ADVISORY CIRCULAR

CAA-AC- AGA203

November 2022

OPERATIONAL SAFETY COMPETENCIES FOR AERODROME SAFETY PERSONNEL

1.0 Purpose

1.1 The aim of this advisory circular is to enable aerodrome operators to assess the level of operational safety competence existing within their respective organisations, including any areas that are contracted out, and to ensure that they have the necessary expertise, at the appropriate level, to formulate and implement systems to adequately manage safety at their aerodrome.

1.2 This Advisory Circular is also issued to expand on the existing regulatory requirements regarding competence of aerodrome safety, maintenance, operational and management personnel.

2.0 References

2.1 Civil Aviation (Aerodromes) Regulations

2.2 ICAO Annex 14 – Volume I- Aerodrome Operations

2.3 ICAO Doc 9774 - Manual on Aerodrome Certification

2.4 ICAO Doc 9981 – PANS Aerodromes

2.5 ICAO Doc 9734 – Safety Oversight Manual

3.0 Introduction

3.1 The overall level of competence in operational safety is an important aspect of operation and management of aerodromes. It is therefore necessary that aerodrome operators ensure that the personnel are skilled, and have considerable experience in the aviation industry, mainly through operational roles. Some tasks associated with aerodrome operation and management may be 'contracted out' by the aerodrome Operator; whilst day-to-day operational management is the responsibility of the contractor, the aerodrome Operator continues to have overall responsibility for the safe integration of contracted activities with the rest of the aerodrome operation. Therefore the aerodrome operator should ensure that they have the necessary expertise, at the appropriate level, to formulate and implement systems to adequately manage safety at their aerodrome.

3.2 It is emphasised that such qualifications and number of personnel are established prior to

certification of an aerodrome. Not all of the areas of competence have to be vested in one person.

3.3 This advisory circular will assist the aerodrome Operators to:

a. Be satisfied that persons within the management structure possess the relevant operational safety competence.

b. Identify the post and person that have accountability for a specific task.

c. Identify gaps that may exist in the areas of competence for their particular aerodrome.

d. Develop job specifications, in recruitment and succession planning.

e. Provide, for aerodrome certification purposes, the safety assurance sought by the UCAA's Aerodrome inspectorate on operational safety competence.

4.0 Terminology

For ease of interpretation, several key terms used throughout this advisory circular are defined as follows:

Task	An area of work for which a defined competence is deemed necessary.
Background Knowledge	The collective body of information, gained through experience and training, that people need to have if they are to perform their roles competently. This includes memorised relevant facts, regulations, theories and principles, and knowing where to find such data when it is not necessary to commit them to memory.
Specified Post	A post within an aerodrome management structure which has been identified as having accountability for the management of a specific, safety related task.
Named Person	A person, identified by name, who currently holds a specified post.
Hazard	A physical situation, often following from some initiating event that can lead to an accident.
Risk	Is the combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

5.0 Obligations of Aerodrome Operator on Competence of Operational Personnel

5.1 An aerodrome operator is required to ensure that all technical and operational personnel are competent and skilled in their areas of jurisdiction.

5.2 It is also imperative that the aerodrome operator provides continuous and relevant training

to acquaint all personnel with the current operational practices and remain competent on their responsibilities in line with the regulatory requirements

6.0 Application

6.1 The person at an aerodrome with overall responsibility for its safety and/or an appropriately delegated person should identify which areas of competence and tasks are relevant to their aerodrome.

6.2 To assist that person a checklist format has been developed as indicated in Paragraph 7.0. The tasks listed in the areas of competence, appropriate to a particular aerodrome, are those that should be vested in a particular 'specified post' and 'named person' occupying that post, and annotated to each relevant task. The 'named persons' should match the 'named persons' in the Aerodrome Manual where relevant and the 'Specified Posts' in the aerodrome.

6.3 The 'named person' for each task will have a comprehensive knowledge and understanding of the aerodrome's policies and procedures.

