety studies; and
 - (6) internal safety investigations.
- (c) The safety reporting procedure shall set out the conditions to ensure effective safety reporting, including the conditions under protection from disciplinary/administrative action shall apply.

19.39 Management of change

- (a) A service provider shall, as part of the SMS safety assurance activities, develop and maintain a formal process for the management of change.
- (b) The formal process for the management of change shall:
 - (1) identify changes within the organization which may affect established processes and services;

- (2) describe the arrangements to ensure safety performance before implementing changes; and
- (3) eliminate or modify safety risk controls that are no longer needed due to changes in the operational environment.

19.41 Continuous Improvement of The Safety System

- (a) A service provider shall, as part of the SMS safety assurance activities, develop and maintain formal processes to identify the causes of underperformance of the SMS, determine the implications in its operation, and to rectify situations involving below standard performance in order to ensure the continual improvement of the SMS.
- (b) Continuous improvement of the service provider SMS shall include:
 - (1) proactive and reactive evaluations of facilities, equipment, documentation and procedures, to verify the effectiveness of strategies for control of safety risks; and
 - (2) proactive evaluation of the individuals' performance, to verify the fulfilment of safety responsibilities.

19.43 Safety Promotion

Service providers shall develop and maintain formal safety training and safety communication activities to create an environment where the safety objectives of the organization can be achieved.

19.45 Safety Training

- (a) A service provider shall, as part of its safety promotion activities, develop and maintain a safety training programme that ensures that personnel are trained and competent to perform the SMS duties.
- (b) The scope of the safety training shall be appropriate to the individual's involvement in the SMS.
- (c) The Accountable Executive shall receive safety awareness training regarding:
 - (1) safety policy and objectives;
 - (2) SMS roles and responsibilities; and
 - (3) safety assurance.

19.47 Safety communication

- (a) A service provider shall, as part of its safety promotion activities, develop and maintain formal means for safety communication, to:
 - (1) ensure that all staff is fully aware of the sms;
 - (2) convey safety critical information;
 - (3) explain why particular safety actions are taken;
 - (4) explain why safety procedures are introduced or changed; and
 - (5) convey generic safety information.
- (b) Formal means of safety communication shall include:
 - (1) safety policies and procedures;
 - (2) news letters; and
 - (3) bulletins.

19.49 Quality Policy

A service provider shall ensure that the organization quality policy is consistent with, and supports the fulfillment of the activities of the SMS.

19.51 Phase of Implementation SMS

A service provider may implement SMS by a phased approach, which encompasses four phases as follows:

- (a) Phase 1 should provide a blueprint on how the SMS requirements will be met and integrated to the organization's work activities, and an accountability framework for the implementation of the SMS:
 - (1) identify the Accountable Executive and the safety accountabilities of managers;
 - (2) identify the person (or planning group) within the organization responsible for implementing the SMS;
 - (3) describe the system (air operator, ATC services provider, approved maintenance organization, certified aerodrome operator);

- (4) conduct a gap analysis of the organization's existing resources compared with the national and international requirements for establishing an SMS;
 - (5) develop an SMS implementation plan that explains how the organization will implement the SMS on the basis of national requirements and international Standards and Recommended Practices (SARPs), the system description and the results of the gap analysis;
 - (6) develop documentation relevant to safety policy and objectives; and
 - (7) develop and establish means for safety communication.
- (b) Phase 2 should put into practice those elements of the SMS implementation plan that refer to the safety risk management reactive processes:
- (1) hazard identification and risk management using reactive processes;
 - (2) training relevant to:
 - (i) SMS implementation plan components; and
 - (ii) Safety risk management (reactive processes).
 - (3) documentation relevant to:
 - (i) SMS implementation plan components; and
 - (ii) Safety risk management (reactive processes).
- (c) Phase 3 should put into practice those elements of the SMS implementation plan that refer to the safety risk management proactive and predictive processes:
- (1) hazard identification and risk management using proactive and predictive processes
 - (2) training relevant to:
 - (i) SMS implementation plan components; and
 - (ii) Safety risk management (proactive and predictive processes).
 - (3) documentation relevant to:
 - (i) SMS implementation plan components; and
 - (ii) Safety risk management (proactive and predictive processes).

- (d) Phase 4 should put into practice operational safety assurance:
- (1) development of acceptable level (s) of safety;
 - (2) development of safety indicators and targets;
 - (3) SMS continuous improvement;
 - (4) training relevant to operational safety assurance; and
 - (5) documentation relevant to operational safety assurance.

