UCAA Aviation Safety Handbook 2020

Edition 1: Safety Responsibilities and/or Accountabilities.

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1.0 CHAPTER ONE: INTRODUCTION

1.1 Preface

Kahn et al. (1964) as cited by Srikanth et al. (2013) defined **role ambiguity** as the lack of information to perform one's responsibilities effectively i.e. the employee does not have some or all the necessary information assigning to them and guiding them to perform the job responsibilities/tasks effectively. The employee may not be aware of all or some of their responsibilities and/or totally or partially not know how to execute their responsibilities.

Employees experience anxiety and end up being less productive whenever they are faced with tasks which are not clearly defined or ambiguous according to Cohen (1959) as sighted by Srikanth et al (2013). Ambiguity may also arise out an employee attempting to attend to a task which is quite beyond their ability to comprehend and/or not familiar with usually common with job-tasks that require on-job training, internship, experience besides the classroom instruction.

UCAA has established SMS departments to coordinate the implementation, operation and maintenance of Safety Management Systems (SMS) within the Directorate of Air Navigation Services (DANS) and Directorate of Airports and Aviation Security (DAAS) as required by the Civil Aviation (Safety Management) Regulations as per the State Safety Program.

UCAA has further appointed key safety personnel and defined their safety responsibilities and accountabilities in compliance with the Uganda Civil Aviation (Safety Management) Regulations.

However, effective and successful implementation, operation and maintenance of the safety management systems in DAAS and DANS requires the active participation of all UCAA staff at their different levels and areas of operation. The active participation of all UCAA staff to achieve an effective SMS is greatly enhanced by presence of clearly defined safety responsibilities/accountabilities.

This first edition of the UCAA Safety handbook is an attempt to provide a detailed and clear description of the safety responsibilities and/or accountabilities of all UCAA staff at their different levels and operational areas to enable them participate actively and productively in the operation and maintenance of the SMS.

The first edition of UCAA safety hand book has been prepared to address safety role ambiguities due lack of or unclear safety responsibilities/accountabilities consequently enhancing performance of safety responsibilities by all UCAA staff.

1.2 Acknowledgements

1.3   GLOBAL AVIATION SAFETY VISION, MISSION AND GOALS FOR PERIOD 2020 – 2022.

Vision: Is to achieve and maintain the aspirational safety *goal of zero fatalities in commercial operations by 2030 and beyond (is* also consistent with the United Nation's 2030 Agenda for Sustainable Development)

Mission: To continually enhance aviation safety performance internationally by providing a collaborative framework for States, regions and industry.

Goals to support the mission:

Goal 1:   To achieve a continuous reduction of operational safety risks.

Goal 2:   States to implement the eight critical elements of a safety oversight system.

Goal 3:   Full implementation of effective SSPs by States

Goal 4:   States to increase collaboration at the regional level to enhance safety.

Goal 5:   To expand the use of industry programmes.

Goal 6:   To ensure the appropriate infrastructure is available to support safe operations

1.4 AFRICA REGIONAL SAFETY TARGETS: ABUJA SAFETY TARGETS

a) Progressively reduce the African accident rate from 8.6 to 2.5 per million departures by end of 2022.

b) All states to establish and strengthen autonomous CAAs with independent regulatory oversight, sustainable sources of funding and resources to carry out effective safety oversight and regulation of the aviation industry by end of 2022.

c) States to resolve existing SSCs by December 2017 and newly identified SSCs within 6 months from the date of it's official publication by ICAO.

d) States abide by the timelines and provide resources for implementation of ICAO/State plans of action by 2022. (Accept ICAO Plans of Action, abide by timelines and provide required resources).

e) States progressively increase the Effective Implementation (EI) percentage under ICAO USOAP. States with EI < 60% attain 60% by 2020, States with EI from 60% to 70% attain 80% and states with EI > 70% attain 95% by 2022.

f) All Require all African airlines to obtain an IATA Operational Safety Audit (IOSA) certification by 2020.

