SAFETY MANAGEMENT SYSTEM MANUAL

Rev. No.: 04

January 2021

PT. Smart Cakrawala Aviation

SCA/SFD/2-001

RECORD OF REVISION

REVISION (ISSUE)	REVISION DATE	ENTERED DATE	ENTERED BY	REMARKS
00	April 2018	April 2018	Sonia E.N	
01	May 2019	May 2019	Sonia E.N	
02	Sept 2019	Sept 2019	Sonia E.N	
03	August 2020	August 2020	Sonia E.N	
04	January 2021	January 2021	Sonia E.N	

REVISIONS HIGHLIGHT

Revison Number	Revision Date	Chapter	Page	Description of Changed
01	May 2019	1, 2, 4, 5, and 6	1.3,2.1, 2.2,2.3, 4.2, 4.3, 5.1, 5.4, 6.3,6.5, 6.6,6.7	Replaced from Director (Bapak Dedi P) to President director (Bapak pongky Majaya) - Non Punitive Reporting Policy - Quality Policy - Safety Policy Commitment
02	September 2019	1.2	1-6	Revision Control Number: SCA/SFD 2 – 001
02	September 2019	2.2	2-3	Added to SCA AMO commitment to Safety
02	September 2019	4.1	4.1	Added to SCA AMO 145
02	September 2019	4.3	4.7	Organizational Structure
02	September 2019	6.4.1	6.6	ERP Flow chart and Detail Emergency Communication Flowchart
02	September 2019	6.5	6.7	Emergency Notification
02	September 2019	6.5	6.8	Emergency Notification
02	September 2019	9.1.3	9.3	Added to AMO 145 of possible safety indicators
02	September 2019	9.4.8	9.14	Added to Remedial Action
03	August 2020	4.3	4.7	Organizational Structure
03	August 2020	8.3	8.5	Risk Assessment

Revison Number	Revision Date	Chapter	Page	Description of Changed
02	January 2021	SPC	SPC-1	Added with “Safety Policy is review periodically at least one each year as part of the management review proccess”.
01	January 2021	2.3.2	2.3	Added with The Safety Manager will complete the process within 10 (ten) working days and may need more time if discussion with the reporter or consulting the third party is required” refer to SI 19-05 Appendix D
04	January 2021	4.3	4.7	Organizational Structure
01	January 2021	6.8.2	6.17	Emergency Response Plan Checklist move to Appendix O
01	January 2021	9.1.2	9.1	Safety Goals
01	January 2021	Appendix K	APP 16	Hazard Report Form change to Report Form
01	January 2021	Appendix O	APP 57	New Appendix for Emergency Response Plan Checklist

PREAMBLE

This Safety Management System Manual provides guidance to all personnel of PT. Smart Cakrawala Aviation in implementing Safety Management System to meet requirements of Civil Aviation Safety Regulations and guidelines are based on the ICAO SARPs (Standard and Recommended Practices) outlined in ICAO Doc. 9859 AN/474.

Emergency Response Plan (ERP) procedures have been compiled to provide information and instruction to all personnel of PT Smart Cakrawala Aviation on the manner in which their duties are carried out. It contains policies and procedures related with emergency response plan in accordance with the laws and regulations of the Republic of Indonesia. Any terms made in this manual refer to company, and/or Air Operator, shall be taken to mean PT Smart Cakrawala Aviation. In particular, this manual is aimed at all company personnel and personnel of contracting agents, who are responsible for implementing and managing effective Company Safety Program.

The purpose of this manual is to assist management in fulfilling the requirements of Safety Management System of PT Smart Cakrawala Aviation in promoting its Safety Policy. Any questions or comments pertaining to usage of the manual or information contained herein should be directed to Safety & Quality Manager, or appropriate division of PT Smart Cakrawala Aviation headquarters.

Jakarta, 2 May 2019

Pongky Majaya
President Director

"Safety is Our Highest Priority."

PT. SMART CAKRAWALA AVIATION will achieve optimum safety standards by developing and implementing an integrated safety culture in our organization, where safety is key consideration in all business plans, decisions, policies, procedures, manuals, contract and daily work activities, in such away:

- ✓ **To prevent incidents and accidents and reduce their potential for damage or injury**
- ✓ **To provide our employees and customers with a safe environment.**

All Team Members shall foster a corporate culture that displays the following characteristics:

- Senior Team Members lead by example.
- Clear policy and operating procedures.
- Team Members communicate regularly with each other on safety issues.
- Senior Team Members actively encourage Team Members to report accidents, incidents and threats without fear retribution.
- We do not tolerate deliberate or reckless unsafe behavior or failure to report accidents.
- All Team Members are concerned for the safety of their colleagues, customers, contractors and the communities we serve.
- Government regulations and industry guidelines are used as a minimum standard.
- Adequate investment is made in equipment, systems, procedures and personnel.
- PT. Smart Cakrawala Aviation shall ensure all of its staff receives the necessary training to carry out their duties effectively, promptly, and without error.
- Customer Service, profitability and On Time Performance are considered business imperatives but safety and security are always more important.
- All Team Members take full responsibility for safety and security.
- Safety achievements are recognized and celebrated.
- Safety Policy is review periodically at least one each year as part of the management review proccess.

PT. Smart Cakrawala Aviation

Pongky Majaya

President Director

QUALITY POLICY COMMITMENT

This Safety Management Manual has been compiled for the use and guidance of Safety Program in the execution of their activity responsibility. This manual reflects PT. Smart Cakrawala Aviation unwavering commitment to safety and airworthy of Approved Maintenance Organization activity. It is the responsibility of each employee to ensure that they are familiar with the contents of this manual and that they follow the manual laid out in it. The standards contained in this Manual are in accordance with Aviation Act number 1 year 2009, Civil Aviation Safety Regulations (CASR) Part 145 and applicable guidance for Safety Management System.

Where reference in this Manual is made to the "Approved Maintenance Organization (AMO) and Quality Control Manual", it shall be taken to mean PT. Smart Cakrawala Aviation

All amendments, after approval/acceptance by the Directorate General Civil Aviation (DGCA), shall be promptly inserted into the Manual by the individual or organization shown on the distribution list, as the holder of the Manual, and that person shall be responsible for its.

The Safety & Quality Manager is responsible for the development, maintenance, improvement, distribution and amendment of this Safety Management System Manual. Comments/suggestions for improvement of the Safety Management System Manual should be brought to the attention of the Safety & Quality Department.

Jakarta, 2 September 2019

Pongky Majaya
President Director

NON PUNITIVE REPORTING POLICY

(1) PT. Smart Cakrawala Aviation is committed to the safest flight operating standard possible. To achieve this, it is imperative that we have uninhibited reporting of all incidents and occurrences which may compromise the safe conduct of our operations. To this end, every employee is responsible for communicating any information that may affect the integrity of flight safety. Such communication must be completely free of any form of reprisal.

(2) PT. Smart Cakrawala Aviation will not take disciplinary action against any employee who discloses an incident or occurrence involving flight safety. This policy shall not apply to information received by the Company from a source other than the employee, or which involves an illegal act, or a deliberate or wilful disregard of promulgated regulations or procedures.

(3) The primary responsibility for flight safety rests with line Managers; however, flight safety is everyone's concern.

(4) Our method of collecting, recording and disseminating information obtained from Air Safety Incident Reports has been developed to protect, to extend the permissible by law, the identity of any employee who provides flight safety information.

(5) I urge all staff to use our flight safety program to help PT. Smart Cakrawala Aviation become a leader in providing our customers and employees with the highest level of flight safety.

Jakarta, 2 May 2019

Pongky Majaya

President Director

MANUAL DISTRIBUTION LIST

The Safety Manager will distribute this Safety Management System Manual to the listed functions below:

List of Safety Management System Manual holders:

Control No.	Safety Management System Manual Holder
Original	Library
01	Safety & Quality Manager
02	DGCA
03	Operation Manager
04	Chief Pilot Fixed Wing
05	Chief Pilot Rotary Wing
06	Technical Manager
07	Chief Inspector
08	Main Base
09	Satellite Base
10	Maintenance Base

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PT. SMART CAKRAWALA AVIATION	D G C A
 SONIA ERLYN NASUTION SAFETY & QUALITY MANAGER	 CAPT. ALFIN BASTIAN FIRDAUS, S.E. PRINCIPAL OPERATIONS INSPECTOR

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When the following terms (taken from ICAO Annex 13 and CASR 19.1) are used in the SARPs for Aircraft Accident and Incident Investigation, they have the following meaning:

Accident

An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, 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 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 passenger 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, except for engine failure or damage, when the damage is limited to the engine, its cowling or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or

c. The aircraft is missing or is completely inaccessible.

An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note: For statistical uniformity only, an injury resulting in death within 30 (thirty) days of the accident date is classified as a fatal injury.

Acceptable level of safety performance (ALoSP)

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

Accountability	Obligation or willingness to account for one's actions.
Accountable Executive	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. Accountable Executive in PT Smart Cakrawala Aviation is Director.
Acceptable Risk	The residual (final) risk after application of controls, i.e. hazard controls/risk controls, which have been applied to the associated contributory hazards; that have been identified and communicated to management for acceptance.
Aircraft	Any machine that can drive support in the atmosphere from reactions of air other than reactions of air against the earth's surface.
Anonymisation	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.
Aviation personnel	Certified personnel, assigned and responsible in aviation.
Audit	An independent examination of the life cycle processes and their products for compliance, accuracy, completeness and traceability.
Causes	Actions, omissions, event, condition, or a combination thereof, which led to the accident and incident.
Consequence	Potential outcome(s) of the hazard.
Disidentified information	Information arising from occurrence reports from which all personal data such as names or addresses of natural persons have been removed;
Flight Recorder	Any type of recorder installed in the aircraft for the purpose of complementing accident and incident.
Hazard	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. A hazard is not an accident. A failure or a malfunction can result in an unsafe condition, and/or unsafe act. Human error can result in an unsafe act. Contributory Hazards define the contributory events that lead to the final outcome. For simplicity, contributory hazards can also include initiating events and primary hazards. Sequential logic defining the hazardous event should remain consistent throughout the hazard analysis process. Hazard the potential for harm; also see contributory Hazard, Primary Hazard. A hazard is not an accident. Per FAA Order 8040.4 a condition, event or circumstance that could lead to or contribute to an unplanned or undesired event. Hazard or hazard condition, anything, real or potential, that could make possible, or contribute to making possible, an accident. Hazard, A condition that is prerequisite to an accident.
Hazardous events	An accident; also see accident. It should be noted that a hazardous event is not being defined.
Hazard Probability	Defined in quantitative or qualitative terms, the estimated probability of the specific contributory hazards which are defined within the hazardous event under study, possible elements within a fault tree. Note: That hazard probability is not defined as the aggregate probability of occurrence of the individual hazardous events that create a specific hazard; see hazardous event and accident. Also note that hazard probability is not the same as likelihood; see likelihood. Hazard probability. The aggregate probability of occurrence of the individual events (conditions) hazard severity assessment of the consequences of the worst credible accident that could be caused by specific hazard.
Incident	An occurrence, other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operation. Note: Type of incidents which are of main interest to ICAO for accident prevention studies are listed in accident/incident reporting manual (Doc 9156).

	An occurrence incident to operation of an aircraft which take place either on ground or in-flight where the safety of aircraft or its occupants or any other person or property may be jeopardized e.g.: a. The used of aircraft, which infringe any safety rules and regulation. b. Aircraft suffer damage or a person suffers injury in circumstances other than those specified in the definition of accident. c. Aircraft has a forced landing. d. Aircraft lands at a scheduled aerodrome in unworthy condition. e. Aircraft is compelled at aerodrome of departure without completing schedule flight, except due to weather. f. Aircraft land owing to conditions which continuance of the flight inadvisable except due to weather. g. Position of aircraft becomes unknown for any period of time. h. Near collision in circumstance specified in definition of incident.
Initiating Events	Or an initiator, is a contributory hazard, unsafe act and/or unsafe condition that initiated the adverse event flow, which resulted in the hazardous event under evaluation, see also root cause.
Inspection	A static technique that relies on visual examination of development products to detect deviations, violations or other problems.
Investigation	A process conducted for the purpose of accident prevention which includes gathering and analysis of information, drawing of conclusions, including the determination of causes and, when appropriate, making of safety recommendations.
Investigation in-charge	A person charge, on basis of his or her qualifications, with the responsibility for the organization, conduct and control of an investigation.
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;
Komite Nasional Keselamatan Transportasi (KNKT)	The permanent national transportation safety investigation authority conducting or supervising safety investigations;
Likelihood	Defines in quantitative or qualitative terms, the estimated probability of the specific hazardous event under study. Likelihood is one element of associated risk. Fault trees and other models can be constructed and individual hazard probabilities are estimated, and likelihood can be calculated via Boolean Logic. It should be noted that estimated likelihood defined in conventional hazard analysis might be appropriate due to the variability, conference, resources, and other factors.
Malfunction	Failure to operate in the normal or usual manner. Any anomaly, which results in system deviation.
Mitigation	Measures to address the potential hazard or to reduce the risk probability or severity.
Notification and Reporting Aircraft Accidents, and Incidents	Notification and reporting accidents and serious incident the operation of aircraft, wherever they occurred, when they involve civil aircraft of the Republic of Indonesia and when they involve foreign civil aircraft where the events occur in Indonesia territories. *For the details see CASR 830 Notification and Reporting of Aircraft Accidents or Serious Incidents, January 2015*
Operator	A person, organization or enterprise engaged in or offering to engage in aircraft operation.
Preliminary Report	The communication for the prompt dissemination of data obtained during the early stage of the investigation.
Predictive	A method that captures system performance as it happens in real-time normal operations.
Primary Hazard	One that directly and immediately results in: loss, consequence, adverse outcome, damage, fatality, system loss, degradation, loss of function, injury, etc. Also referred to as

	catastrophe, catastrophic event, critical event, marginal event, and negligible.
Proactive	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.
Probability	The likelihood that an unsafe event or condition might occur.
Quality Assurance	A planned and systematic pattern of actions necessary to provide adequate confidence that an item or product conforms to established requirements.
Reactive	The adoption of an approach where safety measurement is as a responds to the events that already happened, such as incidents and accidents.
Reporter	A natural person who reports an occurrence or other safety-related information pursuant to this regulation;
Reliability	The reliability of a system to perform its required functions under stated conditions for a specified period of time. A reliable system is not total assurance of acceptable risk.
Risk	The assessment, expressed in terms of predicted probability and severity, of the consequence(s) of a hazard taking as reference the worst foreseeable situation. Risk is an expression of possible loss over a specific period of time or number of operational cycles. It may be indicated by the probability of an accident times the damage in dollars, lives, and/or operating units. Hazard probability and severity are measurable, when combined, give us risk. Total risk is the sum of identified and unidentified risk. Identified risk is that risk which has been determined through various analysis techniques. The first task of system safety is to identify within practical limitations, all possible risks. The step is to determine the significance of the risk (severity) and the likelihood of its occurrence (hazard probability). The time and cost of analysis efforts, the quality of the safety program, and the state of technology impact the number of

	the risk identified. Unidentified risk is the risk not yet identified. Some unidentified risks are subsequently identified when a mishap occurs. Some risk is never known. Unacceptable risk is that risk which cannot be tolerated by the managing activity, it is a subset of identified risk that must be eliminated or controlled. Acceptable risk is the part of identified risk that is allowed to persist without further engineering or management action. Making this decision is a difficult yet necessary responsibility of the Managing activity. This decision is made with full knowledge that it is the user who is exposed to this risk. Residual risk is the risk left over after system safety efforts have been fully employed. It is not necessarily the same as acceptable risk. Residual risk is the sum of acceptable risk and unidentified risk. This is the total risk passed on to the user.
Risk Analysis	The development of qualitative and/or quantitative estimates of risk based on evaluation and mathematical techniques.
Risk Acceptance	Accepting risk is a function of both risk assessment and risk management. Risk acceptance is not a simple matter and the concept is difficult for some to accept. Several points must be kept in mind: a. Risk is a fundamental reality. b. Risk Management is a process of tradeoffs. c. Quantifying risk doesn't ensure safety. d. Risk is a matter of perspective.
Risk Assessment	The process by which the results of risk analysis are used to make decisions.
Risk Control	The risk associated with the hazardous event under study is adequately controlled, by the reduction of severity and/or likelihood, via the application of engineering and/or administrative hazard controls. Anything that mitigates or ameliorates the risk. See system.
Risk Hazard Index	By combining the probability of occurrence with hazard severity, a matrix is created where intersecting rows and columns are defined by a Risk Hazard Index (RHI). The risk

	hazard index forms the basis for judging both the acceptability of a risk and the management level at which the decision of acceptability will be made. The index may also be used to prioritize resources to resolve risks due to hazards or to standardize hazard notification or response actions. Prioritization may be accomplished either subjectively by qualitative analyses resulting in a comparative hazard risk assessment or through quantification of the probability of occurrence resulting in a numeric priority for that hazardous condition.
Risk Management	The identification, analysis and elimination, and/or mitigation to an acceptable level of risks that threaten the capabilities of an organization. The application of management methods for the identification, evaluation, elimination and control of all forms of risk. This effort is not confined to safety related risks. Risk Management comprised of two parts, risk control and risk finance. Risk control considers all aspects in system safety, safety management, and safety engineering. Risk finance considers insurance, risk pooling, and self-insurance.
Risk Severity	The harm expected should the hazardous event occur, (i.e. loss, consequence, adverse outcome, damage, fatality, system loss, degradation, loss of function, injury) considering the risk associated with the hazardous event under evaluation.
Root Cause	The contributory events and initiating events, which started the adverse event flow, are considered root causes. Should these cause be eliminated the hazardous event would not have occurred. It should be noted that accidents are the result of many contributors, both unsafe acts and/or unsafe conditions.
Safety	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. Freedom from all forms of harm. General term denoting an acceptable level of risk of, relative freedom from, and low probability of harm. The associated risks that have been identified have been accepted provided that all identified controls are implemented and enforced. Nothing is safe. Safety or safe. Freedom from those conditions that can cause

	death, injury, occupational illness, or damage to or loss of equipment or property, or damage to the environment.
Safety Analysis	All associated analytical methods, processes, and/or techniques to systematically evaluate safety related risks instructions are written in task cards, work cards, engineering instructions, MDDR and in any other maintenance related document.
Safety Assessment	A systematic analysis of a proposed change to equipment or procedures to identify and mitigate weaknesses before change is implemented.
Safety Assurance	What the service providers do with regard to safety performance monitoring and measurement.
Safety Audit	What the Civil Aviation Authority performs with regard to its safety programme, and the service providers perform with regard to the SMS.
Safety Critical	All interactions, elements, component, subsystems, functions, processes, and interfaces, within the system that can affect a predetermined level of risk.
Safety Management System (SMS)	A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.
Safety Manager	A person who is responsible for providing guidance and direction for the operation of the organization's safety management system.
Safety Oversight	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.
Safety Performance	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.
Safety Performance Target	Indicator means established objectives of a services provider SMS, linked to major components of a services provider SMS, and expressed in numerical terms. 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.

Safety Policy	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.
Safety Programme	Integrated set of regulations and activities aimed at improving safety.
Safety Recommendation	A proposal of the accident investigation authority of the state conducting the investigation, made with the intention of preventing accidents or incidents.
Safety Requirement	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.
Serious Incident	An incident involving circumstances indicating that an accident nearly occurred. Note 1 – The difference between an accident and a serious incident lies only in the result. Note 2– Examples of serious incidents can be found in attachment C of Annex 13 and in the accident/incident Reporting Manual (Doc 9156).
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. b. Result in a fracture of any bone (except simple fractures of fingers, toes or nose). c. Involves lacerations which cause serves hemorrhage, nerve, and muscle or tendon damage.
Service Provider	Approved/ certificated organizations providing aviation services
Severity	The possible consequences of an unsafe event or condition, taking as reference the worst foreseeable situation.

SCA	Smart Cakrawala Aviation as Operator
State Safety Programme	An integrated set of legal acts and activities aimed at managing civil aviation safety in the State;
System	Organized set of processes and procedures. A composite, at any level of complexity, of personnel, procedures, materials, tools, equipment, facilities and software. The elements of this composite entity are used together in the intended operational or support environment to perform a given task or achieve a specific production, support, or mission requirements, a set arrangement of components so related or connected as to form a unity or organic whole.
Systematic	That safety management activities will be conducted in accordance with a pre-determined plan, and applied in a consistent manner throughout the organization.
Systematic Approach	A step-by-step procedure for solving problems, a decision making process which moves from the general to the specific an iterative process.
System Safety	The application of engineering and management principles, criteria, and techniques to optimize safety within the constraints of operational effectiveness times, and cost throughout all phases of the system life cycle.
System Safety Analysis	The analysis of a complex system by means of methods, techniques, and/or processes, to comprehensively evaluate safety related risks that are associated with the system under study.
Traceability	Ability to trace the history, application or location of an entity by means of recorded identifications.
Validation	The process of evaluating a system (and Subset), during or at the end of the development process to determine whether it satisfies specified requirements. Conformance to requirements does not give total assurance of acceptable risk.
Verification	The process of evaluating a system (and subset) to determine whether the products of given development phase satisfy the conditions imposed at the start of the phase.
Work Related Accident	An accident relating to occupation is considered to be an accident that has occurred toward an employee while performing his/her duties in compliance with the company

	safety policies.
Top Management	– (ref. ISO 9000-2000 definition 3.2.7 {FAA AC 120-92}) the person or group of people who directs and controls an organization.
Verbs	– used to describe the level of compliance required: "Shall" or "must" – an action verb in the imperative sense, means that the application of a rule, procedures, or provision is mandatory; "Will" – that indicated action or procedure is mandatory and must be followed except in an emergency; "Should" – the application of a procedure or provision is recommended; "May" – the application of a procedure of provision is optional; "Should not" – the application of a procedure or provision is not recommended; "May not" or "Must not" – the application of procedure or provision is prohibited.

1.1. Introduction (19.53, 135.135)

The purpose of this manual is to assist all those who work at, and/or with Smart Cakrawala Aviation (SCA), gives direction to, the systems and process that have been established in accordance with the requirements of :

1) Law No. 1 Year 2009 on Aviation, Chapter XIII - Aviation Safety, Part Four – Safety Management System for Aviation Service Provider.
2) Law No. 1 Year 2009 on Aviation, Chapter XIII -AVIATION SAFETY Article 309 paragraph (1) letter c. Aviation Safety Reporting System;
3) Law No. 1 Year 2009 on Aviation, Chapter XIII -AVIATION SAFETY Article 309 paragraph (1) letter d. Aviation Safety Data Analysis and Exchange;
4) Law No. 1 Year 2009 on Aviation, Chapter XIII -AVIATION SAFETY Article 321 paragraph (1) Aviation personnel obligated to report Occurrence; and
5) Law No. 1 Year 2009 on Aviation, Chapter XIII -AVIATION SAFETY Article 321 paragraph (2) Reporter Protection.
6) Indonesia CASR Part 19 Amendment 0, Safety Management System, September 2017
7) Indonesia CASR Part 135 Amendment 12, Appendix G Safety Management System, May 2017.
8) ICAO Annex 19, Safety Management. First Edition, July 2013.
9) ICAO Document 9859, Safety Management System (SMS) Manual . Third Edition, 2013.
10) ICAO Annex 13, Aircraft Accident and Incident Investigation, 9th Edition, January 2003.
11) Advisory Circular 19-01 Mandatory Occurrence Report, 22 September 2017
12) Advisory Circular 19-02 Voluntary Reporting System, 22 September 2017
13) Staff Instructions 19-02 Voluntary Reporting System, 22 September 2017
14) Staff Instructions 19-05 Safety Management System (SMS)Guidance for Inspector for Organizations, 5 October 2017

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. SCA is responsible for the safety of services or products contracted to or purchased from other organizations. Establishes the minimum acceptable requirements; SCA can establish more stringent requirements.
SCA 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.

To ensure that safety is bulit into every aspect of day-to-day operation of PT. Smart Cakrawala Aviation.
To improve on existing levels of aviation safety, in the light of the continuing growth of the industry, additional measures are needed. One such measure is to implement Safety Management System, such a system is as important to business survival as a financial management system and the implementation of Safety Management System should lead to achievement one of civil aviation's key business goals; enhance safety performance aiming at best practice and moving beyond mere compliance with regulator requirement.

The goal of Safety Management System is to prevent losses resulting from accidents or incidents and manage risk as low as reasonable practicably (ALARP).
The annual safety target will be set on the Safety Committee meeting.

The following are sub-goals of the program:

- Provide safety related educational material and training to all relate person.
- Identify all hazards for safe operations.
- Evaluation and analysis of safety performance.
- Provide incident investigation finding.

The Safety & Quality Manager, and all other personnel related with Safety and Accident Prevention of the aircraft are to familiarize themselves with the contents of this manual. Through the disciplined application of best Safety & Quality Management predicts, the frequency and severity of aviation occurrences have declined significantly.

1.2. Structure of Manual

Pagination

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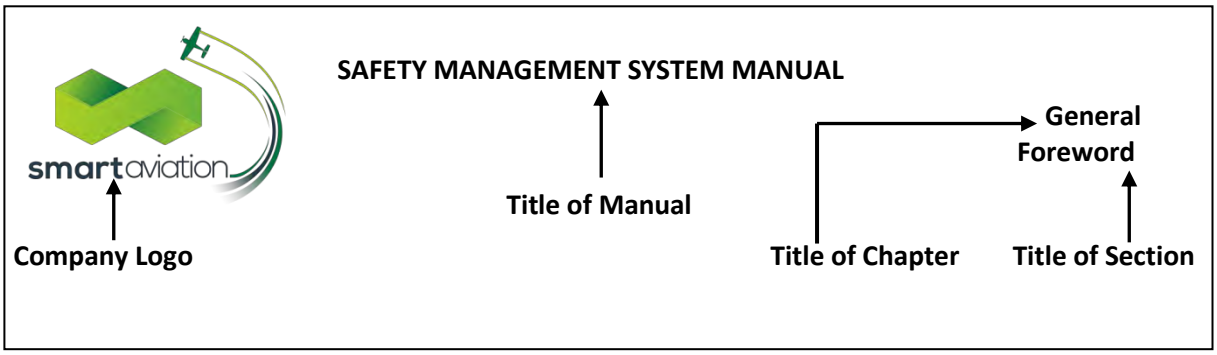

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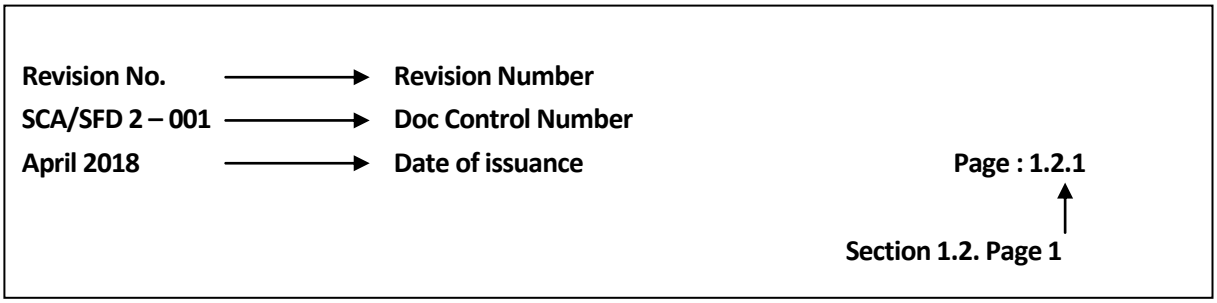

Table of contents

The information in Table of Content consists of:

- Section, Para and Sub-Para number
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  The number format is “Chapter. Section, Para Sub - Para”.

- Title of each section, Para and Sub-Para
  These titles are placed after the Section, Para and Sub-Para number.

CHAPTER	SECTION / DESCRIPTION	PAGE
CH. 2	**SCOPE AND APPLICABILITY**	
2.1.	Introduction	2.1
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	2.3.1. Safety Roles and Responsibilities	2.2

Below is the example of Table of Content format.

1.3. Document Control (19.27)

The Safety Management System Manual will controlled also kept up-to-date and amended by Safety & Quality Manager aid, will be reviewed every 1 (one) year or any management change or new regulations amendment for to suit with the opportunities for improvement and the need for changes to the management system, including organization structure, reporting lines, responsibilities and authorities, policy, regulations, and procedures.

The SMS framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided.

1. Safety policy and objectives
- 1.1. Management commitment and responsibility
- 1.2. Safety accountabilities of managers
- 1.3. Appointment of key safety personnel
- 1.4. SMS implementation plan
- 1.5. Coordination of emergency response planning
- 1.6. Documentation

2. Safety risk management
- 2.1. Hazard identification process
- 2.2. Risk assessment and mitigation process

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

Safety Management System Manual is compiled under authorization of the President Director of PT. Smart Cakrawala Aviation and is distributed by the Safety & Quality Manager. This manual is intended for use by safety personnel in order to give them adequate information when executing their duties. It contains information's and instructions concerning the way it which the company wishes them to operate safely.

Personnel to whom this manual is issued are obliged to be familiar with its contents and to keep the SMSM up-to-date, amendments are distributed by the Safety & Quality Manager, and they shall be studied immediately on receipt. In the Safety Management System, the general 'basic" requirements, rules and procedures are presented.

Safety Management System is the manifestation of PT. Smart Cakrawala Aviation Management Plan to prevent accident and achieve safe operations. Therefore, Safety Management System Manual contains of detailed description of the Safety Management System that explained how it designed and executed to manage operational risk, mitigate risk to the acceptable level and prevent aircraft accident.

1.4. Amendments and Updating

The company will issue revisions to the Safety Management System Manual from time to time to supplement and update relevant information, or make changes as required by regulation or aircraft type. This Safety Management System Manual has been issued under the authors of the Safety & Quality Manager.

A list of elective ages follows this record to provide document control. The revision number on the List of Effective Pages should match the latest revision number recorded below.

In this section and relocated text will not indicate revision due to age number change. It is suggested that the latest transmittal be inserted following this record to provide the bidder with a quick and ready reference to the most recent change made to the manual.

1.5. Purpose and Distribution of Manual

The purpose of the Safety Management System Manual is to provide instruction and guidance for Safety & Quality Manager and all staff at all level on performing his/her duties and activities.

In addition to that also building rapped culture which is effective safety management requires a free exchange of safety information within an organization and between the organization and its safety partners. This applies both to actual incidents and accidents occurring within the organization, and to up any hazards, accident precursors and systemic vulnerable that may be identified. Therefore, the organization must not only have a reporting system in place, but must also foster a culture that agilely encourages its use by staff at all levels and in all departments.

Such a culture will not only avoid disincentives, such as “blaming the messenger” or penalizing individuals who make honest errors, but will also provide staff with positive confirmation that all reports are taken seriously and subjected to an appropriate safety assessment. This is not to imply that there should be a ''blame free'' environment. Rather, the idea is to achieve a ''fair'' or ''just'' environment that distinguishes between errors and willful ads acceptable and unacceptable risks.

The original ''signed' copy of SMSM is maintained in the office of the Safety & Quality Manager of PT. Smart Cakrawala Aviation. At least one complete, master copy of the manual shall be kept at PT. Smart Cakrawala Aviation Head Office. Copies of the entire manual, or relevant portions of it, shall be furnished as per Manual Distribution list page (MDL – 1).

1.6. Integrated SMS

Safety cannot be achieved by simply introducing rules or directive concerning the procedures to be followed by operational employees; it encompasses most of the activities of the organization. For this reason, safety management must start from senior management, and the effects on safety must be examined at all levels of the organization.
An integrated Safety Management System (SMS) is a systematic, explicit and proactive process for managing safety that integrate operations and technical systems with financial and human resource management to achieve safe operations with as low as reasonably practicable risk. An SMS is systemic in that safety management activities are carried out in accordance with a pre-determined plan, and applied in a consistent manner throughout the organization.

It is proactive by taking an approach that emphasize prevention, through hazards identification and risk control and mitigation measures, before events that affect safety occur. It is also explicit, in that all safety management activities are documented, visible and performed as an essential component of management activities. It is an integrated system which include; the people, procedures, practice and technology needed to monitor and improve the safety of the aviation transportation system.

Safety management may be also described as the systematic application of specific technical and managerial skills to identify and control hazards and related risks. By identifying, assessing and eliminating or controlling safety-related hazards and did, acceptable levels of safety will be achieved.

