



CIVIL AVIATION REQUIREMENTS FOR SAFETY MANAGEMENT

CAR- 19



CIVIL AVIATION SAFETY REGULATION DIRECTORATE
CIVIL AVIATION AUTHORITY OF NEPAL

Second Edition
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Foreword

ICAO Annex-19, Safety Management System, which became applicable from 14 November 2013, has consolidated safety related provisions that were previously scattered in Annexes 1,6,8,11,13, and 14. As a Contracting State, CAR-19 has been issued by the Civil Aviation Authority of Nepal pursuant to Rule 81 of Civil Aviation Regulation 2052. The purpose of this CAR-19 is to implement the provision of the Annex-19 in managing aviation safety risks. Given the increasing complexity of the global air transportation system and its interrelated aviation activities required to assure the safe operation of aircraft, this 'Requirements' supports the continued evolution of a proactive strategy to improve safety performance.

With the publication of the second edition of Annex 19 adopting the amendment 1, the second edition of CAR 19, too, had to be incorporated. Hence, this edition has been issued including substantive amendments to the safety management provisions such as the integration of the eight CEs of the Safety Oversight system of CAAN with the SSP framework elements into a streamlined set of requirements to facilitate implementation of SSP. This edition also includes requirements that focus on enhancing legal safeguards intended to assure the appropriate use and protection of safety information, thereby facilitating its continued availability to support proactive safety improvement strategies. Definitions for safety data and safety information have also been developed to provide clarity to the scope of the provisions, thereby facilitating consistent application.

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ABBREVIATIONS

ADREP	Accident/incident data reporting
AIS	Aeronautical information services
ATS	Air traffic services
CAAN	Civil Aviation Authority of Nepal
CAR	Civil Aviation Requirement
CASRD	Civil Aviation Safety Regulation Directorate
CE	Critical Element
CNS	Communications, navigation and surveillance
CVR	Cockpit voice recorder
Doc.	Document
FOR	Flight Operation Requirements
GA	General Aviation
MET	Meteorological services
MoCTCA	Ministry of Culture, Tourism and Civil Aviation
NCAR	Nepalese Civil Airworthiness Requirements
PANS	Procedures for Air Navigation Services
SAR	Search and rescue
SARPs	Standards and Recommended Practices
SDCPS	Safety data collection and processing systems
SMM	Safety management manual
SMP	Safety management panel
SMS	Safety management system
SSO	Safety Oversight Organization
SSP	State safety programme

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CHAPTER 1

DEFINITIONS

When the following terms are used in this 'Requirements', they have the following meanings:

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of:

- being in the aircraft, or
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- direct exposure to jet blast,

Except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) the aircraft sustains damage or structural failure which:

- adversely affects the structural strength, performance or flight characteristics of the aircraft, and
- would normally require major repair or replacement of the affected component, *except* for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

c) the aircraft is missing or is completely inaccessible.

Note 1.— *For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.*

Note 2.— *An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.*

Note 3.— *The type of unmanned aircraft system to be investigated is addressed in 5.1 of Annex 13.*

Note 4.— Guidance for the determination of aircraft damage can be found in Attachment E of Annex 13.

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

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

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

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

Note.— The types of incidents which are of interest for safety-related studies include the incidents listed in ICAO Annex 13, Attachment C.

Industry codes of practice. Guidance material developed by an industry body, for a particular sector of the aviation industry to comply with the requirements of the International Civil Aviation Organization's Standards and Recommended Practices, other aviation safety requirements and the best practices deemed appropriate.

Operational personnel. Personnel involved in aviation activities who are in a position to report safety information.

Note.— Such personnel include, but are not limited to: flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; personnel of aircraft design and manufacturing organizations; cabin crews; flight dispatchers, apron personnel and ground handling personnel.

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

Safety data. A defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety.

Note.— Such safety data is collected from proactive or reactive safety-related activities, including but not limited to:

- a) accident or incident investigations;
- b) safety reporting;
- c) continuing airworthiness reporting;
- d) operational performance monitoring;
- e) inspections, audits, surveys; or
- f) safety studies and reviews.

Safety information. Safety data processed, organized or analysed in a given context so as to make it useful for safety management purposes.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

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

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

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

Safety performance target. The planned or intended objective for safety performance indicator(s) over a given period.

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

Serious injury. An injury which is sustained by a person in an accident and which:

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- f) involves verified exposure to infectious substances or injurious radiation.