g) All States to continuously reduce the rate of aircraft proximity (AIRPROX) occurrences in their managed airspace to attain and maintain a level of zero (0) AIRPROX by 2020.

h) All ANSP to effectively participate in the African ANSP Peer Review and implement the recommendations thereof by end of 2022.

i) All states to

    i. Have a sustainable SSP established addressing all the pre-requisites by end of 2022

    ii. Have an effective SSP with appropriate maturity level established by end of 2025

    iii. Contribute information on safety risks, including SSP SPIs to the RASG – AFI by end of 2022.

    iv. With safety margin of at least 10% and an Effective SSP to actively participate in RASG – AFI safety risk management activities by end of 2022.

v.   All service providers to use globally harmonized indicators as part of their SMS by 2020.

j) All international Aerodromes to be certified by end of 2022 and

    i.   At least one international aerodrome in every state to be certified by 2020.

    ii.   All airport operators to participate in the ICAO recognized industry assessment programme for airports (APEX) by 2020.

    iii.   At least one international aerodrome in every state to establish a Runway Safety Team (RST) by 2020.

1.5   UCAA STRATEGIC AVIATION SAFETY GOALS

To develop an effective and functional State Safety Programme (SSP: from level 1 to level 4) in the next 5 years. [d]

To improve the Effective Implementation (EI) of ICAO's USAP-CMA results, for Uganda, from 80.81% (June 2017) to at least 90% by June 2023. [f]

To improve the Effective Implementation (EI) of ICAO's USOAP-CMA results, for Uganda, from 61.64% (June 2014) to at least 85% by June 2023. [g]

2.0   CHAPTER TWO: SAFETY RESPONSIBILITIES/ACCOUNTABILITIES.

Effective safety management requires appropriate and active involvement of all staff within the Organisation.   Clear knowledge and understanding of one's safety responsibilities/accountabilities is a critical to facilitating active participation of every individual staff in the organisation.

This chapter presents the safety responsibilities/accountabilities of the different UCAA employees/offices i.e.

2.1	Director General	2.10	Supervisor
2.2	Deputy Director General	2.11	Senior officers
2.3	Corporation Secretary	2.12	Officers
2.4	Director	2.13	Trainees
2.5	General Manager	2.14	Contract Managers
2.6	Manager	2.15	Contractors and other service providers.
2.7	Manager SMS	2.16	Casual workers
2.8	Principal officer	2.17	State
2.9	Principal SMS officer		

2.1 The CEO - Managing Director (DG)

2.1.1 Chair of the Corporate SRC committee (1, 2, 3, 5 & 6 of DAAS)

2.1.2 Establish and facilitate implementation of the safety policy (2 of DAAS)

2.1.3 Instill/promote safety as a core organizational value. (4 of DAAS)

2.1.4 Ensure that the SMS is properly implemented and maintained through the allocation of resources and tasks (1 of DAAS)

2.1.5 Facilitate timely implementation of CAPs, safety recommendations and risk mitigation controls.

2.1.6 Accountable for organization's aviation safety risks (5 & 6 of DAAS)

2.2 Deputy Managing Director (DDG).

The Deputy Director General deputizes the Director General and has the following safety responsibilities/accountabilities regarding the implementation, operation and maintenance of the aviation Safety Management System.

2.2.1 Chair CSRC in absence of DG.

2.2.2 Responsible for the implementation of safety policy and objectives by the corporate directorate.

2.2.3 Instill/promote safety as a core organizational value.

2.2.4 Ensure that the departments of the corporate directorate play their role in a timely manner for the effective implementation and operation of the SMS.