1.7. Benefits of an Integrated SMS

The primal repast's for the introduction of SMS is to improve existing levels of aviation safety through a systematic process of hazard and risk management. An effective safety management system may also enable organizations to reap/gain the following benefit:

- Reduction in accident and incidents.
- Minimize direct and indirect costs resulted: from accidents and incidents.
- Gain safety recognition from customer and traveling public.
- Create a positive, reliable and generative organizational culture.
- Reduction in insurance rate.
- Exceed regulatory requirements with simultaneous bottom line and productive gains.
- Proof of due diligence in event of regulatory safety enquiries.
- Improved working environment resulting in better productivity and movie.
- Synergy in the safety related processes and functions within the organization.

Safety has always been the overriding consideration in the conduct of all aviation activities. *Safety is 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*.
Due to the nature of the aviation industry, the total elimination of accidents or serious incidents is unachievable. No human endeavor or human-made system can be free from risk and error, and failures will be expected to occur in spite of the most accomplished prevention efforts. The system must, however, seek to understand and control such risks and errors. Traditional approach to accident prevention has focused primarily on outcomes (probable causes and unsafe act operational personnel). Safety improvement measures introduced usually address the identified safety concern exclusively.

The “what”, 'who', 'when' and 'how' were been identified but not the ‘why'. As such, tile organizational, human factor and environmental contexts in which error were made were often neglected and measures adopted therefore often addressed only symptoms.

In the 1990s, safety thinking has evolved to the point of widespread acknowledgement that organizational factors play a significant role in the performance or human beings and therefore is an important issue in risk and error management. The study of accident causation today fixtures on organizational processes; latent conditions, workplace conditions, human factor, adequacy of defenses as well as active failures.
Today, Safety Management Systems seek to enhance the organizational approach to managing a safe and successful aviation operation.

2.1. INTRODUCTION (19.19)

SCA are fully committed to the highest level of safety by auditing all aircraft and conducting legal, certified charter flights. We continually examine comprehensive reports of pilot training and experience, passenger insurance policies, and aircraft maintenance records before any aircraft are been chartered by valuable clients.

The implementation of the safety policy is provided by specialist adviser, policies, regulations, safety issue, and procedures that ensure continual improvement. SCA consistently goes beyond high standard expectation to keep safe and secure at all time.

The Safety Policy criteria are:

- Safety policy should be Approved, Promote, and Signed by the President Director as Accountable Executive.
- In accordance with all applicable legal requirements and international standards, best industry practices and shall reflect organizational commitments regarding safety.
- Reflect organizational commitment regarding safety, including of a positive safety culture.
- 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;
- To be communicated, with visible endorsement, throughout the organization.
- Include a clear statement about the provision of the necessary human and financial resources for its implementation.
- 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.
- Safety Policy is review periodically at least once each year as part of the management review process.

2.2. SAFETY POLICY (19.19)

The commitment of safety, philosophy and the policy would detail the methods by which the management of SCA will:

- Set specific goals to achieve the highest safety standards
- Assign responsibilities to individual functional personnel
- Ensure compliance with regulations and standards
- Trained the employees in safety management
- Provide and share safety information
- Review its operation regularly to identify hazards
- Eliminate or minimize hazards
- Document its procedures in managing safety
- Periodically evaluate the effectiveness of its Safety Management System, Safety Policy, the methods and processes to achieve desired Safety Level.
- Safety policy should be followed by necessary resources to run SCA's safety policy.
- Adopt proven best practices appropriate to the activity
- SCA do not tolerate deliberate or reckless unsafe behavior or failure to report accidents.

It should be followed by:

- Senior Management commitment and intentions
- Establishment of safety as a core value
- Setting of safety objectives
- Responsibility for the safety program
- Non-Punitive Reporting policy
- Drug and alcohol policy

PT.Smart Cakrawala Aviation define the organization's safety policy with a written document issued by the highest level of management of the organization which is President Director of PT. Smart Cakrawala Aviation, approved by the regulator and socializes to all employees.

All of above safety aspects are believed could be a fundamental to provide safe, effective and efficient in operating of all fleet.

As the part of commitment to Safety we should:

- Observe all safety precautions and report unsafe conditions, risk, and hazards to the safety division.
- Understand about instructions and ask how to do the job safely.
- Must report any injuries immediately.
- Every employees involve to the safety of all operations so the company's objectives and goals are achieved safely and efficiently.

As the part of SCA AMO commitment to Safety we should:

- Observe all safety precautions and report unsafe conditions, risk, and hazards to the safety division.
- Understand about instructions and ask how to do the job safely.
- Must report any injuries immediately.
- Every employees involve to the safety of all operations so the company's objectives and goals are achieved safely and efficiently.

1. Ensure that repair shop activity be fully and consistently meet the agreed and implied requirements, customers requirements and the applicable regulatory authorities to ensure that services and maintained to defined standards, which also meet the requirements of CASR.
2. Demonstrate to customers and staff, the company's commitment to safety by the achievement of the AMO Manual and Operations Specifications, and by maintaining regulatory authorities and other pertinent approvals. Hazard or Accident (caused by product release) prevention is a top priority in this company. Management responsibility begins at the top and includes supervisors and employees. It is every employee's duty to integrate safety into all activity of AMO so that this company's objectives and goals are achieved safely and efficiently.
3. Ensure that all staff understands the policy and aims of the Safety Management System by means of induction and ongoing safety training related to their position in the Company.
4. Maintain and continually improve the Safety Management System using internal audits, external audit, contract review, Safety Meetings and Management Review Meetings.
5. Ensure that the Safety Management System is fully implemented by the Company department.

A culture of safety awareness and commitment is engendered throughout the company this ensuring that the company's policy and objectives for, and commitment to safety are fully understood by all staff.

2.3. SAFETY REPORTING PROCEDURE

2.3.1. Introduction (19.55)

A reporting system is a formal means of collecting, recording, acting on and providing feedback to staff about hazards and risks to PT. Smart Cakrawala Aviation operations. Reported risks are those that have been identified and can be managed. Unreported hazards and risks are difficult to identify and therefore to fix. Safety Management Systems involve the reactive and proactive identification of safety hazards, make analysis and follow-up action in respect of reported occurrences and other safety-related information

Accident investigations reveal a great deal about safety hazards; but fortunately, aviation accidents are rare events. They are, however, generally investigated more thoroughly than incidents. When safety initiatives rely exclusively on

accident data, the limitations of not having many case samples apply. As a result, the wrong conclusions may be drawn, or inappropriate corrective actions taken.

2.3.2. Safety Reporting (19.37, 19.55, 19.57)

1) PT. Smart Cakrawala Aviation establish a mandatory reporting system as a part of SMS to facilitate the collection of details of occurrences in the organization. PT. Smart Cakrawala Aviation has a reporting system that allows employees to report unsafe conditions in a timely manner.
2) The manager will complete the process within ten (10) working days and may need more time if discussion with the reporter or consulting the third party is required;
3) The Safety & Quality Manager shall set up and maintain the reporting system for the company.
4) The safety reporting procedure set out the conditions to ensure effective safety reporting, including the conditions under protection from disciplinary/administrative action shall apply.
5) Hazards can be reported by all staff, management, customers or passengers and external contractors. Any hazard which has the potential to cause damage or injury or which threatens business viability, should be reported.

   For example:

   - Poor communication with Air Traffic Services (ATS); Information overload from NOTAMS; In-flight turbulence; Up flight crew stress.
   - Failure to follow standard procedures; Flight crew rushing flight checks/inadequate checklists.
   - Unsafe ground traffic movements.
   - Poor communication within the maintenance department/contractor; between operational areas.
   - Unreasonable time pressure on maintenance staff to complete safety critical tasks; Poor cross-checking and work continuity.
   - 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;
   - Lack of up-to-date maintenance manuals; Lack of emergency equipment, procedures and training.
   - The reporting system has made to ensure that hazards can be reported at all including external contractor (all areas at organization).

6) The incident management system will consist of:
   - Accident/incident reports;
   - Hazard report;
   - Investigation of hazards/incidents;
   - Means of advising management;
   - Trend monitoring; and
   - Information feedback to employees.

7) The process of a good reporting system are:
   - Identifying what is relevant;
   - Collecting current and applicable information (from all areas);
   - A procedure for receiving and action reports (from all areas). All the reports must be recorded.
   - A liable method (if accurately recording, storing, retrieving & maintaining safety reports.
   - A procedure for distributing relevant or appropriate information to staff (and possibly contractors).
   - Able to be audited.

2.3.2.1. Mandatory Reporting (19.57, 135.559)

The following aviation personnel shall report the occurrences through the system established by the PT. Smart Cakrawala Aviation employs, contracts or uses the services of the reporter or, failing that, through the system established in accordance by the DGCA:

a) 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;
b) 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;
c) A person who signs a release to service in respect of an aircraft or any equipment or part thereof, under the oversight of DGCA;
d) A person who performs a function which requires him or her to be authorized 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;
e) A person who performs a function connected with the safety management of an airport;

f) 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;

g) 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.

The persons listed above report occurrences within 72 hours of becoming aware of the occurrence, unless exceptional circumstances prevent this.
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.

1) Accident/Incident Reports

a) All accidents and reportable incidents as defined by CASR 830 Sub Part B, it will be recorded on the form attached on Appendix.

b) Even if an occurrence does not meet the National Transportation Safety Committee (NTSC) definition of an accident or a reportable incident it shall be reported to the Safety & Quality Manager and the appropriate line Manager, copies of the completed form will be passed immediately to the President Director.

c) The Safety & Quality Manager will forward reports of all accidents and reportable incidents to the Directorate General of Civil Aviation (DGCA).

2) CASR Part 830.5 Immediate Notification

a) The operator of any civil aircraft or any foreign aircraft shall immediately, and by the most expeditious means available notify the both NTSC and DGCA offices when an aircraft accident occurs.

b) When an aircraft is overdue and is believed to have been involved in an accident, it shall be reported to the both NTSC and DGCA.

c) When an aircraft is involved in the following serious incidents, it shall be reported immediately to the both NTSC and DGCA:
- Flight control system malfunction or failure.
- Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness.
- Damage to property.
- Near collisions requiring an avoidance maneuver to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.
- Controlled flight into terrain only marginally avoided.
- Aborted take-off on a closed or engaged runway.
- Take-off from a closed or engaged runway with marginal separation from obstacle(s).
- Landings or attempted landings on a closed or engaged runway.
- Gross failures to achieve predicted performance during take-off or initial climb.
- Fires and smoke in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents.
- Events requiring the emergency use of oxygen by the flight crew.
- Aircraft structural failures or engine disintegrations not classified as an accident.
- Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.
- Fuel quantity requiring the declaration of an emergency by the pilot.

- Take-off or landing incidents. Incidents such as undershooting, overrunning or running off the side of runways.
- System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft.
- Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.

d) When an aircraft is involved in an incident which is not listed in 830.5(c), it shall be reported to DGCA.

e) PT. Smart Cakrawala Aviation shall report to the DGCA, the details of occurrences collected as soon as possible and in any event no later than 72 hours after becoming aware of the occurrence

f) An airport authority and/or an air navigation services agency who knows that there is an aircraft accident/incident shall immediately report to the both NTSC and to DGCA.

2.3.2.2. Reportable Aviation Accident

Means an accident resulting directly from the operation of an aircraft, where:

1) A reversal sustains a serious injury or is killed as a result of:
   - Being on board the aircraft;
   - Coming into contact with any part of the aircraft or its contents; or
   - Being directly exposed to the jet blast or rotor downward of the aircraft;

2) The aircraft sustains damage or failure that adversely affects the structural strength, performance of flight characteristics of the aircraft and that requires major repair or replacement of any acceded component part; or the aircraft is missing or inaccessible.

2.3.2.3. Reportable Aviation Incident

Means an incident resulting directly from the operation of an airplane having a maximum certified takeoff weighs of greater than 5,704 kg, or the operation of a motorcar having a maximum certified takeoff weight of greater than 2,250 kg where:

- An engine fails or is shutdown as a precautionary measure.
- Transmission gearbox malfunction occurs.
- Smoke of fire occurs.
- Difficulties in controlling the aircraft are encountered owing to any aircraft system malfunction, weather phenomena wake turbulence uncontrolled vibrations or operations outside the flight envelope.
- The aircraft fails to remain within the intended takeoff or landing area, lands with all or part or the landing gear retraced or drags a wing tip, and engine pod or any other part of the aircraft.

- Any crewmember whose duties are directly related to the safe operation of the aircraft is unable to perform the crewmember's duties as a result of a physical incapacitation that poses a threat to the safety of any person, property or the environment.
- Depressurization occurs that necessitates an emergency descent.
- Fuel shortage occurs that necessitates a diversion of requires approach and landing priority at the destination of the aircraft.
- The aircraft is refueled with the incorrect type of fuel or contaminated fuel.
- A collision risk of collision or loss of separation occurs.
- A crewmember declares an emergency or indicates any degree of emergency that requires priority handling by an air traffic control unit or the standing by of emergency response services.
- A slung load is released unintentionally or as a precautionary or emergency measure from the aircraft.
- Any dangerous goods are released in or from the aircraft.

2.3.2.4. Voluntary Report (19.59, 19.67, 19.71, 135.561)

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.

1) Hazard Report

a) PT. Smart Cakrawala Aviation hazard reporting system provides a means for individuals to report potential hazards to the Safety & Quality Manager. All employees are encouraged to report anything that they perceive as a hazard or a threat to safety.
b) For the purposes of hazard report, 'personal details' includes in particular names or addresses of the aviation personnel.
c) Hazard report forms (Appendix K report form) are located on all safety notice boards at dispatch and from the Safety & Quality Manager. Each flight safety notice board will have a safety.
d) Suggestion box and hazard report forms can be placed in the safety suggestion box.
e) At the originators request, hazard reports may be confidential, could be submitted anonymously or, at the request of the originator, the identity of the originator will be protected.
f) The completed hazard reports should be mailed, faxed or handed to the Safety & Quality Manager. Where possible, the Safety & Quality Manager will provide timely feedback to the originator.
g) The company has an obligation to provide a safe working environment for employees and customers. The identification and correction of hazards is an important part of this obligation.

PT. Smart Cakrawala Aviation shall report to the DGCA, in a timely manner, details of occurrences and safety-related information which have been collected may involve an actual or potential aviation safety risk.

If PT Smart Cakrawala Aviation identifies an actual or potential aviation safety risk as a result of its analysis of occurrences or group of occurrences reported, it shall transmit to the DGCA, within 30 days from the date of notification of the occurrence by the reporter:

a) The preliminary results of the analysis performed pursuant by identify the safety hazards associated with identified occurrences or groups of occurrences

b) Any action to be taken pursuant to point (a). PT. Smart Cakrawala Aviation 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 PT. Smart Cakrawala Aviation 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.

2.3.2.5. Investigation of Incident/Accident/Hazard Report (19.71)

1) The Safety & Quality Manager or any other employee assigned by the President Director will investigate all accidents, incidents and hazards.

2) In the case of accidents and incidents reported to the NTSC, a company representative may be appointed as an observer to the NTSC investigation.

3) Investigation will be conducted to determine the cause of an occurrence and will not be used for disciplinary action.

4) PT. Smart Cakrawala Aviation ensure that all personal details are made available to staff other than persons designated for mandatory reporting in accordance 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.

5) The Safety & Quality Manager will review each occurrence or hazard include identification of active failures as well as contributing organizational factors and implement or recommend corrective actions to prevent a recurrence.

2.3.2.6. Means of Advising Management

1) The meeting of the Safety Committee is a good means of advising management on safety issues, however, the six-monthly meetings may not allow timely action on critical events.

2) In the case of urgent items a special Safety Committee meeting will be called or the Safety & Quality Manager will meet with the appropriate President Director or President President Director to brief on the problem and to recommend corrective actions.

2.3.2.7. Trend Monitoring

1) The Safety & Quality Manager will maintain a data base of all company accidents, hazards to permit trend monitoring to take place. These trends will be reviewed incidents and at every Safety Committee meeting.
2) In addition, the Safety & Quality Manager will collect and monitor national and international accident/incident data on similar aircraft involved in similar operations.

2.3.2.8. Information Feedback to Employee

1) AII safety decisions and corrective actions will be published for employees to read (usually in the form of minutes of the Safety Committee meetings). In the case of Hazard Reports, the Safety & Quality Manager will make an effort to provide feedback to the originator.

2) A summary of company accidents incidents and hazards and any corrective actions will be prepared by the Safety & Quality Manager. A copy of the summary will be posted on each safety notice board and distributed to each Manager.

3) At regular intervals the Safety & Quality Manager will distribute information packages to employees on a variety of safety subjects. The staff who is submit reports should be provided with feedback about:
   - The progress of their report;
   - Any action taken as a result of their report.

   Feedback is essential in letting staff know that the reporting system works and that their contribution to the safety management system is valued.

2.4. Non Punitive Policy Reporting (19.69, 19.71)

Non-punitive reporting systems are based on confidentiality. Before employees will freely report incidents, they must receive a commitment from the regulatory, authority or from top management that reported information would not be used punitively against them (see Non-Punitive Policy).
The person reporting the incident (or unsafe condition) must be confident that anything said will be kept in confidence. In some States, “Access to Information” laws make it increasingly difficult to guarantee confidentiality. Where this happens, reported information will tend to be reduced to the minimum to meet mandatory reporting requirements.

3.1. Introduction

3.1.1. Background

PT. Smart Cakrawala Aviation Safety Management Manual has been developed from numerous aviation industry sources, including Safety Management Systems Guidance from the International Air Transport Association, ICAO Document 9859 Safety Management Manual.

Safety policies clearly define PT. Smart Cakrawala Aviation philosophical approach to safety, and foster an organizational climate where safety is a core value. Application and use of this Safety Management Manual will reduce losses and improve productivity. It allows all personnel to anticipate and address safety issues before they lead to an incident or accident.

3.1.2. Instructions and Guidance

This Safety Management Manual provides instruction and guidance to all personnel regarding their responsibilities, authorities and the proper performance of their duties as set forth herein. The policies, procedures, controls, process measures and other safety attributes designed into this Safety Management Systems to reduce human error, while permitting personnel at all levels within the company to make sound decisions, collect data, share information, perform self-audits and disclose errors or deficiencies without fear of reprisal.

3.2. Safety Management System Objectives (19.19)

The Safety Committee through implementation of Smart Cakrawala Aviation Safety Management System has established the following specific goal is “No Accident, No Harm people and loss Prevention”.

3.2.1. Primary Objective

PT. Smart Cakrawala Aviation Safety Management System is designed to prevent personal injury and loss property from accidents and incidents. Primary objectives are also:

1) To prevent accident and incident.
2) To increase the number of hazard and irregularity reports received by 10% over the previous year.
3) To apply Operational Risk Management to all proposed new equipment acquisitions, facilities, operations and procedures;
4) To encourage all employees to identify hazards.

3.2.2. Safety by Design

Aviation is by nature a dynamic environment. Maintenance, Inspection, Administration, Training and Flight Operations all come together into a system that is complex and difficult to manage. PT. Smart Cakrawala aviation Safety Management

System is also dynamic and continually improving. This requires input from all personnel in all departments. High standards and best practices are incorporated into written guidance that is supported by management and must be embraced by all employees. Safety attributes have also be incorporated, such as controls that actually build safety into the various systems and processes that support and result in safe flight operations. When something goes wrong, root causes must be identified, hazards evaluated, risks assessed and risk controls or corrective actions implemented to prevent reoccurrence. Safety by Design is a primary goal for all systems and processes at PT. Smart Cakrawala Aviation.

3.2.3. The Highest Level of Safety

This is our objective, the highest level of safety attainable. All company officers, Managers and employees must strive to motivate and maintain safe actions through establishment of a cooperative and "just" safety culture. This positive safety culture will enable the identification of hazards to safe operations, the assessment of risks associated with these hazards, the implementation of risk controls and corrective actions, and the monitoring of controls and actions to ensure their effectiveness.
We shall communicate the results of these efforts throughout the company to share our lessons learned and further foster a climate of open communication and safety improvement. All employee active participation in the company's Safety Management System is essential, and will enable us to achieve the highest possible level of safety in air transportation.

3.3. Positive Safety Culture

An effective, positive safety culture is one that successfully integrates concepts of hazard awareness, risk assessment and a Safety First Philosophy into all systems, processes and daily activities. From the highest levels of management to front-line pilots, and mechanics, everyone must approach their assigned duties, as well as the surrounding environment, with these concepts in mind.

3.3.1. Standards of Safety

All company policies are based on the concept that safety comes first. Principal elements governing the conduct of all operations are safety, standards, best practices, regulatory compliance and customer service. There exists no higher priority than safety, and compliance with company standards and best practices facilitates both safety and regulatory compliance. Services shall always be performed within the confines of the company's philosophy that Safety Comes First. As a basic premise to safety, all activities conducted by flight, ground, and maintenance personnel shall be conducted in accordance with CASR.

3.3.2. Standards and Best Practices

Standards & Best Practices are policies, procedures, methods and processes that have been developed by our company to establish and maintain the highest level of safety possible. It is important for all personnel to consider regulatory compliance as a minimum standard. The company's standards and best practices go above and beyond the regulations to ensure the highest possible level of safety.
Standards and best practices are incorporated into the company's manuals and written guidance, and shall be treated by all personnel as mandates. All standards and best practices, in addition to regulatory compliance, shall be followed at all times (except when necessary to deviate in case of emergency), and are an essential component of System Safety. The company will continue to investigate, pursue and adopt new safety standards and best practices that are commensurate with the highest levels of safety in the air transportation industry.

3.3.3. Safety Attributes

This Safety Management Manual incorporates System Safety Attributes into all program elements and processes. Safety attributes incorporated into this Safety Management System include those of Responsibility and Authority, this means specifying who is responsible for accomplishment of a process or a procedure, which is authorized to perform and revise that process or procedure, and whether or not that process or procedure may be delegated.

With respect to safety performance, this program identifies and clearly documents responsibilities of both management and employees.
Other safety attributes include documentation of detailed procedures (as opposed to statements of policy) as well as the incorporation of controls to help ensure that procedures are followed and processes are satisfactorily completed.

4.1. General

Roles, responsibilities and relationships of safety management it shows the relationship between the productive processes of the aviation service provider as well as the joint protective processes of the regulator (DGCA). As before, it is important to recognize that the two aviation service provider systems shown (Protection and Production) are functional rather than departmental or organizational depictions. One of the principal roles of the oversight is to promulgate risk controls in the form of regulations, standards, and policies. It follows that regulatory compliance, in a manner that accomplishes the regulations' safety objectives, is also part of the aviation service provider's role in Safety Management.

4.1.1 Safety Roles and Responsibilities

The successful management of safety is a cooperative responsibility that requires the participation of all management and operational personnel of the organization. The safety roles and accountabilities between the organization's key safety personnel (or department) and all other functional department should be established and clearly defined. They should be documented and communicated to all levels of the organization.

The detail of safety roles and accountabilities are described according organizational structure below:

1) The Safety & Quality Manager should have a direct line of reporting and communication with corporate senior management which should include the Accountable Executive and/or the President Director, as appropriate.
2) PT. Smart Cakrawala Aviation must ensure there is a working environment that fosters a positive, regular and productive two-way communication process between the Safety & Quality Manager and members of corporate senior management.
3) Additionally, Safety & Quality Manager should be given sufficient authority to ensure freedom of action and access throughout the company at any level in order to foster safety and improve safety outcomes.

4.1.2. Responsibilities and Accountabilities (19.21)

The President Director as Accountable Executive is responsible for ensuring that the SMS SCA AOC 135 & AMO 145 is properly implemented & performing in all area of the organization. Irrespective of other functions, shall have the ultimate responsibility for the implementation and maintenance of the SMS. Responsibility and accountability are closely related concepts while individual staff member are responsible for their actions, they are also accountable to their supervisor or Manager for the safe performance of their functions and may in called on to justify their actions.

Although individuals must be accountable for their own actions, Managers and supervisors are accountable for the overall performance of the group that report to them.

"Accountability is a two-way street."

Managers are also accountable for ensuring that their subordinates have the resource, training, experience, etc., needed for the safe completion of their assigned duties.

A formal statement of responsibilities and accountabilities is advisable, even in small organizations. This statement clarifies the formal and informal reporting lines on the organizational chart and specifies accountabilities for reticular activities with no

overlap or omission. The contents of the statement will vary depending on organizational size, complexity and relationships.

4.2. Responsibilities (19.21)

PT. SCA Safety Management Organization consists of five essential participants, each of which plays an important role in support of the company's *Safety Culture,* for the implementation and maintenance of the organization's SMS. These participants consist of President Director as Company Senior Management, the Safety & Quality Manager, the Safety & Management Representative, and All Personnel, who make the most significant contributions and identify the safety responsibilities of all members of senior management, irrespective of other responsibilities to the company's Safety Management System. Safety-related positions, responsibilities and authorities shall be defined, documented and communicated throughout the organization. Safety & Quality Manager is the member of management who shall be the responsible individual and focal point for the development and maintenance of an effective SMS.

An independent third-party Safety Support Organization provides support services to aid and assist the company in achieving the highest level of safety.

4.2.1. President Director (19.21)

As an authorized representative of senior management within the Company, President Director of PT. SCA has been nominated as the executive officer for continued diligent application of this Safety Management System, and for its continued quality assurance.
The President Director has financial control necessary to ensure this Safety Management Manual performs effectively. PT SCA President Director holds the highest level of authority within the company, and therefore plays an essential role in the advocacy and fostering of PT. SCA positive safety culture, in order to achieve the highest level of safety.
The President Director 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.

4.2.2. Safety & Quality Manager (19.21, 19.61)

Safety & Quality Manager is the central of all Safety Management processes, including the accomplishment of Safety Management Program. Safety & Quality Manager is chairmen ofthe Safety Meetings and performs internal audits. The Safety & Quality Manager is responsible for implementing and maintaining the Safety Management System and reports directly to the President Director.
Additionally, the Safety & Quality Manager is responsible for:

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,

1) Ensure safety promotion throughout the organization,
2) Developing, implementing and managing SCA's Safety Management System,
3) Defining Safety Goals and Safety Performance Indicators
4) The training of all SCA personnel regarding a Safety Management System,
5) Develope and manage safety communications system,
6) Advice the management and staff of safety related matters, safety trends, safety analysis and audit and investigation results,
7) Continuously evaluate the effectiveness of SCA's Safety Management System,
8) Managing SCA's Risk Management program and advising department heads on matters of risk management,
9) Managing SCA's occurrence and incident reporting system and fostering a positive reporting culture among all staff,
10) Managing SCA's internal audit program and ensuring that all audits are completed in a timely manner and that all audit agreed actions are closed off by the relevant departments by the agreed time,
11) Investigating occurrences, incidents and accidents within SCA and reporting the results and trends to management,
12) Coordinating all safety matters within SCA including the coordination and management of all DGCA audits,
13) Ensuring, in association with senior management, that the safety policy and safety objectives are current, relevant and reviewed on a regular basis,
14) Distribution of safety information.

The Safety & Quality Manager shall be provided with:

- Working space that provides privacy and a distraction free environment,
- Communication equipment and facsimile,
- Access to all computers and database for the purpose of documenting and tracking safety related concerns, and
- Access to all required safety related information, documents and educational tools.

The Safety & Quality Manager shall be trained in the following safety related areas:

- Flight safety philosophy and company culture
- Human factors and pilot decision making
- Accident prevention
- Safety & Quality Officer duties and responsibilities and advisory role to management
- Risk analysis and management
- Accident and incident prevention any investigation
- Conduct of aviation safety survey
- Developing an Emergency Response Plan

4.2.3. Operation Manager

Is responsible to the President Director for overall control and supervision of company flight operations and ensuring that all company flying is conducted in compliance with Air Navigation orders, regulations and schedules and within operator's certificates with due regard to the flight safety.

4.2.4. Safety & Quality Officer

Safety & Quality Officers are responsible to:

1) Enforce all general and department safety rules and regulation;
2) Accountable to President Director for supervision of safety to their workforce;
3) Responsible for the prevention of incident/ accident in their crew/ environment;
4) Report all hazardous events;
5) Conduct safety inspection;
6) Get involve in investigation of accidents related to their specific Department and prepare reports of all accidents;
7) Have a current first aid card/key in his possession
8) See that required personal protective equipment is used in accordance with safety rules and practices;
9) Provide safety training and safety indoctrination to new employees;
10) Maintain an aviation safety award program;
11) Develop and maintain a pre – accident plan;
12) Submit an annual budget to support Safety Management system;
13) Prepare and keep adequate records of all accidents and from these
14) Prepare such charts as will best show the way of eliminating these accident;
15) Carry out accident and investigation follow – up;
16) Recommended suitable job placement for employees able to return after injury.

The Safety & Quality Officer should possess:

Having at least three years' experience in aviation and good public relations skills.

1) Integrity and self-motivated; good written and oral communications with all levels of the industry including national and international organizations; must be computer literate.

To perform his duties and responsibilities mentioned above, the Safety & Quality Officer must be trained for the following safety related areas:

1. PT SCA SMS Training
2. Accident and incident prevention any investigation;
3. Aviation safety audit/survey.

4.2.5. Technical Manager

1) Is responsible for ensuring that maintenance carried out by the approved organization meets the standards required by the DGCA.
2) Will ensure that the necessary finance, manpower resources and facilities are available to enable the company to perform the maintenance to which it is commited for contracted CASR 135 operators and any additional work may be undertaken.
3) Will ensure that the organization has:
   - Facilities appropriate to the palnned work;
   - Office accomodation appropriate to the management of the planned work;
   - A working environment appropriate to the tasks being undertaken;
   - Storage facilities for parts, tools, equipment and material;

- Sufficient competent personnel to plan, perform, supervise, inspect and certify the work being performed;
- Tools, equipment and materials to perform the planned tasks
- All necessary airworthiness data from the DGCA and the aircraft manufacturer as appropriate to the task being performed.

1) Ensures that maintenance procedures are established and published within the company, to achieve good maintenance practices and compliance with DGCA requirements and for compliance with the quality system for the company to ensure that work is accomplished to the highest standards of airworthiness and workmanship.
2) Ensure that all maintenance is correctly certified and that records of maintenance carried out are retained safely and securely for the statutory period.
   Unless previously reported by the operator he is responsible for reporting to the manufacturer and to the DGCA any condition of the aircraft (or a component) which could be a hazard to safely.
   Refer to the maintenance manual for a more detailed description of responsibilities.

4.2.6. Additional Management Responsibilities

Responsibility for the compliance and implementation of Safety Management lies with line Management from the President Director to all employess. President Director will therefore:

1) Ensure that working practices reflect the safest and most efficient resources available.
2) Ensure that work is carried out in a safe manner by appropriately trained andcompetent Staff
3) Provide a work environment in which occupational hazards are controlled when elimination is not possible.
4) Ensure through effective communication that staff are aware of any health &Safety Hazards affecting their occupation.
5) Ensure that all statutory and contractual requirements are complied with.
6) Ensure that staff receive an induction safety briefing and have access to allrelevant Company Safety Information
7) Ensure that all potential or actual environmental impact are identified and minimize

4.2.7. Operation Management Responsibilities

In addition to the above, ensure by correct application of Company Operating Procedures, reviews and competency checks, that all actions necessary are taken to ensure the safe operation of Company Aircraft.