State of Design. The State having jurisdiction over the organization responsible for the type design.

State of Manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

State of the Operator. The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

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

Surveillance. The State activities through which the State proactively verifies through *inspections* and audits that aviation license, certificate, authorization or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State.

CHAPTER 2

APPLICABILITY

The provisions contained in this Requirement shall be applicable to safety management functions related to, or in direct support of, the safe operation of aircraft.

Note 1.— Safety management provisions of CAAN are contained in Chapter 3 and relate to the State Safety Programme, Nepal.

Note 2.— Within the context of this Annex, the term “service provider” refers to those organizations listed in Chapter 3, 3.3.2.1 and does not include international general aviation operators.

Note 3.— Safety management provisions for specified aviation service providers and operators are in Chapter 4 and relate to safety management systems (SMSs).

Note 4.— No provision of this Requirement is intended to transfer to the State the responsibilities of the aviation service provider or operator. This includes functions related to, or in direct support of, the safe operation of aircraft.

Note 5.— In the context of this Requirement, “responsibility” (singular) refers to “State responsibility” with respect to international obligations under the Convention on International Civil Aviation, while “responsibilities” (plural) has been given its ordinary meaning (i.e., when referring to functions and activities that may be delegated).

CHAPTER 3

STATE SAFETY MANAGEMENT RESPONSIBILITIES

Note 1.— The State safety oversight (SSO) system critical elements (CEs) found in Appendix 1 constitute the foundation of SSP.

Note 2.— Safety management system provisions pertaining to specific types of aviation activities are addressed in the relevant CAR of CAAN.

Note 3.— Basic safety management principles applicable to the medical assessment process of license holders are contained in PELR of CAAN and CAAN Medical Requirements, 4th Edition, 2016.

3.1 State Safety Programme (SSP)

CAAN shall establish and maintain an SSP for the management of safety in Nepal that is commensurate with the size and complexity of the Nepal's civil aviation system.

Note 1: CAAN retains the responsibility for safety management- related functions and activities delegated to another State, RSOO or RAIO.

Note 2.—Guidance on an SSP related functions and activities are contained in the Safety Management Manual (SMM) (Doc 9859).

3.2 State safety policy, objective and resources

3.2.1 Primary aviation legislation

3.2.1.1 The Government of Nepal shall establish primary aviation legislation in accordance with section 1 of Appendix 1.

3.2.1.2 CAAN shall establish an enforcement policy that specifies the conditions and circumstances under which service providers with an SMS are allowed to deal with, and resolve, events involving certain safety issues, internally, within the context of their SMS and to the satisfaction of the CAAN.

3.2.2 Specific operating regulations

3.2.2.1 CAAN shall establish specific operating regulations in accordance with section 2 of Appendix 1.

3.2.2.2 CAAN shall periodically review specific operating regulations, guidance material and implementation policies to ensure they remain relevant and appropriate.

3.2.3 State system and functions

3.2.3.1 CAAN shall establish State system and functions in accordance with section 3 of Appendix 1.

3.2.3.2 CAAN shall identify, define and document the requirements, obligations, functions and activities regarding the establishment and maintenance of the SSP, including the directives to plan, organize, develop, maintain, control and continuously improve the SSP in a manner that meets the Nepal's safety objectives.

3.2.3.3 CAAN shall establish a safety policy and safety objectives that reflect Nepal's commitment regarding safety and facilitate the promotion of a positive safety culture in the aviation community.

3.2.3.4 The safety policy and safety objectives shall be published and periodically reviewed to ensure that they remain relevant and appropriate to the State.

3.2.4 Qualified technical personnel

CAAN shall establish requirements for the qualification of technical personnel in accordance with section 4 of Appendix 1.

Note. - The term "technical personnel" refers to those persons performing safety-related functions for or on behalf of the CAAN.

3.2.5 Technical guidance, tools and provision of safety-critical information

CAAN shall establish technical guidance and tools and provide safety-critical information in accordance with section 5 of Appendix 1.

3.3 State safety risk management

3.3.1 Licensing, certification, authorization and approval obligations

CAAN shall meet the licensing, certification, authorization and approval obligations in accordance with section 6 of Appendix 1.