2.2.5 Facilitate timely implementation of CAPs, safety recommendations and risk mitigation controls.

2.2.6 Ensure safety policy is understood by Corporate Directorate staff

2.3   Corporation Secretary (CS)

2.3.1   Facilitate the timely promulgation of aviation regulations and primary legislation.

2.3.2   Timely facilitation of procurements that have a direct impact on the safe operation of aircraft.

2.3.3   Promote aviation safety within the legal department

2.3.4   Participate in Safety promotion activities.

2.4 Director

2.4.1 Members of the CSRC.

2.4.2 Convene and chair of the DSRC (where applicable)

2.4.3 Facilitate and participate in safety promotion activities.

2.4.4 Facilitate development and implementation of safety policy.

2.4.5 Foster a positive safety culture within the directorate.

2.4.6 Facilitate timely implementation of CAPs, safety recommendations and risk mitigations.

2.4.7 Provide the necessary resources; -

a) Avail/appoint staff required for safety office, safety audits/inspections, trainings and workshops, and other SMS activities.

b) Ensure appropriate budget and training plan provisions for SMS implementation and operation.

c) Provide a conducive working environment and tools for SMS implementation and operation.

d) Commit quality time for SMS implementation and operation activities. eg. avoid planning activities on dates/times with/known scheduled SMS activities.

2.4.8 Promote voluntary and mandatory reporting of hazards within the directorate.

2.5 Corporate Safety Review Committee (CSRC).

2.5.1   Monitor

a) The effectiveness of the SMS

b) That necessary corrective action is taken in a timely manner

c) Safety performance against the organizations safety policy and objectives.

d) The effectiveness of the organization's safety management processes.

e) The effectiveness of the safety supervision of subcontracted operations

2.5.2   Ensure that appropriate resources are allocated to achieve safety performance beyond that required by regulatory compliance.

2.6 GENERAL MANAGER

The General Manager has responsibility for safety at EIA and reports directly to the DAAS on Safety   issues

2.6.1   Advocate for and budget for financial, human, technical and other resources necessary for the effective performance of the SMS at EIA.

2.6.2   Facilitate implementation of the SMS across at EIA

2.6.3   Foster a strong safety culture within the DAAS and the airports

2.6.4   Promote safety awareness at EIADAAS and the airports

2.6.5   Participate in Develop safety targets and measures for EIA

2.6.6   Chair safety Review Committee of DAAS

2.6.7   Chair the Bird Hazard Control Committee

2.6.8   Chair the Emergency Planning Committee

2.6.9   Approve Safety Risk Assessments for EIA

2.6.10 Responsible for the effective performance of the SMS at EIA

2.7 Manager

2.7.1 Members of the respective DSRC.

2.7.2 Members of the CSRC (as applicable)

2.7.3 Ensure safety CAPS are developed and implemented, risk mitigation controls are implemented and changes undergo appropriate change management within their respective department.

2.7.4 Appoint personnel to conduct safety assessment of proposed changes in respective departments.

2.7.5 Facilitate timely implementation of CAPs from safety audit/inspection and risk mitigation controls from other departments/directorates as needed.

2.7.6 Ensure safety policy is understood by department staff.

2.7.7 Facilitate and participate in the implementation of the safety policy.

2.7.8 Facilitate staff in your department to participate in safety promotion, safety assurance and safety risk management activities as appropriate.

2.7.9 Promote voluntary and mandatory reporting of hazards within the department

2.8 Manager SMS

2.8.1 Prepare SMS implementation plan, coordinate and monitor it's implementation.

2.8.2 Monitor and review implementation of safety policy and objectives within the directorate.

2.8.3 Monitor/facilitate hazard identification, safety risk assessment and mitigation.

2.8.4 Develop and maintain directorate hazard register.

2.8.5 Monitor corrective actions, risk mitigation controls and safety recommendations and evaluate their results within the directorate.

2.8.6 Provide periodic reports on organisation's safety performance.

2.8.7 Develop and maintain SMS documentation and records.

2.8.8 Plan for and facilitate staff aviation safety awareness and training.

2.8.9 Provide independent advice on safety matters.

2.8.10 Monitor safety concerns in the aviation industry and their perceived impact on the organization's operations.

2.8.11 Coordinate and communicate (on behalf of the directorate) with the State's oversight authority and other State agencies as necessary on issues relating to safety.

2.8.12 Coordinate and communicate (on behalf of the directorate) with international organizations on issues relating to safety.