4.2.8. Technical Management Responsibilities

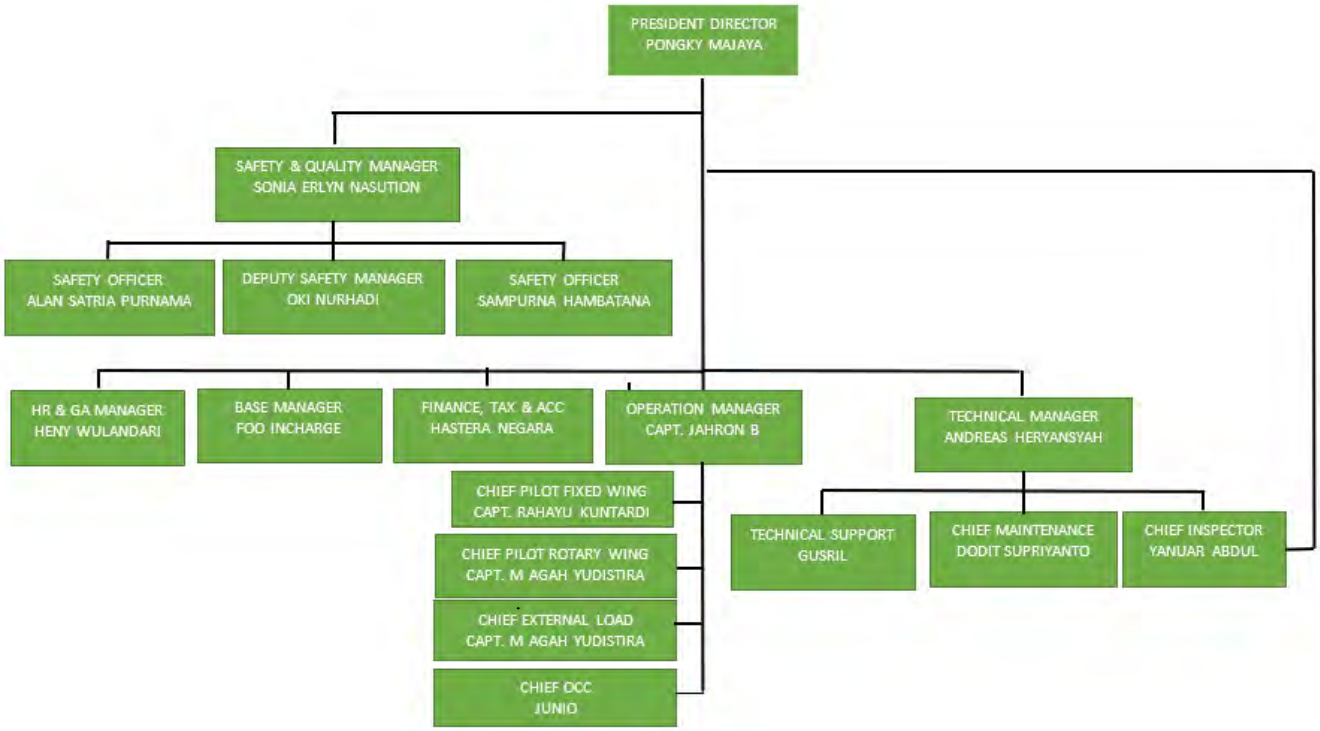
In addition to the above, ensure by correct application of Company Procedures that all actions necessary are taken to ensure a safe working environment throughout the Company Hangars, Workshops and Hard standing.

4.2.9. Individual/Employee's Responsibilities

All employees have responsibilities are:

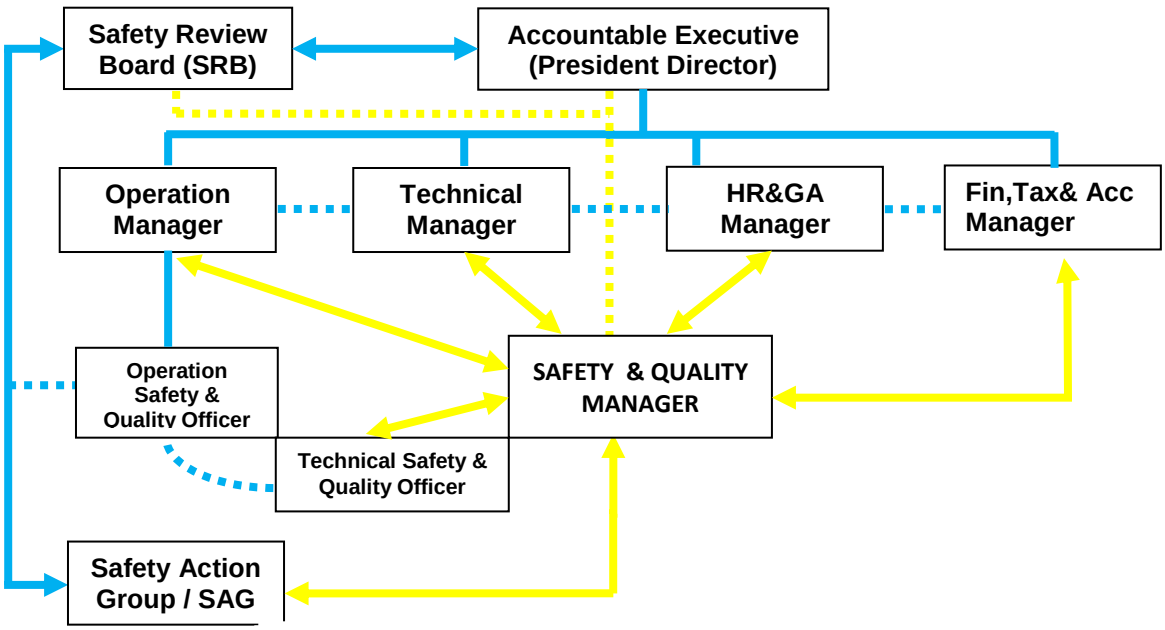
1. Report all hazardous events;
2. Identify risk associated with their jobs;
3. Unsafe condition, equipment or practices should be reported as soon as possible
4. Are to read and abide by PT. Smart Aviation safety regulation and all departmental to use it;
5. Each employees should consider safety meetings as part of his regular job;
6. No job shall be considered efficiently completed unless the worker follows every precaution and safety rule to protect themselves and their fellow employees from bodily injury throughout the operation
7. Will be provided with whatever personal protective equipment is necessary – they are expected to use it;
8. Have responsibility for their own health and safety of others.

4.3. Organizational Structure.

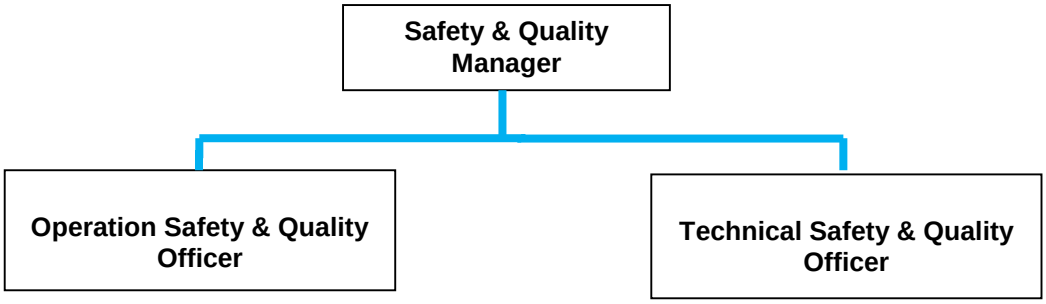


The President Director, together with the Operation Manager, Technical Manager, Finance Tax & ACC Manager, HR&GA Manager appoint the Safety & Quality Manager, chair the company Safety Committee.

Organizational Structure Safety Committee.



4.3.2. Organizational Safety & Quality Department



5.1. Safety & Quality Manager

1) The Safety & Quality Manager of PT Smart Cakrawala Aviation is appointed to oversee the implementation of activities and processes associated with company Safety Management System.

2) Smart Aviation most fosters a working environment that results in full cooperation between the Safety & Quality Manager and those operational Managers who are assigned direct responsibility for safe operation.

3) It is not the role of the Safety & Quality Manager to declare safety action, but rather to assist operational manner in ensuring that the risk associated with operations are effectively managed.

4) *Safety & Quality Manager as the Manager Aviation Safety*.
Although the Accountable Manager is ultimately responsible for the Safety Management System (SMS), it is necessary to appoint a focal point to act as the driving force for the implementation as well as maintenance of SMS abilities across the entire organization. This is accomplished by appointing a Manager Aviation Safety whose primary responsibility is to facilitate and administer the organization's SMS.
The SMS Manager position, dependent on the size and structure of the organization may not decency be a dedicated position. He may have other non-conflicting management responsibilities and he/she should be directly accountable to the Accountable Manager or President Director.

Other responsibilities of the Manager Aviation Safety or Department would includes:
a) Managing the SMS implementation plan.
b) Facilitation Hazard Identification & Risk Analysis (HIRA) activities.
c) Monitoring the effectiveness of mitigation actions.
d) Providing periodic reports on safety performance.
e) Planning and organizing staff training.
f) Providing independent advice on safety matters to the senior management.

5) It must be emphasized that the Safety & Quality Manager is not the sole person responsible for safety. Specific safety activities and the functional or operational safety performance and outcomes are the responsibility of the relevant operational or functional Managers, and senior management must not hold the Manager Aviation Safety accountable for line Manager responsibilities.

6) The Safety & Quality Manager should monitor all cross functional or departmental SMS activities to ensure their relevant integration. While the Safety & Quality Manager maybe held accountable for the satisfactory administration and facilitation of the SMS itself, he/she should not be held accountable for the SMS itself, and he/she should not be held accountable for the safety performance of the organization.

7) In order to avoid possible conflict of interest, the Safety & Quality Manager should not have confiding responsibility for any of the operational areas. In principle, integration of safety, quality, environmental control and security is possible. The Manager Aviation Safety should be at a sufficiently high level in the management hierarchy to ensure that he/she can have direct communication with other members of the senior management team.

8) The Safety & Quality Manager shall develop and manage PT Smart Cakrawala Aviation Safety Management System and shall report to the President Director. In addition, the Safety & Quality Manager shall to have direct access all other levels of management on flight safety matters. The Safety & Quality Manager is also authorized to seek guidance from DGCA on safety related matters.

5.2. Safety Review Board (Safety Committee)

A high level Safety Review Board (SRB) or Safety Committee would normally be necessary for functional or senior management involvement on safety policy, overall system implementation and safety performance review purposes. Level of participation in the Safety Committee would depend on the size and structure of the organization. The Accountable Manager should chair (see note below) this committee when all relevant functional areas of the organization being represented.
A Safety Committee would typically consist of the Accountable Manager, the SAFETY & QUALITY MANAGER and other members of the senior management team. The objective of the Safety Committee is to provide a forum to discuss safety issues and the overall health and direction of the company SMS.

The role of the Safety Committee would include:
1) Making recommendations or decisions concerning safety policy and objectives.
2) Defining safety performance indicator and set safety performance goals for the organization.
3) Reviewing safety performance and outcomes.
4) Providing strategic directions to departmental Safety Action Group (SAG) where applicable directing and monitoring the initial SMS implementation process.

The Safety Committee can:
1) Ads as a source of expertise and advice;
2) Encourage lateral thinking and creative solutions;
3) Review the progress of incidents/accidents, and the actions taken;
4) Review the status of hazard/risk reports, and review the actions taken;
5) Help identify hazards and defenses;
6) Make safety recommendations to address hazards;
7) Review internal audit reports;
8) Review and approve audit response and actions taken;
9) Prepare and submit report to the Chief Executive Officer for review.

- **Meetings:**

  The frequency of committee meetings will be determined by the size of the organization and the volume and severity of identified hazards.
  Some Safety Committees will meet on a monthly basis, while other may only need to meet once every six months. Meetings should take place at least annually basis.
  PT Smart Cakrawala Aviation Safety Committee conducts a meeting on regular basis, the number of the meeting will be determined upon predictable consideration or at least 1 (one) a year.

- **Minute and Agenda:**

1) The minutes of all meetings should be recorded by a committee member or someone dedicated to this task. The minutes should be provided to each member of the Committee as soon as possible after the meeting. Copies of the minutes should be displayed or made available by other means for the information of employees.
2) A member of the committee, usually the SAFETY & QUALITY MANAGER should be made responsible for drawing up the agenda. Adequate notice of items to be discussed should be given to the SAFETY & QUALITY MANAGER. The agenda should be distributed one week before the meeting.

   A typical agenda might include some or all of the following items:
   - Review outstanding issues from previous meetings.
   - Review safety action plans.
   - Review accident investigation reports.
   - Review the effectiveness of previous safety recommendations.
   - Notify member of committee activity.
   - Access and resolve identified hazards.
   - Review safety audits and action plans.
   - Monitor and promote safety involvement.
   - Carry out risk assessment on any new equipment, routes or procedures.
   - Plan and organize staff training.
   - Plan for the impact on safety of operational changes.

Note: Should the Accountable Manager choose to assign this task to an appropriate senior person, it should be clearly stated and substantiated that he/she is performing the task on behalf of the Accountable Manager whose accountability for safety is not compromised and that he remains accountable for all decisions of the Safety Review Board (SRB)/Safety Committee.

5.3. Safety Action Group (SAG)

1. Safety Action Groups are accountable to and takes strategic directions from the Safety Committee.

2. SAG meeting will be held quarterly basis on date set by Safety & Quality Manager. All chief and supervisors from a given functional are would be members of the SAG for that area.

3. The Safety & Quality Manager will chair the SAG.

4. The role of the SAG would include:
   - Overseeing operational safety within the functional area.
   - Managing the area's Hazard Identification & Risk Analysis activities.
   - Implementing mitigation or corrective actions relevant to the area.
   - Assessing the impact of safety on operational changes and activating hazard and risk analysis process as appropriate.
   - Maintenance and review of relevant performance indicators.
   - Managing safety trained and promotion abilities within the areas.

SAG will also prepare a report on risk management activities for Safety Review Board (Safety Committee) meetings.

5.4. Responsible of Safety Officer

1) The safety officer is the person within the organization who is responsible for the day-to-day operation of the SMS. The responsibilities of the safety officer may require a full-time appointment, or may be added to existing duties.

2) The safety officer should have an open line of communication with the President Director. This ensures that safety reports and recommendations are afforded the proper level of attention, and that appropriate solutions are implemented in a timely manner. The safety officer must have the President Director assurance that any safety issue can be raised without fear of retribution.

3) The safety officer should be technically competent in one or more of the functional areas of the company operations. Regardless of technical expertise, the most effective safety officer is the person who is enthusiastic and interested in the task. If the job of safety officer is forced on someone who does not have a keen interest in safety, then it is unlikely that other within the organization will be encouraged to ''buy in'' to the Safety Management System (SMS).

4) The safety officer is responsible for:
   - The maintenance, review and revision of the safety management program.
   - Providing timely advice and assistance on safety matters to Managers and staffs at all levels.
   - Maintaining an appropriate reporting system to identify hazards.
   - Monitoring the progress of safety reports and ensuring that hazards are addressed in a timely manner.
   - Providing feedback about ongoing safety issues.
   - Reporting incidents and accidents as required by legislation.
   - Distributing relevant and up-to-date safety information to staff and management.
   - Identifying safety training requirements.

The company will ensure that the Safety Management System will be staffed sufficiently to ensure that no official duty contained herein, will be neglected on an ongoing basis, as the result of workloads assigned to the Safety & Quality Manager.

The Safety Officer and Safety & Quality Manager shall be responsible for managing the SMS by:

1) Monitoring and advising on all air operator flight safety activities which may have an impact on flight safety;
2) Establishing a reporting system which provides for a timely and free flow of flight safety related information;
3) Conducting safety surveys;
4) Soliciting and processing flight safety improvement suggestions;
5) Developing and maintaining a safety awareness program;
6) Monitoring industry flight safety concerns which may have an impact on air operations;
7) Maintaining close liaison with aero plane manufactures;
8) Maintaining close liaison with any DGCA and NTSC;
9) Maintaining close liaison with industry safety associations;
10) Developing and maintaining the air carrier emergency response plan;
11) Identifying flight safety deficiencies and making suggestions for corrective action;

12) Investigating and reporting on incidents/accidents and making recommendations to preclude a recurrence;
13) Developing and maintaining a flight safety data base to monitor and analyze trends;
14) Making recommendations to the company senior management on matters pertaining to flight safety;
15) Monitoring the response and measuring the results of flight safety initiatives;
16) Ensuring that all occurrences are reported to the appropriate agency; and
17) Resolving any findings which may be identified during safety or regulatory audits, or other inspections conducted by the DGCA personnel.

Any other duty which would contribute to the overall safety of Smart Aviation shall be considered to be an approved duty of the Safety & Quality Manager.

6.1. Objectives (19.25)

1) The Emergency Response Plan (ERP) identifies the actions to be carried out by company personnel in the event of an incident or an accident. The plan ensures prompt, orderly emergency action.

2) All company personnel will be trained with respect to their specific responsibilities as required in the company Emergency Response Plan. This training is to be included in the Flight Safety training provided to employees by the Safety & Quality Manager.

3) An emergency response plan (ERP) outlines in writing what should be done upon a major incident or accident.
The purpose of an ERP is to ensure:
   - Planned actions to minimize indirect or consequential damage upon the occurrence of a major incident or accident.
   - Recovery actions as well as procedures for orderly transition from normal to emergency operations.
   - Designation of emergency authority.
   - Assignment of emergency responsibilities.
   - Authorization by key personnel for actions contained in the plan.
   - Coordination of efforts to cope with the emergency.
   - Safe continuation of operations or return to normal operations as soon as possible.

4) An ERP could cover the different aspects of emergency response such as governing policies organization, notifications, initial responses additional assistance, Crisis Management Centre (CMC), records, management of the accident site, news media, formal investigations, family assistance, post critical incident stress counseling, and post occurrence review.

This procedure is applied to:
- PT. Smart Cakrawala Aviation's aircraft: flown by PT. Smart Cakrawala Aviation's crew, flown by crew leased by PT. Smart Cakrawala Aviation, and chartered by other operator.
- Non-PT. Smart Cakrawala Aviation's aircraft: flown by PT. Smart Cakrawala Aviation's crew, utilizing PT. Smart Cakrawala Aviation's flight number and chartered by PT. Smart Cakrawala Aviation.

6.2. Basic Principles HOPE (Humanity, Operational, Technical, Efficiency)

1) To extend maximum assistance (Humanity):
   - To minimize number of casualties.
   - To give efficient and effective assistance to survivors.
   - In identification and proper handling of victim.
2) To extend full technical assistance required for rescue operation.
3) To safeguard evidence/materials that might be valuable to investigation.
4) To execute an integrated, effective and efficient handling operation THREE NOES (TRINON).
5) No exposure of the accident.
6) No expression of opinion/conclusion/statement that might anticipate and or influence the process of investigations.
7) No implication of liability/promise of anything.

6.3. Emergency Reporting Procedures

6.3.1. Primary Alarm

The Operations Control Center (OCC) will be immediately notified in the event of an Emergency. The OCC will activate the Emergency Response Plan and notify all the following Key Primary employees;

1) Operation Manager
2) Safety & Quality Manager
3) President Director
4) Technical Manager
5) Chief Pilot
6) Chief Inspector

6.3.2. Secondary Alarm

The Primary Alarm Managers will activate the Secondary Alarm. They will notify their key staff and place them on emergency response stand-by.
The OCC will maintain a current list of all Key employees and Indonesian Government offices that will or could be involved in the Emergency Response. The list of contact numbers will be verified at least once a month. Verification will be accomplished by telephoning each person or agency and verifying that their contact number is correct. If no contact is made or if the telephone number has been disconnected, the OCC will be informed. It will be the OCC responsibility to keep the contact list updated.

6.3.3. Alert Phases

In the event of a potential accident or overdue aircraft, the OCC will classify and follow the 3 phases outlined below:

1) Uncertainty Phase (INCERFA) when:

a) No communication has been received from an aircraft within a period of thirty minutes after the a communication should have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earliest or when;
b) An aircraft fails to arrive at it's destination within thirty minutes of the estimated time of arrival last notified to or estimated by air traffic services units, whichever is the latest,

When the OCC has declared an **Uncertainty Phase,** the following people will be notified by SMS message:

- Operation Manager
- Safety & Quality Manager
- President Director
- Technical Manager
- Chief Pilot
- Chief Inspector

The Key Managers will confirm that they have received the SMS Alert. If a Key Managers, listed above, does not respond within 10 minutes to the SMS Alert, his/her Deputy will be alerted. The Duty Officer in the OCC will log all actions taken by his staff including receipt of alert conformation by Key Managers or their Deputies.

When no doubt exists as to the safety of the aircraft and its occupants, the **Uncertainty Phase** can be cancelled. All Key Managers will be notified by SMS when the Alert has been cancelled.

2) Alert Phase (ALERFA) when:

a) Following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft, or when;
b) An aircraft has been cleared to land and fails to land within five minutes of the estimated time of landing and communication has not been re-established with the aircraft, or when;
c) Information has been received which indicates that the operating condition of the aircraft has been impaired, but not to the extent that a forced landing is likely,

All Key Managers, or their Deputies, will be notified by SMS that the OCC has upgraded the potential emergency to **Alert Phase (ALERFA).**

When no doubt exists as to the safety of the aircraft and its occupants, the **Alert Phase** can be cancelled. All Key Managers will be notified by SMS when the Alert has been cancelled.

3) Distress Phase (DESTRESFA) when:

a) Following the alert phase further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress, or when;
b) The fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety, or when;
c) Information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a force landing is likely, or when;
d) Information is received or it is reasonably certain that the aircraft is about to make or has made a forced landing,

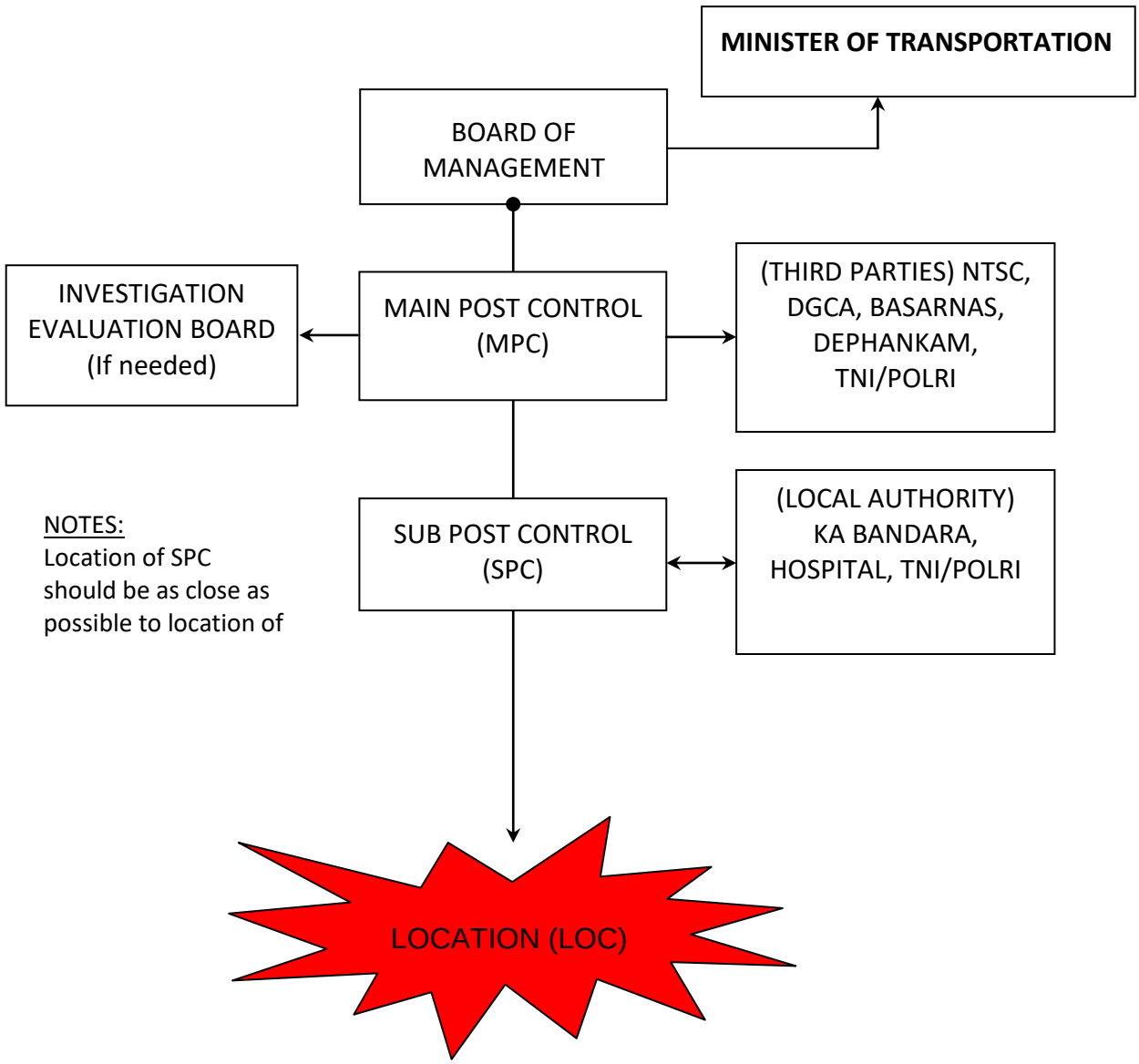
If the OCC declares that they have activated the **Distress Phase (DESTRESFA),** all Key Managers will assemble at the Emergency Center. When the **Distress Phase (DESTRESFA) phase is declared the Board of Managers will be notified.**
The **Distress Phase** can only be cancelled when there is absolute certain that the aircraft and its occupants are not threatened by grave and imminent danger and do not require immediate assistance. All Key Managers will be notified by SMS when the Alert has been cancelled.

6.3.4. Hijacking/Bomb Threat

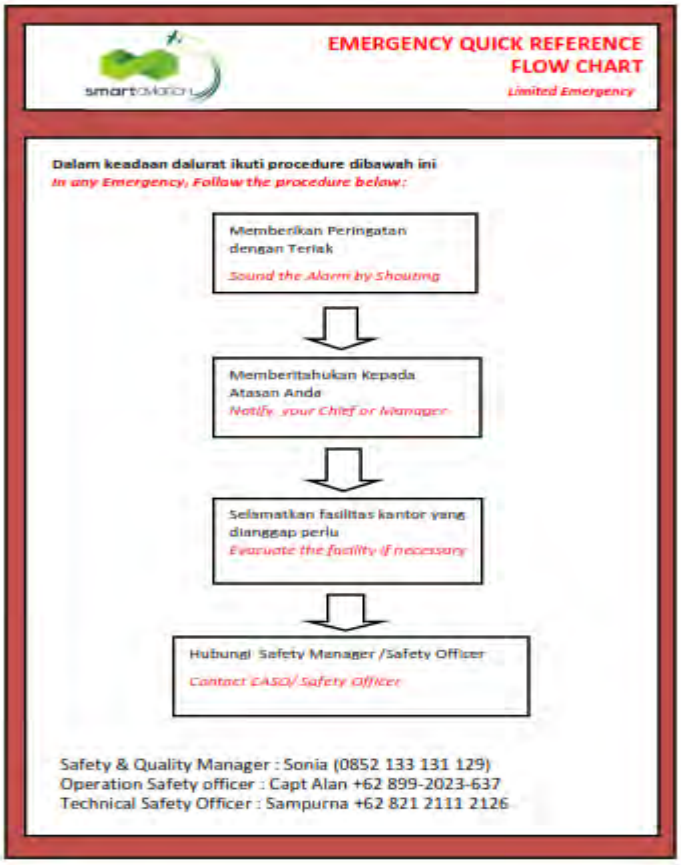
In the event of **Hijack, Sabotage / Bomb Threat** and incidents that might endanger the safety of flights, information will be given directly by telephone call or through other communications media to the OCC.

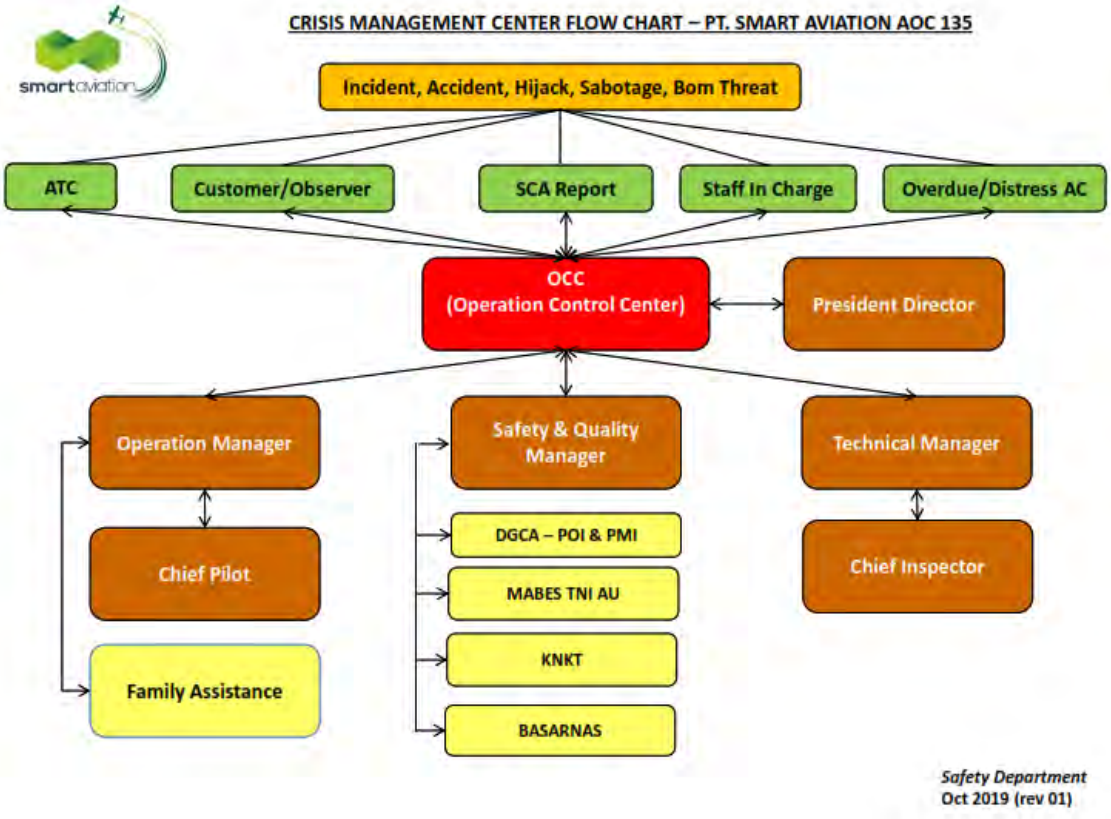
The standard information on the event should contain:
1) Aircraft registration or Flight Number;
2) Date;
3) The latest information regarding last position or last message received;
4) Clearly defined problem (Hijack, Sabotage, Bomb Threat);
5) Location on Board;
6) Number of agents;
7) Indicators / identification of agents (accent, physical features, attire / clothes, etc.)
8) Demands (if any);
9) Next destination / further intention (if any);
10) Other relevant information;
11) Official Personal;

6.4. Emergency Center Organization



6.4.1. ERP Flow chart and Detail Emergency Communication Flowchart





6.5. Emergency Notification

6.5.1. Board of Management

Memberships:	
1. President Director.	5. Chief Inspector
2. Safety & Quality Manager	6. Chief Pilot (Fixed Wing/Rotary Wing)
3. Operation Manager.	7. HR Manager
4. Technical Manager.	

- Command is held by Chairman, in case Chairman not available, President Director or other senior management will substitute him/her.

6.5.2. Operation Control Center

- Operation Manager
- Chief Pilot Fixed wings
- Chief Pilot Rotary wings

Detail information see Emergency Contact list

6.5.3. Main Post Control (PMC)

- Safety & Quality Manager
- Safety Officer

Detail information see Emergency Contact list

6.5.4. Maintenance Control Center (MCC)

- Maintenance Manager
- Chief Inspector
- PPC

Detail information personnel in charge see Emergency Contact list

6.5.5. Media Information Center (MIC)

HRD Manager

Detail information personnel in charge see Emergency Contact list

6.5.6. Sub Post Control

Managed by	Operation Manager
Location	Usually located at affected site (predominantly at airport).
Alternate Location	As per local arrangements.
Roles and Responsibilities	In the event of an aircraft-related emergency, SPC must be established at the affected airport and would be in close coordination with the Airport Authority. The SPC emergency function will be taken over by Emergency Support Management Team (ESMT) and assist the team as required upon arrival on the site.

Resourced by Team Member	Local airline staff (if any), ideally there should be at least four (4) staff in this center.
Activated when/how	The SPC will be activated at the impeded sites immediately in the event of an aircraft related or other emergencies as declared. The role of the SPC is to initiate, coordinate, and control of PT. Smart Cakrawala Aviation Local Emergency Response Plan at the acceded site and provide communication between this site and the MPC/Board of Management.

Detail information personal in charge see Emergency Contact list

6.5.7. Search and Rescue

Detail information personal in charge see Emergency Contact list

6.5.8. Directorate General of Civil Aviation (DGCA)

Detail information personal in charge see Emergency Contact list

6.5.9. National Transportation Safety Committee (NTSC/ KNKT)

Detail information personal in charge see Emergency Contact list

6.5.10. Local Phone Numbers

Detail information personal in charge see Emergency Contact list

6.6. Emergency Management Center

Emergency Management Center is designed as a center Emergency Management organization and should be located in head and should be normally available at all times. If the EMC is occupied at the time of the emergency, all non-EMC personnel will vacate it.
All Emergency Management activities will be organized and controlled from the EMC. Primary and secondary members, who are required in the event of an emergency announcement, should be available at any time under the normal condition and situation. If a primary or secondary EMC member is not available his Deputy will sit in his place. It is the responsibility of all Department Managers to assure that a qualified Manager is always available to man the EMC.