SUBPART C SAFETY DATA AND SAFETY INFORMATION COLLECTION,
ANALYSIS, PROTECTION

19.53 Regulatory Reference

This Civil Aviation Safety Regulation (CASR) Part 19 sets the implementing rules of the aviation safety data collection, analysis, exchange and protection as required by Aviation Act Number 1, 2009:

- (a) Chapter XIII –AVIATION SAFETY Article 309 paragraph (1) letter c. Aviation Safety Reporting System;
- (b) Article 309 paragraph (1) letter d. Aviation Safety Data Analysis and Exchange;
- (c) Article 321 paragraph (1) Aviation personnel obligated to report Occurrence; and
- (d) Article 321 paragraph (2) Reporter Protection.

19.55 Applicability

This part prescribes the rules governing:

- (a) the reporting of occurrences which endangered or which, if not corrected or addressed, would endanger an aircraft, its occupants, any other person, equipment or installation affecting aircraft operations; and the reporting of other relevant safety-related information in that context;
- (b) analysis and follow-up action in respect of reported occurrences and other safety-related information;
- (c) the protection of aviation professionals;
- (d) appropriate use collected safety information; and
- (e) the dissemination of anonymised information to interested parties for the purpose of providing such parties with the information they need in order to improve aviation safety.

C.1 SAFETY DATA COLLECTION AND PROCESSING SYSTEM (SDCPS)

19.57. Mandatory reporting

- (a) Occurrences which may represent a significant risk to aviation safety as listed in Appendix C “List Classifying Occurrence in Civil Aviation To Be Mandatorily Reported” shall be reported by the persons listed in paragraph (d) of this section through the mandatory occurrence reporting systems.

- (b) Each service provider such as Air Operator, ATS Service Provider, Aerodrome Operator, Aircraft Maintenance Organizations, Training Organization and Design Organization and Manufacturing Organization shall establish a mandatory reporting system as a part of their SMS to facilitate the collection of details of occurrences in the organization referred to paragraph (a) of this section.
- (c) The following aviation personnel shall report the occurrences referred to paragraph (a) of this section through the system established in accordance with paragraph (b) of this section by the service provider which employs, contracts or uses the services of the reporter or, failing that, through the system established in accordance with paragraph (c) of this section by the DGCA:
 - (1) the pilot in command, or, in cases where the pilot in command is unable to report the occurrence, any other crew member next in the chain of command of an aircraft registered in Indonesia or an aircraft not registered in Indonesia but used by an Indonesian operator for which Indonesia DGCA ensures oversight of operations;
 - (2) a person engaged in designing, manufacturing, continuous airworthiness monitoring, maintaining or modifying an aircraft, or any equipment or part thereof, under the oversight of Indonesia DGCA;
 - (3) a person who signs a release to service in respect of an aircraft or any equipment or part thereof, under the oversight of DGCA;
 - (4) a person who performs a function which requires him or her to be authorised by the DGCA as a staff member of an air traffic service provider entrusted with responsibilities related to air navigation services or as a flight information service officer;
 - (5) a person who performs a function connected with the safety management of an airport;

- (6) a person who performs a function connected with the installation, modification, maintenance, repair, overhaul, flight-checking or inspection of air navigation facilities for which the DGCA ensures the oversight;
 - (7) a person who performs a function connected with the ground handling of aircraft, including fuelling, load-sheet preparation, loading, de-icing and towing at an certified airport.
- (d) The persons listed in paragraph (d) of this section shall report occurrences within 72 hours of becoming aware of the occurrence, unless exceptional circumstances prevent this.
 - (e) Following notification of an occurrence, service provider shall report to the DGCA, the details of occurrences collected in accordance with paragraph (b) of this section as soon as possible and in any event no later than 72 hours after becoming aware of the occurrence.

19.59 Voluntary Reporting

- (a) Each service provider shall establish a voluntary reporting system to facilitate the collection of:
 - (1) details of occurrences that may not be captured by the mandatory reporting system;
 - (2) other safety-related information which is perceived by the reporter as an actual or potential hazard to aviation safety.
- (b) This voluntary reporting system does not eliminate the need for mandatory reporting of aircraft accidents and serious incidents to the relevant authorities under the CASR 830; NOTIFICATION AND REPORTING OF AIRCRAFT ACCIDENT OR SERIOUS INCIDENT AND ACCIDENT OR SERIOUS INCIDENT INVESTIGATION PROCEDURES.
- (c) The voluntary reporting systems shall be used to facilitate the collection of details of occurrences and safety-related information:
 - (1) not subject to mandatory reporting pursuant to section 19.57 paragraph (a) of this Part.
 - (2) reported by persons who are not listed in section 19.57 paragraph (d) of this Part.