3.3.2 Safety management system obligations

3.3.2.1 CAAN shall require that the following service providers under its authority implement an SMS:

a) approved training organizations in accordance with PELR CAAN that are exposed to safety risks related to aircraft operations during the provision of their services;

- b) operators of aeroplanes or helicopters authorized to conduct commercial air transport, in accordance with Flight Operations Requirement (Aeroplane) or Flight Operations Requirement (Helicopters), respectively;

Note.— When maintenance activities are not conducted by an approved maintenance organization in accordance with FOR A 8.7, but under an equivalent system as in FOR A, 8.1.2, or FOR H, Section II, 6.1.2, they are included in the scope of the operator’s SMS.

- c) approved maintenance organizations providing services to operators of aeroplanes or helicopters engaged in commercial air transport, in accordance with Flight Operations Requirement (Aeroplane) or Flight Operations Requirement (Helicopters) respectively;

- d) organizations responsible for the type design or manufacture of aircraft, in accordance with NCAR;

- e) air traffic services (ATS) providers in accordance with CAR 11; and

- f) operators of certified aerodromes in accordance with CAR 14.

Note.— Further provisions related to the implementation of SMS by service providers can be found in Chapter 4.

3.3.2.2 CAAN shall ensure that safety performance indicators and targets established by the service providers are acceptable to CAAN.

Note.— Guidance on the identification of appropriate safety performance indicators and targets is contained in the ICAO’s Safety Management Manual (Doc 9859) and Safety Management System Implementation Guidance Material, CAAN.

3.3.2.3 All international general aviation operators of large or turbojet aeroplanes in accordance with FOR, General Aviation shall comply with criteria established by CAAN to implement an SMS.

Note.— Further provisions related to the implementation of SMS by general aviation operators can be found in Chapter 4.

3.3.2.4 Such criteria established by the CAAN in accordance with 3.3.2.3 shall be implemented by all international general aviation operators to address the SMS framework and elements contained in Appendix 2.

Note.— Guidance on establishing the criteria to implement an SMS for general aviation operators is contained in the FOR GA Section 3.

3.3.3 Accident and incident investigation

In support of the management of safety in Nepal, any accident and incident shall be investigated, as part of independent accident investigation, following an established procedure as mentioned in Civil Aviation (Accident Investigation) Regulation 2071.

3.3.4 Hazard identification and safety risk assessment

3.3.4.1 CAAN shall establish and maintain a process to identify hazards from collected safety data.

Note 1. — Further information regarding safety data collection, analysis and the sharing and exchange of safety information can be found in Chapter 5.

Note 2. — Additional information to identify hazards and safety issues on which to base preventive actions may be contained in the Final Reports of accidents and incidents.

3.3.4.2 CAAN shall develop and maintain a process that ensures the assessment of safety risks associated with identified hazards.

3.3.5 Management of safety risks

3.3.5.1 CAAN shall establish mechanisms for the resolution of safety issues in accordance with section 8 in Appendix 1.

3.3.5.2 CAAN shall develop and maintain a process to manage safety risks.

Note 1. — Actions taken to manage safety risks may include: acceptance, mitigation, avoidance or transfer.

Note 2. — Safety risks and safety issues often have underlying factors which need to be carefully assessed.

3.4 State safety assurance

3.4.1 Surveillance obligations

3.4.1.1 CAAN shall meet the surveillance obligations in accordance with section 7 of Appendix 1.

Note. — The surveillance of the service provider takes into consideration the safety performance as well as the size and complexity of its aviation products or services.

3.4.1.2 CAAN shall establish procedures to prioritize inspections, audits and surveys towards those areas of greater safety concern or need.

Note. — Organizational risk profiles, outcomes of hazard identification and risk assessment, and surveillance outcomes may provide information for the prioritization of inspections, audits and surveys.

3.4.1.3 CAAN shall periodically review the safety performance of an individual service provider.

3.4.2 State safety performance

3.4.2.1 CAAN shall establish the acceptable level of safety performance to be achieved through the SSP.

Note 1.— An acceptable level of safety performance for the State can be achieved through the implementation and maintenance of the SSP as well as safety performance indicators and targets showing that safety is effectively managed and built on the foundation of implementation of existing safety-related requirements.

Note 2.— Guidance on establishing safety performance indicators and targets, as well as an acceptable level of safety performance, is contained in the ICAO Safety Management Manual (SMM) (Doc 9859) and SMS Implementation Guidance Material, CAAN.

3.4.2.2 CAAN shall develop and maintain a process to evaluate the effectiveness of actions taken to manage safety risks and resolve safety issues.

Note.— Safety assessment results may be used to support the prioritization of actions to manage safety risks.