6.6.1. Place

Emergency Management Center (EMC) is located at Head Office, Fourth floor, and the Management Conference Room is appointed as the Emergency Management Center room.

6.6.2. Membership

1) Safety & Quality Manager
2) Operation Manager
3) Technical Manager
4) Chief Pilot
5) Chief Inspector

The Operation Manager is assigned as Coordinator of the Emergency Management.
In case Operation Manager is unable to be present, Chief Pilot will substitute for him.

6.6.3. General Duties

Relations with:

a) MABES TNI/POLRI (The Head Quarter of The Indonesian Armed Forces);

b) DEPHANKAM (The Department of Defense and Security),

c) BASARNAS (National Search and Rescue Agency);

d) DITJEN PERHUBURGAN UDARA

e) National Transport Safety Committee (KNKT)

- Operational Handling;
- Relations with Board of Managers;
- Supervising the Remote Emergency Management Center (REMC) and assisting Investigation and Evaluation Board (IEB).

f) Coordinate all activities

6.6.4. Job Description of Emergency Management Center (EMC)

The following descriptions below are the activities of Emergency Management Center (EMC), for the detail responsibility of each Division as members of Emergencies explained in Chapter 3.

6.6.5. Supporting Unit and Personnel

1) Incident Case

EMERGENCE MANAGEMENT SAFETY & QUALITY MANAGER

a) To inform Board of Managers and all members of Emergency Management Center;
b) To inform:
   - National Transport Safety Committee (NTSC)
   - Directorate General of Civil Aviation (DGCA)

c) To appoint a coordinator of Emergency Management Center activities (see Chapter 6 subpart 6.6.3 *GENERALDUTIES above);*
d) To collect and keep Crewmember data;
e) To organize transportation/administration for the Team of Investigators (International);
f) To activate and coordi
g) nate the activities of the site designated General Services Contractor (aircraft removal and clean-up);
h) To collect and secure all aircraft and flight documents:
   - General declaration (for border crossing/international flight);
   - Passengers manifest and copy flight;
   - Cargo manifest (including special cargo);
   - Flight Plan, Weather Forecast, NOTAM's;

   - Aircraft document (C of A, C of R, Radio permit, A/C insurance, Weight and Balance, swing compass and Aircraft Flight Report);
   - Aircraft, engine and maintenance records.

i) To prepare logbook for documents collected and control and a filing system for collected documents;
   - To maintain up to completion the document logbook;
   - Only copies of original documents will be provided to authorized third parties,
   - The President Director must authorize in writing the release of any company document to a third party.

2) Accident Case

a) To keep informed the Board of Manager and all members of Emergency Management Center and the Emergency Management Remote Center.
b) To keep informed:
   - DGCA and National Transport Safety Committee (NTSC);
c) To appoint a coordinator of Emergency Management Center activity

d) To determine security system for Emergency Management Center room, location, reception ceremony and guard services;

e) To determine channels of communications:
   - Hot-line;
   - Mobile communications

f) To collect Crewmember data;

g) To organize a team to notify or communicate with Crewmember families and passenger's families;

h) To organize and brief a Rescue Team to location before departure;

i) To organize transportation / administration for The Rescue / Investigation Team (domestic overseas) and equipment's / other requirements (necessities):
   - Medical emergency kit and maintenance crash kit;
   - Emergency communication equipment (SATPHONE);
   - Food supplies for Rescue Team sufficient for initial needs;

j) To collect data on hospital facilities and funeral organization;

k) To collect aircraft and flight documents

   - General declaration (for border crossing/international flight);
   - Passenger manifest, passenger data;
   - Cargo manifest (including special cargo);
   - Load sheet;
   - Aircraft document (C of A, C of R, Radio permit, Weight and Balance, A/C insurance, and Aircraft Flight Report);

l) To prepare a logbook for documents collected and control and a filing system for collected documents;
   - To maintain up to completion the document logbook;
   - Only copies of original documents will be provided to authorized third parties,
   - **The President Director must authorize in writing the release of any company document to a third party.**

m) To organize the reception ceremony in Jakarta

n) To collect and arrange legal insurance data;

o) To prepare press release;

p) To arrange transportation for families of victims

3) Hijack Case

a) To keep informed the Board of Manager and all members of Emergency Management Center.

b) To inform:
   - MABES TNI/POLRI
   - DEPHANKAM;
   - Directorate General of Civil Aviation (DGCA) and NTSC

c) To appoint a coordinator of Emergency Management Center activities;

d) Emergency Management Center activity should refer to SMM (Safety Management Manual);

e) To determine channels of communications:
   - Hot-line;
   - Mobile communication.

f) To collect crewmember data;

g) To organize a Team to notify or communicate with crewmember families and passengers families;

h) To organize special team for maintenance operation if deem necessary, the management may appoint one of its member to lead this team;

i) To organize transportation/administration for the team and equipment/other requirements (necessities) domestic or overseas:
   - Medical emergency Kit;
   - Maintenance crash Kit;
   - Emergency communication equipment's (SATPHONE);
   - Food supplies for team sufficient for initial needs;
   - Route clearance (over flying / landing permit);
   - Modification chart.

j) To collect data on hospital facilities and funeral organization;

k) To order Safety Committee for security measure of Emergency Management Center reception ceremony and guard services;

l) To collect and keep aircraft and flight documents:
   - General declaration;
   - Passenger manifest, passenger data and copy flown coupon;
   - Cargo manifest (including special cargo);
   - Airway bill;
   - Load sheet;
   - Aircraft document (C of A, C of R, Radio permit, Weight and Balance, A/C insurance, swing compass, and Aircraft Flight Report).

m) To prepare a logbook for documents collected and control and a filing system for collected documents;
   - To maintain up to completion the document logbook;
   - Only copies of original documents will be provided to authorized third parties,
   - **The Director must authorize in writing the release of any company document to a third party.**

n) To arrange transportation for families of victims

4) Sabotage / Bomb Case

a) To inform Board of Manager and all members of Emergency Management Center, to inform:
   - MABES TNI/POLRI
   - DEPHANKAM;
   - Directorate General of Civil Aviation (DGCA) and NTSC
   - All SCA's stations concern.

b) To carry out a proper and correct assessment of the threat;

c) Emergency Management Center should refer to OM (Operation Manual);
d) To set up appropriate contingency plans and make them available at appropriate location;
e) To arrange transportation for the families of the victims.

❖ **THREAT ASSESSMENT:**

- Evaluate bomb message report (see Appendix, in this manual);
- Evaluation of the seriousness of a threat should generally be based on initial information;

- CAUTION: Supplementary information often lacks objectivity;
- Due cognizance must be taken of the local laws.

❖ **CLASSIFICATION:**

Specific (positive identified target)

- The individual giving the warning identifies him;
- The nature of the warning is specific;
- The airline is specific;
- A specific flight or location is mentioned;
- The exact date or time is stated;
- In case of a bomb message regarding an aircraft the origin or destination of the flight is given.

Non-specified (target not identified)

- The person giving the warning does not identify himself;
- The airline is not specified;
- The flight or facility is not specified;
- The information is general in nature e.g. 'the next flight living the airport has a bomb", "you had better watch flight number...", "There is a bomb in the airport".

❖ **AREA OF THREAT COULD BE:**

- Bomb threats against aircraft on ground;
- Bomb threats against aircraft in flight;
- Bomb threats against buildings or other facilities

5) Others Case

Except of incident, accident, hi-jack, and bomb threat / sabotage all others conditions lay on Manager of Operation.

Technical Department

a) To activate Technical Alarm Plan (MAP 2);
b) Collect and keep all documents of the aircraft for the NTSC:
   - C of A;
   - C of R;
   - Aircraft Technical Inspection and Repair Records.
   - No original Aircraft Records will be released to any third party.
   - The President Director must authorize in writing the release of any company document to a third party.

c) Prepare aircraft lay out and its modifications (in case of Hijack, Bomb Threat, Sabotage);
d) Furnish / supply crash bag (drop proof);
e) Report to Emergency Management Center;
f) Standby.

Human Resource Department

a) To arrange the required of transportation (personnel doc, visa and tickets) for the Teams will depart to overseas for countries;
b) To give consideration to matters of religion / faiths in handling casualties;
c) To organize funeral services for crewmember;
d) To arrange the required ground transportation in Jakarta and surrounding area;
e) To arrange the funeral organization for Smart Cakrawala Aviation personnel;
f) To prepare all support services for Board of Manager and Emergency Management Center.

Operations Department

a) To activate Communication Alarm Plan (CAM);
b) To furnish the required communication equipment:
   - Preparation to isolate the communication required for Board of Manager and Emergency Management Center;
   - Hot-line and mobile communication;
   - Emergency communication equipment.
c) Report to Emergency Management Center;

d) Standby.

Administration

Duty and responsibilities of administration, making a journal of all activities and communication;
In his activities should be kept all communication channels functional around the clock.

6.7. Test of the Emergency Response Plan

6.7.1. General

The Emergency Response Plan (ERP) is a critical tool for the timely identification of a missing aircraft. Without the ERP lives could be lost needlessly. Every employee identified by job function in the plan must know his or her part thoroughly. Initial and recurrent training must be provided to all employees concerning their function within the plan. The employee must understand how the plan works and how each person in the plan will perform. It is the responsibility of each Department Manager to train the employees in his department if they perform any function in the ERP.

To assure that the ERP employee training is adequate, the Safety Department will perform an unannounced test of all or part of the ERP every 30 days. The written results of the test will be provided to all Managers involved in the ERP.

6.7.2. ERP Test Procedure

There will be three (3) types of tests of the ERP;

1) ERP Test within the Operations Control Center only
2) ERP Test with a company aircraft when Spider Tracks has become inactive.
3) ERP Test with a company aircraft when the Spider tracks "EMERGENCY" Button has been activated

The Safety Department will coordinate all tests of the ERP. The following personnel will be advised, as necessary, in advance, that an ERP Test will occur.

1) President Director
2) Safety & Quality Manager
3) Operation Manager
4) Chief Pilot
5) Technical Manager
6) Chief Inspector

6.7.3. Internal OCC test of ERP

The internal test of the ERP is designed to determine if the OCC personnel function properly under the pressure of a simulated emergency. The internal OCC test will evaluate if all primary contact cellular numbers are working properly. The test will determine if ERP checklist are used properly. The test will evaluate the OCC personnel document their actions in the ERP Logbook.
The internal OCC ERP test will not activate any resource outside of the company's or agencies (DGCA, ATC, DGCA, SAR etc.).

6.7.4. ERP Test Using Company Aircraft (Spider Tracks Inactive)

The ERP Test using a company aircraft, with Spider Tracks inactive, will be a test of the entire internal and external ERP system. Prior coordination must be performed with Government Agencies to prevent a full activation of their ERP. Each Government Agency will be notified in writing at least 48 hours in advance of a company ERP test. A telephone notification will be made by the Safety Department 24 hours before the ERP test. The following Government Agencies will be notified of the date and time the a test of the companies ERP test will occur;
DGCA Air Traffic Control (ATC)
DGCA Primary Operations Inspector (POI)
Indonesian Search and Rescue (SAR)
National Transport Safety Committee (NTSC)
The test will commence with the Safety Department entering the OCC and informing the OCC Manager that a test of the ERP has started. The OCC Manager will inform the OCC staff to assume a company aircraft is missing and presumed overdue. The staff will simulate any action, which requires outside telephone

notification. The OCC staff will be evaluated on the use of checklists and following proper procedures as detailed in this manual. After the exercise has been completed to the satisfaction of the Safety Department, a formal briefing of all OCC personnel will occur. A written report from the Safety Department will be given to the Operation Manager within 24 hours of the test completion.

6.7.5. ERP Test with a Company Aircraft (When Spider Tracks "EMERGENCY" Button has been active)

The ERP Test using a company aircraft, with Spider Tracks active and the "Emergency" button has been activated will be a test of the entire internal and external ERP system. Prior coordination must be performed with Government Agencies to prevent a full activation of their Indonesian National ERP. Each Government Agency will be notified in writing, at least 48 hours in advance, of a company ERP test. A telephone notification will be made by the Safety Department 24 hours before the ERP test to the same Government departments. The following Government Agencies will be notified of the date and time that a test of the companies ERP test will occur;
Air Traffic Control (ATC)
DGCA Primary Operations Inspector (POI)
Indonesian Search and Rescue (SAR)
National Transport Safety Committee NTSC
The test will commence with the Spider Tracks Emergency button is activated. The OCC will observe the actions of his staff. The OCC staff should follow the procedures detailed in this manual and the ERP Checklist.
A Safety & Quality Manager will observe the test from within the OCC. After the exercise has been completed to the satisfaction of the Safety Department, a formal briefing of all OCC personnel will occur. A written report from the Safety Department will be transmitted to the Operation Manager within 24 hours.

6.8. Emergency Response Checklist

6.8.1. General

The Company Emergency Response Checklist (ERPCL) will be maintained in the OCC. The checklist contact numbers will be verified every 12 months or when there is a latest regulation, authority, or update of authority members. The OCC will document the verification of contact numbers by producing a letter to the Operation Manager stating the following:

1) Date that names and telephone numbers were verified.
2) Person conducting the verification
3) Names and numbers found to be incorrect.
4) Corrected names and numbers.

The Operation Manager will produce a temporary revision to all company manuals, within 2 business days, listing the update contact names and telephone numbers.

6.8.2. Emergency Response Checklist

Emergency Response Checklist provided in Appendix O

7.1. Data Documentation Responsibilities (19.27, 19.29, 19.61, 19.69)

1) Modern and complex organizations require good information and advice so that good decisions can be made. This is especially true for PT.Smart Cakrawala Aviation, in which timely, useful and relevant safety information and advice will feed the risk management decisions made by Safety Action Group (SAG). Such information will help to prevent foreseeable losses as a consequence of implementing both corporate and operational decisions.
2) All managers and trainers will also be able to ensure the continued effectiveness and relevance of their training material and methods by having access to relevant safety information and data.
3) PT. Smart Cakrawala Aviation 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.
4) SDCPS is include reactive, proactive and predictive methods of safety data collection
5) The safety office functions as an important center of safety information (including acting as a custodian for confidential safety data) and safety promotion. Useful safety information can be provided to, and accessed by SAG/SRB to assist them in making better risk management decisions.
6) PT Smart Cakrawala Aviation take the necessary measures to ensure the appropriate confidentiality of the details of occurrences. Process personal data only to the extent necessary for the purposes of this Regulation.
7) PT. Smart Cakrawala Aviation store occurrence reports drawn up on the basis of details of occurrences collected
8) Some of the specific Safety & Quality Manager responsibilities relating to safety data documentation include:

a) Maintain an effective safety occurrence/hazard and improvement reporting and recording system; records kept include Hazards Report, Risk Assessment Reports, SAG/SRB meeting notes, Safety Performance Monitoring Charts, SMS Audit Reports, SMS Training Records, corrective/preventive & recovery action;
b) Provision of expert safety, human factors and risk management services including timely advice and assistance on safety matters to SAG/SRB;
c) Pro-active education, communication and promotion of relevant safety matters to all personnel;
d) Manage an active Centre for corporate safety strategy and organizational learning and development.

7.2. Collecting, Analyzing & Utilizing Data (19.55, 19.61, 19.67)

Within the structure of any good Safety Management System are the systems and processes to manage safety data. To make any good decision, and appropriate use collected safety information certain information needs to be used to support and enhance it. Collecting, analysis and utilizing safety data provides this opportunity.
PT. Smart Cakrawala Aviation develop a process to analyze occurrences collected in order to identify the safety hazards associated with identified occurrences or groups of occurrences. Based on that analysis, PT. Smart Cakrawala Aviation determine any appropriate corrective or preventive action, required to improve aviation safety.

To ensure that this data is available, the following information provides details about the sources by which it can be obtained.

1) Internal sources of safety data:

   a) Hazard Reports.
   b) Risk Assessment Report.
   c) Accident, Incident and Hazard Investigation Reports.
   d) Informal feedback from aircrew (both pilots) and operational staff regarding their safety concerns, experience and improvement ideas.
   e) Safety Committee meeting recommendations.
   f) Audits Report.
   g) SMS Training Records.
   h) Safety Performance Monitoring Charts.

2) External Source of Safety Data:

   a) Contact network of world-wide airline and aviation safety professionals;
   b) Publications from various international regulatory authorities, investigative agencies and industry bodies (e.g. DGCA, ICAO, IATA, FSF, UK AAIB, ATSB, NTSB, UK CAA, US FAA, etc.);
   c) Publications from other airlines and aviation organizations;
   d) Safety and human factors literature from academic institutions and training organizations.

7.3. Managing Safety Documentation (19.27, 19.63)

PT.Smart Cakrawala Aviation develops and maintains 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.

PT. Smart Cakrawala Aviation establish data quality checking processes to improve data consistency, notably between the information collected initially and the report stored in the database.
It is extremely important to successfully manage the documentation utilized to maintain PT. Smart Cakrawala Aviation SMS. The key consideration is to keep all processes simple and to avoid cumbersome and time-consuming processes at all times.
The following techniques need to be used to ensure that this occurs:

A. Version Control.

All documents that are produced by the safety office need to contain appropriate version control measures. This can be as simple as including the version number within the header of the document. For formal documentation such as this Flight Safety Manual, all revisions will be logged at the beginning of the manual and the distribution list kept up to date. At this stage, it is not necessary to use a database to control the revisions or distribution.

B. Controlling Access to Documentation.

PT. Smart Cakrawala Aviation establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

Some hard-copy documents such as completed accident investigation reports need to be strictly controlled in terms of their access. Failure to protect confidential documents may have undesirable consequences to the long term safety culture. Therefore, distribution and access for such documents should be controlled by the Safety & Quality Manager.

Some soft-copy documents will be equally as sensitive and need to be treated just as carefully. When servers and shared drive access is made available, certain confidential documents shall not be included within such systems. They must be contained only on the personal drive of computers, with access to that machine controlled by use of passwords and restricted access.

8.1. General

The Aviation industry faces a diversity of risks everyday, many capable of compromising the viability of an operator, and some even posing a threat to the industry. Indeed, risk is a by-product of doing business. Not all risks can be eliminated, nor are all conceivable risk mitigation measures economically feasible. The risks and costs inherent in aviation necessitate a rational process for decision-making.

Daily, decisions are made in real time, weighing the probability and severity of any adverse consequences impaled by the risk against the expected gain of taking the risk. This process is known as “Risk Management”. For the purposes of this manual, risk management can be defined below.

1. Risk Management.
   a) The identification, analysis and elimination (and/or mitigation to an acceptable of tolerable level) of those hazards, as well as the subsequent risk that threaten the viability of an organization.
   b) In other words, risk management facilities the balancing act between assessed risks and viable risk mitigation.
   c) Risk management is an integral component of safety management. It involves a logical process of objective analysis, particularly in the evacuation of the risks.

2. An overview of the process for risk management is summarized in the flow chart in *Figure 4-1*. As the figure indicates, risk management comprises three essential elements: *hazard identification*, *risk assessment* and *risk mitigation*.

8.2. Hazard Identification

The concept of hazard identification was introduced in this chapter. Given that a hazard may involves any situation or condition that has the potential to cause adverse consequences, the scope for hazards in aviation is wide.
Hazard report may be conducted by every Smart Aviation's employees and third party

The following are some examples:

1. *Design factors*, including equipment and task design;
2. *Procedures and operating practices*, including their documentation and checklists, and their validation under actual operating conditions;
3. *Communications*, including the medium, terminology and language;
4. *Personnel factors*, such as company policies for recruitment, training and remuneration;
5. *Organizational factors*, such as the compatibility of production and safety goals, the allocation of resources, operating pressures and the corporate safety culture;
6. *Work environment factors*, such as ambient noise and vibration, temperature, lighting and the availability of protective equipment and clothing;
7. *Regulatory oversight factors*, including the applicability and enforceability of regulations; the certification of equipment, personnel and procedures; and the adequacy of surveillance audits; and
8. *Defences*, including such factors as the provision of adequate detection and warning systems, the error tolerance of equipment and the extent to which the equipment is hardened against failures.

Figure 8-1 Risk Management Process

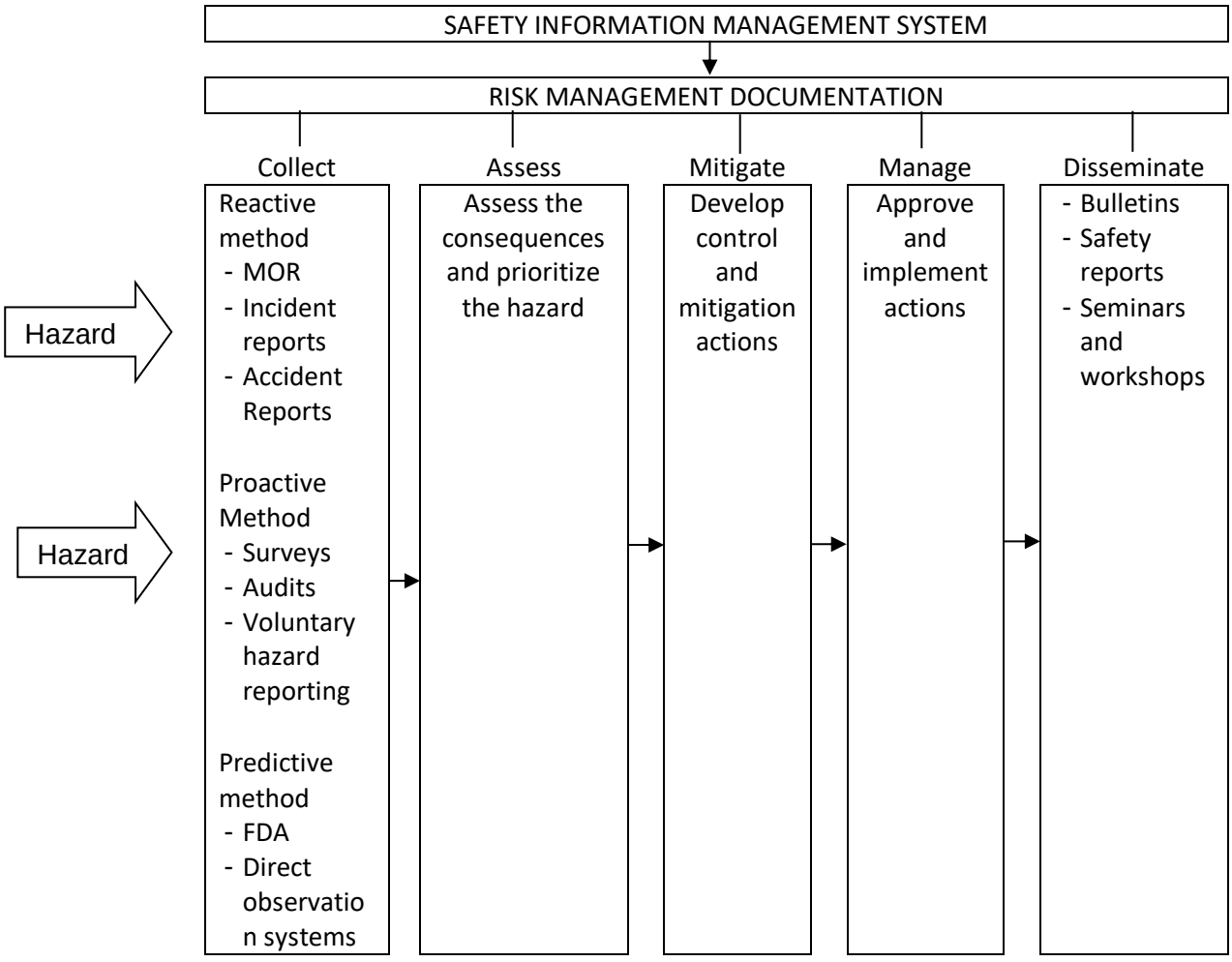


Figure 8 – 1 illustrates the hazard documentation and follow-up risk management process. Hazards are constantly identified through various data sources. The service provider is expected to identify hazards, eliminate these hazards or mitigate the associated risks. In the case of hazards identified in products or services delivered through subcontractors, mitigation could be the service provider's requirement for such organizations to have an SMS or an equivalent process for hazard identification and risk management.

Hazards may be identified through proactive and predictive methodologies or as a result of accident or incident investigations. There are a variety of data sources of hazard identification that may be both internal and external to the organization.

Safety and Quality Manager must verify that the internal hazard identification data sources include:

a) Normal operation monitoring schemes (e.g. Flight data analysis for aircraft operators);
b) Voluntary and mandatory reporting systems;
c) Safety surveys;
d) Safety audits;
e) Feedback from training; and
f) Investigation and follow-up report on accidents/incidents.

Safety and Quality Manager must verify that external data sources for hazard identification include:

a) Industry accident reports;
b) State mandatory incident reporting systems;
c) State voluntary incident reporting systems;
d) State oversight audits; and
e) Information exchange systems.

8.3. Risk Assessment

Having confirmed the presence of a safety hazard, some form of analysis is required to assess its potential for harm or damage.

Typically, this assessment of the hazard involves three considerations:

1. the ***probability*** of the hazard precipitating an unsafe event (i.e. the probability of adverse consequences should the underlying unsafe conditions be allowed to persist);
2. the ***severity*** of the potential adverse consequences, or the outcome of an unsafe event; and
3. the rate of ***exposure*** to the hazards. The probability of adverse consequences becomes greater through increased exposure to the unsafe conditions. Thus, exposure may be viewed as another dimension of probability. However, some methods of defining probability may also include the exposure element, for example, a rate of 1 in 1000 hours.

Figure 8-2 Safety risk management process

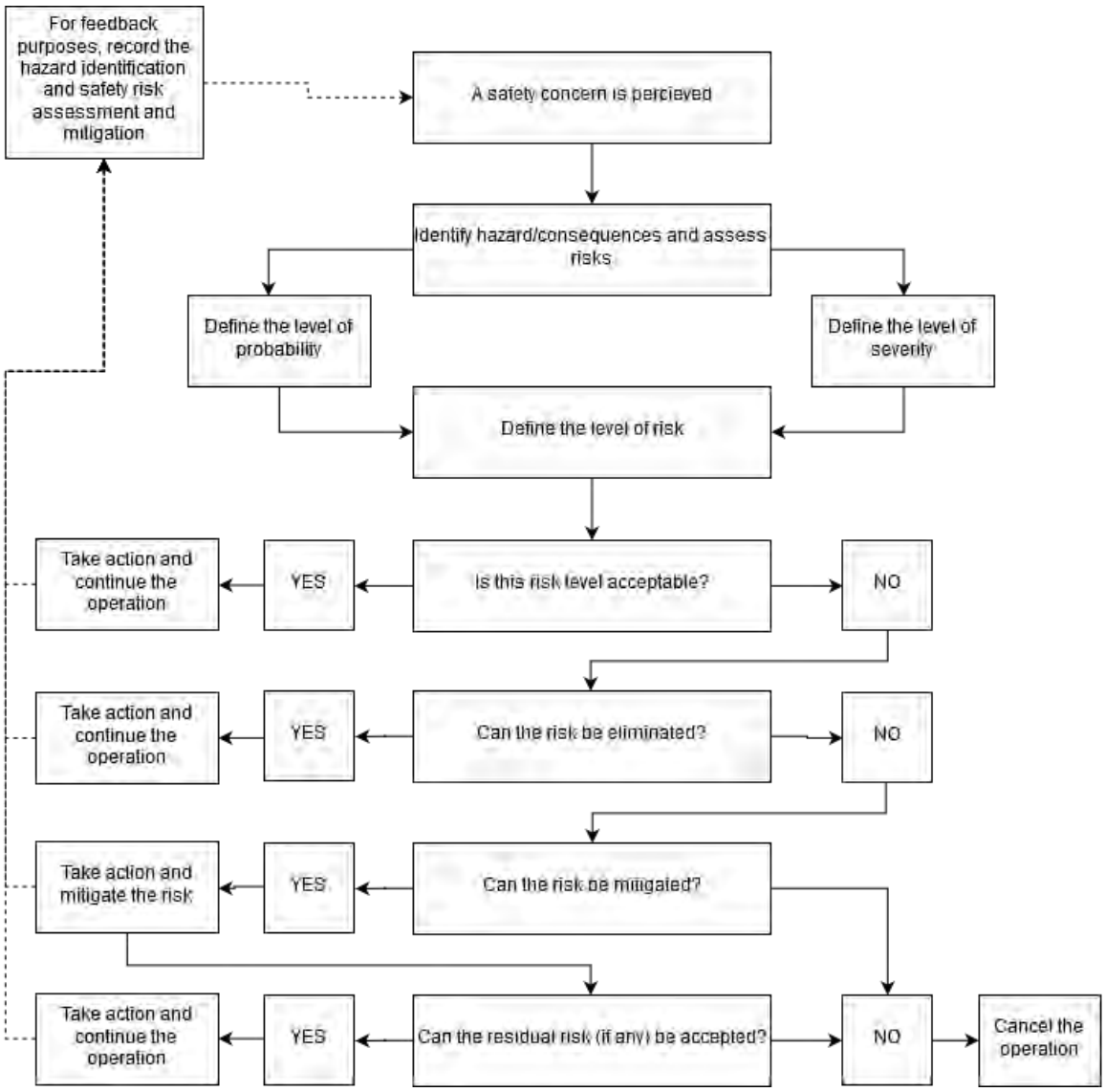


Figure 8-2 above present the safety risk management process in its entirety. The process starts with the identification of hazards and their potential consequences. The safety risks are then assessed in terms of probability and severity, to define the level of safety risk (safety risk index). If the assessed safety risks are deemed to be tolerable, appropriate action is taken and the operation continues.

Table 8-3 Risk Probability

PROBABILITY OF OCCURRENCE		
QUALITATIVE DEFINITION	MEANING	VALUE
Frequent	Probably to occur many times (has occurred frequently)	5
Occasional	Probably to occur some times (has occurred infrequently)	4
Remote	Improbable, but possible to occur (has occurred rarely)	3
Improbable	Very not possible to occur (not known to have occurred)	2
Extremely Improbable	Almost inconceivable that the event will occur	1

Table 8-3 Risk Severity

SEVERITY OF OCCURRENCES		
AVIATION DEFINITION	MEANING	VALUE
CATASTROPHIC	➢ Equipment destroyed. ➢ Multiple deaths. ➢ Loss of fund above USD 2.500.000	A
HAZARDOUS	➢ A large reduction in safety margins, physical distress or a workload such that operators cannot be relied upon to perform their tasks accurately or completely. ➢ Serious injury. ➢ Major equipment damage. ➢ Loss of fund equivalent aircraft price (USD 2.500.000)	B

MAJOR	➢ A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency. ➢ Serious Incident. ➢ Injury to persons. ➢ Loss of fund equivalent aircraft price (USD 2.500.000)	C
MINOR	➢ Nuisance. ➢ Operating Limitations. ➢ Use of emergency procedure. ➢ Minor incident.	D
NEGLIGIBLE	➢ Little Consequences	E

- RISK is the assessed potential for adverse consequences resulting from a hazard. It is the likelihood that the hazard's potential to cause harm will be realized.
- *Risk assessment* involves consideration of both the probability and the severity of any adverse consequences; in other words, the loss potential is determined.
- In carrying out risk assessments, it is important to distinguish between *hazards* (the potential to cause harm) and *risk* (the likelihood of that harm being realized within a specified period of time). A risk assessment matrix (provided in Table 8-4) is a useful tool for prioritizing the hazards most warranting attention.

  There are many ways — some more formal than others — to approach the analytical aspects of risk assessment.

  For some risks, the number of variables and the availability of both suitable data and mathematical models may lead to credible results with quantitative methods (requiring mathematical analysis of specific data). However, few hazards in aviation lend themselves to credible analysis solely through numerical methods. Typically, these analyses are supplemented qualitatively through critical and logical analysis of the known facts and their relationships. Considerable literature is available on the types of analysis used in risk assessment. For the risk assessments discussed in this manual, sophisticated methods are not required; a basic understanding of a few methods will suffice.

  Whatever methods are used, there are various ways in which risks may be expressed, for example:
  - ➢ number of deaths, loss of revenue or loss of market share (i.e. absolute numbers);
  - ➢ loss rates (e.g. number of fatalities per 1,000,000 seat kilometers flown);
  - ➢ probability of serious accidents (e.g. 1 every 50 years);
  - ➢ severity of outcomes (e.g. injury severity); and
  - ➢ expected dollar value of losses versus annual operating revenue (e.g. U.S.$1 million loss per U.S.$200 million revenue).