- (d) Each service provider shall report to the DGCA, in a timely manner, details of occurrences and safety-related information which have been collected pursuant to paragraph (a) of this section and which may involve an actual or potential aviation safety risk.

19.61 Collection and Storage of Information

- (a) Each service provider shall designate one or more persons to handle independently the collection, evaluation, processing, analysis and storage of details of mandatory and voluntary occurrences reported pursuant to sections 19.57 and 19.59.

The handling of the reports shall be done with a view to preventing the use of information for purposes other than safety, and shall appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in occurrence reports, with a view to promoting a 'just culture'.

- (b) By agreement with the DGCA, small organisations of the service provider may put in place a simplified mechanism for the collection, evaluation, processing, analysis and storage of details of occurrences. They may share those tasks with other service provider of the same nature, while complying with the rules on confidentiality and protection pursuant to this regulation.
- (c) Service provider shall store occurrence reports drawn up on the basis of details of occurrences collected in accordance with sections 19.57 and 19.59 in one or more databases.

19.63 Quality and content of occurrence reports

- (a) Occurrence reports referred to section 19.57 shall contain at least the information listed in Appendix D of this Part.
- (b) Occurrence reports referred to section 19.57 paragraphs (d) and (e) of this Part shall include a safety risk classification for the occurrence concerned. That classification shall be reviewed and if necessary amended, and shall be endorsed by DGCA, in accordance with the common ICAO risk classification scheme.
- (c) Service provider shall establish data quality checking processes to improve data consistency, notably between the information collected initially and the report stored in the database.

(d) The databases referred to 19.57 paragraphs (d) and (e) of this Part shall use formats which are:

- (1) standardized to facilitate information exchange; and
- (2) compatible with the ICAO ADREP taxonomy.

C.2 SAFETY DATA AND SAFETY INFORMATION ANALYSIS

19.65 Flight Data Analysis Program.

- (a) Each service provider, especially an air carrier operating an aircraft of a maximum certificated take-off mass in excess of 27.000 kg shall establish and maintain a flight data analysis program as part of its safety management system.
- (b) An air carrier may contract its flight data analysis program to a third party provided it retains overall responsibility for maintenance of the program.
- (c) A flight data analysis program shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

19.67 Occurrence analysis and follow-up.

- (a) Each service provider shall develop a process to analyze occurrences collected in accordance with 19.57 paragraph (b) and 19.59 paragraph (a) of this Part in order to identify the safety hazards associated with identified occurrences or groups of occurrences.

Based on that analysis, each service provider shall determine any appropriate corrective or preventive action, required to improve aviation safety.

- (b) When, following the analysis referred to section 19.67 paragraph (a) of this Part, service provider identifies any appropriate corrective or preventive action required to address actual or potential aviation safety deficiencies, it shall:
 - (1) implement that action in a timely manner; and
 - (2) establish a process to monitor the implementation and effectiveness of the action.
- (c) Each service provider shall regularly provide its employees and contracted personnel with information concerning the analysis of, and follow-up on, occurrences for which preventive or corrective action is taken.

(d) Where a service provider identifies an actual or potential aviation safety risk as a result of its analysis of occurrences or group of occurrences reported pursuant to 19.57 paragraph (f) and 19.59 paragraph (c) of this Part, it shall transmit to the DGCA, within 30 days from the date of notification of the occurrence by the reporter:

- (1) the preliminary results of the analysis performed pursuant to paragraph (a), if any; and
- (2) any action to be taken pursuant to paragraph (b) of this section.

The service provider shall transmit to the DGCA the final results of the analysis, where required, as soon as they are available and, in principle, no later than three months from the date of notification of the occurrence.

The DGCA may request service provider to transmit to it the preliminary or final results of the analysis of any occurrence of which it has been notified but in relation to which it has received no follow-up or only the preliminary results.

(e) For each occurrence or group of occurrences monitored in accordance with 19.67 paragraph (d) of this Part, the DGCA shall have access to the analysis made and shall appropriately monitor action taken by the service provider for which it is respectively responsible.

