



REGULATORY IMPACT ASSESSMENT
For the Civil Aviation (Fatigue Management) Regulations 2024

NOVEMBER 2024

This Regulatory Impact Assessment (RIA) has been prepared by the Cabinet Secretary - Ministry
of Roads and Transport

Section 6 and 7 of the Statutory Instruments Act CAP 394

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1.0 CHAPTER ONE – INTRODUCTION

1.1 Regulatory-Making Authority and the Legal Mandate

Kenya Civil Aviation Authority is established under the Kenya Civil Aviation Act CAP 394 (the Act) with the primary functions being Regulation and Oversight of Aviation Safety and Security; Economic Regulation of air services and development of Civil Aviation; Provision of Air Navigation Services; and Training of aviation personnel as guided under the provisions of the Convention on International Civil Aviation, related ICAO Standards and Recommended Practices (SARPs), the Act, and the Civil Aviation Regulations.

The object and purpose for which the Authority was established are, to economically and efficiently plan, develop and manage civil aviation, regulate and operate a safe civil aviation system in Kenya in accordance with the provisions of the Act

Section 82 (1) of the Civil Aviation Act, 2013 empowers the Cabinet Secretary, at the time being in Charge of Transport, to make Regulations to give effect to and for the better carrying out of the objects and purposes of the Act, and to provide generally for regulating air navigation, air transport, air accident investigation and carrying out and giving effect to any convention.

Further, Section 82 (2) of the Act is more specific and provides that Without prejudice to the generality of Section 82 (1), the regulations developed are for-

1.1.1 regulating, by establishing licensing authorities and a system of licensing and otherwise, the use of aircraft for commercial transport and aerial work;

1.1.2 providing for the conditions under which passenger and cargo may be carried by air and under which aircraft may be used for other commercial, industrial or gainful purposes, and for prohibiting the carriage by air of goods of such classes as may be prescribed;

1.1.3 generally securing the safety, efficiency, and regularity of air navigation and safety of aircraft and of persons and cargo carried therein, and for preventing aircraft endangering other persons

1.1.4 exempting any aircraft or persons or classes of aircraft or persons from the provisions of any regulations made under this Act

1.1.5 requiring any person who owns an aircraft or who carries on the business of operating aircraft for hire or reward to furnish to such authorities as may be prescribed such information relating to the aircraft and the use thereof, the crew, the mail, the passengers and the cargo carried, as may be prescribed.

We now undertake public and stakeholder consultations and present this RIA in partial fulfilment of the requirements of the Statutory Instruments Act.

1.2 Requirements of the Statutory Instruments Act

The Statutory Instruments Act CAP 2A (SIA) is the legal framework governing the conduct of RIA in Kenya. Sections 6 and 7 require that if a proposed statutory instrument is likely to impose significant costs on the community or a part of the community, the Regulation-Making Authority (RMA) shall, prior to making the statutory instrument, prepare a regulatory impact statement about the instrument. SIA further sets out certain key elements that must be contained in the RIA namely:

- 1.2.1 a statement of the objectives of the proposed legislation and the reasons for them
- 1.2.2 statement explaining the effect of the proposed legislation including in the case of a proposed legislation which is to amend an existing statutory instrument the effect on the operation of the existing statutory instrument
- 1.2.3 a statement of other practicable means of achieving those objectives, including other regulatory as well as non-regulatory options;
- 1.2.4 an assessment of the costs and benefits of the proposed statutory rule and of any other practicable means of achieving the same objectives;
- 1.2.5 the reasons why the other means are not appropriate;
- 1.2.6 any other matters specified by the guidelines;
- 1.2.7 a draft copy of the proposed statutory rule. Section 5 of SIA requires an RMA to conduct public consultations drawing on the knowledge of persons having expertise in fields relevant to the proposed statutory instrument and ensuring that persons likely to be affected by the proposed statutory instrument are given an adequate opportunity to comment on its proposed content.

1.3 What is a Regulatory Impact Assessment (RIA)?

RIA is a systemic approach of critically assessing the positive and negative effects of proposed or existing regulations and non-regulatory alternatives. It is an analytical report to assist decision makers to arrive at an informed policy decision.

As an aid to decision making, RIA includes an evaluation of possible alternative regulatory and non-regulatory approaches with the overall aim of ensuring that the final selected regulatory option provides the greatest net public benefit.

Typically, the structure of a RIA should contain the following elements: title of the proposal, the objective and intended effect of the regulatory policy, an evaluation of the policy problem, consideration of alternative options, assessment of all their impacts distribution, results of public consultation, compliance strategies, and processes for monitoring and evaluation.

RIA promotes evidence-based policy making as new regulations typically lead to numerous impacts that are often difficult to foresee. From a societal viewpoint, RIA confirms whether a proposed regulation is welfare enhancing, in that, the benefits will surpass costs.

RIA therefore has an overall objective of not only improving understanding of the real-world impact of regulatory action, including both the benefits and the costs of action, but also integrating multiple policy objectives, improving transparency and consultation; and enhancing governmental Authority.