- Problem definition.
  In any analytical process, the problem must first be defined. In spite of identifying a perceived hazard, defining the characteristics of the hazard into a problem for resolution is not always easy. People from different backgrounds and experience will likely view the same evidence from different perspectives. Something that poses a significant risk will reflect these different backgrounds, exacerbated by normal human biases.

  Thus, engineers will tend to see problems in terms of engineering deficiencies; medical doctors as medical deficiencies; psychologists as behavioral problems; etc. The anecdote in the next page exemplifies the multifaceted nature of defining a problem.

  CHARLIE ACCIDENT.

  Charlie has an emotional argument with his wife and proceeds to the local bar where he consumes several drinks. He leaves the bar and drives away in his car at high speed. Minutes later, he loses control on the highway and is fatally injured.

  We know **WHAT** happened; we must now determine **WHY** it happened. The investigation textual consists of six (6) specialists, each of whom has a completely different perspective on the root safety deficiency.

  1. The sociologist identifies a breakdown in interpersonal communications within marriage.
  2. An enforcement officer from the Liquor Control Board notes the illegal sale of alcoholic beverages by the bar on a ''two-for-one" basis.
  3. The pathologist determines that Charlie's blood alcohol was in excess of the legal limit.
  4. The highway engineer finds inadequate road banking and protective barrier for the posted.
  5. An automotive engineer determines that Charlie's car had a loose front end and bald tires.
  6. The policeman determines that the automobile was traveling at excessive speed for the prevailing conditions.

  Each of these perspectives may rarefy in 4 different definition of the underlying hazard. Any or all of the factors cited in this example may be valid, underlining the nature of multi causality. How the safety issue is defined, however, will affect the course of action taken to reduce or eliminate the hazards. In assessing the risks, all potentially valid perspectives must be evaluated and only the most suitable pursued.

- *Probability of Adverse Consequences*.
  Regardless of the analytical methods used, the probability of causing harm or damage must be assessed. This probability will depend on answers to such questions as:

  a) Is there a history of similar occurrences, or is this an isolated occurrence?
  b) What other equipment or components of the same type might have similar defects?
  c) How many operating or maintenance personnel are following, or are subject to the procedures in question?
  d) What percentage of the time is the suspect equipment or the questionable procedure in use?

e) To what extent are there organizational, management or regulatory implications that might reflect larger threats to public safety?

Based on these considerations, the likelihood of an event occurring can be as, for example, as:

a) *Unlikely to occur*.
Failures that are "unlikely to occur" include isolated occurrences, and risks where the exposure rate is very low or the sample size is small. The complexity of the circumstances necessary to create an accident situation may be such that it is unlikely the same chain of events will happen again. For example, it is unlikely that independent systems would fail concurrently. However, even if the possibility is only remote, the consequences of concurrent failures may warrant follow-up.

Note.— There is a natural tendency to attribute unlikely events to "coincidence". Caution is advised. While coincidence may be statistically feasible, coincidence should not be used as an excuse for the absence of due analysis.

b) *May occur*.
Failures that "may occur" derive from hazards with a reasonable probability that similar patterns of human performance can be expected under similar working conditions, or that the same material defects exist elsewhere in the system.

c) *Probably will occur*.
Such occurrences reflect a pattern (or potential pattern) of material failures that have not yet been rectified. Given the design or maintenance of the equipment, its strength under known operating conditions, etc., continued operations will likely lead to failure. Similarly, given the empirical evidence on some aspects of human performance, it can be expected with some certainty that normal individuals operating under similar working conditions would likely commit the same errors or be subject to the same undesirable performance outcome.

- *Severity of the Consequences of Occurrence***.**
Having determined the probability of occurrence, the nature of the adverse consequences if the event does occur must be assessed. The potential consequences govern the degree of urgency attached to the safety action required. If there is significant risk of catastrophic consequences, or if the risk of serious injury, property or environmental damage is high, urgent follow-up action is warranted.

In assessing the severity of the consequences of occurrence, the following types of questions could apply:

a) How many ***lives are at risk****? (Employees, passengers, bystanders and the general public)*

b) What is the likely extent of ***property*** or ***financial damage****? (Direct property loss to the operator, damage to aviation infrastructure, third party collateral damage, financial impact and economic impact for the State)*

c) What is the likelihood of ***environmental impact****? (Spill of fuel or other hazardous product, and physical disruption of natural habitat)*

d) What are the likely ***political implications*** and/or ***media interest****?*

- *Risk acceptability.*

  Based on the risk assessment, the risks can be prioritized relative to other, unresolved safety hazards. This is critical in making rational decisions to allocate limited resources against those hazards posing the greatest risks to the organization.

  Prioritizing risks requires a rational basis for ranking one risk vis-à-vis other risks. Criteria or standards are required to define what is an *acceptable* risk and

  what is an *unacceptable* risk. By weighing the likelihood of an undesirable outcome against the potential severity of that outcome, the risk can be categorized within a risk assessment matrix. Risk Assessment Matrixes are summarized in Table 4.4.

  In this version of a risk assessment matrix:

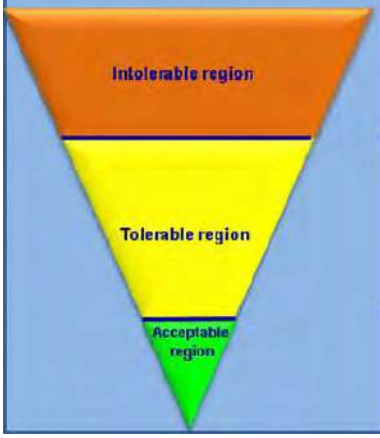
  1. Severity of risk is ranked as catastrophic hazardous, major, minor or negligible with a descriptor or each indicating the potential severity of consequences.
  2. Probability (or likelihood) of occurrence is also ranked through five different level qualitative definitions, and descriptor are provide fit each likelihood of occurrence.
  3. Values may be assigned numerically to weigh the relative importance of off level of each level of severity and probability. A composite assessment of risk, to assist in comparing risks, may then be derived by multiplying the severity and probability values.

Table 8-4 Risk Assessment Matrix

RISK PROBABILITY	**RISK SEVERITY**				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	**5A**	**5B**	**5C**	**5D**	**5E**
Occasional 4	**4A**	**4B**	**4C**	**4D**	**4E**
Remote 3	**3A**	**3B**	**3C**	**3D**	**3E**
Improbable 2	**2A**	**2B**	**2C**	**2D**	**2E**
Extremely Improbable 1	**1A**	**1B**	**1C**	**1D**	**1E**

Having used a risk matrix to assign values to risks, a range of values may be assigned in order to categorize risks as *acceptable*, *undesirable* or *unacceptable*.
These terms are explained on Appendix A.

***Table* 8-5 Risk Tolerability**

Risk management	Assessment risk index	Suggested criteria
	5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances
	5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C	Acceptable based on risk mitigation. It might require management decision
	3E, 2D, 2E, 1A, 1B ,1C, 1D, 1E	Acceptable

A less numeric approach to determining the acceptability of particular risks includes consideration of such factors as:

1. **Directorial**. Is the risk consistent with the organization's safety policy and standards?
2. **Affordability**. Does the nature of the risk defy cost-effective resolution?
3. **Legal**. Is the risk in conformance with current regulatory standards and enforcement capabilities?
4. **Cultural**. How will the organization's personnel and other stakeholders view this risk?
5. **Market** Will the organization's competitiveness and well-being vis-à-vis other organizations be compromised by not reducing or eliminating this risk?
6. **Political**. Will there be a political price to pay for not reducing or eliminating this risk?
7. **Public**. How influential will the media or special interest groups be in affecting public opinion regarding this risk?

8.4. Risk Mitigation

1. Where rack is concerned, there in no high thing as absolute safety. Risks have to be managed to a level ***"as low as reasonably practicable"*** **(ALARP)**. This means that the risk must be balanced against the time, cost and difficulty of taking measures to reduce or eliminate the risk.
2. When the *acceptability of the risk* has been found to be *Undesirable* or *Unacceptable*, control measures need to be introduced — the higher the risk, the greater the urgency.
3. The level of risk can be lowered by reducing the severity of the potential consequences, by reducing the likelihood of occurrence or by reducing the exposure to that risk.
4. The optimum solution will vary depending on the local circumstances and exigencies. In formulating meaningful safety action, an understanding of the adequacy of existing defenses is required.

- *Defense Analysis*.

  A major component of any safety system is the defenses put in place to protect people, property or the environment.

  These defenses can be used to:

  a) Reduce the probability of unwanted events occurring; and

  b) Reduce the severity of the consequences associated with any unwanted events.

  Defenses can be categorized into two types, namely:

  1. **Physical defenses**. These include objects that discourage or prevent inappropriate action, or that mitigate the consequences of events (for example: squat switches, switch covers, drywalls, survival equipment, warnings and alarms).
  2. **Administrative defenses**. These are includes the procedures and practices that mitigate the probability of an accident (for example, safety regulations, SOPs supervision and inspection, and personal proficiency).

  Before selecting appropriate risk mitigation strategies, it is important to understand ***why*** the existing system of defences was inadequate.

  The following line of questioning may pertain:

  a. Were defenses provided to protect against such hazards?

  b. Did the defenses function as intended?

  c. Were the defenses practical for use under actual working conditions?

  d. Were affected staff aware of the risks and the defenses in place?

  e. Are additional risk mitigation measures required?

- *Risk mitigation strategies.*

  There is a range of strategies available for risk mitigation.

  There are three (3) basic strategies in risk mitigation are:

  (1) ***Exposure avoidance.*** The risky task, traduce, operation or activity is avoided because the risk exceeds the benefits.

  (2) ***Loss reduction.*** Activities are taken to reduce the frequency of the unsafe events or the magnitude of the consequence.

  (3) ***Segregation of exposure*** (separation or duplication). Action is taken to isolate the effects of the risk or build in redundancy to protect against the risks, i.e. reduce the severity of the risk (for example, protecting against collateral damage in the event of a material failure, or providing back-up systems to reduce the likelihood of total system failure).

- *Brainstorming*.

  Generating the ideas necessary to create suitable risk mitigation measures poses a challenge. Developing risk mitigation measures frequently requires creativity, ingenuity and, above all, an open mind to consider all possible solutions. The thinking of those closest to the problem (usually with the most experience) is often colored by set ways and natural biases. Broad participation, including by representatives of the various stakeholders, tends to help overcome rigid mindsets. Thinking *"outside the box"* is essential to effective problem solving in a complex world. All new ideas should be weighed carefully before rejecting any of them.

- *Evaluating risk mitigation options.*
  In evaluating alternatives for risk mitigation, not all have the same potential for reducing risks. The effectiveness of each option needs to be evaluated before a decision can be taken. It is important that the full range of possible control measures be considered and that trade-offs between measures be considered to find an optimal solution. Each proposed risk mitigation option should be examined from such perspectives as:

  1. **Effectiveness**. Will it reduce or eliminate the identified risks? To what extent do alternatives mitigate the risks?

     Effectiveness can be viewed as being somewhere along a continuum, as follows:

Level One (Engineering action)	**Level Two** (Control actions)	**Level Three** (Personnel actions)
The safety action eliminates the risk, i.e. by providing interlocks to prevent thrust reverser agitation in flight;	The safety action accepts the risk but adjust the system to mitigate the risk by reducing it to a manageable level, i.e. by imposing more restrictive operating conditions; and	The safety action taken accepts that the hazard can neither be eliminated (Level One) nor controlled (Level Two), so personnel must be taught how to cope with it, i.e. by adding a warning, a revised checklist and extra training.

  2. **Cost/benefit**. Do the perceived benefits of the option outweigh the costs? Will the potential gains be proportional to the impact of the change required?
  3. **Practicality**. Is it doable and appropriate in terms of available technology, financial & administrative feasibility, governing legislation and regulations, political will, etc.?
  4. **Challenge**. Can the risk mitigation measure withstand critical scrutiny from ail shareholders (employees, Managers, stockholders/state administrations, etc.)?
  5. **Acceptability** to each stakeholder. How much buy-in (or resistance) from shareholders can be expected? (discussions with shareholders during the risk assessment phase may indicate their preferred risk mitigation option)
  6. **Enforceability**. If new rules (SOPs, regulations etc.) are implemented, are they enforceable?
  7. **Durability**. Will the measure withstand the test of time? Will it be of temporary benefit or will it have long-term utility?
  8. **Residual tasks**. After the risk mitigation measure is implemented, what will be the residual risks relative to the original hazard? What is the ability to mitigate any residual risks?
  9. **New problems**. What new problems or new (perhaps worse) risks will be introduced by the proposed change?

  Obviously, preference should be given to corrective actions that will completely eliminate the risk.

  - Regrettably, such solutions are often the most expensive.
  - At the other end of the spectrum, when there is insufficient organizational will or resources, the problem is often deferred to the training department to teach staff to cope with the risks.

- In such cases, management may be avoiding hard decisions by delegating responsibility for the risk to subordinates.

8.5. Risk Communication

Risk communication includes any exchange of information about risks, i.e. any public or private communication that informs others about the existence, nature, form, severity or acceptability of risks.

The information needs of the following groups may require special attention:

1. Management must be apprised of all risks that present loss potential to the organization.
2. Those exposed to the identified risks must be apprised of their severity and likelihood of occurrence.
3. Those who identified the hazard need feedback on action proposed.
4. Those affected by any planned changes need to be apprised of both the hazards and the rationale for the action taken.
5. Regulatory authorities, suppliers, industry associations, the general public, etc., have potential information needs regarding specific risks.
6. The stakeholders can assist the decision-maker(s) if the risks are communicated early in a fair, objective and understandable way. Effective communication of the risks (and plans for their resolution) adds value to the risk management process.

- ✓ Failure to communicate the safety lessons learned in a clear and timely fashion will undermine management's credibility in promoting a positive safety culture.
- ✓ For safety messages to be credible, they must be consistent with the facts, with previous statements from management and with the messages from other authorities.
- ✓ These messages need to be expressed in terms the stakeholders understand.

9.1. Safety Target and Performance Indicator

9.1.1. Safety Objectives (19.35)

In conjunction with an overall safety principles statement incorporated in the Safety Policy, there should be a set of underlying tangible safety objectives. These would cover relevant aspects of the organization's safety vision, senior management commitments, realistic slats milestones and desired outcomes. They should be unambiguous and reviewed on a regular basis.
PT. Smart Cakrawala Aviation 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 to achieve their intended objectives.

Such safety objectives are listed below:

1) To identify and eliminate hazardous conditions.
2) To perform hazard and risk analysis for all proposed new equipment acquisitions, facilities, operations and procedures.
3) To provide relevant SMS education and training to all personnel.
4) To provide a safe and healthy work environment for all personnel.
5) To minimize accidents/incidents that is attributable to organizational favors.
6) To prevent damage and injury to property and people resulting from company operations.
7) To improve the effectiveness of the safety management system through a yearly safety audit that reviews all aspects of the SMS.

9.1.2. Safety Goals

To reach the safety goals, PT. Smart Cakrawala Aviation will be developing & improving on existing levels of aviation safety. Safety goals must be created in relation to each safety objective so that the organization remains aware of whether the relevant objectives are being met. These safety goals would be measured and monitored with the use of safety performance indicators. Possible safety goals are as follows:

1) To increase the number of hazard reports received by 10 % over the next years off PT. Smart Cakrawala Aviation’s operation.
2) To reduce days into injury or illness by 0 % over the next years off its initial operation.
3) To reduce direct/indirect cost due to incidents/accidents by 10 % over the next years off off PT. Smart Cakrawala Aviation’s operation.
4) To formalize safety assessment compliance for all existing safety related equipment facilities, operations and procedures of PT. Smart Cakrawala Aviation’s operation.
5) To reduce annual insurance claims due to incidents/ accidents by 10 % over the next years off off PT. Smart Cakrawala Aviation’s operation.
6) To reduce number of operational technical incidents by 10 % over the next years off off PT. Smart Cakrawala Aviation’s operation.
7) To reduce the number of findings per external audit by 10 % over the next years off off PT. Smart Cakrawala Aviation’s operation.

Safety objectives and goals are publicized and distributed together with Safety Policy. Resources have been allocated for achieving the objectives and goals.

Corporate and Business Unit Quality Objectives, Audit Programs:

a) Ensure conduct of internal Safety audits.
b) Ensure conduct of Safety audits of 2nd and 3rd party contracts.
c) Provide auditor training and ensure auditor qualifications are met.
d) Provide auditor resources to support other Business Units, as required.

9.1.3. Safety Performance Indicators (SPI). (19.37)

As part of the SMS safety assurance activities, PT Smart Cakrawala Aviation 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.
Safety performance indicators are generally data bases expressions of the frequency of occurrence of some event, incidents or reports. There is no single safety performance indicator that is appropriate to all organizations. The indicator(s) chosen should correspond to the relevant safety goal.

a. Example AOC 135 of possible safety indicators would be as follows:
   1) Number of incidents per 1,000 flight hours/years;
   2) Number of serious incidents per 1,000 flight hours/years;
   3) Number of accident per 1,000 flight hours/years;
   4) Number of findings per audit;
   5) Number of hazard reports received.

b. Examples AMO 145 of possible safety indicators for component repair shop as follows:
   1) Number of warranty claims per three months.
   2) Component infant mortality rate.
   3) Final test rejects rate.
   4) Number of findings per audit (or other measurable audit performance criteria)
   5) Number of hazard reports received,
   6) Deviation rates/ trends

Safety performance monitoring is the process by which safety indicator and/or goals of the organization are reviewed in relation to relation policies and objectives. Such monitoring would normally be done at the Safety Committee and/or Safety Action Group meeting. Any significant abnormal trend or breech of safety benchmark level would warrant appropriate investigation into potential hazards or risks associated with such deviation.
Safety performance monitoring and measurement means shall include the following:
1) Safety reporting;
2) Safety audits;
3) Safety survey

4) Safety reviews;
5) Safety studies; and
6) Internal safety investigations

Table 9-1 Safety Performance Indicator

Year	Occurrence	Total Flight times/year	Rate
2016	A times	B	Y
2017	C times	D	Y_1

Safety Performance Indicator 2016 → A divided by B per 1,000 flights = y %
Safety Target 2017 (next year) →C divided by D per 1,000 flights = Y_1 %
Safety Target (next year), Y_1 must be less than y (20 % less than)

Note : Ref. CASR Part 830.2 definitions: "Incident" means an occurrence other than an accident, associated with operation of an aircraft which affects or could affect the safety of operations.

9.2. Management of Change (19.39)

PT. Smart Cakrawala Aviation develop and maintain a formal process for the management of change as part of the SMS safety assurance activities.
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 eliminate or modify safety risk controls that are no longer needed due to changes in the operational environment.

PT Smart Cakrawala Aviation Management of change concept:

1) Manage organizational internal/external/process changes that may have an impact on safety.
2) Include for performing safety assessment prior to introduction of new equipment or processes, which may have safety implications before they are commissioned.
3) All concerned stake holders within or without the organization are involved in such reviews.
4) All such reviews are documented and approved by management as applicable.

PT. Smart Cakrawala Aviation has a standard procedure or policy to perform safety assessment for all substantial internal or external changes, which may have safety implications. Such as:

1) Safety audit follow up shall Involves the management of Change.
2) The argument necessary for safety change must be based on the analysis of consolidated and quality data.
3) Reviewing checklists to ensure relevance of the content and then issuing clear guidance for their initiation and execution.
4) Arranging specific training in threat and error management.
5) Problems are identified and analyzed, strategies developed, priorities established, remedial measures implemented, and effectiveness monitored to identify any residual problem

9.3. Golden Safety Rules

Management of Change
Golden Safety Rule

Permanent or temporary changes to organization, equipment, aircraft, standards or procedures and changes associated with laws and regulations shall only proceed if:

- A **Risk Assessment** is undertaken to **assess potential impacts** of the change;
- A **plan is in place** that clearly **specifies the timescale** for the change and **any control measures to be implemented** from design to operate:
  - **E**quipment, facilities and process
  - **P**rocedures
  - **P**ersonnel competency, accountabilities and responsibilities
  - **D**ocumentation
  - **C**ommunication
- The **plan is authorized** by a person responsible for the change through to completion
- The situation is **reassessed if circumstances change**

9.4. Safety & Quality Audit

9.4.1. Introduction (19.35, 19.41)

Safety assurance processes apply to an SMS whether the activities and/or operations are accomplished internally or outsourced. Safety audits are one of the principal methods for fulfilling the safety performance monitoring functions. They are a core activity of any Safety Management System (SMS). Safety audits may be performed by an external audit authority, such as the State regulatory authority, or they may be carried out internally as part of an SMS.

This chapter focuses on the internal safety auditing program.

PT. Smart Cakrawala Aviation 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.

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.

9.4.2. Audit Process

Safety audits are used to ensure that:

1) The structure of the SMS is sound in terms of appropriate levels of staff; compliance with approved procedures and instructions; and a satisfactory level of competency and training to operate equipment and facilities and to maintain their levels of performance;
2) Equipment performance is adequate for the safety levels of the service provided;
3) Effective arrangement exist for promoting safety, monitoring safety performance and processing safety issues; and
4) Adequate arrangements exist to handle foreseeable emergencies.

Ideally, safety audit should be conducted regularly, following a cycle that ensures each functional area is audited as a part of the organization's plan for evaluating overall safety performance. Safety audits should entail a periodic detailed review of the safety performance, procedures and practices of each unit or section with safety responsibilities. Thus, in addition to an organization-wide audit plan, a defiled audit plan should be prepared for each individual unit/section. For Line Operation Safety Audit (LOSA) is guided from ICAO Doc 9803 AN/761. This manual describes a program for the management of human error in aviation operations known as LOSA.

Safety audits should go beyond just checking compliance with regulatory requirements and conformance with the organization's standards. The audit team should assess whether the procedures in use are appropriate and whether there are any work practices that could have unforeseen safety consequences.

Scope of a safety audit may vary from an overview of all abilities of the unit or section, to a specific activity. Checklists may be used to identify what is to be reviewed during the audit in sufficient detail in order to ensure that all intended tasks and functions are covered. The extent and elaboration of the checklists will depend on the size and complexity of the organization being audited.

For an audit to be successful, the cooperation of the personnel of the unit or section concerned is essential.

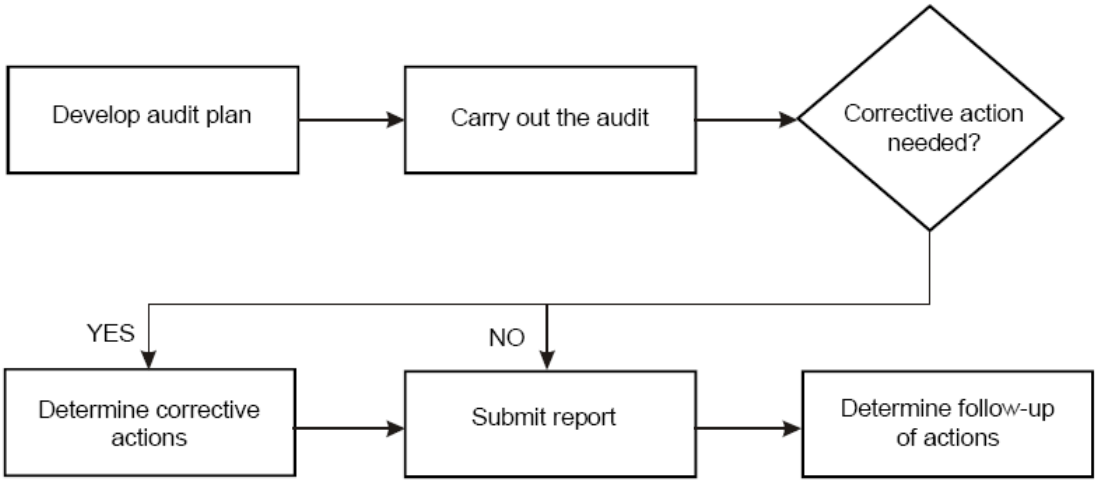
The safety audit programmed should be based on the following principles:

- It must never appear to be a ''witch hunt". The objective is to gain knowledge. Any suggestions of blame or punishment will be counterproductive.
- The audited should make all relevant documentation available to the auditors and arrange for staff to be available for interview as required.
- Facts should be examined in an objective manner.
- A written audit report describing the findings and recommendations should be presented to the unit or section within a specified period.
- The staff of the unit or section as well as the management, should be provided with feedback concerning the findings of the audit.
- Positive feedback should be provided by highlighting in the report the good points observed during the audit.
- While deficiencies must be identified, negative criticism should be avoided as much as possible.
- The need to develop a plan to resolve deficiencies should be required.

Following an audit, a monitoring mechanism may be implemented to verify the effectiveness of any necessary corrective actions. Follow-up audits should concentrate on aspects of the operations where the need for corrective action was identified. Audits to follow up previous safety audits where corrective action was proposed or because an undesirable trend in safety performance was identified cannot always be scheduled in advance. The overall annual audit programme should make allowance for such unscheduled audits

Figure 9-1 illustrates the safety audit process diagrammatically. The procedures involved in each step of the safety audit process are discussed in more detail later in this chapter.

Figure 9-1 The safety audit process



9.4.3. Safety Audit Team

Safety audits may be undertaken by a single individual or a team depending on the scale of the audit, depending on the size of the organization, and the availability of resources, experienced and trained individuals within the organization may perform safety audits or they may assist external auditors. The staff selected to conduct an audit should have practical experience in disciplines relevant to the area to be audited, a good knowledge of the relevant regulatory requirements and the organization's SMS, and they should have been trained in auditing procedures and techniques. An audit team comprises an audit team leader and one or more auditors.

Those chosen to undertake an audit must be credible to those being audited. In short, they must be qualified and trained for the audit function in the appropriate areas of expertise. As much as possible, the audit team members should be independent of the area being audited. Wherever practical and having regard to the size of the organization, these functions should be undertaken by persons who are not responsible for, and have not been involved in the design or performance of the tasks and functions being audited. In this way, the evaluation is neutral and independent from the operational aspects of the organization. It is also preferable that the audit team not be composed exclusively of management level staff. This can help to ensure that the audit will not be viewed as threatening. Staff with current operational experience may also be better at identifying possible problems.

A specialist from outside the audit authority may be required to participate in the audit.

a) The role of the audit team leader.

An audit team leader should be appointed if more than one auditor is involved. The audit team leader is responsible for the overall conduct of the audit. In addition, the audit team leader undertakes some of the general tasks of an auditor (described in Section 6.4). The audit team leader must be an effective communicator and must be able to earn the trust of the organization being audited.

b) The role of the auditors.
The tasks to be undertaken by each audit team member will be assigned by the audit team leader. These tasks may include conducting interviews with staff of the unit or section being audited, reviewing documentation, observing operations and writing material for the audit report.

9.4.4. Planning and Preparation

A formal notification of intention to perform the audit should be forwarded to the unit or section to be audited in adequate time for any necessary preparations to be made. As part of the audit preparation process, the audit authority may consult with senior management of the organization to be audited. The organization may be requested to provide preparatory material in advance of the actual audit, i.e., selected records, a completed pre-audit questionnaire, and manuals. The organization being audited must have a clear understanding of the purpose, scope, resource requirements, audit and follow-up processes etc. before the auditors arrive.

1) Pre-audit activity

a) Among the initial steps in planning an audit will be to verify the feasibility of the proposed schedule and to identify the information that will be needed before commencement of the audit. It will also be necessary to specify the criteria against which the audit will be conducted and to develop a detailed audit plan together with checklists to be used during the audit.

b) The checklists consist of comprehensive series of questions grouped under topic headings, which are used to ensure that all relevant topics are covered.

c) For the purposes of a safety audit, the checklists should address the following areas in an organization:

- National safety regulatory requirements;
- Organizational safety policies and standards;
- Structure of safety accountabilities;
- Documentation, such as:
- Safety Management System Manual; and
- Operational documentation (including its local instructions);
- Safety culture (re-active or proactive);
- Hazard identification and risk management processes;

- Safety oversight capabilities (monitoring, inspections, audits, etc.); and
- Provisions for assuring safety performance of contracts.

2) The audit plan

An outline of a typical audit plan is shown in Appendix H.

9.4.5. Conduct of the Audit

The conduct of the actual audit is essentially a process of inspection or fact-finding. Information from almost any source may be reviewed as part of the audit. In conducting a safety audit, there is often a tendency to limit observations to items of regulatory non-compliance.

Auditor must realize that such inspections have limited value for the following reasons:

- The organization may rely exclusively upon the audit authority to ensure that it is meeting the standards.
- The standards may only be met while the auditor is undertaking the inspection.
- An audit report will only highlight those areas of deficiency found at the time of the inspection.
- The audit will not encourage the organization to be predictive, and often, only issue raised by the auditor will be verified.

1) Opening meeting.

At the opening meeting, the audit team leader should briefly present the background for the audit, at purpose, and any specific issue that will be addressed by the audit team. The practical arrangements, including the availability of staff for interview, should be discussed and agreed upon with the Manager Safety of the unit or section being audited.

2) Audit procedures.

The techniques for gathering the information on which the audit team's assessment will be made includes:

a) Review of documentation;

b) Interviews with staff; and

c) Observations by the audit team.

The audit team should work systematically through the items on the relevant checklist. Observations should be noted on standardized observation sheets.
If a particular area of concern is identified during the audit, this should be the subject of a more thorough investigation. However, the auditor must keep in mind the need to complete the rest of the audit as planned and therefore must avoid spending an excessive amount of time exploring a single issue and so risk missing other problems.

3) Audit interviews.

The principal way in which auditors obtain information is by asking questions. This method provides additional information to that available in written material. It also gives the staff involved an opportunity to explain the system and work pralines. Face-to-face discussions also permit the auditors to make an assessment of the level of understanding as well as the degree of commitment of the staff of the unit or section to safety management. The persons to be interviewed should be drawn from a range of management, supervisory and operational positions. The purpose of audit interviews is to elicit information not to enter into discussions.

4) Audit observations.

Once the audit abilities are completed, the audit team should review all audit observations and compare them against the relevant regulations and procedures in order to confirm the correctness of observations noted as nonconformities, deficiencies or safety short coming.

An assessment should be made of the seriousness with respect to all items noted as nonconformities, deficiencies or safety shortcomings.

It should be borne in mind that the audit should not focus only on negative findings, an important objective of the safety audit is also to highlight good practice within the area being audited.

5) Closing meeting.

Management may require regular progress reports throughout the audit. Nevertheless, a closing meeting should be held with the management of the unit or section at the conclusion of the audit abilities to brief them on the audit observations and any resulting recommendations. Factual accuracy can be confirmed and significant findings highlighted.

Prior to this meeting, the audit team should:

- Agree on the audit conclusions;
- Prepare recommendations, such as proposing appropriate corrosive action if required; and
- Discuss whether there is a need for follow-up action.

The audit findings may fall into three categories:

- Serious discrepancies of non-compliance warranting action to suspend a licence/certificate or approval;
- Any discrepancy or non-compliance that must be rectified within an agreed time limit; and
- Observations on issues that are likely to impact on safety or become a regulatory issue before the next audit.

At the closing meeting, the audit team leader should present the observations made during the audit and give the representatives of the unit or section being audited the opportunity to correct any misunderstandings.

Dates for issuing an interim audit report and for receiving comments on it should be mutually agreed upon.

A draft copy of the final report is often left with management.

6) Corrective action plan.

At the completed of an audit, planned remedial actions should be documented for all identified areas of safety concern. The management of the unit or section has the responsibility for developing a corrective action plan setting out the action to be taken to resolve identified deficiencies or safety shortcomings within the agreed time period.

When completed, the corrective action plan should be forwarded to the audit team leader. The final audit report will include this corrective action plan and detail any follow-up audit action proposed. The Manager of the area being audited is responsible for ensuring the timely implementation of the appropriate corrective actions.

7) Audit reports.

The audit report should be an objective presentation of the results of the safety audit. As soon as possible after completion of the audit, an interim audit report should be forwarded to the Manager of the unit for review and comments. Any comments received should be taken into consideration in the preparation of the final report, which constitutes the official report of the audit.

The key principles to be observed in the development of the audit report are:

a) Consistency of observations and recommendations in the closing meeting, interim audit report and final audit report;
b) Conclusions substantiated with references;
c) Observations and recommendations stated clearly and concisely;
d) Avoidance of generalities and vague observations;
e) Objective presentation of the observations;
f) Use of widely accepted aviation terminology, avoiding acronyms and jargon; and
g) Avoidance of criticism of individuals or positions.