If DGCA concludes that the implementation and the effectiveness of the reported action is inappropriate to address actual or potential safety deficiencies, it shall ensure that additional appropriate action is taken and implemented by the relevant service provider.

C.3 SAFETY DATA AND SAFETY INFORMATION PROTECTION

19.69 Confidentiality and appropriate use of information

(a) The Service Provider shall take the necessary measures to ensure the appropriate confidentiality of the details of occurrences received by them pursuant to 19.57 and 19.59.

Each service provider shall process personal data only to the extent necessary for the purposes of this Regulation.

(b) Information derived from occurrence reports shall be used only for the purpose for which it has been collected.

Service provider shall not make available or use the information on occurrences:

- (1) in order to attribute blame or liability; or
- (2) for any purpose other than the maintenance or improvement of aviation safety.

19.71 Protection of the information source

- (a) For the purposes of this section, 'personal details' includes in particular names or addresses of the aviation personnel.
- (b) Each service provider shall ensure that all personal details are made available to staff of that service provider other than persons designated in accordance with section 19.57 paragraph (a) of this Part only where absolutely necessary in order to investigate occurrences with a view to enhancing aviation safety. Misidentified information shall be disseminated within the service provider as appropriate.

- (c) If disciplinary or administrative proceedings are instituted under national law, information contained in occurrence reports shall not be used against:

- (1) the reporters; or
- (2) the persons mentioned in occurrence reports.

The first subparagraph shall not apply in the cases referred to paragraph (d) of this section.

- (d) Except where paragraph (e) of this section applies, employees and contracted personnel who report or are mentioned in occurrence reports collected in accordance with 19.57 and 19.59 shall not be subject to any prejudice by their employer or by the service provider for which the services are provided on the basis of the information supplied by the reporter.
- (e) The protection under paragraphs (c) and (d) of this section shall not apply to any of the following situations:
 - (1) in cases of negligence, willful violations, and destructive act;
 - (2) where there has been a manifest, severe and serious disregard of an obvious risk and profound failure of professional responsibility to take such care as is evidently required in the circumstances, causing foreseeable damage to a person or property, or which seriously compromises the level of aviation safety.

- (f) Each service provider shall, after consulting its staff representatives, adopt internal rules describing how 'just culture' principles, in particular the principle referred to paragraph (h) of this section, are guaranteed and implemented within that service provider.

APPENDIX A FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)

This appendix specifies the framework for the implementation and maintenance of an SMS. The framework comprises four components and twelve elements as the minimum requirements for SMS implementation:

1. Safety policy and objectives
 - 1.1 Management commitment
 - 1.2 Safety accountability and responsibilities
 - 1.3 Appointment of key safety personnel
 - 1.4 Coordination of emergency response planning
 - 1.5 SMS documentation
 2. Safety risk management
 - 2.1 Hazard identification
 - 2.2 Safety risk assessment and mitigation
 3. Safety assurance
 - 3.1 Safety performance monitoring and measurement
 - 3.2 The management of change
 - 3.3 Continuous improvement of the SMS
 4. Safety promotion
 - 4.1 Training and education
 - 4.2 Safety communication
-
1. Safety policy and objectives
 - 1.1 Management commitment
 - 1.1.1 The service provider shall define its safety policy in accordance with international and national requirements.
The safety policy shall:
 - a) reflect organizational commitment regarding safety, including the promotion of a positive safety culture;
 - b) include a clear statement about the provision of the necessary resources for the implementation of the safety policy;
 - c) include safety reporting procedures;

- d) clearly indicate which types of behaviours are unacceptable related to the service provider's aviation activities and include the circumstances under which disciplinary action would not apply;
- e) be signed by the accountable executive of the organization;
- f) be communicated, with visible endorsement, throughout the organization; and
- g) be periodically reviewed to ensure it remains relevant and appropriate to the service provider.

1.1.2 Taking due account of its safety policy, the service provider shall define safety objectives.

The safety objectives shall:

- a) form the basis for safety performance monitoring and measurement as required by 3.1.2;
- b) reflect the service provider's commitment to maintain or continuously improve the overall effectiveness of the SMS;
- c) be communicated throughout the organization; and
- d) be periodically reviewed to ensure they remain relevant and appropriate to the service provider.

1.2 Safety accountability and responsibilities

The service provider shall:

- a) identify the accountable executive who, irrespective of other functions, is accountable on behalf of the organization, for the implementation and maintenance of an effective SMS;
- b) clearly define lines of safety accountability throughout the organization, including a direct accountability for safety on the part of senior management;
- c) identify the responsibilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the SMS organization;

- d) document and communicate safety accountability, responsibilities, and authorities throughout the organization; and
- e) define the levels of management with authority to make decisions regarding safety risk tolerability.