2.0 CHAPTER TWO – PURPOSE AND OBJECTIVES OF THE CIVIL AVIATION (FATIGUE MANAGEMENT) REGULATIONS, 2024

2.1 Scope and application

Civil aviation (Fatigue Management) Regulations, 2024 covers the following scope:

- a) **Flight Time Limitations (FTL):** The Regulations define maximum permissible flight hours, duty periods, and minimum rest requirements. These are based on operational considerations, including time zones, night operations, and consecutive duty days.
- b) **Rest Requirements:** The Regulations provide for sufficient rest periods between duties are mandated to allow crew members adequate recovery time. Regulations require minimum uninterrupted sleep opportunities and periodic days off.
- c) **Fatigue Risk Management Systems (FRMS):** An FRMS is a data-driven system tailored to an operator's specific needs. It allows airlines to manage fatigue proactively, by incorporating scientific principles and operational experience.
- d) **Individual Responsibilities:** The Regulations emphasize the role of individuals in managing their own fatigue, such as avoiding activities that could exacerbate tiredness and reporting when they feel unfit for duty.
- e) **Monitoring and Reporting:** The regulations require operators to monitor fatigue levels, assess risks, and report incidents where fatigue may have been a factor.
- f) **International Framework:** The Regulations adopt ICAO Standards and Recommendations which provides global standards for fatigue management emphasizing both prescriptive and FRMS-based approaches.
- g) **Application:** The Regulations apply to flight crew, cabin crew, flight operations officers and air traffic controllers involved in aviation activities employed by holders of a Kenyan Air Operator's Certificate, flight dispatch officers and air traffic controllers

2.2 Objective

Civil aviation Fatigue Management Regulations objective is to ensure that crew members (Flight crew, Cabin crew, flight operations officers and air traffic controllers) are adequately rested at the beginning of each flying duty period, and whilst flying be sufficiently free from fatigue so that they can operate to a satisfactory level of efficiency and safety in all normal and abnormal situations.

The regulations are designed to ensure that pilots, crew members, and other aviation personnel operate safely by minimizing fatigue-related risks. Fatigue can impair decision-making, reaction times, and overall performance, posing significant risks to aviation safety

Fatigue Management Regulations prescribe the requirements for aircraft operators to appreciate the relationship between the frequency and pattern of scheduled flying duty periods and rest periods and time off and give due consideration to the cumulative effects of working long hours interspersed with minimum rest.

2.3 Specific objectives

The specific objectives of the Civil Aviation (Fatigue Management) Regulations 2024 are to: -

2.3.1 Enhance Safety by minimizing the risks associated with crew fatigue, thereby improving overall aviation safety by reducing likelihood of accidents.

2.3.2 Promote health and well being of aviation personnel by establishing Work and Rest Standards and setting clear guidelines for crew duty periods and required rest intervals to ensure adequate recovery time.

2.3.3 Comply with scientific principles by Implement Fatigue Risk Management Systems (FRMS) that require operators to develop and maintain systems that effectively monitor and mitigate fatigue-related risks.

2.3.4 Promote Awareness and Training by providing training programs for aviation personnel on recognizing and managing fatigue, fostering a culture of safety.

2.3.5 Monitor Compliance by ensuring that operators adhere to the regulations through effective oversight and enforcement mechanisms.

2.3.6 Encourage Reporting by creating a non-punitive environment that encourages reporting of fatigue issues, allowing for better management and response.

2.3.7 Support Research and Best Practices by promoting continuous research into fatigue management and the adoption of best practices within the industry.

2.3.7 Maintain operational safety by balancing safety requirements with operational needs
2.3.8 Adapt to varied operational contexts by addressing challenges posed by long-haul flights, night operations. Irregular schedules and time zone changes.

2.4 An Overview of the Civil Aviation (Fatigue Management) Regulations 2024: Salient Features

This overview aims to evaluate the clarity, consistency, comprehensibility, and comprehensiveness of the proposed Regulation in relation to the identified issue. It is essential that the rules are easily understood by those who may be impacted. To achieve this, the Kenya Civil Aviation Authority has implemented measures to enhance the clarity of both the text and structure of the proposed Regulation.

The structure of the proposed Civil Aviation (Fatigue Management) Regulations 2024 is as follows:

2.4.1 Part I—Preliminary (citation, interpretation and application)

- 2.4.2 Part II— General Provisions (Flight time limitations, including specific number of hours a crew member can operate within a specified day, week, month and year.)
- 2.4.3 Part III— Policy and Documentation Flight Crew and Cabin Crew – Flight, Duty, and Rest Periods (Rest period requirements , duty rosters responsibility of the crew, calculation of flying duty period. etc)
- 2.4.4 Part IV: - Fatigue Risk Management (Data driven approach allowing operators to use science based tools, prescriptive limits and monitoring and feed back)
- 2.4.5 Part V: - Safety Assurance (establishment of safety assurance processes)
- 2.4.6 Part VI: - Training and Communication (establishment of training and communication programme)
- 2.4.7 Part VII: - Penalties and Transition (suspension or revocation the licence, certificate, approval, authorization, exemption or other document of a person who contravenes any provision of these regulations. Offence punishable six months imprisonment of a fine of one million shillings)
- 2.4.8 First Schedule - Introduction of Requirements of The Fatigue Management Regulations
- 2.4.9 Second Schedule - Pilot in Command's Discretion Report Extension of Flying Duty Period/Flying Hours
- 2.4.10 Third Schedule - Pilot in Command's Discretion Report - Reduction of Rest
- 2.4.11 Fourth Schedule - Examples of FTL Schemes
- 2.4.12 Fifth Schedule - Large Companies
- 2.4.13 Sixth Schedule - Charter, Balloons, Aerial Work, Including Pleasure Flying and Air Ambulance Supplement
- 2.4.14 Seventh Schedule - Pleasure Flying and Aerial Photography
- 2.4.15 Eight Schedule – Helicopters
- 2.4.16 Ninth Schedule - The Preparation of a Roster
- 2.4.17 Tenth Schedule - Aeroplane Variations
- 2.4.18 Eleventh Schedule - Helicopter Variations
- 2.4.19 Twelfth Schedule - Prescriptive Fatigue Management Requirements
- 2.4.20 Thirteenth Schedule - Fatigue Risk Management System (FRMS) Requirements

3.0 CHAPTER THREE – BACKGROUND AND CONTEXT

3.1 Policy Background

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

Goal 9 of the SDGs advocates for building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation. Kenya intends to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport by 2030.

Kenya Vision 2030 is a nationwide multi-sectorial document that outlines the main policies, legal and institutional reforms as well as programs and projects that the Government plans to implement.

The 2030 Vision aspires for a country firmly interconnected through a network of roads, railways, ports, air, water and sanitation facilities, and telecommunications. The expansion, modernization and management of the aviation sector continues to enhance air transport safety, security, and connectivity across the country and beyond. Civil aviation is a critical catalyst for global and national development. Air transport in Kenya has continued to grow and has contributed to job creation and increased interaction and trade with other countries.

Bottom-Up Economic Transformation Agenda (BETA): The Bottom-Up Economic Transformation Plan 2022-2027 is the manifesto of current administration that will be implemented over the next five years. The agenda is built on six main pillars, to be implemented through five (5) MTP IV sectors that include Infrastructure. One of the aims under infrastructure sector is to enhance transport connectivity and the provisions of the regulations are meant to institutionalize a civil aviation regulatory and oversight framework that promotes a sustainable safe and secure air transport system in Kenya.

Constitution of Kenya 2010: The Constitution recognizes civil aviation as one of the functions under the National Government in the fourth schedule. Chapter 4 of the Constitution provides for the Bill of Rights. Article 46 provides for consumer protection where it applies to goods and services offered by public entities or private persons. Aviation Consumers have rights for services of reasonable quality; information necessary for them to get full benefit from the services; and protection of their economic interests. Chapter 6 of the Constitution provides for leadership and integrity including the conduct of state officers and public officers. Employees and officers of the Authority are public officers hence they are bound by the principles of Chapter 6 of the Constitution. The regulations have largely provided for standardized ways of provision of quality services, information to be used by its consumers for protection of their economic interest, data protection issues, access to information while maintaining technical infrastructure within the aviation sector. Article 94 (6) of the Constitution gives parliament the power to delegate its legislative authority to a State organ, State officer or person to make provision having the force of law in Kenya.

Kenya Aviation Policy: The Policy aims to foster the growth of aviation business in Kenya to support job creation by positioning Kenya as a recognized regional leader in aviation; maximize the contribution of the aviation sector to Kenya's economic growth and development; and enhance Kenya's connectivity at a national and international level by ensuring safe, secure and competitive access which is responsive to the needs of businesses, tourism and the population. The Policy covers the entire aviation sector in Kenya including key air transport challenges related to regulatory framework, safety, security, environmental aspects, economic regulation, institutional framework, air transport market and stakeholders, air transport infrastructure including planning, development, operation, and management, air transport personnel, and air transport statistics.

The Kenya Airspace Master Plan: The Plan outlines the evolution and associated investments to be made by the Kenya Civil Aviation Authority (KCAA) in Air Navigation Services (ANS) over the next 15 years. The objectives of the Plan include global and regional consistency,

legal/regulatory considerations, and stakeholder expectations. The plan covers operational evolutions, technical improvements, and human resources development.

The National Aviation Safety Plan (NASP): The Plan is aligned with the International Civil Aviation Organization's (ICAO) Global Aviation Safety Plan (GASP), the NASP outlines objectives, strategic priorities, and safety actions to be taken over three years (2023 to 2025). The Plan includes key elements such as identification of national safety issues, setting aviation safety goals and targets, implementing safety enhancement initiatives (SEIs), and collaborating with industry stakeholders and agencies responsible for safety oversight. The NASP complements Kenya's State Safety Programme (SSP) Document.