7.0 General Areas of Competence

A. Regulatory Framework for Aerodrome Certification

	Tasks	Specified Post(s)	Named Person(s)
1.	Ensure that aerodrome certification requirements are met, and that the aerodrome operates in accordance with aerodrome certificate conditions and statutory requirements		
2.	Ensure an understanding of the CAA's statutory duties in certifying and inspecting aerodromes		
3.	Ensure an understanding by the aerodrome management of aerodrome operating certificate.		
4.	Ensure an understanding by the aerodrome management of the legal requirement for and status of the Aerodrome Manual		
5.	Ensure that the aerodrome operator implements, communicates, and amends information and instructions concerned with ensuring the safe operation of aircraft in accordance with statutory and aerodrome management requirements		
6.	Ensure that the aerodrome management takes all reasonable steps to ensure that the aerodrome and its airspace are safe at all times for use by aircraft		

Background Knowledge

a. Civil Aviation Act

b. Aeronautical Information Publication

c. Aircraft Fueling: Fire Prevention and Safety Measures

d. Civil Aviation (Aerodromes) Regulations

e. Aerodrome Survey Requirements

f. Civil Aviation (Aeronautical Information Services)

g. Aviation Fuel at Aerodromes

h. Civil Aviation (Air Traffic Services) Regulations

i. Emergency requirements

j. Civil Aviation (Safety Management) Regulations

k. Aeronautical Ground Lighting

l. Bird Control at Aerodromes

m. Dangerous Goods Regulations (as they apply to aerodromes)

n. Notice to Airmen (NOTAM)

o. The ICAO Convention, and Annex 14 to the Convention

B. Aerodrome Physical Characteristics

	Tasks	**Specified Post(s)**	**Named Person(s)**
1.	Determine aerodrome reference codes for taxiways and runways		
2.	Ensure that the paved areas, runway strips, clear and graded areas meet licensing requirements		
3.	Ensure that aerodrome is clear of obstructions, debris and spoil		
4.	Determine and implement repair programmes process for aerodrome pavements and surfaces		
5.	Ensure that the design and layout of the apron and manoeuvring area is adequate for the safety of intended operations		
6.	Ensure that there is adequate provision for aerodrome drainage, particularly of the runway and strip		
7.	Ensure that appropriate separation distances are provided between runways, taxiways and aprons		
8.	Calculate appropriate runway declared distances for normal and obstacle restricted operations		
9.	Ensure variations of licensing requirements are kept under review and removed where practicable, and as part of significant changes to aerodrome infrastructure, traffic levels or aircraft types		

Background Knowledge

a. Uganda Aeronautical Information Publication - Aerodromes (AD) Part.

b. Civil Aviation (Aerodromes) Regulations

c. Visual Aids

d. Aeronautical Ground Lighting

e. Procedures for Runway Friction Classification and Monitoring

f. ICAO Convention and documents covering standards and recommended practices and aerodrome design and operation

The relationship between Aerodrome Reference Code and aerodrome physical characteristics:

g. Aeroplane Reference Field Length

h. Application of aerodrome reference code both generally and to runways and taxiways at own aerodrome

i. Implications of balanced field lengths

j. Purpose of code

k. Significance of restrictions with respect to larger aircraft

l. Variations due to altitude and mean temperature

The requirement to provide suitable, well laid out Taxiways and Holding Bays:

m. Basis of width calculation, taxiway width and code of own aerodrome taxiways

n. Bearing strength

o. Cleared and Graded Areas

p. Dangers of ingestion of mown grass and other debris

q. Function of Rapid Access Taxiways and Rapid Exit Taxiways

r. Marking and lighting

s. Need for holding areas and other bypass areas and relationship with Obstacle Free Zone and Instrument Landing System sensitive areas

t. Problems relating to junctions and intersections

u. The requirement to provide suitable, well laid out taxiways and holding bays

The effect of Runway length, width, slope, conditions and obstructions:

v. ICAO Standards and Recommended Practices

w. Relationship between runway and stopway in terms of friction characteristics

x. Significance of longitudinal and transverse slope

y. Significance of runway length, and of starter extensions and stopway

z. Significance of the difference between instrument and visual runways

The effect of Runway Strip and RESA on Aeroplane Operations:

a. Bearing strength

b. Need for delethalisation

c. Need for Runway End Safety Area (RESA) where appropriate

d. Permitted obstacles

e. Purpose of cleared and graded area and relationship with strip

f. Purpose of runway strip and RESA

g. Runway codes

h. Significance of cleared and graded area with respect to the location of Runway Holding Positions

The function of Clearway in respect of Aeroplane Operations:

i. Categories of aeroplane that can benefit from clearway

j. Maximum clearway that can be declared

k. Methods of measurement

l. The availability of land on/off the aerodrome within the control of aerodrome management

m. Type and height of permitted obstacles

n. Types of clearway

The effect of Aerodrome surface conditions on the operation of Aircraft:

o. Effect on friction/braking action

p. Effects of frost on surface cracks

q. Effects of fuel and oil spills on bitumen and methods of alleviation

r. Effects of surface spalling

s. Foreign Object Damage/Debris (FOD) including loose stones and debris

t. Implications of potential contamination including from rubber and fuel

u. Maximum permitted depth of water/slush

v. Significance of surface irregularities

w. Surface state descriptions used by Air Traffic Services

x. Types of surface contamination, their measurement and reporting

The measurement of Runway Friction for routine monitoring and braking action tests

y. Friction trend analysis

z. The operation and function of friction measuring devices

aa. Understanding the difference between routine friction monitoring, braking action tests, and calibration runs