2.8.13 Disseminate and articulate safety related information to management, organizational staff, contractors and stakeholders through established communication processes.

2.8.14 Conduct/coordinate ATS incident investigation.

2.8.15 Analyse directorate safety data for trends related to hazards, events and occurrences.

2.8.16 Coordinate/conduct safety audits/inspections, safety reviews and safety studies.

2.8.17 Coordinate/administer safety related surveys.

2.8.18 Monitor the management of and approve changes.

2.8.19 Review and present to management the status of implementation of CAPs, risk mitigation controls and safety recommendations.

2.8.20 Review and compile safety reports for the SRC/B.

2.8.21 Facilitate and monitor directorate safety committee activities.

2.8.22 Participate in the development and review of emergency response plan.

2.8.23   Coordinate emergency response exercises.

2.8.24   Represent the organization on government, international organization and aviation safety industry committees (e.g. ICAO, IATA, CANSO, etc.)

2.8.25   Model and promote an organizational safety culture that fosters safety practices through effective leadership

2.9 Principal officers

2.9.1 Attend DSRC meeting

2.9.2 Attend SAG meeting

2.9.3 Develop, implement, track and document implementation of CAPs in one's respective section.

2.9.4 Implement, track and document implementation of risk controls / mitigations within his/her section.

2.9.5 Report potential hazards, safety occurrences, etc.

2.9.6 Facilitate staff under their supervision to participate in aviation safety activities.

2.9.7 Participate in safety communication within their section.

2.9.8 Participate in safety assessments within the respective section.

2.9.9 Prepare safety assessment reports for their respective section.

2.9.10 Report on the effectiveness of CAPs, risk mitigation controls and safety recommendations within respective section.

2.10 Principal SMS officers

2.10.1 Coordinate implementation and operation of SMS within respective department.

2.10.2 Participate in and Monitor the implementation of the safety policy and objectives in the respective department

2.10.3 Advise MSMS/QA on SMS related issues in respective department.

2.10.4 Coordinate/participate in the directorate Safety Risk Management (SRM) activities.

2.10.5 Coordinate/participate in the preparation and update the directorate's hazard register.

2.10.6 Coordinate/participate in the development and monitor implementation of Corrective Action Plans (CAPS) from Audits and Inspections as well as safety recommendations for the directorate.

2.10.7 Coordinate/participate the Change Management process for directorate.

2.10.8 Coordinate/Participate in the preparation and implementation of SMS/QA department budget and training plan.

2.10.9 Coordinate and participate in directorate ATS incident investigations

2.10.10 Monitor implementation of safety recommendations from ATS incident investigations.

2.10.11 Participates in Risk assessment and mitigation of respective department safety risks

2.10.12 Monitor change management in respective department.

2.10.13 Collect and analyse safety data/information from respective department

2.10.14 Conduct safety audits/ inspections

2.10.15 Review and/or accept respective department CAPs

2.10.16 Monitor implementation and review effectiveness of CAPs, risk mitigation controls and safety recommendations in respective department

2.10.17 Follow-up and Review respective department safety assessments.

2.10.18 Monitor and review respective department safety investigations.

2.10.19 Ensures that respective department staff are aware of safety-critical information and areas that require special attention/care

2.10.20 Promote participation of respective department staff in safety management activities.

2.10.21 Update SMS documentation and records.

2.10.22 Participate in safety reviews, safety studies and safety surveys

2.10.23   Participate in the development and implementation of the SMS/QA department budget and training plan.

2.10.24   Compile information for safety communication (SMS safety Electronics display, safety publications, etc.).

2.10.25   Coordinate and facilitate SMS workshops

2.10.26   Review respective department's incident investigations reports.

2.10.27   Coordinate and record Directorate safety meetings

2.10.28   Tasks assigned by MSMS/QA

2.11 Senior officers

2.11.1 Participate in SAG activities when required.

2.11.2 Participate in development of CAPs when required

2.11.3 Participate in the implementation of CAPs, risk mitigation controls and safety recommendations from incident investigations as appropriate.