Civil Aviation Act: The Civil Aviation Act CAP 394 was enacted to provide for the control, regulation and orderly development of civil aviation in Kenya; and for connected purposes. Section 4 of the Act provides that the provisions of the Act and regulations made thereunder unless expressly excluded shall apply to: aerodromes used for civil aviation in Kenya; air services established or operating in Kenya; any aircraft registered by the Authority; any foreign aircraft within the Kenya territory; aviation personnel and training schools certified by the Authority; enterprises operating in Kenya in the design, manufacture, maintenance, repair and modification of aircraft and aircraft parts or components; and air navigation facilities and services in Kenya. Section 82 provides for the Regulations that can be made by the Cabinet Secretary responsible for aviation matters to give effect to the Act and for regulating air navigation, air transport, air accident investigation and carrying out and giving effect to any convention on aviation ratified by Kenya.

3.2 Domestic Context

The Kenya Civil Aviation Authority is established under the Civil Aviation Act with the object and purpose for which the Authority as established shall be, to economically and efficiently plan, develop and manage civil aviation, regulate and operate a safe civil aviation system in Kenya in accordance with the provisions of the Act. Further The Civil Aviation Act require that the Cabinet Secretary shall make regulations to give effect to and for the better carrying out of the objects and purposes of this Act, to provide generally for regulating air navigation, air transport, air accident investigation and carrying out and giving effect to any convention.

The Civil Aviation (Fatigue Management) Regulations 2024 enable KCAA to effectively discharge its mandate by establishing operational standards that ensure that the aviation system in Kenya is aligned to the standards established internationally and applicable globally.

The Civil Aviation (Fatigue Management) Regulations, 2024 therefore are issued in fulfilment of the obligations set forth in the Civil Aviation Act and in support of the mandate of KCAA.

3.3 International Context

The Convention on International Civil Aviation, which, has been ratified by Kenya established the International Civil Aviation Organization (ICAO) with a mandate to support, coordinate and help countries to diplomatically and technically realize a uniquely rapid and dependable network of global air mobility, connecting families, cultures, and businesses all over the world, and promoting sustainable growth and socio-economic prosperity wherever aircraft fly.

As a global forum of States for international civil aviation. ICAO develops policies and Standards, undertakes compliance audits, performs studies and analyses, helps and builds aviation capacity through many other activities and the cooperation of its Member States and stakeholders.

Article 37 of the Convention on International Civil Aviation provides for Adoption of international standards and procedures requiring each contracting State undertaking to collaborate in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation.

The International Civil Aviation Organization adopts and amends international standards and recommended practices and procedures dealing with various aspects of air navigation and such other matters concerned with the safety, regularity, and efficiency of air navigation as may from time to time appear appropriate.

Further, Article 12 of the Convention requires that each contracting State undertakes to adopt measures to ensure that every aircraft flying over or maneuvering within its territory and that every aircraft carrying its nationality mark, wherever such aircraft may be, shall comply with the rules and regulations relating to the flight and maneuver of aircraft there in force. Each contracting State undertakes to keep its own regulations in these respects uniform, to the greatest possible extent, with those established from time to time under this Convention. Over the high seas, the rules in force shall be those established under this Convention. Each contracting State undertakes to ensure the prosecution of all persons violating the regulations applicable.

Internationally, each of the 193 contracting States has, in compliance with their national commitments and obligations under the Convention, established national civil aviation regulations with the objective of governing the aviation industry in their jurisdiction.

Article 12 of the Convention relating to scheduled air services provides that no scheduled international air service may be operated over or into the territory of a contracting State, except with the special permission or other authorization of that State, and in accordance with the terms of such permission or authorization.

The lack of an appropriate set of regulations in one contracting state jeopardizes the safety, security and economic status of international air navigation. The Civil Aviation (Fatigue Management) Regulations, 2024 are therefore proposed to ensure fulfilment of state obligation and alignment of the Kenyan aviation system with international requirements and allow Kenya effectively to explore the potential economic and geopolitical benefits of participating in international air navigation.

4.0 CHAPTER FOUR – EVALUATION OF THE PROBLEM

Fatigue in civil aviation poses significant risks to safety, operational efficiency, and the health of aviation personnel. The risks associated with fatigue include impaired cognitive performance, increased risk of errors and accident, health and well being issues for crew members, diminished passenger safety, operational and financial risks, impact on team dynamics and communication and legal liability risks.

The Civil Aviation (Fatigue Management) Regulations, 2024 are new and need to align with the latest ICAO standards and recommended practices, not to pose challenges to maintaining safety, operational efficiency, environmental responsibility, and long-term sustainability in Kenya's rapidly evolving aviation sector.