Monitoring of Movement Area pavement conditions:

bb. Aircraft Classification Number (ACN)/PCN method of pavement classification

cc. Local reporting procedure

dd. Local rules governing overload operations

ee. Pavement Classification Number (PCN) reporting format

Calculation of Runway Declared Distances for normal and obstacle restricted operations:

ff. Declared distances of own aerodrome and how they are calculated

gg. Definitions of Take-off Run Available (TORA), Take-off Distance Available (TODA), Accelerate Stop Distance Available (ASDA), and Landing Distance Available (LDA)

hh. Limitations imposed by Strip Width, Strip End, RESA and aerodrome boundary

ii. Limiting factors affecting own aerodrome declared distances

C. Airside Safety Management

	Tasks	Specified Post(s)	Named Person(s)
1.	Develop a safety management system for the control of airside safety risks, including those in relation to staff and passengers		
2.	Establish systems for the carrying out of safety auditing and operational inspections		
3.	Analyse feedback from auditing and inspections		
4.	Use feedback from auditing and inspections to make appropriate changes to airside safety management procedures and their implementation		
5.	Monitor airside planning and development for compliance with aerodrome safety policy		
6.	Manage the interaction of aircraft servicing operations and other activities		
7.	Plan and implement the training of internal and external staff working airside		
8.	Establish systems to assess the safety performance of internal and external staff working airside		
9.	Establish an aerodrome process for the reporting and follow-up of accidents and incidents on the		

	aerodrome and in its local airspace, including closure action		
10.	Establish and maintain an Airside Safety Committee		

Background Knowledge

a. Civil Aviation (Aerodromes) Regulations

b. Air Navigation Regulations

c. Airside Safety Management

d. Bird Control at Aerodromes

e. Air Traffic Control Operations and Procedures

f. Auditing and inspection, and providing feedback information

g. General management systems, procedures and techniques

h. Health and Safety legislation and guidelines relating to people and vehicular activity in the workplace

i. Low Visibility Procedures

j. Mandatory Occurrence Reporting requirements

k. Organisational systems for accident/incident reporting and investigation

l. Organisational systems for communicating airside safety rules, regulations and information

m. Organisational systems for the use of safety performance standards, their monitoring and reporting

n. Provision and role of an Airside Safety Committee

o. Specific safety management systems, including risk assessment, safety cases and their applicability to airside operations

D. Risk Assessment

	Tasks	**Specified Post(s)**	**Named Person(s)**
1.	Establish and implement a process for carrying out risk assessments as part of the safety management system		
2.	Identify hazards		
3.	Evaluate risks		

4.	Select and implement appropriate risk control measures, including the elimination of intolerable risks		
5.	Review assessment of hazard and the effectiveness of risk control methods		
6.	Plan and implement the training and development of internal and external staff involved in risk assessments		

Background Knowledge

a. Appreciation of differing types of risk assessment and their appropriate use

b. Development of Safety Management Systems

c. General knowledge of risk assessment

d. Knowledge of airside operations and potential hazards

e. Organisation for co-ordination of airside activities

f. Organisational systems for communication and control of airside activities

g. The principles of risk evaluation

h. Understanding of the definitions of hazard and risk

i. Understanding of risk mitigation measures

E. Safety Management

	Tasks	Specified Post(s)	Named Person(s)
1.	Develop, implement and review an integrated safety management system for the aerodrome, taking account of the difference between risks to people and risks to aircraft		
2.	Integrate safety, project and resource management into strategic decision making		
3.	Define the work of teams and individuals to achieve objectives with due regard for safety issues		
4.	Develop productive working relationships		
5.	Understand the impact of human factors when establishing safety systems and procedures		

6.	Design systems and procedures taking full account of human factors, to encourage a positive safety culture at all working levels		