1.3 Appointment of key safety personnel

The service provider shall appoint a safety manager who is responsible for the implementation and maintenance of the SMS.

Note.— Depending on the size of the service provider and the complexity of its aviation products or services, the responsibilities for the implementation and maintenance of the SMS may be assigned to one or more persons, fulfilling the role of safety manager, as their sole function or combined with other duties, provided these do not result in any conflicts of interest.

1.4 Coordination of emergency response planning

The service provider required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies shall ensure that the emergency response plan is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its products and services.

1.5 SMS documentation

1.5.1 The service provider shall develop and maintain SMS manual that describes its:

- a) safety policy and objectives;
- b) SMS requirements;
- c) SMS processes and procedures; and
- d) accountability, responsibilities and authorities for SMS processes and procedures;

1.5.2 The service provider shall develop and maintain SMS operational records as part of its SMS documentation.

Note.— Depending on the size of the service provider and the complexity of its aviation products or services, the SMS manual and SMS operational records may be in the form of stand-alone documents or may be integrated with other organizational documents (or documentation) maintained by the service provider.

2. Safety risk management

2.1 Hazard identification

2.1.1 The service provider shall develop and maintain a process to identify hazards associated with its aviation products or services.

2.1.2 Hazard identification shall be based on a combination of reactive, and proactive methods.

2.2 Safety risk assessment and mitigation

The service provider shall develop and maintain a process that ensures analysis, assessment and control of the safety risks associated with identified hazards.

Note.— The process may include predictive methods of safety data analysis.

3. Safety assurance

3.1 Safety performance monitoring and measurement

3.1.1 The service provider shall develop and maintain the means to verify the safety performance of the organization and to validate the effectiveness of safety risk controls.

Note.— An internal audit process is one means to monitor compliance with safety regulations, the foundation upon which SMS is built, and assess the effectiveness of these safety risk controls and the SMS.

3.1.2 The service provider's safety performance shall be verified in reference to the safety performance indicators and safety performance targets of the SMS in support of the organization's safety objectives.

3.2 The management of change

The service provider shall develop and maintain a process to identify changes which may affect the level of safety risk associated with its aviation products or services and to identify and manage the safety risks that may arise from those changes.

3.3 Continuous improvement of the SMS

The service provider shall monitor and assess its SMS processes to maintain or continuously improve the overall effectiveness of the SMS.

4. Safety promotion

4.1 Training and education

4.1.1 The service provider shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform their SMS duties.

4.1.2 The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.

4.2 Safety communication

The service provider shall develop and maintain a formal means for safety communication that:

- a) ensures personnel are aware of the SMS to a degree commensurate with their positions;
- b) conveys safety-critical information;
- c) explains why particular actions are taken to improve safety;
and
- d) explains why safety procedures are introduced or changed.

APPENDIX B LIST CLASSIFYING OCCURRENCES IN CIVIL AVIATION TO BE
MANDATORILY REPORTED

1. Air operator

- a. near collisions requiring an avoidance maneuver to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate;
- b. controlled flight into terrain only marginally avoided;
- c. aborted take-offs on a closed or engaged runway, on a taxiway¹ or unassigned runway;
- d. take-offs from a closed or engaged runway, from a taxiway¹ or unassigned runway;
- e. landings or attempted landings on a closed or engaged runway, on a taxiway¹ or unassigned runway;
- f. gross failure to achieve predicted performance during take-off or initial climb;
- g. fires and smoke in the passenger compartment or cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents;
- h. events requiring the emergency use of oxygen by the flight crew;
- i. aircraft structural failures or engine disintegrations, including uncontained turbine engine failures, not classified as an accident;
- j. multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft;
- k. flight crew incapacitation in flight;
- l. fuel quantity requiring the declaration of an emergency by the pilot;
- m. runway incursions classified with severity A. The Manual on the Prevention of Runway Incursions (Doc 9870) contains information on severity classifications;
- n. take-off or landing incidents such as under-shooting, overrunning or running off the side of runways;
- o. system failures, weather phenomena, operations outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft;
- p. failures of more than one system in a redundancy system mandatory for flight guidance and navigation.