4.1 Currency of the Civil Aviation (Fatigue Management) Regulations, 2024.

The Civil Aviation (Fatigue Management) Regulations, 2024 are new and the civil aviation sector has undergone significant changes, driven by advancements in technology, evolving safety practices, and updates to international standards and recommended practices that address the increasing complexity of international aviation regulations. The International Civil Aviation Organization (ICAO) has continued to update its standards and recommended practices to keep pace with these developments, enhancing global safety, operational efficiency, and environmental sustainability across civil aviation systems. The revised regulations are designed to address areas that have become increasingly critical for air operators, including robust safety procedures, updated maintenance protocols, and advanced compliance monitoring tools. By adopting these new standards, Kenya not only fulfills its obligations as an ICAO member state but also reinforces the country's commitment to an efficient and safe aviation system, which is vital for passenger confidence, economic sustainability, and international trust. The new regulation will enable Kenya to effectively respond to emerging risks and adopt best practices that strengthen the oversight, certification, and operational management of air operators in Kenya.

4.2 Sustainability of Civil Aviation System

The Civil Aviation (Fatigue Management) Regulations, 2024 aim to build a foundation for long-term sustainability in Kenya's aviation sector, focusing on operational, economic, and environmental resilience.

4.3 Operational and Environmental Sustainability

As air travel grows, the need for a sustainable aviation system that balances safety, operational efficiency, and environmental responsibility also grows. The updated 2024 regulations introduce enhanced safety protocols, more rigorous maintenance standards, and clear operational guidelines, ensuring that air operators can maintain consistent and safe services. These measures reduce risks that may lead to operational downtime, enhancing the stability of the sector. Additionally, by mandating efficient maintenance and flight operations practices, the regulations

support efforts to minimize emissions and reduce the overall environmental impact of aviation in Kenya.

4.4 Economic Impact

The updated regulations also focus on the financial sustainability of air operators. By streamlining certification and renewal processes, they aim to reduce unnecessary administrative burdens and operational delays. This approach allows operators to focus more resources on core operations, while still adhering to strict safety and compliance standards. As a result, operators may experience reduced compliance costs, which can improve financial resilience across the sector. In turn, this bolsters Kenya's aviation industry, making it more attractive for both local and international investment and enhancing the sector's overall economic viability.

4.5 Capacity for Future Growth

Kenya's aviation sector continues to expand, with new entrants and increased demands for domestic and international air travel. The 2024 regulations lay a strong foundation for this anticipated growth by providing clear, consistent standards that guide air operators through certification, compliance, and operational requirements. This structured approach supports long-term sectoral growth by reducing barriers for new operators while ensuring that high safety and performance standards are maintained. By building a robust regulatory environment that aligns with international standards, the updated regulations position Kenya to sustainably expand its aviation system and cater to future demands, both in passenger and cargo transport.

5.0 CHAPTER FIVE – LEGAL FRAMEWORK FOR THE PROPOSED CIVIL AVIATION (FATIGUE MANAGEMENT) REGULATIONS, 2024

5.1 The Civil Aviation Act

The Civil Aviation Act CAP 394 was enacted to provide for the control, regulation and orderly development of civil aviation in Kenya; and for connected purposes. Section 4 of the Act provides that the provisions of the Act and regulations made thereunder unless expressly excluded shall apply to: aerodromes used for civil aviation in Kenya; air services established or operating in Kenya; any aircraft registered by the Authority; any foreign aircraft within the Kenya territory; aviation personnel and training schools certified by the Authority; enterprises operating in Kenya in the design, manufacture, maintenance, repair and modification of aircraft and aircraft parts or components; and air navigation facilities and services in Kenya. Section 82 provides for the Regulations that can be made by the Cabinet Secretary responsible for aviation matters to give effect to the Act and for regulating air navigation, air transport, air accident investigation and carrying out and giving effect to any convention on aviation ratified by Kenya. The draft Civil Aviation (Fatigue Management) Regulations, 2024 have been developed under section 82 of the Civil Aviation Act.

5.2 International Standards

Kenya, by virtue of Articles 2 (5) and (6) of the Constitution has ratified and become part of the international participants in the aviation space. The International Civil Aviation Authority (ICAO) was established as a specialized United Nations (UN) agency under the Convention of International Civil Aviation (Chicago Convention) which helps 193 countries to cooperate and share their skies to their mutual benefit. To achieve this, ICAO has provided for the establishment of international Standards and Recommended Practices (SARPs) the uniform application of which is necessary in order to achieve the highest practicable degree of uniformity in regulations, standards, procedures and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation.

The draft Civil Aviation (Fatigue Management) Regulations, 2024 correspond to the SARPs issued by ICAO as Annex 6 to the Convention on international civil aviation.

Kenya as a contracting state has an obligation under Article 37 to the Convention on international civil aviation to domesticate the SARPs into legally enforceable legislative material.

These regulations thus are issued in fulfilment of Kenya's international obligations as an ICAO contracting state and to ensure the safety, security, regularity and economic viability of global air transport system.

5.3 Regional Legislative initiatives

Regionally, Kenya is a member of the African Civil Aviation Commission (AFCAC) which is a specialized body of the African Union (AU) whose mandate is to create a safe, secure, efficient, and sustainable civil aviation industry across Africa that propels development through furthering connectivity.