An outline of a typical audit report is provided in appendix I.

9.4.6. Audit Follow-up

Audit follow-up involves the management of change. Upon receipt of the final audit report, management must ensure that progress is made to reduce or eliminate the attendant risks. The primary purpose of an audit follow-up is to verify the effective implementation of the corrective action plan. Follow-up is also required to ensure that any action taken pursuant to the audit does not in any way degrade safety. In other words, new hazards with potentially higher risks must not be allowed to enter the system as a consequence of the audit.

Failure by the auditor to follow up on lapses in implementing necessary (and agreed) safety actions will compromise the validity of the entire safety audit process.

Follow-up action may be effected through monitoring the status of implementation of accepted corrective action plans or through follow-up audit visits. Where a follow-up visit has been made, a further report of this visit should be prepared. This report should clearly indicate the current status of the implementation of the agreed corrective actions. If any non-compliance, deficiency or safety shortcoming remains unresolved, the audit team leader should highlight this in the follow-up report.

An outline of a typical report audit corrective action is provided in appendix J.

9.4.7. Internal and External Audit

The purpose of the Internal Audit (Operation and Maintenance Departments) and External Audit (Third parties) is to ensure that periodic audit inspections are carried out, at all operational bases, and PT. Smart Cakrawala Aviation safety standards and operational requirements are being met at all times.

The audits shall be carried out continuously every month, with different audit scope each month, in a year.

Internal audit will be performed one month before surveillance schedule from authority.

The external audit is performed at least once every year or as necessary.

The scope of audit will comprise of inspecting staff, conducting an appraisal of the whole operation incorporating accommodation facilities, work areas, hangars, manuals and aircraft control systems.

During the audits, reference is to be made to:

- CASR, AIP'S;
- Flight Manuals; and
- Operation Manuals

This internal and external audit/work will be reported to the Chief Pilot, Safety & Quality Manager and Operational Standards. If needed, it will be reported to President Director.
The Inspecting staff is to conduct an appraisal of the whole operation, detailing where changes need to be made, what follow-up action needs to be taken, and to ensure necessary recommendations are being carried out.
Due to differences in location and requirements for individual contracts, it is mandatory that a high priority be placed on Safety Standards and adherence to recognized aircraft Standards and Practices.
The audit process will incorporate audit team to manage the Audit Reports, Findings, Corrective Action identifying and the assignments for implementation of Corrective Actions.

The forms displayed below are to be used to conduct internal and external audits. Once this has been accomplished the forms and notes from the audits will be filed for a year.
An outline of a typical Internal and External audit corrective action is provided in appendix L.

9.4.8. Remedial Action

PT. Smart Cakrawala Aviation shall ensure that remedial actions are taken to correct and prevent Non-Conformance audit finding against standards and procedures. This procedure applies to all Non-Conformance (CAR) raised by Safety and Quality Manager for the necessary corrective and preventive actions.

Non-Conformance shall be classified bard on risk priority matrix:

RISK	FINDING	TYPE OF FINDING	CLOSURE PERIOD
HIGH	The situation is such that immediate action needs to be taken to reduce the risk to personnel or equipment	Major	Immediate action taken required within 7 days (a note will be given to " take actions before the next flight " if serious finding affects to the airworthiness and safety of the aircraft is found
MEDIUM	Additional safeguarding or procedures are required to further reduce the risk	Minor	Action taken required within 30 days
LOW	The risk is at an acceptable level subject to established standards and procedures remaining in place.	Observation	Action taken required within 60 days

Note

A serious finding affects the safety of the aircraft operation it will be given as "Take action before the next flight"

Finding/s that found cannot be closed on target closure shall be reported as outstanding of previous audit report and need evaluation and solution or require making corrective action plan.

10.1. Introduction (19.43)

1) Safety training and promotion is an essential foundation for the development and maintenance of a safety culture. The Safety will train all new hires/existing employee with respect to the company Safety Management System (SMS). Annual recurrent safety training for employee, if required will be conducted on schedule determined by company policy.

2) The will emphasize the responsibilities of each employee with respect to the safety and their responsibilities as required in the company Emergency Response Plan.

3) The training must be documented on each person training file and these records will be maintained for three (3) years.

4) The Safety & Quality Manager should, in conjunction with the personnel department or functional heads, review the job descriptions of all staff, and identify those positions that have safety responsibilities. These should include operational personnel, Managers/supervisors, senior Managers and the accountable Manager. This is to ensure that relevant personnel are trained and competent to perform their SMS duties. The level/mode of training should be appropriate to the individual's involvement in the SMS.

5) The commitment to provide both induction and ongoing refresher training and checking to all staff is an essential element of any SMS. Induction training should be conducted by the Safety & Quality Manager and customized to suit staff member areas of specialty. It should include information about the SMS, the safety & quality officer, safety group or committee and the responsibilities of all employees to participate in the Safety Management System. Records of participation should be maintained.

6) Existing employees and new staff must be trained in the operations of the SMS, and encouraged to adopt the safety practices of your organization. Customizing training allows you to impress your operational practices of safe behavior, risk management decision making and quality control processes on all staff.

7) When you introduce new technology or equipment, or make changes to your operations, training should be provided. There are also regulatory requirements for specific training and checks, and ongoing technical training for your employees.

8) Evaluation of the training effectiveness can include review of staff abilities, knowledge of processes and practices used in the workplace and any specific competencies that are required in your operations.

9) Keeping staff informed and educated about current safety issues through providing relevant, safety related literature, sending them to safety related courses and seminars improves the safety health of PT. Smart Cakrawala Aviation organization.

10.2. Feedback

PT. Smart Cakrawala Aviation ensures an effective bidirectional communication between the direction and safety employees. Programs and safety initiatives are communicated to all staff through various appropriated channels:

- Meeting
- Report
- Intranet
- Briefings in response to particular events (events, changes in work methods, procedures, rules)
- Safety reviews reports dissemination;

All the information related to the safety is widely disseminated at all levels of the organization. The diffusion is performed by SMS Coordinator to all concerned staff.

10.3. Safety Communication (19.47)

The safety awareness is promoted through a number of channels and activities. The training activities mentioned above help to raise safety awareness.
As part of safety promotion activities, PT. Smart Cakrawala Aviation develops and maintains 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.

In addition, there are tools and activities to promote safety awareness in SCA via:

- Safety Bulletin via intranet;
- Safety flyers and posters;
- Safety campaigns;
- Safety Guide
- Safety policies and procedures
- New letters

10.4. Proposals to Improve Safety (19.45)

1) Safety Culture

PT. Smart Cakrawala Aviation will change the culture of blame characterized by punishing the employee for human error to the detriment of correction the faulty system. The blame culture inhibits the incidents or near misses reporting, prevents thorough investigation of the incident and has a negative effect on staff motivation. Significant improvements made in safety culture consist of collecting information on hazardous events instead of taking action against a person.

In order to achieve a balance between "no blame" and "blame" cultures for the existence of a climate of trust within SCA, employees are encouraged to provide essential information related to the safety. A confidential reporting system has been established for all employees to make suggestions for improving safety
The decisions taken at the end of this analysis are sent to the concerned staff. Proposals and responses are archived by the SMS Specialist Documentation.

2) Safety training and education

Safety training and education are essential to ensure that the concerned staff will have the relevant knowledge and ability to implement practical and effective safety procedures to ensure this own safety and that of others during performing their tasks.
PT. Smart Cakrawala Aviation shall ensure all of its staff receives the necessary training to carry out their duties effectively, promptly, and without error.
SMS Coordinator, in consultation with SAG, will assess through an analysis the necessary safety training needs for staff. Then, these requirements are converted into a training plan that includes the following:

- Safety Fundamentals
- Rules of airport and aviation standards
- Safety on work

In addition to internal courses mentioned above, other safety training can also be organized by external agencies if necessary.

Following is an example of the scope of SMS training:

Operational Personnel	SMS Fundamentals, Organization Safety Policy & SMS Overview, and Hazard Identification and Risk Management. *(For personnel involved in safety assessments)*
Line Managers& Supervisors	SMS Process, Management Commitment and Responsibilities, Hazard Identification and Risk Management, and Continuing Safely Assessment.
Senior Managers	Organizational Safety Standards and National Regulations, Management Commitment and Responsibilities, Safety Assurance, and Management of Change.
Accountable Manager	Awareness of SMS Roles and Responsibilities, Safety Policy, SMS Requirements, and Safety Assurance.

The Safety & Quality Manager will prepare and organize regular safety briefings and education for managers and employees, also in some cases for supplier and customers. These safety briefings and education should be related to potential hazard and educational material pertinent to aviation safety. The aviation safety educational materials are delivered through established mechanism structure in the organization, if it is deemed necessary the Safety & Quality Manager in well coordination with the line managers, will deliver those educational materials.

One of the functions of SMS training is to create awareness of the objectives of the SMS of the organization and the importance of developing a safety culture. All staff including new employee should receive a basic introductory course covering:

a) Basic principles of safety management System;
b) Corporate safety philosophy, safety policies and safety standards (including corporate approach to disciplinary action versus safety issues, integrated nature of safety management, risk management decision-making, safety culture, etc.);
c) Importance of complying with the safety policy and with the procedures that form part of the SMS;
d) Organization, roles and responsibilities of staff in relation to safety;
e) Corporate safety record, including areas of systemic weakness;
f) Corporate safety goals and objectives;
g) Corporate SMS programs (e.g. incident reporting systems, LOSA and Normal Operation Safety Survey/Audit);
h) Requirement for ongoing internal assessment of organizational safety performance (e.g. employee surveys, safety audits and assessments);
i) Reporting accidents, incidents and perceived hazards;
j) Lines of communication for safety matters;
k) Feedback and communication methods for the dissemination of safety information;
l) Safety awards programs (if applicable);
m) Safety audits; and
n) Safety promotion and information dissemination.

To ensure the training currency, PT. Smart Cakrawala Aviation will be doing periodically such as reviewed and updated training.

3) Safety Bulletin

Within the framework of creating an environment of safety awareness, where all safety information related to incidents and major accidents will be forwarded within PT. Smart Cakrawala Aviation.

4) Safety campaigns

Safety campaigns will be conducted in order to maintain continuous vigilance of staff and that on safety specific areas. Indeed, these campaigns are an important aspect of aviation safety system management.

Thereby, in collaboration with the authority program, airport program, SMS coordinator will prepare a schedule of these campaigns.

10.5. Annual report

An annual report on the PT. Smart Cakrawala Aviation activities is made. This annual report shows:

1) Accidents and incidents record
2) Internal and external audits assessment
3) Safety actions summary
4) Improving safety recommendations

Appendix A Risk Assessment Matrix

RISK PROBABILITY	RISK SEVERITY				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely Improbable 1	1A	1B	1C	1D	1E

Having used risk matrix to assign values to risks, a range of values may be assigned in order to categorize risks as *acceptable*, *undesirable* or *unacceptable*.
These terms are explained below:

1) **Acceptable** means that no further action needs to be taken (unless the risk can be reduced further at little cost or effort).
2) **Undesirable (or tolerable)** means that the affected persons are prepared to live with the risk in order to have certain benefits, in the understanding that the risk is being mitigated as least as possible.
3) **Unacceptable** means that operations under the current conditions must cease until the risk is reduced to at least the tolerable level.

Safety & Quality Manager must verify that the service provider uses the matrix above to categorized risk according to an assessment of their potential severity and probability.

After safety risks have been assessed, appropriate mitigation measures can be implemented. Mitigation measures may include a number of alternatives including, but not limited to:

a) Modifications to existing operating procedures, training programs or equipment used in the delivery of aviation products or services.
b) Include the introduction of new operating procedures, training programs, technologies or supervisory controls.
c) Involve deployment or re-deployment of the three traditional aviation safety defenses - technology, training and regulation.

The three generic safety risk mitigation approaches include:

a) Avoidance

   The activity is suspended either because the associated safety risks are intolerable or deemed unacceptable vis-à-vis the associated benefits.

b) Reduction

Some safety risk exposure is accepted, although the severity or probability associated with the risks are lessened, possibly by measures that mitigate the related consequences.

c) Segregation of exposure

d) Action is taken to isolate the potential consequences related to the hazard or to establish multiple layers of defenses to protect against them.

Once the mitigation has been approved and implemented, any associated impact on safety performance provides feedback to the service provider's safety assurance process. This is necessary to ensure the integrity, efficiency, and effectiveness of the defenses under the new operational conditions.

Each risk mitigation exercise is to be documented progressively. This may be accomplished using a variety of application ranging from basic spreadsheets or tables to customized commercial risk mitigation software. Completed risk mitigation documents should be approved by the appropriate level of management.

Appendix B Example of SMS Implementation Plan

Safety & Quality Manager PT. Smart Cakrawala Aviation recommends the following plan for a 12 month Safety Management System. On this page, the chart below indicates the high-level tasks required for a SMS implementation, estimated task duration, and when the task should be completed by. The section starting on the following page describes each task in further detail and identifies primary and supporting task actors.

Stage	Task	Actors	Time Frame (52 Weeks)	Duration (wk)	Due by :
			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26		
Safety policy and objectives	**Component - 1**				
	1.1 Management commitment and responsibility	BOD-1	▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬	1 Year	Day 7/wk 52
	1.2 Safety accountabilities	BOD-2	▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬	1 Year	Day 7/wk 52
	1.3 Appointment of key safety personnel	All-K	▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬	1 Year	Day 7/wk 52
	1.4 Coordination of emergency response planning	Safety Director	▬	2 day	Every 24 wk
	1.5 SMS documentation	Safety Director	▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬	1 day	Every last month
Safety risk management	**Component - 2**				
	2.1 Hazard Identification	All	▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬	1 Year	Day 7/wk 52
	2.2 Safety risk assessment and mitigation	Safety Director	▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬	1 day/as necessary	Every first month/if any
Safety assurance	**Component - 3**				
	3.1 Safety Performance monitoring and measurement	Safety Director	▬ ▬	2 day	Every 12 wk
	3.2 The management of change	All-K	▬ ▬ ▬	3 day/as necessary	If Any
	3.3 Continous improvement of the SMS	Safety Director	▬ ▬ ▬ ▬ ▬ ▬ ▬	1 day	Every 4 wk
Safety promotion	**Component - 4**				If necessary
	4.1 Training and Education	All-K	▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬		
	4.2 Safety Communication	Safety Director	▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬		

Appendix C Hazard Identification

The concept of hazard identification was introduced in this chapter. Given that a hazard may involve any situation or condition that has the potential to cause adverse consequences, the scope for hazards in aviation is wide.

The following are some examples:

1) *Design factors*, including equipment and task design;
2) *Procedures and operating practices*, including their documentation and checklists, and their validation under actual operating conditions;
3) *Communications*, including the medium, terminology and language;
4) *Personnel factors*, such as company policies for recruitment, training and remuneration;
5) *Organizational factors*, such as the compatibility of production and safety goals, the allocation of resources, operating pressures and the corporate safety culture;
6) *Work environment factors*, such as ambient noise and vibration, temperature, lighting and the availability of protective equipment and clothing;
7) *Regulatory oversight factors*, including the applicability and enforceability of regulations; the certification of equipment, personnel and procedures; and the adequacy of surveillance audits; and
8) *Defences*, including such factors as the provision of adequate detection and warning systems, the error tolerance of equipment and the extent to which the equipment is hardened against failures.

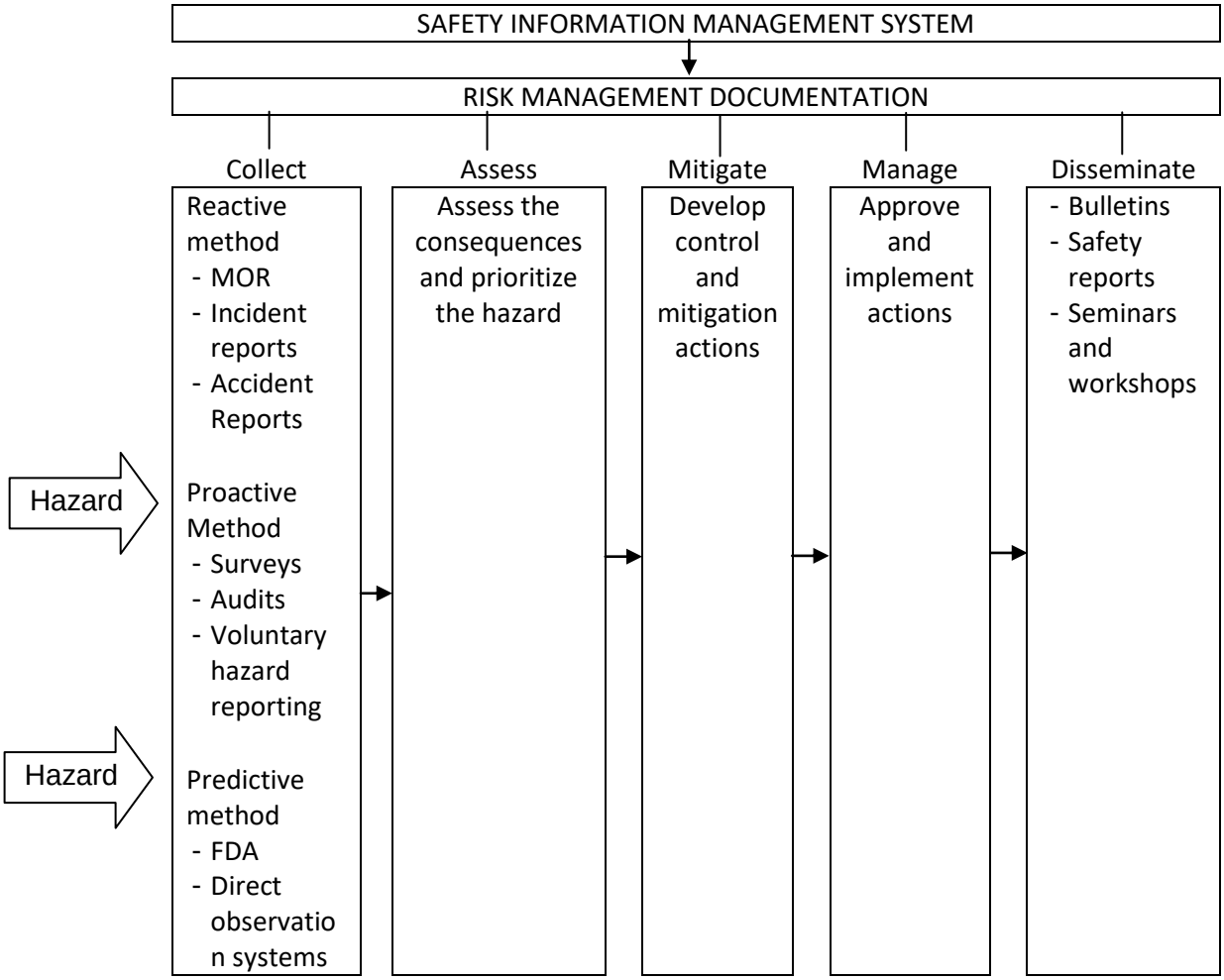


Figure 8-1 Risk Management Process

Figure 8 – 1 illustrates the hazard documentation and follow-up risk management process. Hazards are constantly identified through various data sources. The service provider is expected to identify hazards, eliminate these hazards or mitigate the associated risks. In the case of hazards identified in products or services discovered through subcontractors, mitigation could be the service provider's requirement for such organizations to have an SMS or an equivalent process for hazard identification and risk management.

Hazards may be identified through proactive and predictive methodologies or as a result of accident or incident investigations. There are a variety of data sources of hazard identification that may be both internal and external to the organization.

Safety coordinator must verify that the internal hazard identification data sources include:

a) Normal operation monitoring schemes (e.g. Flight data analysis for aircraft operators);

b) Voluntary and mandatory reporting systems;

c) Safety surveys;

d) Safety audits;

e) Feedback from training; and

f) Investigation and follow-up report on accidents/incidents.

Safety & Quality Manager must verify that external data sources for hazard identification include:

a) Industry accident reports;
b) State mandatory incident reporting systems;
c) State voluntary incident reporting systems;
d) State oversight audits; and
e) Information exchange systems.

Appendix D Safety Risk Management Process

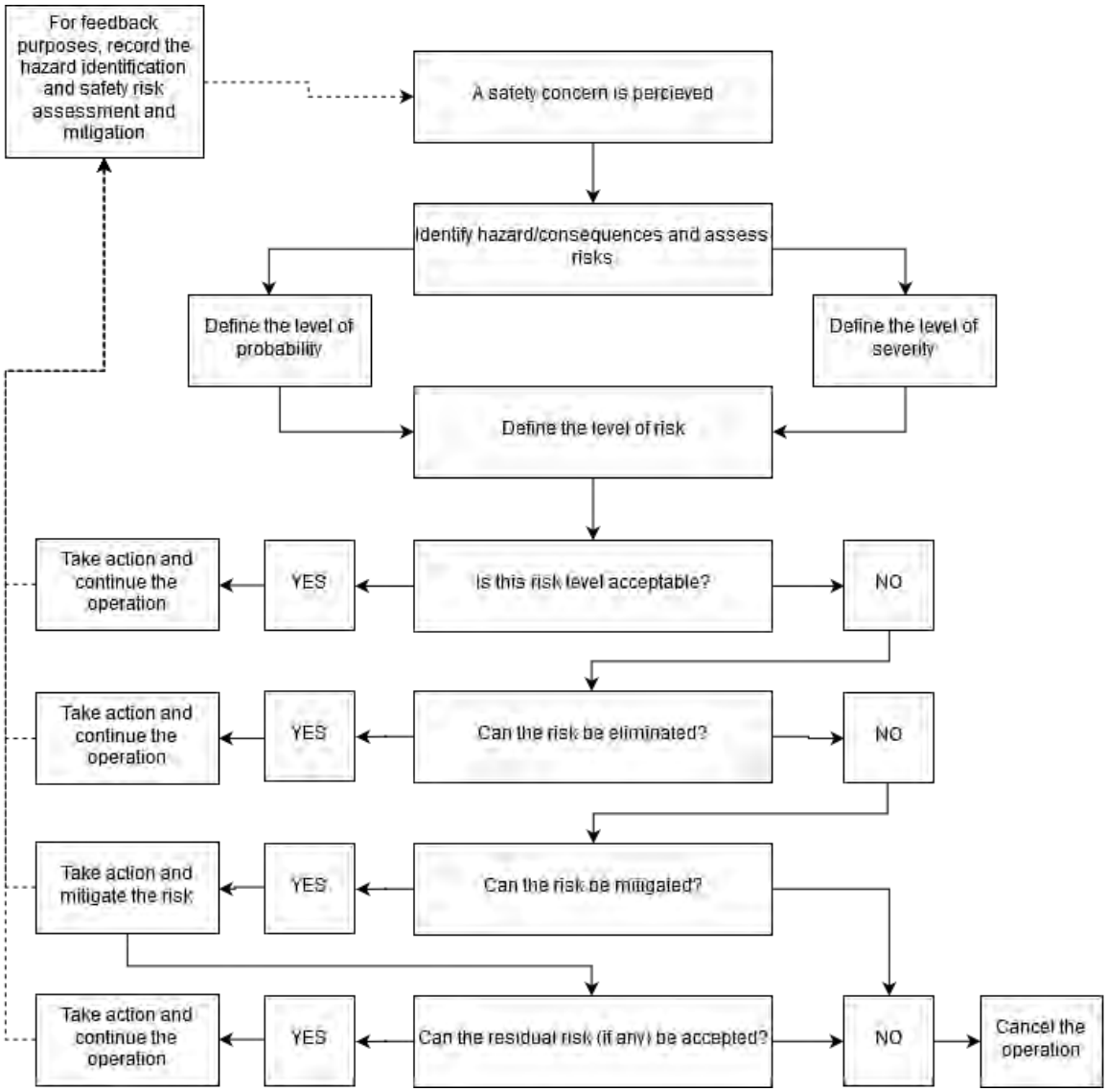


Figure 8-2 above present the safety risk management process in its entirety.

The process starts with the identification of hazards and their potential consequences. The safety risks are then assessed in terms of probability and severity, to define the level of safety risk (safety risk index). If the assessed safety risks are deemed to be tolerable, appropriate action is taken and the operation continues. For detail, see on Appendix D.

Safety & Quality Manager must be aware that if the safety risks are assessed as intolerable, the following questions becomes relevant:

a) Can the hazard and related safety risk(s) be eliminated? If the answer is yes, then action as appropriate is taken and documented. If the answer is no, the next question is:

b) Can the safety risk(s) be mitigated? If the answer is no, related activities must be cancelled. If the answer is yes, mitigation action as appropriate is taken and the next question is:

Do any residual risks exist? If the answer is yes, then the residual risks must be assessed to determine their level of tolerability as well as whether they can be eliminated or mitigated as necessary to ensure an acceptable level of safety performance.

Safety risk assessment involves an analysis of identified hazards that includes two components:

a) The severity of a safety outcome; and

b) The probability that it will occur.

Once risks have been assessed, the service provider will engage in a decision-making process to determine the need to implement risk mitigation measures. This decision-making process involves the use of a risk categorization tool that may be in the form of an assessment matrix. An example of a safety risk (index) assessment matrix is provided in Appendix A. Below is an example of Hazard Identification and Risk Assessment (HIRA).

HAZARD IDENTIFICATION AND RISK ASSESSMENT

NO	HAZARDS	Pre-Mitigation			MITIGATION	Post-Mitigation			TARGET PLAN	PIC	STATUS
		Likelihood	Severity	Risk Level		Likelihood	Severity	Risk Level			

Assessment Risk Index			Suggested Criteria
5A,5B,5C,4A,4B,3A			Unacceptable under the existing
5D,5E,4C,4D,4E,3B,3C,3D,2A, 2B,2C			Acceptable based on risk mitigation. It might require management decision
3E,2D,2E,1A,1B,1C,1D,1E			Acceptable

Jakarta, ……

Sonia Erlyn Nasution
Safety Manager

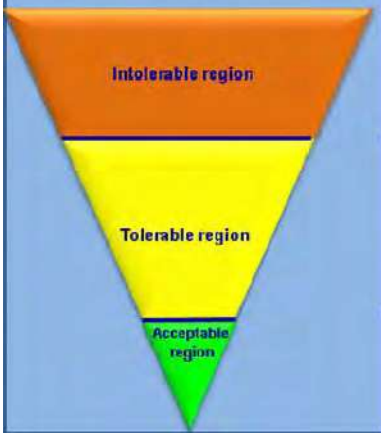
Appendix E Risk Probability

PROBABILITY OF OCCURRENCE		
QUALITATIVE DEFINITION	MEANING	VALUE
Frequent	Likely to occur many times (has occurred frequently)	5
Occasional	Likely to occur some times (has occurred infrequently)	4
Remote	Unlikely, but possible to occur (has occurred rarely)	3
Improbable	Very unlikely to occur (not known to have occurred)	2
Extremely Improbable	Almost inconceivable that the event will occur	1

Appendix F Risk Severity

SEVERITY OF OCCURRENCES		
AVIATION DEFINITION	MEANING	VALUE
CATASTROPHIC	➢ Equipment destroyed. ➢ Multiple deaths.	A
HAZARDOUS	➢ A large reduction in safety margins, physical distress or a workload such that operators cannot be relied upon to perform their tasks accurately or completely. ➢ Serious injury. ➢ Major equipment damage.	B
MAJOR	➢ A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency. ➢ Serious Incident. ➢ Injury to persons.	C
MINOR	➢ Nuisance. ➢ Operating Limitations. ➢ Use of emergency procedure. ➢ Minor incident.	D
NEGLIGIBLE	➢ Little Consequences	E

Appendix G Risk Tolerability

Risk management	Assessment risk index	Suggested criteria
	5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances
	5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C	Acceptable based on risk mitigation. It might require management decision
	3E, 2D, 2E, 1A, 1B ,1C, 1D, 1E	Acceptable

A less numeric approach to determining the acceptability of particular risks includes consideration of such factors as:

1) **Directorial**. Is the risk consistent with the organization's safety policy and standards?
2) **Affordability**. Does the nature of the risk defy cost-effective resolution?
3) **Legal**. Is the risk in conformance with current regulatory standards and enforcement capabilities?
4) **Cultural**. How will the organization's personnel and other stakeholders view this risk?
5) **Market** Will the organization's competitiveness and well-being vis-à-vis other organizations be compromised by not reducing or eliminating this risk?
6) **Political**. Will there be a political price to pay for not reducing or eliminating this risk?
7) **Public**. How influential will the media or special interest groups be in affecting public opinion regarding this risk?

Appendix H Audit Plan

PT. SMART CAKRAWALA AVIATION

	AUDIT PLAN
INTRODUCTION [This section should introduce the audit plan and the background for the audit]	
PURPOSE [The purpose objectives, scope and the criteria against which the audit will be conducted]	
UNIT/ SECTION TO BE AUDIT [This section should clearly specify which area is to be audited]	
PLANNED ACTIVITIES [This section should identify and describe the activities to be performed in the areas of interest and how the different subjects will be addressed. It should also specify the documents that should be available for the audit team. If the audit is to involve interviews, the areas to be addressed during the interviews should be listed]	
SCHEDULE [This section should include a detailed schedule for each of the activities planned]	
AUDIT TEAM [This section should introduce the audit team members]	

Form Safety/001/SCA/Rev.00/2018 Page 1.1

Audit Notification

PT. SMART CAKRAWALA AVIATION

	AUDIT NOTIFICATION / AUDIT PLAN	File No:			20....
	AUDIT NUMBER:	[Number Year]	Date	Month	
		Revision No:			

To :
From : SAFETY MANAGER
Date :

This memorandum is formally to notify that an audit has been scheduled as the following details:

Audit Date(s) : Audit Time :
Procedure Number :

AUDIT SCOPE :				
	☐	Personnel	☐	Housing & Facilities
	☐	Operations	☐	Tools & Equipment
	☐	Documentation	☐	Calibration
	☐	Procedures	☐	Material
	☐	Tech Record	☐	Safety (K3)
	☐	Aircraft :	☐	.....

AUDIT TEAM MEMBER : 1.
: 2.
: 3.

Please confirm that the above details and the following are satisfactory :

- ☐ A suitable qualified Audit Guide is available for each Auditor.
- ☐ Availability of your Quality System documentation for inspection during the audit.
- ☐ Meeting facilities for the Entry and Exit Meeting.
- ☐ An office from which the Audit Team may base their activities.
- ☐ Availability of Aircraft, Ground Power and Technical Assistance.

Distribution :
1. All Auditors.
2.
3.

Audit Director

Signed :

Special Note : *Chief Pilot Capt. Rahayu Kuntardi is authorized to conduct the Surveillance and direct report to Safety Manager.*

Form Safety/002/SCA/Rev.00/2018 Page 1.1

Appendix I Content of an Audit Report

PT. SMART CAKRAWALA AVIATION

AUDIT / SURVEILLANCE FINDING

Part I – FINDING SECTION		
COMPANY :	FINDING No. :	
LOCATION : ☐ Audit ☐ SURVEILLANCE PERIOD :	AREA :	
REFERENCE :	TYPE OF FINDING : ☐ NON COMPLIANCE ☐ NON CONFORMANCE ☐ NON ADHERENCE	
FINDING : CORRECTIVE ACTION PLAN :		
Auditor/inspector :	Date :	Target Completion Date :
Auditee Operation / Maintenance :	Date :	
Audit Manager / Team Leader :	Date :	
Part II – CORRECTIVE SECTION		
CORRECTIVE ACTION :		
Auditee Operation / Maintenance : Date :	STATUS (Completed by Audit Manager / Team Leader)	
Verified by Auditor : Date :	OPEN	CLOSED
Approved by Audit Manager / Team Leader : Date :		

Form Safety/003/SCA/Rev.00/2018 Page 1.1

Appendix J Report of Corrective Action

AUDIT/SURVEILLANCE FINDING SUMMARY

Date:

FINDING NO.	AREA	DESCRIPTION	REF.	TYPE OF FINDING	Corrective Actions Plan	TARGET COMPLETION DATE	STATUS

Auditor

( )

Auditee

( )

Form Safety/004/SCA/rev00/2018

Appendix K Report Form

1) Confidential Hazard Report Form

The information supplied in this form will only be used to enhance safety. On receipt of this form your name and position will be removed and discarded. Under no circumstances will your identity be disclosed to any person in this company or to any other organization, agency or person without your express permission.

