

**RWANDA AIRPORTS COMPANY**



**AIR NAVIGATION SERVICES**

**AERONAUTICAL INFORMATION MANAGEMENT**

**QUALITY MANUAL**

**Second Edition**

**Kigali International Airport**

**RAC-KIA-ANS-AIM002**

**August, 2022**

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## APPROVAL PAGE

Approved by:

Signature.....

Date: 03/08/2022



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## FOREWORD

This quality manual provides information on the processes of Aeronautical Information Services. The manual is intended to demonstrate AIM capability to consistently provide services that meet customer and applicable regulatory requirements and to operate with increased effectiveness and efficiency with the overall aim of enhancing customer satisfaction through effective application of the requirements of ISO 9001:2015 International Standard.

This manual describes in detail an Aeronautical Information Services Quality Management System (QMS). It is designed to meet and/or exceed the requirements specified by our customers, Authority Regulations and the ISO 9001:2015 International Standard.

This Quality Manual provides information on processes which Aeronautical Information Management (AIM) engages in to ensure a Quality Management System (QMS). It also describes the policy and objectives set by AIM for reaching the desired level of quality within the organization.

The contents of this manual shall be reviewed as required and the Manager AIM is responsible for coordinating changes to the manual.

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## 0. INTRODUCTION

## 0.1 RECORD OF AMENDMENTS

Amendment to this manual is necessitated by change of Aeronautical information management processes, procedures, regulations and standards and must be by page replacement, addition, and deletion or by complete re-issue. Staff carrying out any amendment to this manual must complete the Amendment Record sheet below which summarizes the changes made to this document.

[illegible]

**0.2 DISTRIBUTION LIST**

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| 08            | Manager ATM                  | Controlled copy       |
| 09            | Manager CNS                  | Controlled copy       |
| 10            | Manager MET                  | Controlled copy       |
| 11            | Quality and Safety Manager   | Controlled copy       |
| 12            | AIM Inspector                | Controlled copy       |
| 13            | Briefing Office              | Controlled copy       |
| 14            | Gisenyi Airport              | Controlled copy       |
| 15            | Kamembe Airport              | Controlled copy       |

**0.3 LIST OF EFFECTIVE PAGES**

| <b>Page</b> | <b>Date</b> | <b>Version</b> |
|-------------|-------------|----------------|
| i - 50      | 15/08/2022  | Two            |

**0.4 LOG OF REVISION OF MANUAL**

| <b>Edition</b> | <b>Revision</b> | <b>Effective Date</b> |
|----------------|-----------------|-----------------------|
| First Issue    | One             | 01/07/2017            |
| Second Issue   | Two             | 01/11/2018            |
| Second Issue   | Three           | 01/08/2020            |
| Second Issue   | Four            | 31/08/2021            |
| Second Issue   | Five            | 15/08/2022            |

## 1. SCOPE

### 1.1 General

This manual defines the Quality Management System conforming to ISO 9001:2015 established and maintained by AIM Unit to meet customer aeronautical data needs, applicable statutory and regulatory requirements. The main activities comprise of:

1. Production of Aeronautical Information products and services, which consist of the following elements:
  - i) AIP, including amendment and Supplements;
  - ii) Aeronautical charts;
  - iii) AIC;
  - iv) NOTAM and
  - v) Digital data Sets.
2. ATS Reporting Service
3. Aeronautical Maps and Charts production
4. Briefing, PIBs.
5. Aeronautical Revenues Billing for ad hoc flights and
6. Quality assurance for our clients to ensure products and services are of utmost quality.

All the functions of AIM that are under scope of this manual are as shown above.

All the activities mentioned above are carried out from one location only.

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AFTN: HRYRYFYX

## 1.2 Exclusion

All requirements of ISO 9001:2015 have been addressed, except for the following:

### **Clause 8.3** Design and Development of products and services:

The exclusion is sought on the grounds that AIM Unit does not carry out any design and/or development activity for its products and services. ICAO specifies design, specific criteria (Annex 15 and Annex 4) for the use of each element of information contained in the publications for the global uniformity.

## 2. NORMATIVE REFERENCES

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- ▲ ISO 9001:2015, Quality Management systems — Requirements
- ▲ Rwanda Civil Aviation Regulation Standards
- ▲ Rwanda Civil Aviation Technical Standards
- ▲ RCAA – MOS – ANS001 – Manual of Standards for Air Navigation Services Part III
- ▲ RCAA-AC-ANS001A – Advisory Circular on the development of MANOPS ICAO
- ▲ Annex 4 – Aeronautical Charts
- ▲ ICAO Annex 5 – Units of Measurement
- ▲ ICAO Annex 15 – Aeronautical Information Services
- ▲ ICAO Annex 14 – Aerodromes
- ▲ ICAO Documents:
- ▲ Doc 4444 – PANS – ATM (Air Traffic Management)
- ▲ Doc 8400 – PANS – ABC – ICAO Abbreviations and Codes
- ▲ Doc 8585 – Designations for aircraft Operating Agencies, Aeronautical Authorities and Services
- ▲ Doc 7910 – Location Indicators
- ▲ Doc 8643 – Aircraft Type Designators
- ▲ Doc 8126 – Aeronautical Information Services Manual
- ▲ Doc 7101 – Aeronautical Chart Catalogue
- ▲ Doc 9674 – World Geodetic System-1984
- ▲ Doc 8697 – Aeronautical Charts Manual
- ▲ Doc 7192 – Training Manual
- ▲ Doc 10066- PANS-AIM