3.4.2.3 CAAN shall evaluate the effectiveness of the SSP to maintain or continuously improve the overall level of state safety performance.

3.5 State safety promotion

3.5.1 Internal communication and dissemination of safety information

3.5.1.2 CAAN shall promote safety awareness and the sharing and exchange of safety information to support, within the Nepali aviation organizations, the development of a positive safety culture that fosters an effective SSP.

3.5.2 External communication and dissemination of safety information

3.5.3 CAAN shall promote safety awareness and the sharing and exchange of safety information with the aviation community to foster the maintenance and improvement of safety and to support the development of a positive safety culture.

Note 1.— Refer to Chapter 5, 5.4, for further details regarding safety information sharing and exchange.

Note 2.— Promoting safety awareness could include identifying accessible safety training for the aviation community.

CHAPTER 4

SAFETY MANAGEMENT SYSTEM (SMS)

Note 1.— Guidance on implementation of an SMS is contained in the Safety Management System (ICAO Doc. 9859) and SMS Implementation Guidance Manual, CAAN.

Note 2.— An organization may elect to extend one SMS across multiple service provider activities.

4.1 General

4.1.1 The SMS of a service provider shall:

- a) be established in accordance with the framework elements contained in Appendix 2; and
- b) be commensurate with the size of the service provider and the complexity of its aviation products or services.

4.1.2 CAAN shall ensure that the service provider develops a plan to facilitate SMS implementation.

4.1.3 The SMS of an approved training organization, in accordance with Personnel Licensing Requirement, that is exposed to safety risks related to aircraft operations during the provision of its services shall be made acceptable to the CAAN.

4.1.4 The SMS of a certified operator of aeroplanes or helicopters authorized to conduct commercial air transport, in accordance with Flight Operations Requirement (Aeroplane) or Flight Operations Requirement (Helicopters), respectively, shall be made acceptable to the CAAN.

Note.— When maintenance activities are not conducted by an approved maintenance organization in accordance with NACR chapter D.1 or NCAR 145, but under an equivalent system as in NCAR part M, they are included in the scope of the operator's SMS.

4.1.5 The SMS of an approved maintenance organization providing services to operators of aeroplanes or helicopters engaged in commercial air transport, in accordance with FOR A and H, Section II, respectively, shall be made acceptable to the CAAN.

4.1.6 The SMS of an organization responsible for the type design of aircraft, in accordance with NCAR, shall be made acceptable to CAAN.

4.1.7 The SMS of an organization responsible for the manufacture of aircraft, in accordance with NCAR, shall be made acceptable to CAAN.

4.1.8 The SMS of an ATS provider, in accordance with CAR 11, shall be made acceptable to the CAAN.

4.1.9 The SMS of an operator of a certified aerodrome, in accordance with CAR 14, shall be made acceptable to the CAAN.

4.2 International General aviation — Aeroplanes

Reserved

CHAPTER 5

SAFETY DATA AND SAFETY INFORMATION COLLECTION, ANALYSIS, PROTECTION, SHARING AND EXCHANGE

Note.— *The objective of this chapter is to ensure the continued availability of safety data and safety information to support safety management activities.*

5.1 Safety data collection and processing systems

5.1.1 Safety data collection and processing systems (SDCPS) shall be established to capture, store, aggregate and enable the analysis of safety data and safety information.

Note 1.— *SDCPS refers to processing and reporting systems, safety databases, schemes for exchange of information, and recorded information including but not limited to:*

- a) data and information pertaining to accident and incident investigations;*
- b) data and information related to safety investigations by MoCTCA or CAAN or aviation service providers;*
- c) mandatory safety reporting systems as indicated in 5.1.2;*
- d) voluntary safety reporting systems as indicated in 5.1.3; and*
- e) self-disclosure reporting systems, including automatic data capture systems, as described in Flight Operation Requirements-Aeroplane, as well as manual data capture systems.*

Note 2.— *Guidance related to SDCPS is contained in the Safety Management Manual (ICAO Doc. 9859), Safety Occurrence Reporting Procedure (Directive Number CASRD 01/2016) and SMS Implementation Guidance Material, CAAN.*

Note 3.— *The term “safety database” may refer to a single or multiple database(s).*

Note 4.— *SDCPS may include inputs from State, industry and public sources, and may be based on reactive and proactive methods of safety data and safety information collection.*

Note 5.— *Sector-specific safety reporting provisions are contained in other CARs, Manuals and Directives. There is a recognized benefit to the effective implementation of an SSP in having an integrated approach for the collection and analysis of the safety data and safety information from all sources.*

5.1.2 Service providers shall report the incidents to CAAN in accordance with mandatory safety reporting system.

5.1.3 Service Providers shall report to CAAN as a part of voluntary safety reporting system in order to enable CAAN to collect safety data and safety information not captured by mandatory safety reporting systems.