PT. SMART CAKRAWALA AVIATION

HAZARD REPORT FORM
LOCATION/**LOKASI** :
DATE/**TANGGAL** :
NAME :
Description of the Hazard (if more space is required please use the reverse side of this form) :
Deskripsi dari Hazard (jika ruang tulis kurang dapat dilembar balik kertas ini)
Suggested Action/**Saran** :
Corrective action taken (to be completes by Safety Manager :
Pembenaran yang diambil (Safety Manager jika diperlukan)
* Please mail or pass the completed form to the Safety Manager or place in any company safety suggestion box or SMS to 085213313129 / **Silahkan kirim langsung atau masukan ke kotak Saran Safety Manager atau SMS ke 085213313129**

Form Safety/005/SCA/Rev.00/2018 Page 1.1

2) Voluntary Safety Report Form

The information supplied in this form will only be used to enhance safety. You may choose to not provide your name. If you do provide your name, upon receipt of this form your name and position will be removed and discarded. Under no circumstances will your identity be disclosed to any person in the airport or to any other organization, agency or person without your express permission.

When you have completed your part of the form, it should be given to the Safety Officer or any member of the Safety Committee.

PT. SMART CAKRAWALA AVIATION

Name :
Organization Position :
(Name and position to be discarded by the Safety Officer)
PART A
TO BE COMPLETED BY THE PERSON IDENTIFYING THE HAZARD
Please fully describe the Hazard.
.
Date of occurrence / tanggal kejadian: _____ Time/waktu: _____
Location /lokasi: _____
Description/Deskripsi _____ _____ _____ _____ _____ _____ _____ _____
In your opinion, what is the likelihood of a similar occurrence happening again / menurut anda,apakah kejadian serupa akan terjadi lagi?
Likely/mungkin Rare/jarang
1 2 3 4 5
What do you consider could be the worse possible consequence if this occurrence did happen again/apa yang anda anggap bisa menjadi konsekuensi mungkin lebih buruk jika kejadian ini tidak terjadi lagi?
Catastrophic/ sangat parah Minor damage /kerusakan kecil
1 2 3 4 5

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PT. SMART CAKRAWALA AVIATION

PART B
TO BE COMPLETED BY THE SAFETY OFFICER
The report has been de-identified and entered into the company database
Signature: _____ Date: _____
Name_____
Rate the likelihood of the hazard recurring
Very Likely Rare
1 2 3 4 5
Rate the worst-case consequences
Catastrophic Minor Damage
1 2 3 4 5
What action is required to ELIMINATE or CONTROL the hazard and PREVENT injury?
Resources Required:
_____
Responsibility for action: _____
_____
Referred to _____ for further action.
Signature: _____ Date: _____

Form Safety/006/SCA/Rev.00/2018 Page 1.2

PT. SMART CAKRAWALA AVIATION

Forwarded to the Airport Safety Committee for review.
Signed: _____ Date: _____
Appropriate Feedback given to staff.
Signed _____ Date_____

3) Accident and Incident Report Form

To be completed by the Airport Safety Officer or senior representative of the Airside Operator for all accidents and incidents which would likely seriously endanger people, aircraft, vehicles, or equipment.

PT. SMART CAKRAWALA AVIATION

Name of person that completed this report:_____
Organization and Position:_____
Telephone number:_____
Date of Accident/Incident:_____
Time:_____
Location:_____
Date of Report:_____
Names of Witnesses
Witness 1
Name:_____
Address:_____
Telephone:_____
Witness 2
Name:_____
Address:_____
Telephone:_____
Witness 3
Name:_____
Address:_____
Telephone:_____
Details
Details of the accident/incident: (Include details of people involved, aircraft, vehicles, and equipment. Include details of what took place that contributed to the accident /incident)
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Form Safety/007/SCA/Rev.00/2018 Page 1.1

PT. SMART CAKRAWALA AVIATION

Details of any injuries:
Details of damage to aircraft/vehicles/equipment/facilities:

4) Volcanic Activity Report

PT. SMART CAKRAWALA AVIATION

VOLCANIC ACTIVITY REPORT

AIRCRAFT IDENTIFICATION : _____
PILOT IN COMMAND : _____
DEPATURE FROM : _____ DATE _____ TIME _____ UTC
ARRIVAL AT : _____ DATE _____ TIME _____ UTC

AIREP SPECIAL			
1. Aircraft Identification			
2. Position			
3. Time			
4. Flight Level or Altitude			
5. VOLCANIC ACTIVITY OBSERVED AT	Position or bearing and distance from aircraft		
6. Air Temperature			
7. Spot Wind			
8. Supplementary information (brief description of activity Including vertical and lateral Extent movement, rate of growth, etc, as available)			
The Following information is not for transmission by RTF			
	Mark (X) the appropriate box		
9. Density of ash cloud	☐ Wispy	☐ Moderate dense Very	☐ Dense
10.Color of ash cloud	☐ White ☐ Black	☐ Light gray	☐ Dark gray
11. Eruption	☐ Continuous	☐ Intermittent	☐ Not visible
12. Position of activity	☐ Summit ☐ Multiple	☐ Side ☐ Not Observed	☐ Single
13. Other observed features of eruption	☐ Lightning ☐ Ash fall out	☐ Glow ☐ Mushroom cloud	☐ Large Rock ☐ Nil
14. Effect on aircraft	☐ Communication ☐ Pitot Static ☐ Nil	☐ Nav systems ☐ Windscreen	☐ Engines ☐ Windows
15. Other effects	☐ Turbulance ☐ Ash deposits	☐ St. Elmos Fire	☐ Fumes
16. Other Information			

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Appendix L Audit/Surveillance Form

1) Operational Audit Form

PT. SMART CAKRAWALA AVIATION

OPERATIONS AND FLIGHTS (TRIP) RECORD INSPECTIONS CHECKLIST/REPORT

DATE	LOCATION

S=Satisfactory; U=Unsatisfactory; P=Potential; I=Information; E=Exceeds

A. GENERAL

1.____Availability
2.____Practicality
3.____Currency
4.____Legibility
5.____Accuracy
6.____Conformity

B. FLIGHT PLAN

1.____Contains the Following Elements :
- Type Aircraft
- Aircraft Registration No.
- Flight No.
- PIC Name
- Point of Depature
- Proposed Time of Depature
- Proposed Route, Cruising Altitude, and TAS
- Minimum Flight Altitude & Aerodrome Oper.Minima
- Point of Intended Landing
- ETA
- Amount of Fuel on Board (in hours)
- Alternate Airport (if required)
- Numbers of Person on board

C. DISPATCH/FLIGHT RELEASE

1.____Contains the Following Elements :
- Aircraft Identification No.
- Trip or Flight Number
- Depature Airport
- Intermediate Stops
- Type of Operation (IFR or VFR)
- Minimum Fuel Required
- Weather Reports and Forecast

D. LOAD MANIFEST

1.____Contains the Following Individual weights :
- Aircraft
- Fuel and Oil
- Cargo and Baggage
- Passengers
- Crew

2.____Contains Maximum Allowable T/O Weight In Consideration of :
- Runway Limits
- Climb Limits
- En Route Performance
- Landing Weight Limits
- Alternate Distance

3.____Reflects Total takeoff Weight
2.____Reflects Load Distribution And CG Limits

E. AIRWORTHINESS RELEASE

1.____Certifies Following Conditions Have Been Met
- Work Performed on Aircraft IAW Operator's Manual
- Completed Items Inspected by Authorized Individual
- Aircraft is Airworthy and in Condition for Safe Operation

F. OTHER REQUIRED DOCUMENTS

1.____Weather,Reports, Forecasts, Summaries, and Depictions

2.____Fuel Slips
3.____NOTAMs
2.____Other

Remarks (Continue on back if necessary) :

OVERALL RESULT :	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGNATURE

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2) Ramp Audit Form

PT. SMART CAKRAWALA AVIATION

RAMP SURVEILLANCE / AUDIT
FLIGHT OPERATIONS WORKSHEET

Date	:	Aircraft make and model	:
Route from	:	Registration Marks	:
Route to	:	Location	:
Flight no	:	PIC	:

NO	DESCRIPTIONS	CHECK (S/U/N)	REMARKS
A	**Flight Deck**		
1	General condition		
2	Emergency exit		
3	Equipment (ACAS, GPWS, CVR, FDR, ELT, GPWS, etc) Where FMC is provided, valid database		
4	Manuals (FM, OM, AOM, etc)		
5	Checklists (Flight Crew CL, A/C search procedure CL, Emergency and safety Equipment CL)		
6	Route Guide		
7	Minimum Equipment List and deferred defect rectification		
8	Documents (C of R, C of A, ID Plate, Crew Member License, Journey Log Book, Radio Sta. License, Noise Cert, AOC/Certified true copy, Opspecs/copy, etc)		
9	Operational Flight Plan		
10	Mass and Balance Sheet		
11	Aircraft performance information and data		
12	Cargo/Passenger manifest		
13	Pre-flight forms (ATC flight plan, etc)		
14	Weather reports and forecast		
15	NOTAM (Notice to Airman)		
16	Portable Fire Extinguishers		
17	Life jackets/Flotation Devices		
18	Safety harness		
19	Oxygen Equipment		
20	Oxygen equipment		

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PT. SMART CAKRAWALA AVIATION

B	**CARGO**		
1	Dangerous Goods		
C	**GENERAL**		
1	Language of communication		

Remarks :

Auditor
Name :
Signature :

S = Satisfactory, U = Unsatisfactory, N = Not Observed

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3) List All Manual on Site Form

PT. SMART CAKRAWALA AVIATION

		GOOD	AVERAGE	BELOW STANDARD	REVISION DATE
1	OPS MANUAL				
2	SAFETY MANUAL				
3	COMPANY MAINTENANCE MANUAL				
4	REM LOC MAN				
4	ERP				
6	PILOT + ENGINEER MEMO				
7	AIP				
8					
9					
10					
11					
12					
13					

Comments

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Recommendations

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Do the Pilots on site (base) understand the work procedure set in place by flight standards ?
YES / NO

Comments

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Recommendations

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PT. SMART CAKRAWALA AVIATION

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Do the Pilots on site (base) fully understand PT Smart Cakrawala Aviation reporting systems ?

YES / NO

Comments

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Recommendations

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4) Aircraft Maintenance Log Audit Form

PT. SMART CAKRAWALA AVIATION

List number of books each type held :

Daily Flight Logs : _____

Check Compliance of Sections :

	All entries legibly concise, complied with (Yes/No)	Last Completed page number	Comments
Maintenance Release			
Daily/Inspection Certificate			
Power Assurance Check			
Permissible Deferred Defects			

Comments

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Recommendations

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5) Equipment/Hangar Audit form

PT. SMART CAKRAWALA AVIATION

No.	Description	Part No.	Serial No.	Next Calibration Date	Condition Good/Average/Below standard
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Comments

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Recommendations

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YES / NO	Comment / Recommendation
1. Are the facilities satisfactory for the type of operation being carried out?	
2. Is night maintenance carried out?	
3. If Yes, (to question 2) are the facilities adequate?	

State your recommendation to improve support :

.....

.....

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PT. SMART CAKRAWALA AVIATION

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Do you hold A/C spare? Yes / No

Comments

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Recommendations

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Are orders placed with the main warehouse? Yes / No

Are they replenished within a reasonable time? Yes ? No

Comments

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Recommendations

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6) Fuel Service Audit Form

PT. SMART CAKRAWALA AVIATION

Describe Type : .....

Provided By : .....

Equipment Used : .....

Delivery Filtration : .....

Last Filter Change Date : .....

Quality Control (Detection) : .....

Records :.....

A/C Portable Re-fuelling

Type of Pump – Electrical / Manual : .....

Type of Fuel Filter Installed : .....

Date of Last Filter Change – or Due : .....

How many on site : .....

Comments

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Recommendations

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Form Safety/016/SCA/Rev.00/2018 Page 1.1

7) Operations Flight Documentation Record Audit Checklist/Report Form

PT. SMART CAKRAWALA AVIATION

OPERATIONS FLIGHTS DOCUMENTATION RECORD AUDIT CHECKLIST/REPORT

DATE	LOCATION

S=Satisfactory; U=Unsatisfactory; P=Potential; I=Information; E=Exceeds

A. GENERAL

1.____Availability
2.____Practicality
3.____Currency
4.____Legibility
5.____Accuracy
6.____Conformity

B. FLIGHT PLAN

1.____Contains the Following Elements :
- Type Aircraft
- Aircraft Registration No.
- Flight No.
- PIC Name
- Point of Depature
- Proposed Time of Depature
- Proposed Route, Cruising Altitude, and TAS
- Minimum Flight Altitude & Aerodrome Oper.Minima
- Point of Intended Landing
- ETA
- Amount of Fuel on Board (in hours)
- Alternate Airport (if required)
- Numbers of Person on board

C. DISPATCH/FLIGHT RELEASE

1.____Contains the Following Elements :
- Aircraft Identification No.
- Trip or Flight Number
- Depature Airport
- Intermediate Stops
- Type of Operation (IFR or VFR)
- Minimum Fuel Required
- Weather Reports and Forecast

D. LOAD MANIFEST

1.____Contains the Following Individual weights :
- Aircraft
- Fuel and Oil
- Cargo and Baggage
- Passengers
- Crew

2.____Contains Maximum Allowable T/O Weight In Consideration of :
- Runway Limits
- Climb Limits
- En Route Performance
- Landing Weight Limits
- Alternate Distance

3.____Reflects Total takeoff Weight
2.____Reflects Load Distribution And CG Limits

E. AIRWORTHINESS RELEASE

1.____Certifies Following Conditions Have Been Met
- Work Performed on Aircraft IAW Operator's Manual
- Completed Items Inspected by Authorized Individual
- Aircraft is Airworthy and in Condition for Safe Operation

F. OTHER REQUIRED DOCUMENTS

1.____Weather,Reports, Forecasts, Summaries, and Depictions

2.____Fuel Slips
3.____NOTAMs
2.____Other

Remarks (Continue on back if necessary) :

OVERALL RESULT :	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGNATURE

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8) Aircrew Training and Currency Inspection Checklist/Report Form

PT. SMART CAKRAWALA AVIATION

AIRCREW TRAINING CURRENTCY AND INSPECTION CHECKLIST / REPORT

Date:	Location:
Type of Records Inspected:	

S=Satisfactory; U=Unsatisfactory; P=Potential; I=Information; E=Exceeds

1. ____ ADEQUACY. Comments:

2. ____ PRACTICALLY. Comments:

3. ____ ACCESIBILITY and SECURITY. Comments:

4. ____ ACCURACY. Comments:

5. ____ CURRENCT. Comments:

6. ____ CONFORMITY. Comments:

OVERALL RESULT	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGANTURE

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9) Flight and Duty Time Record Inspections Checklist/Report Form

PT. SMART CAKRAWALA AVIATION

AIRCREW TRAINING CURRENTCY AND INSPECTION CHECKLIST / REPORT

Date:	Location:
Type of Records Inspected:	

S=Satisfactory; U=Unsatisfactory; P=Potential; I=Information; E=Exceeds

1. ____ ADEQUACY. Comments:

2. ____ PRACTICALLY. Comments:

3. ____ ACCESIBILITY and SECURITY. Comments:

4. ____ ACCURACY. Comments:

5. ____ CURRENCT. Comments:

6. ____ CONFORMITY. Comments:

OVERALL RESULT	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGANTURE

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10) Operation Manual Audit Checklist/Report Form

PT. SMART CAKRAWALA AVIATION

OPERATION MANUAL AUDIT CHECKLIST / REPORT

A. GENERAL

1.___ Organization and Readability
- Clear
- Concise
- Information easily Located
- Print Quality

2.___Validity and Accuracy
3.___Continuity
4.___Currency and Conformity
5.___Distribution and Availability
6.___Approvals

B. CONTENTS

1.___ Description of Operations Organization
2.___ Duties and Responsibilities of Operations Management
3.___ Duties and Responsibilities of Crewmembers
4.___ Succession to Command
5.____Minimum Crew
6.____Flight and Duty Time Limits
7.____Report for Duty Policy
8.____Compliance with State's Regulations including List of Applicable Regulations
9.____Compliance with Foreign Regulations
10.___Operational Control Responsibilities and Procedures
11.___Flight Planning and Content of Flight Plans
12.___ Cold Weather Ops
13.___High Temperature Ops
14.___High Altitude Ops
15.___Turbulent Air Procedures
16.___Configuration Deviations
17.___Minimum Equipment List and Policies
18.____Fuel and Oil Policy and Procedures
____Operating Weather Minima Policy
20.___Maximum Flight Altitudes
21.___Oxygen Requirements and Use of Oxygen
22.___Crew Coordination and Callouts
23.___Communications including Public Address Systems
24.___Altimeter Settings
25.___Interception of Civil Aircraft
26.___Route, Navigation, and Aerodrome information
27.___Overweight Landings
28.___Flight Diversion
29.___SevereWeather
30.___Passenger Handling
- Briefings and
- Announcements
- Unruly Passengers
- Alcoholic Beverages
- Medical Emergencies

31.___Security
32.___Hijacking
33.___Hazardous Materials
34.___Cabin Baggage Policy
35.___Loading and Weight and Balance Control
36.___Search and Rescue
37.___Cockpit and Cabin Emergency Equipment
- Description
- Location
- Use

38.___Reports/Notification
- Accidents and Incidents
- Emergencies
- Deviations
- Hazardous Conditions
- Meteorological
- Inflight Irregularities
- Near Misses
- Pireps

39.___Cabin Emergency Proceed.
40.___Flight Crew Incapacitation
41.___Ozone and Solar Radiation
42.___Emergency Evacuation
43.___Ditching
44.___Ground to Air Visual Codes
45.___Refueling with Passengers on Board
46.___Long Range Nav Procedures
47.___Requirement for Flight Crewmembers to Remain at Controls
48.___Records Management
- Flight and Duty Time
- Disposition of Flight Papers
- Training and Qual.

49.___Admission to Cockpit
50.___Maintenance of Logbooks
- Aircraft
- Cabin Discrepancies

51.___Limited Experience PIC's
52.___Aircraft Operating Limitations
53.___Aircraft System Descriptions and Operating Instructions
54.___Aircraft Performance Data
- Runway Performance Analysis
- Phase of Flight Performance Information
- Buffet Boundaries

55.___Aircraft Normal,Abnormal and Emergency Operating Procedures
56.___Aircraft Normal, Abnormal, and Emergency Checklists
57.___Operator Certificate and Operating Specifications
58.___Simulated Emergency Procedures with Passengers
59.___Flight Safety Program

(See back for comments.)

REMARKS :		
OVERALL RESULT :	☐ **Satisfactory** ☐ **Unsatisfactory**	**AUDIT NAME AND SIGNATURE**

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11) Operations and Flight (Trip) Record Inspections Checklist/Report

PT. SMART CAKRAWALA AVIATION

OPERATIONS AND FLIGHT (TRIP) RECORD INSPECTION CHECKLIST / REPORT

Base	Date	Location

S=Satisfactory (✓); U=Unsatisfactory (x); N=Not Observed (NO); N=Not Applicable(NA)

A. GENERAL

1._____Availability
2._____Practicality
3._____Currency
4._____Legibility
5._____Accuracy
6._____Conformity

B. FLIGHT PLAN

1._____Contains the Following Elements:
- Type Aircraft
- Aircraft Registration No.
- Flight No.
- PIC Name
- Point of Departure
- Proposed Time of Departure
- Proposed Route, Cruising Altitude, and TAS
- Minimum Flight Altitude & Aerodrome Oper. Minima
- Point of Intended Landing
- ETA
- Amount of Fuel on Board (in Hours)
- Alternate Airport (if Required)
- Numbers of Persons on Board

C. DISPATCH/FLIGHT RELEASE

1._____Contains the Following Elements:
- Aircraft Identification No.
- Trip or Flight Number
- Departure Airport
- Intermediate Stops
- Type of Operation (IFR or VFR)
- Minimum Fuel Required
- Weather Reports and Forecasts

D. LOAD MANIFEST

1._____Contains the following Individual weights:
- Aircraft
- Fuel and Oil
- Cargo and Baggage
- Passengers
- Crew

2._____Contains Maximum Allowable T/O Weight in Consideration of:
- Runway Limits
- Climb Limits
- En Route Performance
- Landing Weight Limits
- Alternate Distance

3._____Reflects Total Takeoff Weight

4._____Reflects Load Distribution and CG Limits

E. AIRWORTHINESS RELEASE

1._____Certifies Following Conditions Have Been Met
- Work Performed on Aircraft IAW Operator's Manual
- Completed Items Inspected by Authorized Individual
- Aircraft is Airworthy and in Condition for Safe Operation

F. OTHER REQUIRED DOCUMENTS

1._____Weather Reports, Forecasts, Summaries, and Depictions
2._____Fuel Slips
3._____NOTAMs
4._____Other

Remarks (Continue on back if necessary):

OVERALL RESULT:	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGNATURE

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12) Station Facility Inspection Checklist/Report Form

PT. SMART CAKRAWALA AVIATION

STATION FACILITY AND INSPECTION CHECKLIST / REPORT

Base	Route	Date	Aircraft Type(s) (List)

S=Satisfactory (✓); U=Unsatisfactory (x); N=Not Observed (NO) N= Not Applicable (NA)

A. PERSONNEL

1.____Adequacy of Staffing
2.____Competence

B. MANUALS

1.____Available
2.____Current
3.____ Adequate Information
- Refueling Procedures
- Aircraft Towing & Movement
- Weight and Balance
- Operation of GSE
- AFM and Performance
- Training Requirements
- Emergency Phone List
- Accident/Incident Procedures
- Security
- Carry-on Baggage
- Hazardous Materials
- Contract Services
- Trip Records Disposition

C. RECORDS

1.____ Trip
2.____ Crew and Duty Time
3.____ Communications

D. TRAINING

1.____Duties and Responsibilities
2.____Hazardous Materials
3.____Passenger Handling
4.____Load Planning
5.____ Aircraft Servicing
6.____ First Aid and Emergency Actions
7.____ Communications

E. FACILITY EQUIPMENT AND SURFACE

1.____ Ramp Area
2.____ Passenger Movement
3.____Lighting
4.____Hazards/Obstructions

F. CONFORMANCE

1.____ CAR's
2.____ Operator's Directives

G. FLIGHT CONTROL

1.____Flight Planning
2.____Load Planning
3.____Weather
4.____NOTAMs

H. SERVICING

1.____ Loading
2.____ Logbook/MEL Entries
3..____Fuelling
4.____ Oil/Hydraulic Service
5.____ Marshaling
6.____ Chocks/Mooring

I. MANAGEMENT

1.____ Communications
2.____Contract Services
3.____Contingency Planning

J. SECURITY

1.____Passenger Screening
2.____Baggage and Cargo Screening
3.____Limited Access Areas

K. AERODROME

1.____Fire Fighting Equipment
2.____Medical Services
3.____Ramp

REMARKS (Continue on back if necessary):

OVERALL RESULT:	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGNATURE

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13) Summary Audit Finding Status Record Form

SUMMARY AUDIT FINDINGS STATUS RECORD
DATE :

FINDING NO	DESCRIPTION	REF.	TYPE OF FINDING	COMPLETION DATE		CORRECTIVE ACTIONS	STATUS	EVIDENCE
				TARGET	ACTUAL			

Form/Safety/022/Rev.00/2018

14) Training Program Inspection Checklist/Report Form

PT. SMART CAKRAWALA AVIATION

TRAINING PROGRAM INSPECTION CHECKLIST AND REPORT

Base	Date	Location
Curriculum or Segment Inspected		

S=Satisfactory (✓); U=Unsatisfactory (x); N=Not Observed (N/A)

A. TRAINING CURRICULUM

1.___ Appropriate Title(s)
2.___ List of Effective Pages 3.
___ Record of Revisions
4.___ DGCA Approved
5.___ Sufficient Detail
6.___ Training Hours Specified 7.
___ Objective(s) Stated
8.___ Currency
9.___ Conformity

B. INSTRUCTOR COURSEWARE

1.___ Title
2.___ Detail
3.___ Usability/Practicality
4.___ Consistency
5.___ References
6.___ Validation

C. STUDENT COURSEWARE

1.___ Consistency
2.___ Detail
3.___ Validation

D. TRAINING FACILITIES AND ENVIRONMENT

1.___ Classroom Space 2.
___ Storage Space
3.___ Instructor Areas
4.___ Lighting
5.___ Noise and Temperature

E. GROUND INSTRUCTORS

1.___ Training
2.___ Knowledge
3.___ Instructional Technique and Delivery
4.___ Adherence

F. FLIGHT INSTRUCTORS

1.___ Training
2.___ Knowledge
3.___ Proficiency
4.___ Instructional Technique and Delivery
5.___ Adherence
6.___ Briefings
7.___ Debriefings
8.___ Evaluation

G. TRAINING AIDS AND EQUIPMENT

1.___ Instructions for Use
2.___ Condition
3.___ Fidelity

H. FLIGHT SIMULATORS AND TRAINING DEVICES

1.___ Approval
2.___ Condition
3.___ Publications

I. CHECK AIRMEN

1.___ Staffing
2.___ Training and Qualification
3.___ Standardization
4.___ Level of Activity

J. ORAL AND PRACTICAL TEST STANDARDS

1.___ Conform to Accepted Int'l Standards
2.___ Comply with Regulations

K. QUALITY CONTROL

1.___ Training Adequately Monitored
2.___ Utilizes Progress Evaluations
3.___ Training Folders

Remarks (Continue on back if necessary)

OVERALL RESULT:	☐ Satisfactory ☐ Unsatisfactory	AUDITOR NAME AND SIGNATURE

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Appendix M Gap Analysis

1) Background

In accordance with the Standards and Recommended Practices (SARPs) contained in ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, and ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 — Aerodromes, Volume I — Arodrome Design and Operations, SCA are responsible for the implementation of a Safety Management System (SMS). An SMS is a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

2) Gap Analysis (19.23)

The implementation of an SMS requires a Smart Aviation to conduct an analysis of its system to determine which components and elements of an SMS are currently in place and which components and elements must be added or modified to meet the implementation requirements. This analysis is known as gap analyses, and it involves comparing the SMS requirements against the existing resources in the Smart Aviation.
This guidance provides, in checklist format, information to assist in the evaluation of the components and elements that comprise the SMS framework and to identify the components and elements that will need to be developed. Once the gap analysis is complete and documented, it will form one basis of the SMS implementation plan.
As part of the development of the SMS implementation plan, Smart Cakrawala Aviation complete a gap analysis, in order to:

a) Identify the safety arrangements and structures that may be already exist throughout an organization; and
b) Determine additional safety arrangements required to implement and maintain the organization's SMS.

The gap analysis form included in this guide can be used as a template to conduct a gap analysis. Each question is designed for a “yes” or “no” response. A “yes” answer indicates that the Smart Aviation already has component or element of the SMS framework in question incorporated into its organizational processes, whether it matches or exceeds the requirement. A “no” answer indicates that a gap exists between the component/element of the SMS framework and the organizational processes of the Smart Aviation.

3) SMS GAP Analysis

No.	*Aspect to be analysed or question to be answered*	*Answer*	*Status of implementation*
Component 1 — SAFETY POLICY AND OBJECTIVES			
Element 1.1 — Management commitment and responsibility			
1.1-1	Is there a safety policy in place?	☐ Yes ☐ No ☐ Partial	
1.1-2	Does the safety policy reflect senior management's commitment regarding safety management?	☐ Yes ☐ No ☐ Partial	
1.1-3	Is the safety policy appropriate to the size, nature and complexity of the organization?	☐ Yes ☐ No ☐ Partial	
1.1-4	Is the safety policy relevant to aviation safety?	☐ Yes ☐ No ☐ Partial	
1.1-5	Is the safety policy signed by the accountable executive?	☐ Yes ☐ No ☐ Partial	
1.1-6	Is the safety policy communicated, with visible endorsement, throughout the [Organization]?	☐ Yes ☐ No ☐ Partial	
1.1-7	Is the safety policy periodically reviewed to ensure it remains relevant and appropriate to the [Organization]?	☐ Yes ☐ No ☐ Partial	
Element 1.2 — Safety accountabilities			
1.2-1	Has [Organization] identified an accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the [Organization], for the implementation and maintenance of the SMS?	☐ Yes ☐ No ☐ Partial	
1.2-2	Does the accountable executive have full control of the financial and human resources required for the operations authorized to be conducted under the operations certificate?	☐ Yes ☐ No ☐ Partial	
1.2-3	Does the Accountable Executive have final authority over all aviation activities of his organization?	☐ Yes ☐ No ☐ Partial	
1.2-4	Has [Organization] identified and documented the safety accountabilities of management as well as operational personnel, with respect to the SMS?	☐ Yes ☐ No ☐ Partial	

1.2-5	Is there a safety committee or review board for the purpose of reviewing SMS and safety performance?	☐ Yes ☐ No ☐ Partial	
1.2-6	Is the safety committee chaired by the accountable executive or by an appropriately assigned deputy, duly substantiated in the SMS manual?	☐ Yes ☐ No ☐ Partial	
1.2-7	Does the safety committee include relevant operational or departmental heads as applicable?	☐ Yes ☐ No ☐ Partial	
1.2-8	Are there safety action groups that work in conjunction with the safety committee (especially for large/complex organizations)?	☐ Yes ☐ No ☐ Partial	
Element 1.3 — Appointment of key safety personnel			
1.3-1	Has [Organization] appointed a qualified person to manage and oversee the day-to-day operation of the SMS?	☐ Yes ☐ No ☐ Partial	
1.3-2	Does the qualified person have direct access or reporting to the accountable executive concerning the implementation and operation of the SMS?	☐ Yes ☐ No ☐ Partial	
1.3-3	Does the manager responsible for administering the SMS hold other responsibilities that may conflict or impair his role as SMS manager.	☐ Yes ☐ No ☐ Partial	
1.3-4	Is the SMS manager's position a senior management position not lower than or subservient to other operational or production positions	☐ Yes ☐ No ☐ Partial	
Element 1.4 — Coordination of emergency response planning			
1.4-1	Does [Organization] have an emergency response/contingency plan appropriate to the size, nature and complexity of the organization?	☐ Yes ☐ No ☐ Partial	
1.4-2	Does the emergency/contingency plan address all possible or likely emergency/crisis scenarios relating to the organization's aviation product or service deliveries?	☐ Yes ☐ No ☐ Partial	
1.4-3	Does the ERP include procedures for the continuing safe production, delivery or support of its aviation products or services during such emergencies or contingencies?	☐ Yes ☐ No ☐ Partial	
1.4-4	Is there a plan and record for drills or exercises with respect to the ERP?	☐ Yes ☐ No ☐ Partial	
1.4-5	Does the ERP address the necessary coordination of its emergency response/contingency procedures with the emergency/response contingency procedures of other organizations where applicable?	☐ Yes ☐ No ☐ Partial	

1.4-6	Does [Organization] have a process to distribute and communicate the ERP to all relevant personnel, including relevant external organizations?	☐ Yes ☐ No ☐ Partial	
1.4-7	Is there a procedure for periodic review of the ERP to ensure its continuing relevance and effectiveness?	☐ Yes ☐ No ☐ Partial	
Element 1.5 — SMS documentation			
1.5-1	Is there a top-level SMS summary or exposition document which is approved by the accountable manager and accepted by the CAA?	☐ Yes ☐ No ☐ Partial	
1.5-2	Does the SMS documentation address the organization's SMS and its associated components and elements?	☐ Yes ☐ No ☐ Partial	
1.5-3	Is [Organization] SMS framework in alignment with the regulatory SMS framework?	☐ Yes ☐ No ☐ Partial	
1.5-4	Does [Organization] maintain a record of relevant supporting documentation pertinent to the implementation and operation of the SMS?	☐ Yes ☐ No ☐ Partial	
1.5-5	Does [Organization] have an SMS implementation plan to establish its SMS implementation process, including specific tasks and their relevant implementation milestones?	☐ Yes ☐ No ☐ Partial	
1.5-6	Does the SMS implementation plan address the coordination between the service provider's SMS and the SMS of external organizations where applicable?	☐ Yes ☐ No ☐ Partial	
1.5-7	Is the SMS implementation plan endorsed by the accountable executive?	☐ Yes ☐ No ☐ Partial	
Component 2 — SAFETY RISK MANAGEMENT			
Element 2.1 — Hazard identification			
2.1-1	Is there a process for voluntary hazards/threats reporting by all employees?	☐ Yes ☐ No ☐ Partial	
2.1-2	Is the voluntary hazard/threats reporting simple, available to all personnel involved in safety-related duties and commensurate with the size of the service provider?	☐ Yes ☐ No ☐ Partial	
2.1-3	Does [Organization] SDCPS include procedures for incident/accident reporting by operational or production personnel?	☐ Yes ☐ No ☐ Partial	
2.1-4	Is incident/accident reporting simple, accessible to all personnel involved in safety-related duties and commensurate with the size of the service provider?	☐ Yes ☐ No ☐ Partial	