Background Knowledge

a. Civil Aviation (Safety Management) Regulations

b. Airside Safety Management

c. The Management of Safety

d. Health and Safety at Work Regulations

e. Principles of human and organisational factors – problem solving styles, interpersonal communications; role conflicts; stress at work

f. Principles of safety management, including systems, staffing and development

F. Aerodrome Works in Progress

	Tasks	Specified Post(s)	Named Person(s)
1.	Undertake risk and resource assessments, to ensure safe operations		
2.	Monitor and maintain aerodrome status systems and equipment according to laid down procedures		
3.	Promulgate and record information about aerodrome status and condition		
4.	Inspect and monitor work in progress		
5.	Ensure that adequate systems, procedures and resources are in place for the planning, co-ordination, control and oversight of work in progress		
6.	Ensure that contingency plans are drawn up to manage breakdowns in operating systems		
7.	Revise declared runway distances and other aerodrome operational limitations as appropriate		
8.	Ensure that airside safety briefings are provided for external contractors and work areas are controlled to maintain safe operations		

Background Knowledge

a. Adverse weather, day and night operations

b. Air Traffic Control operations and practices

c. Aircraft performance – landing and take-off

d. Aerodrome cleaning and sweeping programme

e. Aerodrome power supply and standby systems

f. Aerodrome systems and procedures – aerodrome signs, markings and lighting systems

g. Assessment of temporary obstacles

h. Bird control procedures

i. Environmental procedures, including methods of controlling aircraft and work noise

j. Implications of work permits, contractors briefings, NOTAMs, Air Traffic Information Service (ATIS), operational safety notices, organisational safety policy for outside works

k. Inspection, recording, reporting and other documentation systems

l. Low Visibility Procedures

m. National Aviation Security Programme

n. Navigation and landing systems

o. Procedures for temporary marking and lighting of work areas

p. Regulatory and organisational inspection/audit systems

q. Standard aircraft and ATC procedures and operations

r. Standard engineering practices and procedures, work methods and temporary repair options

s. Temporary methods of signing, marking and lighting

t. Work access and provision of Rescue and Fire Fighting Service (RFFS) cover

G. Aerodrome Safeguarding

	Tasks	**Specified Post(s)**	**Named Person(s)**
1.	Ensure that developments both on and off the aerodrome meet appropriate aerodrome licensing, planning and other legislation, in particular where the safety of operations may be affected		

2.	Establish and maintain contact on safeguarding issues with the local planning authorities		
3.	Assess proposed development against safeguarding criteria. This should include aerodrome licensing requirements, Public Safety Zones policy, the safeguarding of aids to navigation and lines of sight from the Visual Control Room to aerodrome operational areas.		
4.	Monitor immediate airport environs for safeguarding purposes, including temporary obstacles		
5.	When appropriate carry out risk assessments to underpin safeguarding plans		
6.	Monitor and review safeguarding policy and practice and amend if appropriate		

Background Knowledge

a. Civil Aviation (Aerodromes) Regulations

b. Aerodrome documents for on-aerodrome developments

c. ICAO Convention and documents covering Standards and Recommended Practices and aerodrome design and operation

d. Planning law, including advisory circulars and associated documents

e. Principles and methods of risk assessment

f. Safety management systems for on-aerodrome developments

g. Topographical, aviation and planning maps and charts

H. Aircraft Operations and Loading

	Tasks	Specified Post(s)	Named Person(s)
1.	Take account of aircraft performance requirements with regard to runway declared distances and reduced declared distances, other runway physical characteristics, obstacle criteria and the effects of crosswind, weather and contaminated runways		
2.	Establish procedures for normal and dangerous cargo and be aware of load requirements for aircraft		

3.	For aerodromes that undertake their own airside ground handling, ensure that aircraft are loaded in accordance with airline/operators' requirements, whilst meeting other safety requirements		
4.	Where relevant ensure that internal and external staff are trained in aircraft loading		

Background Knowledge

a. Civil Aviation (Aerodromes) Regulations

b. Civil Aviation Air Navigation Regulations

c. Aircraft operating limitations

d. Aircraft Performance

e. Basis of aircraft performance calculations for the various performance categories

f. Dangerous cargo regulations

g. Effect on aircraft performance of runway contamination and runway condition including grass runways

h. Obstacle limitations

i. Principles of aircraft weight and balance calculations, and aircraft loading limitations

j. Security procedures

I. Airside Vehicle Operations

	Tasks	Specified Post(s)	Named Person(s)
1.	Establish and monitor systems for the issue of Airside Driving Permits and Airside Vehicle Permits		
2.	Ensure that procedures for auditing driver training and vehicle maintenance programmes are to established standards		
3.	Ensure that airside vehicle accidents and incidents are recorded, investigated and closed by appropriate action, and ensure a system is established for the reporting of vehicle faults, documented according to laid down procedures		
4.	Ensure that vehicles are operated in accordance with standard operating procedures and with regard to other airside users, traffic rules, signs and markings		
5.	Ensure that audits are undertaken to ensure compliance with procedures and practices which contribute to the safety of airside traffic and apron operations		
6.	Ensure that the Airside Safety Committee considers and reviews all the above requirements		