5.1.4 CAAN, MOCTCA and DHM are responsible for the implementation of the SSP and all such agencies shall have access to the SDCPS as referenced in 5.1.1 to support their safety responsibilities, in accordance with the principles in Appendix 3. CAAN will be the custodian of SDCPS

5.1.5 The safety database shall use standardized taxonomy to facilitate safety information sharing and exchange.

5.2 Safety data and safety information analysis

5.2.1 CAAN shall establish and maintain a process to analyse the safety data and safety information from the SDCPS and associated safety databases.

Note 1.— Specific State provisions for the identification of hazards as part of their safety risk management and safety assurance processes can be found in Chapter 3.

Note 2.— The purpose of the safety data and safety information analysis performed by the CAAN is to identify systemic and cross-cutting hazards that might not otherwise be identified by the safety data analysis processes of individual service providers and operators.

Note 3.— The process may include predictive methods of safety data analysis.

5.3 Safety data and safety information protection

5.3.1 CAAN shall accord protection to safety data captured by, and safety information derived from, voluntary safety reporting systems and related sources in accordance with Appendix 3.

Note.— Sources include individuals and organizations.

5.3.2 CAAN shall extend the protection referred to in 5.3.1 to safety data captured by, and safety information derived from, mandatory safety reporting system and related sources.

Note 1.— A reporting environment where employees and operational personnel may trust that their actions or omissions that are commensurate with their training and experience will not be punished is fundamental to safety reporting.

Note 2.— Guidance related to both mandatory and voluntary safety reporting systems is contained in the Safety Management Manual (SMM) (Doc 9859) and Safety Occurrence Reporting Procedure (CAAN Directive No. CASRD 01/2016), SMS Implementation Guidance Material, CAAN.

5.3.3 Subject to 5.3.1 and 5.3.2, CAAN shall not make available or use safety data or safety information collected, stored or analysed in accordance with 5.1 or 5.2 for purposes other than maintaining or improving safety, unless the competent authority determines, in accordance with Appendix 3, that a principle of exception applies.

5.3.4 Notwithstanding 5.3.3, CAAN shall not be prevented from using safety data or safety information to take any preventive, corrective or remedial action that is necessary to maintain or improve aviation safety.

Note.— Specific provision aimed at ensuring that there is no overlap with the protection of investigation records in Annex 13 is contained in Appendix 3, 1.2.

5.3.5 CAAN shall take necessary measures, including the promotion of a positive safety culture, to encourage safety reporting through the systems referred to in 5.1.2 and 5.1.3.

Note.— Guidance related to positive safety culture is contained in the Safety Management Manual (SMM) (Doc 9859.) and CAAN's SMS Implementation Guidance Material, CAAN.

5.3.6 CAAN shall facilitate and promote safety reporting by adjusting the applicable laws, regulations and policies, as necessary.

5.3.7 In support of the determination referred to in 5.3.3, CAAN shall institute and make use of appropriate advance arrangements between the safety oversight departments, Safety Management Division and the Civil Aviation Safety Regulation Directorate as a whole so that proper incorporation of justice can be ensured. Such arrangements should take into account the principles specified in Appendix 3.

Note.— These arrangements may be formalized through legislation, protocols, agreements or memoranda of understanding.

5.4 Safety information sharing and exchange

Note.— Sharing refers to giving, while exchange refers to giving and receiving in return.

5.4.1 If CAAN, in the analysis of the information contained in its SDCPS, identifies safety matters considered to be of interest to other States, it shall forward such safety information to them as soon as possible. Prior to sharing such information, states to be shared information shall agree on the level of protection and conditions on which safety information will be shared. The level of protection and conditions shall be in line with Appendix 3.

5.4.2 CAAN shall promote the establishment of safety information sharing or exchange networks among users of the aviation system, and facilitate the sharing and exchange of safety information, unless Nepalese law provides otherwise.

Note.— Information on the sharing of safety information can be found in the ICAO Code of Conduct on the Sharing and Use of Safety Information in the Global Aviation Safety Plan (Doc 10004).