2.1-5	Does [Organization] have procedures for investigation of all reported incident/accidents?.	☐ Yes ☐ No ☐ Partial	
2.1-6	Are there procedures to ensure that hazards/threats identified or uncovered during incident/accident investigation processes are appropriately accounted for and integrated into the organization's hazard collection and risk mitigation procedure?	☐ Yes ☐ No ☐ Partial	
2.1-7	Are there procedures to review hazards/threats from relevant industry reports for follow-up actions or risk evaluation where applicable?	☐ Yes ☐ No ☐ Partial	
Element 2.2 — Safety risk assessment and mitigation			
2.2-1	Is there a documented hazard identification and risk mitigation (HIRM) procedure involving the use of objective risk analysis tools?	☐ Yes ☐ No ☐ Partial	
2.2-2	Is the risk assessment reports approved by departmental managers or at a higher level where appropriate?	☐ Yes ☐ No ☐ Partial	
2.2-3	Is there a procedure for periodic review of existing risk mitigation records?	☐ Yes ☐ No ☐ Partial	
2.2-4	Is there a procedure to account for mitigation actions whenever unacceptable risk levels are identified?	☐ Yes ☐ No ☐ Partial	
2.2-5	Is there a procedure to prioritize identified hazards for risk mitigation actions?	☐ Yes ☐ No ☐ Partial	
2.2-6	Is there a programme for systematic and progressive review of all aviation safety-related operations, processes, facilities and equipment subject to the HIRM process as identified by the organization?	☐ Yes ☐ No ☐ Partial	
Component 3 — SAFETY ASSURANCE			
Element 3.1 — Safety performance monitoring and measurement			
3.1-1	Are there identified safety performance indicators for measuring and monitoring the safety performance of the organization's aviation activities?	☐ Yes ☐ No ☐ Partial	
3.1-2	Are the safety performance indicators relevant to the organization's safety policy as well as management's high-level safety objectives/goals?	☐ Yes ☐ No ☐ Partial	
3.1-3	Do the safety performance indicators include alert/target settings to define unacceptable performance regions and planned improvement goals?	☐ Yes ☐ No ☐ Partial	

3.1-4	Is the setting of alert levels or out-of-control criteria based on objective safety metrics principles?	☐ Yes ☐ No ☐ Partial	
3.1-5	Do the safety performance indicators include quantitative monitoring of high-consequence safety outcomes (e.g. accident and serious incident rates) as well as lower-consequence events (e.g. rate of non-compliance, deviations)?	☐ Yes ☐ No ☐ Partial	
3.1-6	Are safety performance indicators and their associated performance settings developed in consultation with, and subject to, the civil aviation authority's agreement?	☐ Yes ☐ No ☐ Partial	
3.1-7	Is there a procedure for corrective or follow-up action to be taken when targets are not achieved and alert levels are exceeded/ breached?	☐ Yes ☐ No ☐ Partial	
3.1-8	Are the safety performance indicators periodically reviewed?	☐ Yes ☐ No ☐ Partial	
Element 3.2 — The management of change			
3.2-1	Is there a procedure for review of relevant existing aviation safety-related facilities and equipment (including HIRM records) whenever there are pertinent changes to those facilities or equipment?	☐ Yes ☐ No ☐ Partial	
3.2-2	Is there a procedure for review of relevant existing aviation safety-related operations and processes (including any HIRM records) whenever there are pertinent changes to those operations or processes?	☐ Yes ☐ No ☐ Partial	
3.2-3	Is there a procedure for review of new aviation safety-related operations and processes for hazards/risks before they are commissioned?	☐ Yes ☐ No ☐ Partial	
3.2-4	Is there a procedure for review of relevant existing facilities, equipment, operations or processes (including HIRM records) whenever there are pertinent changes external to the organization such as regulatory/industry standards, best practices or technology?	☐ Yes ☐ No ☐ Partial	
Element 3.3 — Continuous improvement of the SMS			
3.3-1	Is there a procedure for periodic internal audit/assessment of the SMS?	☐ Yes ☐ No ☐ Partial	

3.3-2	Is there a current internal SMS audit/assessment plan?	☐ Yes ☐ No ☐ Partial	
3.3-3	Does the SMS audit plan include the sampling of completed/existing safety risk assessments?	☐ Yes ☐ No ☐ Partial	
3.3-4	Does the SMS audit plan include the sampling of safety performance indicators for data currency and their target/alert settings performance?	☐ Yes ☐ No ☐ Partial	
3.3-5	Does the SMS audit plan cover the SMS interface with subcontractors or customers where applicable?	☐ Yes ☐ No ☐ Partial	
3.3-6	Is there a process for SMS audit/assessment reports to be submitted or highlighted for the accountable manager's attention where appropriate.	☐ Yes ☐ No ☐ Partial	
Component 4 — SAFETY PROMOTION			
Element 4.1 — Training and education			
4.1-1	Is there a programme to provide SMS training/familiarization to personnel involved in the implementation or operation of the SMS?	☐ Yes ☐ No ☐ Partial	
4.1-2	Has the accountable executive undergone appropriate SMS familiarization, briefing or training?	☐ Yes ☐ No ☐ Partial	
4.1-3	Are personnel involved in conducting risk mitigation provided with appropriate risk management training or familiarization?	☐ Yes ☐ No ☐ Partial	
4.1-4	Is there evidence of organization-wide SMS education or awareness efforts?	☐ Yes ☐ No ☐ Partial	
Element 4.2 — Safety communication			
4.2-1	Does [Organization] participate in sharing safety information with relevant external industry product and service providers or organizations, including the relevant aviation regulatory organizations?	☐ Yes ☐ No ☐ Partial	

4.2-2	Is there evidence of a safety (SMS) publication, circular or channel for communicating safety (SMS) matters to employees?	☐ Yes ☐ No ☐ Partial	
4.2-3	Are [Organization] SMS manual and related guidance material accessible or disseminated to all relevant personnel?	☐ Yes ☐ No ☐ Partial	

Appendix N Phases of Implementations SMS

1. Introduction (19.23)

Smart Cakrawala Aviation develop and maintain an implementation SMS plan. The phased approach to SMSM is to provide a manageable series of steps to follow in implementing an SMSM and to effectively manage the workload associated with SMSM implementation. There are four implementation phases (planning, reactive processes, proactive and predictive processes, and operational safety assurance) proposed. Each phase is based upon the introduction of specific SMSM elements.

The SMS implementation plan shall include the following:

a) Safety policy and objectives;
b) Safety planning,
c) System description;
d) Gap analysis;
e) SMS components;
f) Safety roles and responsibilities;
g) Safety reporting policy;
h) Means of employee involvement;
i) Safety training;
j) Safety communication;
k) Safety performance measurement; and
l) Management review of safety performance.

The SMS implementation plan shall be endorsed by senior management of Smart Cakrawala Aviation organization. And as part of the development of the SMS implementation plan, complete a system description.

The system description shall include the following:

a) The system interactions with other systems in the air transportation system;
b) The system functions;
c) Required human performance considerations of the system operation;
d) Hardware components of the system;
e) Software components of the system;
f) Related procedures that define guidance for the operation and use of the system;
g) Operational environment; and
h) Contracted and purchased products and services.

2. Four phases of SMSM Implementation

A summary of the four phases of SMSM implementation and their corresponding elements is shown in below Table 2-1.

Table 2-1 - Four Phases of SMSM implementation

Phase I (12 mths*)	Phase II (12 mths)	Phase III (18 mths)	Phase IV (18 mths)
1. SMSM element 1.1(i): a. Identify SMSM Accountable Executive b. Establish SMSM Implementation Team c. Define scope of the SMSM d. Perform SMSM Gap Analysis **2. SMSM element 1.5(i):** a. Develop SMSM Implementation Plan **3. SMSM element 1.3:** a. Establish a key person/ office responsible for the administration and maintenance of the SMSM. **4. SMSM element 4.1(i):** a. Establish SMSM training program for personnel, with priority for SMSM implementation team. **5. SMSM element 4.2(i):** a. Initiate SMSM/ Safety communication	**6. SMSM element 1.1(ii):** a. Establish Safety Policy & Objectives **7. SMSM element 1.2:** a. Define safety management responsibilities & accountabilities across relevant departments of the organization b. Establish SMSM/ Safety coordination mechanism/ committee. c. Establish departmental/ divisional SAGs where applicable **8. SMSM element 1.4:** a. Establish Emergency Response Plan **9. SMSM element 1.5(ii):** a. Initiate progressive development of an SMSM Document/ Manual & other supporting documentation	**10. SMSM element 2.1(i):** a. Establish voluntary hazards reporting procedure **11. SMSM element 2.2:** a. Establish safety risk management procedure **12. SMSM element 3.1(i):** a. Establish occurrence reporting & investigation procedure b. Establish safety data collection & processing system for high consequence outcomes c. Develop high consequence SPIs & associated targets & alert settings **13. SMSM element 3.2:** a. Establish Management of Change procedure that includes safety risk assessment	**15. SMSM element 1.1(iii):** a. Enhance existing disciplinary procedure/ policy with due consideration of unintentional errors/ mistakes from deliberate/ gross violations **16. SMSM element 2.1(ii):** a. Integrate hazards identification from b. occurrence investigation reports with the voluntary hazard reporting system c. Integrate hazard identification & risk management procedures with sub-contractor or customer SMSM where applicable **17. SMSM element 3.1(ii):** a. Enhance safety data collection & processing system to include lower consequence events b. Develop lower consequence SPIs & associated targets/ alert settings **18. SMSM element 3.3(ii):** a. Establish or integrate SMSM audit into existing internal & external audit

channels		**14. SMSM element 3.3(i):** a) Establish internal quality audit programme b) Establish external quality audit programme	programs b. Establish other operational SMSM review/ survey programs where appropriate **19. SMSM element 4.1(ii):** a. Ensure SMSM training program for all relevant personnel is completed **20. SMSM element 4.2(ii):** a. Promote safety information sharing & exchange internally and externally.
SMSM element 1.5: SMSM Documentation (Phase I toIV) >>>>>>>>>>>>>>>>>>> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>			
SMSM element 4.1, 4.2: SMSM Training, education & communication (Phase I & thereafter) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>			
Notes: 1) Implementation period indicated is an approximation. Actual Implementation period is dependent on scope of actions required for each element allocated and the size/ complexity of the organization. 2) SMSM element numbers indicated corresponds to the ICAO SMSM element numbers. Suffix such as "(a)", etc indicates that the element has been sub-divided to facilitate the phased implementation approach.			

3. Completion of Phase (19.23)

3.1. Phase 1 (19.51)

At the completion of Phase 1, the following activities should be finalized in such a manner that meets the expectations of the civil aviation oversight authority, as set forth in relevant requirements and guidance material:

1) Management Commitment and Responsibility - Element 1.1(i)

a) Identify the Accountable Executive and the safety accountabilities of managers. This activity is based on Elements 1.1 and 1.2 of the ICAO SMSM framework.

b) Establish a SMSM implementation team.
The team should comprise of representatives from the relevant departments. The team's role is to drive the SMSM implementation from the planning stage to its final implementation. Other functions of the implementation team will include but not limited to:
- Responsible for developing the SMSM implementation plan.
- Ensuring adequate SMSM training & technical expertise of the team to establish effective Implementation of the SMSM elements and related processes.
- Monitor and report on the progress of the SMSM implementation and providing regular updates and coordination with the SMSM Accountable Executive

c) Describe the organization's scope of activities (departments/ divisions) which the SMSM will be applicable to. This definition of the organization's SMSM applicability will subsequently need to be described in the SMSM Document as appropriate. This activity is based on Element 1.5 of the ICAO SMSM framework. Guidance on a system description is provided in paragraph 4.4.1 of this Chapter.

d) Conduct a gap analysis of the organization's current systems and processes in relation to ICAO SMSM framework requirements (or the relevant SMSM regulatory requirements). Guidance on an SMSM gap analysis for a service provider is provided in Appendix 2 to this Chapter.

2) SMSM Implementation Plan - Element 1.5(i)

a) Develop an SMSM implementation plan on how the organization will implement the SMSM on the basis of the identified system and process gaps resulting from the gap analysis.

3) Appointment of Key Safety Personnel - Element 1.3

a) Identify the key SMSM person (safety/ quality function) within the organization that will be responsible for administering the SMSM on behalf of the Accountable Executive.

b) Establish the safety services office.

4) Training and Education - Element 4.1(i)

a) conduct training needs analysis;
b) and set up schedules for appropriate training for all staff according to their individual responsibilities and involvement in the SMSM;
c) Develop safety training considering;
   - initial (general safety) job-specific training, and
   - recurrent training;
d) Identify the costs associated with training;
e) Develop a validation process that measures the effectiveness of training; and
f) establish safety training record system.

5) Safety Communication - Element 4.2(i)

a) Initiate a mechanism or medium for safety communication.
b) Establish a means to convey safety information through any of :
   - Safety newsletters, notices and bulletins;
   - Websites;
   - Email.
   - Intranet

3.2. Phase 2 (19.51)

The objective of Phase II is to implement essential safety management processes; this phase aims at consolidating existing activities and developing those which do not yet exist.

1) Management Commitment and Responsibility - Element 1.1(ii)

a) Develop a safety policy.
b) Have the Accountable Executive sign the safety policy.
c) Communicate the safety policy through the organization.
d) Establish a review schedule for the safety policy to ensure it remains relevant and appropriate to the organization.
e) Establish safety objectives for the SMSM, by developing safety performance standards interms of:
   - safety performance indicators;
   - safety performance targets and alert levels ; and
   - action plans.
f) Establish the SMSM requirements for subcontractors:
   - establish a procedure to write SMSM requirements into the contracting process; and
   - establish the SMSM requirements in the bidding documentation.

2) Safety Accountabilities - Element 1.2

a) Define safety accountabilities and communicate those through the organization.
b) Establish the Safety Action Group (SAG)
c) Establish Safety/SMSM coordination committee.
d) Define clear functions of the Safety Action Group (SAG) and the Safety/SMSM coordinationcommittee

e) Establish lines of communication between the safety services office, the Accountable Executive, the Safety Action Group (SAG) and the Safety/SMSM coordination committee
f) Appoint the Accountable Executive as the chairperson of the Safety/SMSM coordination committee
g) Develop a schedule of meetings for the safety services office to meet with the Safety/SMSM coordination committee and SAG as needed.

3) Coordination of the Emergency Response Plan - ERP Element 1.4

a) Review the outline of the ERP related to the delegation of authority and assignment of emergency responsibilities.
b) Establish coordination procedures for action by key personnel during the emergency and of return to normal operations.
c) Identify external entities that will interact with the organization during emergency situations.
d) Assess their respective ERPs.
e) Establish coordination between the different ERPs.
f) Incorporate the coordination among different ERPs in the organization's safety management systems documentation.

4) SMSM documentation - Element 1.5(ii)

Create a SMSM documentation system to describe, store, retrieve and archive all SMSM related information and records:

a) develop a SMSM Document -stand-alone manual or distinct section within an existing controlled organization manual.
b) establish a SMSM filing system to collect and maintain current records relating to the organization's on-going SMSM processes;
c) records to provide a historical reference as well as current status of all SMSM processes such as: hazards register; index of completed safety assessments, SMSM/ safety training records; current SPIs and associated safety objectives, internal SMSM audit reports, SMSM/ Safety Committee meeting minutes, SMSM implementation plan, etc.
d) records that will serve as evidence of the SMSM operation and activities during internal or external assessment or audit of the SMSM.

3.3. Phase 3 (19.51)

The objective of Phase III is to establish Safety risk management processes, Safety Coordinator will be ready to collect safety data and perform safety analyses based on information obtained through the various reporting systems.

1) Hazard identification - Element 2.1(i)

a) Establish a voluntary reporting procedure. Refer to Appendix 7 for guidance.
b) Establish program/ schedule for systematic HIRM performance/ review on all applicable aviation safety- related processes/ equipment.
c) Establish process for prioritizarion and assignment of identified hazards for risk mitigation

2) Safety Risk Assessment and Mitigation - Element 2.2

a) Establish safety risk management procedure, including their approval and periodic review process.
b) Develop and adopt safety risk matrices relevant to the organization's operational or production processes.
c) Adopted safety risk matrices and associated instructions should be included in the organization's SMSM or Risk management training materials.

3) Safety Performance Monitoring and Measurement - Element 3.1(i)

a) Establish internal occurrence reporting and investigation procedure. This may include mandatory or major defect reports (MDR) where applicable.
b) Establish safety data collection, processing and analysis for high consequence outcomes.
c) Establish high-consequence safety indicators (initial ALoSP) and their associated target and alert settings. Examples of high consequence safety indicators are such as accident rates, serious incident rates and monitoring of high risk non-compliance outcomes. Refer Appendix 6 for safety indicators guidance.
d) Agreement reached with the State oversight authority on safety performance indicators and safety performance targets.

4) The Management of Change - Element 3.2

a) Establish a formal process for the management of change that considers:
   - Vulnerability of systems and activities;
   - Stability of systems and operational environments;
   - Past performance.
   - Regulatory, industry and technological changes
b) Ensure management of change procedures do address impact on existing safety performance and risk mitigation records before implementing new changes.
c) Establish procedures to ensure that safety assessment of new aviation safety related operations, processes and equipment are conducted (or accounted for) as applicable, before they are commissioned

5) Continuous Improvement of the SMSM - Element 3.3(i)

a) Develop forms for internal evaluations.
b) Define an internal audit process.
c) Define an external audit process.
d) Define a schedule for evaluation of facilities, equipment, documentation and procedures, to be completed through audits and surveys.
e) Develop documentation relevant to operational safety assurance.

3.4. Phase 4 (19.51)

Phase IV is the final phase of the SMSM implementation. This phase continues the mature implementation of safety risk management and safety assurance. In this phase operational safety assurance is assessed through the implementation of periodic monitoring, feedback and continuous corrective action to maintain the effectiveness of safety risk controls.

1) Management Commitment and Responsibility - Element 1.1(iii)

- Enhance existing disciplinary procedure/ policy with due consideration of unintentional errors/ mistakes from deliberate/ gross violations

2) Hazard Identification - Element 2.1(ii)

- Integrate the hazards identified from occurrence investigation reports with the voluntary reporting system.
- Integrate hazard identification & risk management procedures with sub-contractor or customer SMSM where applicable.
- If necessary, develop process for prioritizing collected hazards for risk mitigation based on areas of greater need or concern. Refer Appendix 1 of chapter 1 for guidance.

3) Safety Performance Monitoring and Measurement - Element 3.1(ii)

- Enhance safety data collection & processing system to include lower consequence events;
- Establish lower consequence safety/ quality indicators with target/ alert levels monitoring as appropriate (mature ALoSP); and
- Agreement reached with the State oversight authority on lower consequence safety performance indicators and safety performance target/ alert levels.

4) Continuous Improvement of the SMSM - Element 3.3(ii)

- Establish or integrate SMSM audit into existing internal & external audit programs
- Establish other operational SMSM review/ survey programs where appropriate

5) Training and Education - Element 4.1(ii)

- Completed SMSM training program for all relevant personnel.

6) Safety Communication - Element 4.2(ii)

- Establish mechanism SMSM to promote safety information sharing and exchange internally and externally.

Note:
Within the phased approach implementation, there are 2 key elements that are progressively implemented through all the phases. These include SMSM documentation and State safety promotion through training and communication as follows:

- **SMSM documentation - Element 1.5**
  As the SMSM progressively matures the relevant SMSM manual and Safety documentation must be revised and updated according to these changes. This activity will be inherent to all phases of the SMSM implementation and must be maintained after the implementation as well.

- **SMSM Training, education and Safety communication - Element 4.1 and 4.2**
  As with SMSM documentation, Training, Education and Safety Communication are important ongoing activities through all the phases of SMSM implementation. As the SMSM evolves, new processes, procedures or regulations may come into effect or existing procedures may change to cater for the SMSM requirements. To ensure these changes are effectively understood and implemented by all personnel involved in safety-related duties it is vital that the training and communication mechanism remain as ongoing activities through and after the complete implementation of the SMSM.

Appendix O Emergency Response Checklist

EMERGENCY RESPONSE PLAN

REV 03 AUG 2020

GUIDELINES

- The Emergency Response Plan (ERP) is intended for use by Smart Aviation (PT.SMART CAKRAWALA AVIATION) only. As such, distribution other than to company employees and affiliated parties is prohibited. There are 7 pages in this document.
- It is the responsibility of the following employees to become familiar with this document to the extent of carrying out the actions contained within it if called upon to do so: Safety & Quality Manager, Operation Manager, Safety & Quality Officer, FOO, all Pilots, OCC and staff, as well as any and all other employees whose knowledge of this plan is deemed to be necessary for the safe operation of company aircraft.
- It is the responsibility of the OCC to periodically ensure the accuracy of the contact information contained in the ERP, and to send the updated version to the Safety & Quality Manager in Jakarta when edits have been carried out. Periodic practice and simulation of the ERP will ensure preparedness of company employees in case there is a need to carry it out. All simulations of the Emergency Response Plan should be documented.
- THE FIRST TRAINED EMPLOYEE to identify an aircraft in an Uncertainty, Alert or Distress phase, shall initiate the emergency response measures contained within this checklist. First action is to start a log and record the time, notify OCC to set up the Emergency Management Centre (EMC) and establish a Remote Emergency Management Centre (RERC) then carry out the instructions as per the Plan. Enlist the help of other employees, and DO NOT LEAVE YOURS STATION UNDER UNATTENDED.

PHASES

INCERFA	ALERTFA	DISTRESFA	ACCIDENT
Uncertainty Phase	Alert Phase 1/2	Distress Phase	Accident Phase

Activated by	
Date activated	
Time activated	
Location	

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INCERFA

UNCERTAINTY PHASE - INCERFA		
DO NOT LEAVE YOUR STATION UNATTENDED Log the time after each action is carried out		
RECORDTIME	you became aware of an INACTIVE aircraft (no landing message than 30 minutes after landing at ETA) or any QUICK POSITION message and establish urgency by analyzing the flight plan details.	☐
CONTACT CREW	/CONFIRM POSITION/STATUS of aircraft to establish if there is flight condition or if the message was sent in error. Use Spider Track message (Spider Text) capability or crews' mobile phone number. If contact is established and conditions NORMAL discontinue ERP. Otherwise, continue with the ERP.	☐
RECORD FLIGHT	including time, aircraft registration, departure airport,destination, passengers, last known altitude and speed, fuel on departure, last known position, ETD, ETE, ETA and crew names.	☐
CONFIRM STATUS	checking if the aircraft condition has changed.	☐
CONTACT OCC	to notify of the initiation of the UNCERTAINTITY PHASE.	☐
CONTACT BASE MANAGER	to notify of the initiation of the UNCERTAINTITY PHASE.	☐
CONTACT SAFETY & QUALITY MANAGER	to notify of the initiation of the ERP and ask for advice.	
OBTAIN ASSISTANCE	from other company employees nearby.	

COMMUNICATION NOT ESTABLISHED OR STATUS NOT VERIFIED (time limit of 30 minutes after last Spider Track position report)	ALERT PHASE 1
COMMUNICATION ESTABLISHED – OPS NORMAL	NOTIFY STATUS
COMMUNICATION ESTABLISHED AND ASSISTANCE REQUIRED	DISTRESS PHASE
CONFIRMATION OF CRASHED AIRCRAFT	ACCIDENT PHASE

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ALERT PHASE 1 –ALERFA

DO NOT LEAVE YOUR STATION UNATTENDED

Log the time after each action is carried out

Activate ALERT PHASE 1 if:

1) UNCERTAINTY PHASE failed to reveal any news, or;
2) Aircraft was cleared to land and does not land within 5 min of estimated time, or;
3) Information indicates operating condition of the aircraft is impaired. But not to the extent a forced landing is likely.

ALERTFA

RECORD TIME	and continue making entries in the log.	☐
ENSURE UNCERTAINTY CHECKLIST	and all required notification have been made to open lines of communication with OCC.	☐
ALERT OTHER ASSETS	contact other company aircraft in the area via Spider if they can establish contact with aircraft. Enlist the help of other employees nearby. Start listing assets on the ground.	☐
INFORM THE PRESIDENT DIRECTOR	of the current conditions and actions taken.	☐
INFORM THE OPERATION MANAGER	and obtain advice.	☐
DO NOT	communicate with anyone outside of the company advised to do so by the Director or the Operation Manager. Unless it is a contracted aircraft, and it is the client's procedure to be involved at this stage.	☐

COMMUNICATION NOT ESTABLISHED (time limit of 30 minutes after ALERT PHASE 1 activated)	ALERT PHASE 2
COMMUNICATION ESTABLISHED – OPS NORMAL	NOTIFY STATUS
COMMUNICATION ESTABLISHED AND ASSISTANCE REQUIRED	DISTRESS PHASE
CONFIRMATION OF CRASHED AIRCRAFT	ACCIDENT PHASE

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ALERT PHASE 2 –ALERFA

DO NOT LEAVE YOUR STATION UNATTENDED

Log the time after each action is carried out

Activate ALERT PHASE 2 if:

1) ALERT PHASE 1 failed to reveal any news, or;
2) Contacting Operation Manager/Base Manager/Safety Manager/ the OCC and other crews in the area did not ascertain the condition of the aircraft.

RECORD TIME and REQUEST AUTHORIZATION from Senior Management to contact other agencies and operators for assistance.	☐
CONFIRM STATUSof the aircraft has not changed and confirm GPS coordinates.	☐
ATTEMPT TO CONTACT THE CREW of the aircraft using Spider Track link or messaging. Try the personal mobile phone numbers of the crew.	☐
CALL DEPARTURE AERODROME and ask if they have any relevant information.	☐
CONTACT ARRIVAL AERODROME and ask if the aircraft has landed or is in contact on VHF radio.	☐
CONTACT ATC FACILITIES along the intended route and ask for last position report and any relevant information.	☐
CONTACT OTHER OPERATORS in the general area to ask if they have any aircraft in the area that may be able to establish contact.	☐
OBTAIN HELP from other employees nearby. Advise President Director, Operation Manager, Safety & Quality Manager and Chief Pilot. Ensure there is more than one phone available with known numbers and enough credit. If not, send for more.	☐
REQUEST presence of Senior Management to supervise the DISTRESS PHASE.	☐

COMMUNICATION NOT ESTABLISHED (time limit of 10 minutes after overdue/inactive or 10 minutes after next estimated departure)	DISTRESS PHASE
COMMUNICATION ESTABLISHED – OPS NORMAL	NOTIFY STATUS
COMMUNICATION ESTABLISHED AND ASSISTANCE REQUIRED	DISTRESS PHASE
CONFIRMATION OF CRASHED AIRCRAFT	ACCIDENT PHASE

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DISTRESS PHASE – DISTRESFA

DO NOT LEAVE YOUR STATION UNATTENDED

Log the time after each action is carried out

Activate DISTRESS PHASE if:

1) ALERT PHASE failed to reveal any news.
2) Fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety.
3) Information is received that the aircraft operation is impaired and a forced landing is likely.
4) Information is received, or it is reasonably certain that the aircraft is about to make, or has made a forced landing.

RECORD TIME and **REQUEST AUTHORIZATION** from Senior Management to charter a helicopter and/or use any Smart Aviation aircraft to fly to the last known GPS coordinates.	☐
SENIOR MANAGEMENT should ideally take charge of this phase. If not present, request an Estimate of their ETA.	☐
CONTACT BASE MANAGER/FOO and notify of the activation of the DISRESS PHASE. Stand-by aircraft is to be placed on alert and if single customer their representative is to be notified.	☐
ALERT SEARCH AND RESCUE and contact ATC for help and in coordinating the rescue operation.	☐
CONTACT OTHER OPERATORS AND OUR OWN to ask if aircraft in the area can monitor and provide last known GPS coordinates or approximate position.	☐
CONTACT MILITARY COMMAND in the area to enquire about possible assistance.	☐
CONTACT SENIOR MANAGEMENT including President Director, Safety & Quality Manager, Operation Manager & Chied Pilot, to provide a report of action taken.	☐

COMMUNICATION NOT ESTABLISHED continue coordinating Search	DISTRESS PHASE
COMMUNICATION ESTABLISHED – NO INJURIES	NOTIFY STATUS
COMMUNICATION ESTABLISHED AND ASSISTANCE REQUIRED continue coordinating Search and Rescue	DISTRESS PHASE
CONFIRMATION OF CRASHED AIRCRAFT	ACCIDENT PHASE

NOTES & TIMELINE

DISTRESFA

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ACCIDENT PHASE

DO NOT LEAVE YOUR STATION
UNATTENDED

Log the time after each action is carried out

Activate ACCIDENT PHASE if:

A) Crashed aircraft status confirmed.
B) Reports obtained of an ELT signal in the immediate area of the last known position of the aircraft.
C) Visual and/or communication confirming an off-field landing.
D) Instructed by Senior Management to proceed with the ACCIDENT PHASE.
E) Estimated onboard fuel is exhausted and the aircraft is not located at the destination, alternates or aerodromes surrounding the intended track.

SEND ALL MEDEVAC AIRCRAFT AND/OR OTHER COMPANY AIRCRAFT	☐
RECORD TIME	☐
ESTABLISH PRIORITY in locating aircraft and sending medical/rescue personnel to the site. The time window available to render assistance to injured occupants is limited.	☐
SENIOR MANAGEMENT PRESENT and have taken control of the ACCIDENT PHASE. If not ask for their presence and ask for advice.	☐
DIVIDE WORKLOAD among employees present. Ideally there should be enough people to liaise with all the agencies and participants of the ACCIDENT PHASE. Enlist as many employees as possible to help organize the Search and Rescue (SAR) party, preferably employees able to communicate in English and Bahasa Indonesia. Provide more than one contact number to agencies helping with SAR. Ensure adequate mobile phones are available.	☐
CONFIGURE THE PREMISES you are in to serve as temporary command center for the SAR operation. Delegate tasks and establish responsibilities amongst employees present.	☐
CONFIRM CONTACT with ATC, Military (TNI) and SAR (BASARNAS) has been established and all are advised of the current status and relevant information.	☐
CONTACT BASE MANAGER/FOO and request they charter a helicopter/aircraft to go to the last known GPS coordinates.	☐
ARRANGE for Medical to be onboard the helicopter/aircraft ; other medical facilities are on standby for survivors.	☐

NOTES & TIMELINE

ACCIDENT

PT SMART CAKRAWALA AVIATION			
EMERGENCY CONTACT LIST			
IMPORTANT CONTACTS			
Flight Following	OCC	Office	(62-21) 6305210
Rescue Coordination Center	BASARNAS	Office	(62-21) 65701116
Rescue Coordination Center	BASARNAS	Office	(62-21) 65867512
Rescue Coordination Center	BASARNAS	Office	(62-21) 65701152
DGCA	Main Number	Office	(62-21) 3505136
DGCA	Main Number	Office	(62-21) 3811308
DGCA	Main Number	Office	(62-21) 3505137
DGCA (POI)	Capt. Alfin	Mobile	(62) 81284711777
DGCA (PAI)	Ir.Yusis	Mobile	(62) 811854712
NTSC/KNKT (Chairman)	Dr. If. Soerjanto Tjahjono	Office	(62-21) 3847601
NTSC/KNKT (Chairman)	Dr. If. Soerjanto Tjahjono	Mobile	(62) 82124541197
NTSC/KNKT (Aircraft)	Ir. Masruri	Mobile	(62) 818330301
NTSC/KNKT (Aircraft)	Ir. Masruri	Mobile	(62) 81314683381
Rescue Coordination Center	BASARNAS PONTIANAK	Mobile	(62) 561-721234
NTSC/KNKT (Aircraft)	Ir. Masruri	Mobile	(62) 81314683381
Rescue Coordination Center	BASARNAS	Office	(62) 21 65701116
PRIMARYCONTACTS			
President Director	PONGKY MAJAYA	Mobile	082114137183
Safety & Quality Manager	SONIA ERLYN NASUTION	Mobile	085213313129
Operation Manager	CAPT. JAHRON A BURHANI	Mobile	08129681955
Chief Pilot Fixed Wing	CAPT.RAHAYU KUNTARDI	Mobile	081280451577
Chief Pilot Rotary Wing	CAPT. M. AGAH	Mobile	081229007000
Technical Manager	ANDREAS HERYANSYAH	Mobile	081373305372
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Revision No. : 03
August 2020

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