Background Knowledge

a. Civil Aviation (Air Navigation services) Regulations

b. Airside Safety Management

c. Accident reporting and investigation procedures

d. Adverse weather operations, Low visibility procedures and their effect on airside driving

e. Aircraft hazards, blast, ingestion, propellers etc.

f. Airport rules and regulations

g. Airport layout, road systems, aprons

h. Airside safety audits and inspections

i. Airside security requirements

j. Airside Driving Permit and Airside Vehicle Permit Systems

k. Appreciation of aerodrome and operating organisations' driver training

programmes for general and specialist vehicles

l. Appreciation of operating organisations' vehicle maintenance programmes

m. Communication of airside safety rules, regulations and information including Airside Safety Committee

n. Defect reporting systems

o. General driving rules on roads, aprons, taxiways and runways

p. Interaction of aircraft servicing operations and related vehicles, procedures, hazards, accidents and incidents

q. Organisational and regulatory standards for driver training

r. Procedures for reporting spillages and removing Foreign Object Debris

s. Rules of the Air relevant to ground movement

t. Standards for vehicle maintenance and operation

u. Systems for road signs, markings and lights

v. Systems for traffic control, speed limits and parking

J. Runway Surface Friction

Tasks		Specified Post(s)	Named Person(s)
1.	Ensure that runway surface friction measurement conforms to ICAO standards, taking account of prevailing weather conditions and trends		
2.	Ensure that essential equipment for runway friction measurement and reporting is provided		
3.	Make adequate provision for the storage, calibration and care of runway surface friction measurement and reporting equipment		
4.	Monitor runway surface friction measurement and reporting to ensure equipment is used according to established procedures		
5.	Ensure that staff are trained in the use of runway surface friction measurement, and analysing and reporting results		
6.	Establish a system for the recording and retrieval of runway surface friction data		

7.	Ensure that there are procedures for the analysis and interpretation of data collected by runway surface friction measurement		
8.	Take account of the effect of work-in-progress on runway surface friction and ensure that the necessary procedures and promulgation action is taken		

Background Knowledge

a. Civil Aviation (Aerodromes) Regulations
b. Procedures for Runway Friction Classification and Monitoring
c. Aircraft operating limitations
d. Airport Services Manual Part 2 – pavement surface conditions (ICAO)
e. Definitions of surface contaminants
f. Friction calibration tests
g. Friction classification
h. Health and Safety procedures for operators
i. Interpretation of test results
j. Air Traffic control procedures
k. Obtaining information on weather conditions and trends
l. Operating instructions for runway surface friction measuring equipment
m. Procedures relating to night and low visibility operations
n. Procedures relating to periodic friction monitoring
o. Promulgated aerodrome information
p. Runway surface construction and friction characteristics
q. Standards and Recommended Practices, ICAO Annex 14
r. The effect of painted surface on friction

K. Bird Hazard Control

Tasks	Specified Post(s)	Named Person(s)

1.	Establish a bird hazard control plan, including habitat management, and assess relevant areas for birdstrike hazards using all available information sources		
2.	Communicate information about birdstrike hazards to all relevant parties		
3.	Initiate and review appropriate bird dispersal action according to local circumstances and aerodrome characteristics		
4.	Keep appropriate records in relation to bird hazard, bird strikes and bird dispersal		
5.	Ensure that training and development for internal and external staff is given in the use of bird control measures		

Background Knowledge

a. Aerodrome Bird Control

b. Bird activity and behaviour

c. Bird identification

d. Effects of birdstrikes

e. Major bird attractants and habitat management techniques, involving:

- principles and methods of maintaining environments unattractive to birds, including long grass technique and agriculturepractices
- principles and methods relating to the safe use of equipment, dispersal techniques, including distress calls, shell crackers and visual scarers
- principles and methods relating to the safe use of equipment to disperse birds, including distress call equipment, firearms and pyrotechnics

f. Policies of Home Office and local Constabularies concerning the grant and exercise of firearms licences

g. Reporting, collation, recording and analysis of bird-strike and other data on bird activity

L. Integration of Mixed Aircraft Operations

	Tasks	Specified Post(s)	Named Person(s)
1.	Formulate appropriate procedures including the separation of traffic for different operating situations		
2.	Ensure designated operating area and equipment comply with appropriate legislation and regulations		
3.	Promulgate information for the resolution of conflicts between different activities, including the integration of activities, priorities and/or restrictions		
4.	Establish emergency procedures for mixed operations		
5.	Plan and instigate the training and development of internal and external staff involved in integrating mixed operations		