APPENDIX 1

STATE SAFETY OVERSIGHT (SSO) SYSTEM CRITICAL ELEMENTS (CEs)

(See Chapter 3)

Note 1.— Guidance on the critical elements (CEs) of a system that enables Nepal to discharge its responsibility for safety oversight is contained in the Safety Oversight Manual, Part A, The Establishment and Management of a State’s Safety Oversight System (Doc 9734).

Note 2.— The term “relevant authorities or agencies” is used in a generic sense to include all authorities with aviation safety management and oversight responsibility established under Civil Aviation Safety Regulation Directorate including ANS Safety Standards Department, Aerodrome Safety Standards Department, Flight Safety Standards Department, Safety Management Division together with MoCTCA (Accident Investigation Authority), and Department of Hydrology and Meteorology (Conducting oversight on behalf of CAAN).

Note 3.— The SSO system CEs are applied, as appropriate, to CAAN performing safety oversight functions as well as MoCTCA performing investigation of accidents and incidents.

Note 4.— See Appendix 5 to FOR Aeroplane, and Appendix 1 to FOR Helicopters, for provisions specific to the safety oversight of air operators.

1. Primary aviation legislation (CE-1)

1.1 There shall be a comprehensive and effective aviation law, consistent with the size and complexity of the Nepal’s aviation activity and with the requirements contained in the Convention on International Civil Aviation.

Note.— This includes ensuring that the aviation law remains relevant and appropriate to the CAAN.

1.2 The aviation law shall provide the personnel performing safety oversight functions access to the aircraft, operations, facilities, personnel and associated records, as applicable, of service providers.

2. Specific operating regulations (CE-2)

There shall be regulations to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation.

Note.— The term “regulations” is used in a generic sense and includes but is not limited to instructions, rules, edicts, directives, sets of laws, requirements, policies and orders.

3. State system and functions (CE-3)

3.1 There shall be relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources. Each of such authority or agency has stated safety functions and objectives to fulfill its safety management responsibilities.

3.2 CAAN shall have safety functions and objectives stated to fulfil its safety management responsibility.

Note.— This includes the participation of the other organizations in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities and relationships of such organizations.

3.3 The personnel performing safety oversight functions shall be provided with guidance that addresses ethics, personal conduct and the avoidance of actual or perceived conflicts of interest in the performance of official duties.

3.4 CAAN shall ensure that personnel performing safety oversight functions are provided with guidance that addresses ethics, personal conduct and the avoidance of actual or perceived conflicts of interest in the performance of official duties.

3.5 CAAN shall use a methodology to determine their staffing requirements for personnel performing safety oversight functions, taking into account the size and complexity of the aviation activities in Nepal.

4. Qualified technical personnel (CE-4)

4.1 Minimum qualification requirements shall be established for the technical personnel performing safety oversight functions and has provided for appropriate initial and recurrent training shall be provided to maintain and enhance their competence at the desired level.

4.2 The system for the maintenance of training records shall be implemented.

5. Technical guidance, tools and provision of safety-critical information (CE-5)

5.1 There shall be appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety-critical information, tools and equipment, and transportation means, as applicable, to the technical personnel to enable them to perform their safety oversight functions effectively and in accordance with established procedures in a standardized manner.

5.2 Technical guidance shall be provided to the aviation industry on the implementation of relevant regulations.

6. Licensing, certification, authorization and/or approval obligations (CE-6)

There shall be documented processes and procedures to ensure that personnel and organizations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a license, certificate, authorization and/or approval to conduct the relevant aviation activity.

7. Surveillance obligations (CE-7)

Documented surveillance processes shall be implemented, by defining and planning inspections, audits, and monitoring activities on a continuous basis, to proactively assure that aviation license, certificate, authorization and/or approval holders continue to meet the established requirements. This includes the surveillance of personnel designated by the CAAN to perform safety oversight functions on its behalf.

8. Resolution of safety issues (CE-8)

8.1 A documented process shall be used to take appropriate corrective actions, up to and including enforcement measures, to resolve identified safety issues.

8.2 It shall be ensured that identified safety issues are resolved in a timely manner through a system which monitors and records progress, including actions taken by service providers in resolving such issues.

APPENDIX 2

FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)

(See Chapter 4, 4.1.1)

Note 1.—Guidance on the implementation of the framework for an SMS is contained in the Safety Management Manual (SMM) (Doc 9859) and CAAN’s SMS Implementation Guidance Material.