Further, under the East African Community, Kenya is a member of Civil Aviation Safety and Security Oversight Agency(CASSOA) which is established under Article 92 of the EAC Treaty which in summary states that the Partner States shall undertake to make air transport services safe, efficient and profitable; adopt common policies for the development of civil air transport in the region; harmonize civil aviation rules and regulations and coordinate measures and co-operate in the maintenance of high security.

Under commitments under these regional arrangements and the aspiration to ensure that the regional air transport industry is appropriately managed, Kenya is obliged to issue these regulations to fulfill the regional obligations to a safe, secure and economically viable air transport system.

6.0 CHAPTER SIX – STAKEHOLDER CONSULTATION

6.1 Legal requirements relating to public participation and consultation

The need to develop the Civil Aviation (Fatigue Management) Regulations 2024, is necessitated by a series of ICAO State Letters informing the State of amendments to annex 6 that would become effective on specified dates. Kenya as a contracting State was therefore required to bring its regulations into uniformity with the adopted and amended SARPS.

Public participation plays a crucial role in democratic governance by ensuring transparency, inclusivity, and accountability in decision-making processes. The Constitution of Kenya 2010, places emphasis on public participation as a fundamental principle of governance. Article 10 of the Kenya Constitution outlines the values and principles of governance, including public participation, which is crucial for achieving accountability, transparency, and public involvement in decision-making processes.

In addition, Article 118 of the constitution establishes the right to public participation in legislative and other processes of the State, ensuring that the public has an opportunity to participate in matters that affect them directly.

The requirement for public participation applies to regulation making too. As such, before the draft regulations would be forwarded for promulgation, a series of stakeholder/public engagement was conducted.

6.2 The Process of Public Consultation

Narration

The first of a series of stakeholder meeting was held physically on 30th April 2019 covering a set of eleven (11) civil aviation regulations.

6.3 Public Notice and awareness

Narration and attachment of notices

The stakeholders' engagement forum was advertised in one of the major local dailies in accordance with applicable requirements for stakeholder engagement. The sets of regulations that were to be discussed during the public participation forum were well spelt out in the advert. A form to collect stakeholder comments was uploaded with the regulations on the KCAA website www.kcaa.or.ke.

The advert also highlighted how prospective participants would register for the public forum.

6.4 Public participation forum

Narration of dates

A physical stakeholder engagement was conducted at the Panari Hotel in Nairobi on 30th April 2019 and attended by 102 participants. The Stakeholder engagement report, approval MEMO and copy of signed attendance list are annexures to this report.

1.1 Analysis and Feedback

Refer to Matrices

1.2 Credibility and integrity of the Process

To ensure that the process of public participation was credible and pass the integrity test, KCAA did:

- 1.2.1 not engage in conduct involving dishonesty, fraud, deceit, misrepresentation, or discrimination and avoid relationships or actions, which could be legitimately interpreted as a conflict of interest; and,
- 1.2.2 took into consideration the social and economic status, religious beliefs, ethnicity, and other social diversities of those engaging in public participation.

Complaints arising from public participation process if any were referred to the Director General through and resolved as appropriate including provision of additional time and contact to address any stakeholders concerns.

7.0 CHAPTER SEVEN – CONSIDERATION OF ALTERNATIVES

7.1 Regulatory and Non Regulatory Alternatives

Table 2

Option	Impact
Option One: Maintenance of the Status Quo	There was no Civil Aviation (Fatigue Management) Regulations in place posing challenges to maintaining safety, operational efficiency, environmental responsibility, and long-term sustainability in Kenya's rapidly evolving aviation sector. Maintaining the status quo amounts to not having the Regulations in place.
Option Two: Administrative measures	The use of administrative measures, such as the issuance of directives and aeronautical information circulars to various entities, relies on voluntary compliance and lacks the legal authority to ensure mandatory enforcement. As these measures do not carry the force of law, they may be subject to legal challenges, limiting their effectiveness in achieving consistent implementation across the sector.
Option Three: Promulgating the Civil Aviation (Fatigue Management) Regulations 2024	It will strengthen Kenya's civil aviation system by ensuring alignment with current ICAO standards, enhancing safety, operational efficiency, and environmental responsibility. These regulations will provide a clear and enforceable framework that supports sustainable growth, fosters international trust, and safeguards the long-term resilience of Kenya's aviation sector.

7.2 Cost Benefit Analysis

Although the upfront costs of aviation fatigue regulations may be high, the long term benefits far outweigh these expenses. On the other hand failure to promulgate the Regulations poses risks of possible financial losses and reputational damage from regulatory breaches can impose significant costs.

7.3 Costs of Aviation Fatigue Regulations

1. Direct Costs to Airlines:

- Increased Staffing: Hiring additional crew to comply with duty time limitations and rest period requirements.

- b) **Training and Implementation:** Costs associated with fatigue management training and implementing Fatigue Risk Management Systems (FRMS).
- c) **Schedule Adjustments:** Additional planning and resources needed to manage compliant schedules, including increased layovers.
- d) **Rest Facility Upgrades:** Investments in better crew rest facilities, particularly for long-haul and ultra-long-haul flights.