Background Knowledge

a. Civil Aviation (Aeronautical Information services) Regulations

b. Aeronautical Information Circulars (AIC)

c. Aeronautical Information Publication

d. Aircraft priority status and rules of the air

e. Aviation fuel specifications

f. General knowledge of aircraft performance/limitations

g. Integration with environment requirements

h. Low Visibility Procedures

i. Marshalling procedures

j. Air traffic services communication Procedures

k. Regulations relating to exhibitions of flying and flying displays

l. Requirements of and hazards related to all aerial activities, including:

fixed wing; rotary wing; glider flying; banner towing; parachute dropping; flying training; balloon and kite flights; microlights, fireworks, pyrotechnic and light displays; airship operations; special flight activities

including calibration of navigational aids and aerial photography; military training requirements; special tasks and non-deviating flights; Royal, Diplomatic/VIP flights; aircraft formation flying

m. RFFS requirements

n. Rules for Air Displays, airspace utilisation, and unusual aircraft activity

o. Safety in the vicinity ofpropellers

p. Specific airfield markings

q. VFR/IFR Flight Plans

r. VFR/IFR Minima

s. Wake turbulence

M. Radio, Navigation and Approach Aids

	Tasks	**Specified Post(s)**	**Named Person(s)**
1.	Provide the most suitable radio, navigation/approach aid for the operational requirement and environment		
2.	Ensure that radio, navigation/approach aids are sited for maximum effectiveness and in accordance with recommended and mandatory requirements		
3.	Where appropriate ensure that ground radio services are established		
4.	Monitor the status, operation and usage of radio and navigation/approach aids and facilities		
5.	Ensure that radio, navigation/approach aids are provided and approved where appropriate and facilities are adequately maintained		
6.	Ensure the use of communication protocols and procedures is in accordance with regulations		
7.	Ensure that any visual approach aids are installed, commissioned and maintained to licensing standards		

Background Knowledge

a. Civil Aviation (Aerodromes) Regulations – Aerodrome/Aeronautical Ground Lighting

b. Radiotelephony Manual

c. Aeronautical Ground Lighting

d. Air Traffic Services Safety Requirements

e. Aerodrome operating minima

f. Aircraft equipment – basic principles of relevant systems

g. Characteristics and accuracy tolerances of navigationalaids

h. Different types and uses of aids: NDB/VOR/DME/ILS, MLS/VDF/GNSS

i. Effect of terrain and buildings on positioning of aids

j. Flight checking requirements

k. Frequency bands and allocation procedures

l. ICAO Convention, and Annex 10 to the Convention

m. ICAO Doc 8168

n. ICAO Procedures for Air Navigation – Operations (PANS OPS) procedures, obstacle identification surfaces and obstacle clearances

o. ILS Categories I, II and III and their operational aspects

p. ILS critical/sensitive areas

q. Integration with visual navigation aids and aerodrome lighting

r. Phraseology/International Standard Phonetic Alphabet

s. Precision and non-precision approaches

t. Local Instrument Flight Procedures

u. Protected Areas

N. Aeronautical Information Systems

	Tasks	Specified Post(s)	Named Person(s)
1.	Make available appropriate and up-to-date information on facilities, equipment status, procedures, obstacles and other information that is considered relevant to flight safety		

2.	Organise and promulgate information using appropriate information systems		
3.	Promulgate information to relevant parties in an appropriate format for the safety and expedition of air navigation		

Background Knowledge

a. Aeronautical Information Service (AIS), NOTAMs, AICs, Aeronautical Information Regulation and Control (AIRAC) cycles

b. Civil Aviation (Aeronautical Information Services) Regulations

c. ATC equipment and terminology

d. Data delivery systems

e. Maps and charts

O. Low Visibility and Night Operations

	Tasks	Specified Post(s)	Named Person(s)
1.	Ensure that Aerodrome/Aeronautical Ground Lighting (AGL) and other essential equipment for night operations and Low Visibility Procedures (LVPs) is provided and located in relation to the aerodrome layout and in accordance with regulations		
2.	Ensure that aerodrome procedures for LVPs are developed in conjunction with Air Traffic Control, Aerodrome inspectorate and other relevant parties		
3.	Ensure that LVPs on the aerodrome are monitored to ensure the integrity of procedures		
4.	Promulgate instructions and guidance relating to aerodrome procedures for LVPs		
5.	Plan and instigate the training of internal and external staff involved in LVPs		