2.11.4 Report potential hazards and safety occurrences

2.11.5 Participate in safety promotion activities.

2.11.6 Participate in safety assessments.

2.11.7 Propose or recommend possible solutions to reported potential hazards and/or safety occurrences.

2.11.8 Report on the effectiveness of implemented CAPs, risk mitigation controls and safety recommendations.

2.12 Officers

    2.12.1   Report potential hazards, safety occurrences, incidents, etc

    2.12.2   Report faulty procedures, unserviceabilities, malfunctions, etc

    2.12.3   Participate in safety communication activities

    2.12.4   Participate in safety assurance activities

    2.12.5   Participate in safety risk management activities

    2.12.6   Contribute articles for safety publications

2.13 Trainees.

    2.13.1   Report potential hazards, safety occurrences, incidents, etc

    2.13.2   Report faulty procedures, unserviceabilities, malfunctions, etc

    2.13.3   Participate in safety communication activities

    2.13.4   Participate in safety assurance activities

    2.13.5   Participate in safety risk management activities

    2.13.6   Contribute articles for safety publications

2.14 Contract Managers

2.14.1 Coordinate the preparation of safety assessment prior to implementation of contract.

2.14.2 Share safety assessment report with HoD and SMS/QA department for follow up.

2.14.3 Monitor and document implementation of risk mitigation controls prior to and during implementation of the contract where applicable.

2.15 Casual workers

2.15.1 Report potential hazards, safety occurrences, incidents, etc

2.15.2 Report faulty procedures, unserviceabilities, malfunctions, etc

2.15.3 Contribute articles for safety publications

2.16 Contractors and other service providers.

2.16.1 Familiarize oneself with safety requirements of user department/directorate applicable to contract activities

2.16.2 Prepare safety assessment of the works to be accomplish and share it user department/directorate for review prior to commencement of works.

2.16.3 Implement safety recommendations and/or risk mitigation controls from the safety assessment prior to or during implementation of the contract as required.

2.17 State

2.17.1   address significant safety concerns (SSC) as a priority;

2.17.2   acquire the necessary expertise, either directly or through access to workshops, pools of experts, etc.;

2.17.3   develop and implement a national aviation safety plan, taking into account the regional aviation safety plan, and the GASP (refe.r to Part II, Chapter 2);

2.17.4   ensure the effective implementation of the eight CEs of a State safety oversight system;

2.17.5   adopt a safety management approach under the SSP (States shall require that applicable service providers under their authority implement an SMS);

2.17.6   provide technical assistance to other States, where practicable;

2.17.7   participate actively in the activities of the RASG;

2.17.8   share safety information with the RASG and ICAO (including the status of national SEIs).

2.17.9   allocating resources to actively and continuously participate in the regional groups.

3.0 AVIATION SAFETY - A COLLECT RESPONSIBILITY.

Effective aviation safety management is the responsibility of all staff and stakeholders in the aviation industry.

It's very critical for all staff in the aviation industry including stakeholders to understand and embrace the significance of the "collective responsibility approach" to management of aviation safety.

The collective responsibility manifests in two forms with reference to aviation safety activities i.e.

a) Aviation safety activities which are handled/done by a single person or committee or team.

e.g.

  ➢ Reporting safety occurrences, potential hazards, faulty/difficult procedures etc.

  ➢ Contribute articles for safety publication.

  ➢ Collect and review safety occurrence reports, potential hazards reports, etc. reports,

  ➢ Conducting safety risk assessments, audit/inspection, safety review, etc.

  ➢ Document implementation of CAPs and proposed mitigation, etc.

  ➢ Etc.

b) Aviation safety activities that depend on more than one office to be accomplished

e.g. implementation of some CAPs, risk mitigation controls, safety recommendations, etc as illustrated below; -

➤ *CAP to have adequate number of appropriately competent personnel to man operational positions say in AIM department requires*

1) MAIM to plan for and initiate process to have qualified personnel.

2) DANS to provide for required resources within the directorate resources and also grant any necessary directorate authorisations/approvals.