2. Operational Costs

- a) **Reduced Utilization:** Limited crew availability may reduce aircraft utilization rates, impacting profitability.
- b) **Increased Turnaround Time:** Longer rest periods between duties may extend layover duration.
- c) **Penalties for Non-Compliance:** Fines and reputational damage from regulatory breaches can impose significant costs.

3. Administrative and Monitoring Expenses

- a) Maintaining compliance records,
- b) Conducting fatigue assessments, and
- c) Submitting reports to regulatory authorities.

7.4 Benefits of Aviation Fatigue Regulations

1. Safety Improvements

- a) **Reduction in Accidents:** Decreased risk of fatigue-related incidents and accidents, saving lives and reducing financial losses from investigations, litigation, and insurance claims.
- b) **Enhanced Decision-Making:** Improved alertness ensures better handling of routine and emergency situations.

2. Operational Efficiency

- a) Fewer Delays and Disruptions: Proactively addressing fatigue reduces the likelihood of errors, delays, or last-minute crew changes.
- b) Improved Team Performance: Well-rested crew members are more effective in communication and teamwork, enhancing overall operational efficiency.

3. Economic Benefits

- a) Lower Accident Costs: Avoiding accidents and incidents reduces costs associated with damage, lawsuits, and reputational harm.
- b) Passenger Confidence: A reputation for prioritizing safety attracts more passengers, increasing revenue.

4. Compliance with International Standards

- a) Aligning with ICAO or regional regulations like FAA or EASA standards facilitates global operations and reduces legal risks.

5. Health and Productivity of Aviation Personnel

- b) Reduced Absenteeism: Adequate rest decreases health-related absenteeism among crew members.
- c) Enhanced Morale and Retention: Supporting crew well-being improves job satisfaction, reducing turnover rates.

6. Social and Ethical Benefits

- d) Demonstrating a commitment to crew and passenger safety enhances public trust in the aviation industry.

7.5 Cost benefit analysis of the three options

Aviation Sector	Option one: Maintenance of the Status Quo	Option two: Administrative measures	Option three: Promulgating the Civil Aviation (Fatigue Management) Regulations, 2024
Benefits	None	None	Reduced accidents and incidents Fewer disruptions and delays Long term cost-savings from accident prevention Improved employee productivity and morale
Costs	Risk of increased accidents and incidents Risk of disruptions and delays Long term cost-savings from accident Reduced employee productivity and low morale Risk of legal liabilities	Low compliance levels Increased legal liabilities Lack of standardized approach Compromised international cooperation	Training and compliance expenses Schedule limitations Staffing and facility investments

Costs and Benefits Generally

The CBA for the Civil Aviation (Fatigue Management) Regulations, 2024, provides valuable insights into the implications for flight operations. By carefully weighing the costs against the anticipated benefits such as improved safety, enhanced operational efficiency, and economic growth, stakeholders can make informed decisions that support a sustainable and thriving aviation sector.

Impact analysis of the Options

Table 3

Aviation Sector	Option one: Maintenance of the Status Quo	Option two: Administrative measures	Option three: Promulgating the Civil Aviation (Fatigue Management) Regulations, 2024
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Personnel	If there are no Regulations in place the potential for skill gaps as industry evolves.	The use of administrative measures relies on voluntary compliance and lacks the legal authority to ensure mandatory enforcement. This may be subject to legal challenges, limiting their effectiveness in achieving consistent implementation across the sector.	The Regulations update is essential for addressing the regulatory lag to enable Kenya to effectively respond to emerging risks and adopt best practices that strengthen the oversight, and operational management of air operators in Kenya. New roles and responsibilities may arise, requiring recruitment and training, thus creating new employment opportunities.
Air Operator	- Risk of outdated training methodologies -Operational consistency but potential inefficiencies. - Risk of missing innovations	The use of administrative measures relies on voluntary compliance and lacks the legal authority to ensure mandatory enforcement. This may be subject to legal challenges, limiting their effectiveness in achieving consistent implementation across the sector. Requirement for more documentation. - Possible increase in operational costs.	Clearer operational guidelines and expectations. - Opportunities for innovation and modernization.
Training Organizations	No changes to training curricula. - Risk of outdated training practices and methodologies	Introduction of updated training programs. - Greater emphasis on	Comprehensive revision of training standards. - Focus on innovative practices and technologies

		safety and regulatory compliance.	-Enhanced focus on safety and compliance.
The State	No change in regulatory framework. - Risks of non-compliance with international standards	Improved monitoring of aviation operations. - Better alignment with international regulations	Strengthened compliance with international aviation standards; enhanced safety and security for the state that is enhanced global reputation for safety and compliance.
The Authority	Limited ability to enforce outdated regulations. - Challenges in maintaining safety standards.	More proactive role in oversight. - Increased resources for enforcement and compliance	Clear regulatory framework and guidelines. - Authority gains stronger enforcement capabilities

Preferred Option

Based on the above analysis option three (promulgation of the Civil Aviation (Fatigue Management) Regulations 2024) is the preferred option. It is clear that the benefits and impact of promulgating these regulations by far outweigh any estimated cost of its implementation. The other two options have a negative impact in addressing the problem.