Note 2.— The service provider’s interfaces with other organizations can make a significant contribution to the safety of its products or services. Guidance on interface management as it relates to SMS is provided in the Safety Management Manual (SMM) (Doc 9859) and CAAN’s SMS Implementation Guidance Material.

Note 3.— In the context of this appendix as it relates to service providers, an “accountability” refers to an “obligation” that may not be delegated, and “responsibilities” refers to functions and activities that may be delegated.

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

1. Safety policy and objectives

- 1.1 Management commitment
- 1.2 Safety accountability and responsibilities
- 1.3 Appointment of key safety personnel
- 1.4 Coordination of emergency response planning
- 1.5 SMS documentation

2. Safety risk management

- 2.1 Hazard identification
- 2.2 Safety risk assessment and mitigation

3. Safety assurance

- 3.1 Safety performance monitoring and measurement
- 3.2 The management of change
- 3.3 Continuous improvement of the SMS

4. Safety promotion

- 4.1 Training and education
- 4.2 Safety communication

1. Safety policy and objectives

1.1 Management commitment

1.1.1 The service provider shall define its safety policy in accordance with international and national requirements. The safety policy shall:

- a) reflect organizational commitment regarding safety, including the promotion of a positive safety culture;
- b) include a clear statement about the provision of the necessary resources for the implementation of the safety policy;
- c) include safety reporting procedures;
- d) clearly indicate which types of behaviours are unacceptable related to the service provider's aviation activities and include the circumstances under which disciplinary action would not apply;
- e) be signed by the accountable executive of the organization;
- f) be communicated, with visible endorsement, throughout the organization; and
- g) be periodically reviewed to ensure it remains relevant and appropriate to the service provider.

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

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

Note.— Guidance on setting safety objectives is provided in the Safety Management Manual (SMM) (Doc 9859) and *CAAN's SMS Implementation Guidance Material*.

1.2 Safety accountability and responsibilities

The service provider shall:

- a) identify the accountable executive who, irrespective of other functions, is accountable on behalf of the organization for the implementation and maintenance of an effective SMS;
- b) clearly define lines of safety accountability throughout the organization, including a direct accountability for safety on the part of senior management;
- c) identify the responsibilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the organization;
- d) document and communicate safety accountability, responsibilities and authorities throughout the organization; and
- e) define the levels of management with authority to make decisions regarding safety risk tolerability.

1.3 Appointment of key safety personnel

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

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

1.4 Coordination of emergency response planning

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

1.5 SMS documentation

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

- a) safety policy and objectives;

- b) SMS requirements;
- c) SMS processes and procedures; and
- d) accountability, responsibilities and authorities for SMS processes and procedures.

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

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

2. Safety risk management

2.1 Hazard identification

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

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

2.2 Safety risk assessment and mitigation

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

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

3. Safety assurance

3.1 Safety performance monitoring and measurement

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

Note.— An internal audit process is one means to monitor compliance with safety regulations, the foundation upon which SMS is built, and assess the effectiveness of these safety risk controls and the SMS. Guidance on the scope of the internal audit process is contained in the Safety Management Manual (SMM) (Doc 9859).

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

3.2 The management of change

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

3.3 Continuous improvement of the SMS

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

4. Safety promotion

4.1 Training and education

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

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

4.2 Safety communication

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

- a) ensures personnel are aware of the SMS to a degree commensurate with their positions;
 - b) conveys safety-critical information;
 - c) explains why particular actions are taken to improve safety; and
 - d) explains why safety procedures are introduced or changed.
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APPENDIX 3

PRINCIPLES FOR THE PROTECTION OF SAFETY DATA, SAFETY INFORMATION AND RELATED SOURCES.

(See Chapter 5, 5.3)

Note 1.— The protection of safety data, safety information and related sources is essential to ensure their continued availability, since the use of safety data and safety information for purposes other than maintaining or improving safety may inhibit the future availability of such data and information, with a significant adverse effect on safety.

Note 2.— The principles contained in this appendix are aimed at assisting Nepal to enact and adopt national laws, regulations and policies to protect safety data and safety information gathered from safety data collection and processing systems (SDCPS), as well as related sources, while allowing for the proper administration of justice and necessary actions for maintaining or improving aviation safety.

Note 3.— The objective is to ensure the continued availability of safety data and safety information by restricting their use for purposes other than maintaining or improving aviation safety.