Background Knowledge

a. Civil Aviation (Aerodromes) Regulations - Aerodrome/Aeronautical Ground Lighting and Signage

b. Aeronautical Ground Lighting

c. Aerodrome layout in relation to the location of essential equipment for LVPs

d. Aerodrome operating minima in relation to CAT II/III weather conditions

e. Aerodrome safeguarding procedures for LVPs including the runway and instrument landing systems

f. ICAO Doc 9365 – Manual of All Weather Operations

g. ICAO Doc 9476 – Manual of Surface Movements Guidance and Control

h. Night Operations

i. Relationship of holding areas to OFZs and ILS sensitive areas

j. Significance of the setting up and monitoring of visual navigation approach aids

k. The equipment and operation of RVR/IRVR systems

l. The operation and use of aerodrome and approach lighting systems

m. The operation and use of aerodrome landing and navigation systems

n. Vehicle and airside operations in LVPs

o. Weather trends in relation to LVPs

P. Fire and Rescue Operations

	Tasks	Specified Post(s)	Named Person(s)
1.	Ensure emergency fire and rescue facilities are compatible with sizes, types and frequency of aircraft in accordance with company and legislative requirements		
2.	Ensure that rescue and firefighting polices, procedures and training fulfil the aims of the aerodrome and meet legislative requirements		
3.	Review policy and procedures as appropriate taking into account legislative changes, accident/incident data and changes to aerodrome layout, buildings and facilities		
4.	Plan and implement the co-ordination between internal staff and external personnel involved in firefighting and emergency operations		

5.	Assess the feasibility of continuing aerodrome operations in an emergency situation		
6.	Establish an aerodrome process for the reporting and follow-up of accidents, incidents and emergencies on the aerodrome		

Background Knowledge

Categorisation of Rescue and Firefighting Services (RFFS):

a. Aeronautical Information Publication – RFF promulgation

b. Requirements for the Competence of RFFS Personnel Employed at certified Aerodromes Civil Aviation (Aerodromes) Regulations

c. Remission factors

d. Temporary depletion

Training:

e. Certification of Personnel

f. Fire and rescue training practices

g. Medical/First Aid training

h. Relevant Health and Safety legislation

i. The impact of dangerous goods regulations

Policies and procedures for maintaining the adequacy of:

j. Additional water supplies

k. Communication facilities and procedures

l. Difficult terrain/environments

m. Emergency access roads

n. Equipment performance and functionality

o. Equipment testing

p. Handling dangerous cargo

q. Hazards arising from aircraft construction

r. LVPs

s. Medical services

t. Medical standards

u. Response times

v. Staffing levels, rosters etc

Q. Aviation Fuel Safety

	Tasks	Specified Post(s)	Named Person(s)
1.	Ensure that there is a system to verify that fuelling areas and zones are maintained so as to reduce hazards to aircraft, staff and vehicles		
2.	Monitor operations involving the receipt and storage of fuel, and the fuelling of aircraft, to ensure that they take place according to regulations and procedures		
3.	Maintain records of all fuel operations, including receipt and use of fuel and quality tests		
4.	Ensure that an adequate system exists for the sampling, testing and recording of fuel quality		
5.	Ensure that an adequate system exists for the inspection of facilities used to transport, store and dispense fuel to ensure it is maintained to appropriate standards		
6.	Deal with fuel spillage incidents and report to the Environment Agency if appropriate		
7.	Ensure that appropriate account is taken of fire hazard during all fuel related operations		
8.	Ensure that training and development of internal and external staff is given in the use of aircraft fuelling, fuel storage and quality control		

Background Knowledge

a. Aircraft Refuelling: Fire Prevention and Safety Measures

b. Aviation Fuel at Aerodromes

c. Apron standards and fuel terminal layouts

d. Avgas/JET A1 Recertification

e. Bonding and earthing requirements

f. Design requirements for depot facilities

g. Documentation and retention period

h. Environmental considerations and safeguarding

i. Equipment required for fuelling operations

j. Hazards from adjacent aircraft operations

k. Helicopter fuelling

l. Hydrant systems, low point drains, hydrant pits, shut down systems

m. Institute of Petroleum Code of Practice

n. Methods of dealing with a fuel spillage

o. Methods of quality control after discharge, settling, testing

p. Methods of sampling and testing fuel

q. Need for clear exit paths for fuel vehicles

r. Precautions to be taken against fire risk

s. Procedures for product release for delivery into operating storage or into aircraft fuelling equipment

t. Receipt procedure

u. Refuelling procedures, including those to be taken when passengers remain on board

v. Storage conditions and testing requirements to keep equipment in good working order

w. Storage procedures

x. Vehicle and hydrant operation

R. Airport Emergency Procedures

	Tasks	Specified Post(s)	Named Person(s)
1.	Ensure emergency systems, procedures and practices meet organisational safety management, and regulatory requirements including those covering an airborne emergency that involves the aerodrome		
2.	Promulgate systems, procedures and practices to all personnel as necessary		
3.	Ensure emergency fire and rescue facilities are compatible with sizes, types and frequency of aircraft in accordance with regulatory requirements		