8.0 CHAPTER EIGHT – COMPLIANCE AND IMPLEMENTATION

The compliance and implementation aspects of the Civil Aviation (Fatigue Management) Regulations 2024 are crucial for ensuring that airlines and operators adhere to the guidelines effectively. Here are some key components:

8.1 Compliance Framework

Documentation: Operators must develop and maintain a comprehensive fatigue management plan that aligns with the regulations.

Audit and Monitoring: Regular audits shall be conducted to assess compliance with fatigue management policies and procedures.

Reporting Mechanisms: Establishing clear reporting channels for incidents related to fatigue, allowing for timely investigation and corrective actions.

8.2 Training Programs

Crew Training: All personnel should receive training on fatigue management principles, recognizing symptoms of fatigue, and strategies for mitigation.

Management Training: Operational managers should be trained in scheduling practices and the importance of maintaining compliance with fatigue regulations.

8.3 Scheduling Practices

Flight Time Limitations: Implement systems to ensure that flight schedules comply with the specified limits on duty and flight hours.

Rest Periods: Clearly define and enforce minimum rest requirements between shifts, accommodating factors like time zone changes and night flying.

Monitoring and Feedback

Fatigue Risk Management Systems (FRMS): Operators may implement FRMS to assess and manage fatigue risks proactively.

Data Collection: Gather data on crew performance, fatigue reports, and incidents to identify trends and areas for improvement.

8.5 Continuous Improvement

Review and Update Policies: Regularly review and update fatigue management policies based on feedback, new research, and incident analysis.

Stakeholder Engagement: Involve crew members in discussions about fatigue management practices to enhance awareness and compliance.

Regulatory Oversight

Inspections: The Authority will conduct inspections to ensure compliance with the fatigue management regulations.

Enforcement Actions: Non-compliance can lead to penalties, including fines or operational restrictions, emphasizing the importance of adherence.

8.6 Conclusion

The successful implementation of the Civil Aviation (Fatigue Management) Regulations 2024 relies on a holistic approach that involves training, effective scheduling, continuous monitoring, and regulatory oversight. By fostering a culture of safety and awareness regarding fatigue, operators can significantly enhance aviation safety.

9.0 CHAPTER NINE – CONCLUSIONS & RECOMMENDATIONS

9.1 Conclusions

- 1.2.3 Based on the above analysis, the following conclusions are drawn in respect of the draft Civil Aviation (Fatigue Management) Regulations, 2024:
- 1.2.3.1 Regulations making mandate: Section 82 of the Civil Aviation Act empowers the Cabinet Secretary in Consultation to give effect to and for the better carrying out of the objects and purposes of this Act, to provide generally for regulating air navigation, air transport, air accident investigation and carrying out and giving effect to any convention.
- 1.2.3.2 Provisions of the Statutory Instruments Act: Section 5 requires that a regulation making authority to conduct public consultations and drawing on the knowledge of persons having expertise in fields relevant to the proposed statutory instrument; and to ensure that persons likely to be affected by the proposed statutory instrument had an adequate opportunity to comment on its proposed content. Sections 6 and 7 require that a RIA be prepared where a statutory instrument is likely to impose significant costs on the community. This RIA thus contains certain the following key elements:
- (a) a statement of the objectives of the proposed legislation and the reasons.
 - (b) a statement explaining the effect of the proposed legislation.
 - (c) a statement of other practicable means of achieving those objectives, including other regulatory as well as non-regulatory options.
 - (d) an assessment of the costs and benefits of the proposed statutory rule and of any other practicable means of achieving the same objectives; and
 - (e) the reasons why the other means are not appropriate.
- 1.2.3.3 The RIA structure and content requirements established in the Statutory Instruments Act requirements have been fully met. Additionally, public consultation requirements in respect of the Civil Aviation (Hot Air Balloons Operations) Regulations, 2024 have been (will be) fully adhered to.
- 1.2.3.4 Other legal frameworks: The draft Civil Aviation (Hot Air Balloons Operations) Regulations, 2024 proposes to publish regulations in harmony with other civil aviation regulations to effectively govern the civil aviation system in Kenya.
- 1.2.3.5 The draft: The draft Civil Aviation (Hot Air Balloons Operations) Regulations, 2024 as drafted are clear, consistent, comprehensible and comprehensive enough to cover all matters and meet the established drafting standards.

9.2 Recommendations

In view of the above conclusions, it is recommended that the draft Civil Aviation (Fatigue Management) Regulations, 2024 be adopted.

9.3 Annexures

9.3.1 The Draft Civil Aviation (Fatigue Management) Regulations, 2024

9.3.2 Matrix for stakeholder consultations