2. Maintenance organization

Any airframe, engine, propeller, component or system defect/malfunction/damage found during scheduled or unscheduled aircraft (airframe/engines/components) maintenance activities which could possibly lead to an aircraft operational accident or serious incident (if not promptly rectified).

3. Design and manufacturing organizations

Any design- or manufacturing-related deficiency/defect/malfunction of product or services discovered by or brought to the attention of the design/manufacturing organization which is deemed to warrant the possible issue of an emergency airworthiness directive (EAD), airworthiness directive (AD) or alert service bulletin (ASB).

4. Aerodrome operator

- a. runway incursion (with no ATC involvement);
- b. runway excursion/overshoot (with no ATC involvement);
- c. failure or significant malfunction of airfield lighting;
- d. damage to the aircraft or engine resulting from contact or ingestion of foreign objects or debris on runway or taxiway;
- e. incidents within the aerodrome boundary involving damage to aircraft or with potential impact on aircraft ground movement safety.

5. ANS/CNS provider

- a. Any ANS/CNS-related equipment or system defect/malfunction/damage discovered during operation or equipment maintenance which could possibly lead to an aircraft operational accident or serious incident;
- b. unauthorized penetration of airspace;
- c. aircraft near CFIT;
- d. significant level bust incidents;
- e. loss of separation incidents;
- f. runway incursion (involving ATC communication);
- g. runway excursion/overshoot (involving ATC communication);
- h. any other ANS-related deficiency/defect/malfunction as reported to (and verified by) the ANS/CNS operator and which is deemed to have an impact on the safety of air navigation.

APPENDIX C LIST OF REQUIREMENTS APPLICABLE TO THE MANDATORY AND VOLUNTARY OCCURRENCE REPORTING SCHEMES

1. COMMON MANDATORY DATA FIELDS

When entering, in their respective databases, information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, service provider and the DGCA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (1) Headline
 - Headline
- (2) Filing Information
 - Responsible Entity
 - File Number
 - Occurrence Status
- (3) When
 - UTC Date
- (4) Where
 - State/Area of Occurrence
 - Location of Occurrence
- (5) Classification
 - Occurrence Class
 - Occurrence Category
- (6) Narrative
 - Narrative Language
 - Narrative
- (7) Events
 - Event Type
- (8) Risk classification

2. SPECIFIC MANDATORY DATA FIELDS

2.1. Aircraft-related data fields

When entering, in their respective databases, information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, service provider and DGCA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (1) Aircraft Identification
 - State of Registry
 - Make/Model/Series
 - Aircraft serial number
 - Aircraft Registration
 - Call sign
- (2) Aircraft Operation
 - Operator
 - Type of operation
- (3) Aircraft Description
 - Aircraft Category
 - Propulsion Type
 - Mass Group
- (4) History of Flight
 - Last Departure Point
 - Planned Destination
 - Flight Phase
- (5) Weather
 - Weather relevant

2.2. Data fields relating to air navigation services

When entering, in their respective databases, information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, service provider and DGCA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (1) ATM relation
 - ATM contribution
 - Service affected (effect on ATM service)
- (2) ATS Unit Name

2.2.1. Separation Minima Infringement/Loss of Separation and
Airspace Infringement-related data fields

When entering, in their respective databases, information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, service provider and DGCA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (1) Airspace
 - Airspace type
 - Airspace class
 - FIR/UIR name

2.3. Aerodrome-related data fields

When entering, in their respective databases, information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, service provider and DGCA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (1) Location Indicator (ICAO indicator of the airport)
- (2) Location on the aerodrome

2.4. Aircraft damage or personal injury-related data fields

When entering, in their respective databases, information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, service provider and DGCA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (1) Severity
 - Highest Damage
 - Injury Level

(2) Injuries to persons

- Number of injuries on ground (fatal, serious, minor)
- Number of injuries on aircraft (fatal, serious, minor)

Note:

The data fields must be completed with the information requested. If it is not possible for the DGCA to include that information because it has not been provided by the service provider or the reporter, the data field may be completed with the value 'unknown'. However, with a view to ensuring that the appropriate information is transmitted, use of that 'unknown' value should, to the best extent possible, be avoided, and the report should, where possible, be completed with the information later.

MENTERI PERHUBUNGAN
REPUBLIK INDONESIA,

ttd

BUDI KARYA SUMADI

Salinan sesuai dengan aslinya



KERALA BIRO HUKUM

SRI LESTARI RAHAYU

Pemula Muda (IV/c)

NIP. 19620620 198903 2 010