4.	Plan and undertake emergency and contingency planning exercises periodically in accordance with regulatory and organisational safety management and regulatory requirements		
5.	Ensure that personnel are trained and exercised in the execution of the emergency plan according to their intended role and level of responsibility		

Background Knowledge

Systems, procedures and practices:

a. Civil Aviation (Aerodromes) Regulations

b. Airport Emergency Plan, Contingency Planning and business recovery system

c. Emergency classifications – Aircraft Accident, Full Emergency, Local Standby, etc

d. Emergency phases – Uncertainty, Alert, Distress

e. Regulatory requirements for airport emergency exercises

f. Responsibilities, procedures, and responses of Police, Fire and Rescue, Medical and Ambulance services, and Local/National Government

g. Security Threat Categories

h. Process and procedure for the reporting and follow-up of accidents, incidents and emergencies on the aerodrome

S. Environmental Issues and Noise Monitoring

	Tasks	Specified Post(s)	Named Person(s)
1.	Keep up-to-date with environmental and noise issues which affect aerodrome and terminal developments		
2.	Obtain and collate information on environmental and noise issues affecting aerodrome and terminal development, and if appropriate make the information available to relevant parties		
3.	Ensure that plans for aerodrome and terminal development take into account environmental and		

	noise issues without jeopardising safety		
4.	Liaise with the local community and local authority on environmental and noise issues		
5.	Monitor and review noise and environmental policy, practice and organisation		

Background Knowledge

a. Airport Strategic Plan

b. Civil Aviation Act

c. Environment Agency – role, liaison and consultation

d. General knowledge of environmental legislation and regulations

e. General knowledge of environmental issues including aircraft noise, vehicle operations, surface water pollution and causes, use of chemicals, air quality, waste management

f. ICAO Convention and Standards and Recommended Practices

g. Role and composition of Airport Consultative Committees

h. The Town and Country Planning Acts and related Orders, including Local Authority Strategic Plans

8.0 Acceptance of Nominated Key Personnel

8.1 Key Personnel will include as minimum in the following or equivalent positions:

a. Accountable Manager

b. General Manger

c. Head of aerodrome/airport operations.

d. head of Safety Management System

e. Head of Aerodrome Maintenance

f. Head of Aerodrome Planning;

g. head of rescue and fire fighting

h. head of Wildlife Hazard Management

i. Head of Electrical Systems

8.2 When an Aerodrome Operator submits the name of a nominee for the Aerodrome Post Holder, normally during submission of the Aerodrome Manual, the UCAA will assess each nominee, conduct a review and call for evidence of his/her suitability.

8.3 UCAA acceptance of nominated Aerodrome Post Holders is based on an assessment of candidate's curriculum vitae, job description, prior qualification and the applicant's background knowledge of the proposed position/tasks.

8.4 Consideration shall be given to the size and complexity of the organisation, recognising that some managers may hold multiple Aerodrome Post Holder positions;

9.0 Criteria for Assessment of Aerodrome Operation Post Holders

During the assessment process which under normal circumstances will be conducted during an on-site verification of aerodrome manual. The UCAA will inquire the post holder's capabilities in areas that includes:

a) understanding and knowledge the roles and responsibilities of the operator and regulatory authority, the regulatory framework and specifically Safety Management System requirements;

b) information from the nominated person concerning his knowledge on work area;

c) enforcement methodology of the UCAA;

d) the roles and responsibilities of the Aerodrome Post Holder;

e) competence requirement of the nominated person in relation to present personal status and experience presented in their curriculum vitae or equivalent documentation;

f) discussion concerning depth of knowledge and understanding of the applicable legislation and Regulations;

g) understanding of aviation in general and for the specific nominated post, how operators/activities at the aerodrome;

UGANDA CIVIL AVIATION AUTHORITY
DIRECTOR
SAFETY, SECURITY AND ECONOMIC REGULATION

Director Safety, Security and Economic Regulation