1. General principles

1.1 CAAN shall, through national laws, regulations and policies protecting safety data, safety information and related sources, ensure that:

- a) a balance is struck between the need for the protection of safety data, safety information and related sources to maintain or improve aviation safety, and the need for the proper administration of justice;
- b) safety data, safety information and related sources are protected in accordance with this appendix;
- c) the conditions under which safety data, safety information and related sources qualify for protection are specified; and
- d) safety data and safety information remain available for the purpose of maintaining or improving aviation safety.

Note.— The protection of safety data, safety information and related sources is not intended to interfere with the proper administration of justice or with maintaining or improving safety.

1.2 When an investigation under Annex 13 has been instituted, accident and incident investigation records listed in 5.12 of Annex 13 shall be subject to the protections accorded therein instead of the protections accorded by this Annex.

2. Principles of protection

2.1 CAAN shall ensure that safety data or safety information is not used for:

- a) disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organizations;
- b) disclosure to the public; or
- c) any purposes other than maintaining or improving safety;

unless a principle of exception applies.

2.2 CAAN shall accord protection to safety data, safety information and related sources by ensuring that:

- a) the protection is specified based on the nature of safety data and safety information;
- b) a formal procedure to provide protection to safety data, safety information and related sources is established;
- c) safety data and safety information will not be used in a way different from the purposes for which they were collected, unless a principle of exception applies; and
- d) to the extent that a principle of exception applies, the use of safety data and safety information in disciplinary, civil, administrative and criminal proceedings will be carried out only under authoritative safeguards.

Note 1.— The formal procedure may include that any person seeking disclosure of safety data or safety information will provide the justification for its release.

Note 2.— Authoritative safeguards include legal limitations or restrictions such as protective orders, closed proceedings, in-camera review, and de-identification of data for the use or disclosure of safety information in judicial or administrative proceedings.

3. Principles of exception

Exceptions to the protection of safety data, safety information and related sources shall only be granted when the CAAN:

- a) determines that there are facts and circumstances reasonably indicating that the occurrence may have been caused by an act or omission considered, in accordance with national laws, to be conduct constituting gross negligence, willful misconduct or criminal activity;
- b) after reviewing the safety data or safety information, determines that its release is necessary for the proper administration of justice, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information; or
- c) after reviewing the safety data or safety information, determines that its release is necessary for maintaining or improving safety, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information.

Note 1.— In administering the decision, the CAAN takes into account the consent of the source of the safety data and safety information.

Note 2.— Different competent authorities may be designated for different circumstances. The competent authority could include, but is not limited to, judicial authorities or those otherwise entrusted with aviation responsibilities designated in accordance with Nepali Law.

4. Public disclosure

4.1 Since Nepal has right-to-know law, CAAN shall, in the context of requests made for public disclosure, create exceptions from public disclosure to ensure the continued confidentiality of voluntarily supplied safety data and safety information.

Note.— Laws, regulations and policies commonly referred to as right-to-know laws (freedom-of-information, open records, or sunshine laws) allow for public access to information held by CAAN.

4.2 Where disclosure is made in accordance with section 3, Nepal shall ensure that:

- a) public disclosure of relevant personal information included in the safety data or safety information complies with applicable privacy laws; or
- b) public disclosure of the safety data or safety information is made in a de-identified, summarized or aggregate form.

5. Responsibility of the custodian of safety data and safety information

CAAN shall ensure that each SDCPS has a designated custodian to apply the protection to safety data and safety information in accordance with applicable provisions of this appendix.

Note.— The “custodian” may refer to an individual or organization.

6. Protection of recorded data

Note 1.— Ambient workplace recordings required by national laws, for example, cockpit voice recorders (CVRs) or recordings of background communication and the aural environment at air traffic controller work stations, may be perceived as constituting an invasion of privacy for operational personnel that other professions are not exposed to.

Note 2.— Provisions on the protection of flight recorder recordings and recordings from air traffic control units during investigations instituted under Annex 13 are contained therein. Provisions on the protection of flight recorder recordings during normal operations are contained in FOR.

6.1 CAAN shall, through national laws and regulations, provide specific measures of protection regarding the confidentiality and access by the public to ambient workplace recordings.

6.2 CAAN shall, through national laws and regulations, treat ambient workplace recordings required by national laws and regulations as privileged protected data subject to the principles of protection and exception as provided for in this appendix

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