3) DHRA grant required approvals/authorisations, take any necessary actions (e.g. prepare request to Minister where it is required, etc) and avail the resources.

4) DG to secure (where applicable) and grant the required approvals for the required resources.

5) DF to provide the required financial resources where applicable.

6) Etc.

➤ *Risk mitigation control: "To install a serviceable AGL remote control system in ATC tower".*

1) DANS requests for repair or replacement of current AGL remote control system in tower.

2) DAAS budgets for and initiates procurement of the system.

3) PDU clears and processes the procurement of the system.

4) CS prepares necessary documentation for SG clearance (where applicable) and prepares contracts and any others related legal documentation.

5) DG secures (where applicable) and grants necessary approvals to procure the system.

6) DF process and releases the required funds.

Table 3.1 below contains some of the CAPs and Risk mitigation controls that require action by at least two persons/offices to be implemented. Failure or delay to take necessary action by one or more of the responsible office(s) affects its implementations and in turn negatively impacts on safety

Table 3.1

No.	Safety action	Responsible office(s)
a)	Install CCTV cameras to allow control tower to monitor portion of R12/30 obstructed by terminal building. [CAP]	MATM, MCNS, DAAS, MP, CS, DF, DG.
b)	Establish safety performance indicators and targets [CAP]	MSMS, DANS, DAAS MANSAS, DSSER,
c)	Establish communication system for AIS briefing Soroti and RFS, MET offices [CAP]	MAIM, MCNS, MP, CS, DF, DG.
d)	One windsock located mid runway in soroti, no windsock at the threshold of both runways. [CAP]	DANS, DAAS, GMRA, MP, CS, DF, DG
a)	*Obstruction of tower view of the runway 17/35 by CFS shed [HZD/A-006/19]-* **Relocate the CFS shed or Tower complex.**	MATM, GMRA, DAAS, MP, CS, DF, DG
b)	*Unauthorised movement of personnel on runways at Gulu aerodrome [HZD/A-005/19] -* 1) **Demarcate and separate airside from landside** 2) **Remove all human settlement from the airside of the aerodrome**	MATM, DANS, GMRA, DAAS, DHRA, MP, DF, CS, DG
c)	*Power blackout in critical operational area – tower [HZD/A-037/17]* 1) **Improve the existing power back up plan system for all tower equipment and operational areas.** 2) **Sing an SLA with Airport authority with a bearing on quality and consistency of service provision.** 3) **Implement the signed SLA to the letter.**	MCNS, DANS, MAM, DAAS, MP, CS, DF, DG
d)	*Wild life on the manoeuvring area EIA [HZD/A-025/17]* 1) **Seal the open holes on the perimeter fence** 2) **Hunt animals on the airside and relocate them to designated places.**	MATM, MO, DAAS, DHRA, DF

4.0   CHAPTER THREE: SAFETY ACTIVITIES

4.1   Safety Risk Management activities

a) Report potential hazards.

b) Submit timely safety occurrence reports

c) Report faulty/incorrect/unclear/complicated/ineffective/inadequate procedures.

d) Report equipment/facilities malfunctions, unserviceabilities, failures, etc

e) Participate in and monitor implementation of risk mitigation controls in your area of work.

f) Report ineffectiveness risk mitigation controls.

g) Report persistent and/or re-occurring potential hazards, safety occurrences, equipment/facilities malfunctions or failures or partial/total unserviceabilities, etc.

h) Participate if safety risk assessment whenever called upon.

   Report changes in your area of work that are introduced without going through the change management process

i) etc

4.2   Safety Assurance activities

a) Safety surveys

b) Safety audits/inspections.

c) Safety reviews

d) Safety assessments prior to introduction of changes in your area of operation

e) Incident investigations.

f) Etc.

4.3 Safety Promotion activities

a) Monthly workshops.

b) Annual SMS promotional workshops.

c) Incident review workshops.

d) Sharing safety information with workmates.

e) Contributing articles and information for safety publications.

f) Attending aviation safety training.

g) Etc.