### 3. TERMS AND DEFINITIONS

#### 3.1 General Definitions

**Aeronautical data.** A representation of aeronautical facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing.

**Aeronautical information:** The result of gathering, analyzing and formatting aeronautical data.

**Audit:** A systematic, independent and documented process for obtaining evidence from the audit and objectively assessing it in order to determine the extent to which audit criteria are met.

**Corrective action:** Action taken to eliminate the cause of an identified non-conformity or other undesired condition.

**Improvement:** An action aimed at eliminating or reducing a condition identified as weak following an assessment process. Corrective and preventive action would fall under this concept.

**Top management:** An individual or group of individuals who direct or control an Organization at the highest level.

**Capacity:** The capability of an organization, system or process to generate a product that meets the requirements for such product.

**Customer:** An organization or individual receiving a product.

**Competence:** Personal attributes and ability shown in the application of knowledge and skills.

**Empowerment:** In relation to leadership management, this practice encourages subordinates to take on more responsibilities, which requires prior education, training and information. This practice results in an improvement in organizational performance.

**Document:** Information and its support medium.

**Aeronautical Information Circular (AIC).** A notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters.

**Aeronautical Information Product.** Aeronautical data and aeronautical information provided either as digital data sets or as a standardized presentation in paper or electronic media.

Aeronautical information products include:

- Aeronautical Information Publications (AIP), including Amendments and Supplements;
- Aeronautical Information Circulars (AIC);
- Aeronautical charts;
- NOTAM; and
- Digital data sets.

**Aeronautical Information Publication (AIP).** A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

**Aeronautical information service (AIS).** A service established within the defined area of coverage responsible for the provision of aeronautical information/data necessary for the safety, regularity and efficiency of air navigation.

**AIP Amendment.** Permanent changes to the information contained in the AIP.

**AIP Supplement.** Temporary changes to the information contained in the AIP, which are published by means of special pages.

**AIS product.** Aeronautical information provided in the form of the elements of the Integrated Aeronautical Information Package (except NOTAM and PIB), including aeronautical charts, or in the form of suitable electronic media.

**Database.** One or more files of data so structured that appropriate applications may draw from the files and update them.

Note. — This primarily refers to data stored electronically and accessed by computer rather than in files of physical records

**Data quality.** A degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity.

**Document.** Information and its supporting media (ISO 9000:2005 cl. 3.7.2) (records, specification, procedure document, drawing, report and standard).

Note. - This should not be confused with the AIP documents, which could be products of this quality system. Where an AIP document is referred to within this manual, it should be specified by name.

**Integrity (aeronautical data).** A degree of assurance that an aeronautical data and its value has not been lost or altered since the data origination or authorized amendment.



**International NOTAM office (NOF).** An office designated by a State for the exchange of NOTAM internationally.

**NOTAM.** A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

**Originator.** Any organization that provides data or information for publishing in the AIP either as an amendment, Supplement or as a NOTAM.

**Pre-flight information bulletin (PIB).** A presentation of current NOTAM information of operational significance, prepared prior to flight.

**Quality.** Degree to which a set of inherent characteristics fulfils requirements (ISO 9000\*).

Note 1. — The term “quality” can be used with adjectives such as poor, good or excellent.

Note 2.— “Inherent”, as opposed to “assigned”, means existing in something, especially as a permanent characteristic.

**Quality assurance.** Part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000\*).

**Quality control.** Part of quality management focused on fulfilling quality requirements (ISO 9000\*).

**Quality management.** Coordinated activities to direct and control an organization with regard to quality (ISO 9000\*).

**Quality Management System (QMS).** Management System to direct and control an organization with regard to Quality (ISO 9000 cl 3.2.3)

**Quality System.** The organizational structure, procedures, processes and resources needed to implement quality management (ISO 8402 \*).

**Requirement.** Need or expectation that is stated, generally implied or obligatory (ISO 9000\*).

Note 1. — “Generally implied” means that it is custom or common practice for the organization, its customers and other interested parties, that the need or expectation under consideration is implied.

Note 2. — A qualifier can be used to denote a specific type of requirement, e.g. product requirement, quality management requirement, customer requirement.

Note 3. — A specified requirement is one which is stated, for example, in a document.

Note 4. — Requirements can be generated by different interested parties.

**Sub-Contractor.** Any person or organization contracted to provide products or services directly related to the production processes of this quality system.

**Verification.** Confirmation, through the provision of objective evidence that specified requirements have been fulfilled (ISO9000\*).

Note 1. — The term “verified” is used to designate the corresponding status.

Note 2. — Confirmation can comprise activities such as:

- performing alternative calculations;
- comparing a new design specification with a similar proven design specification;
- undertaking tests and demonstrations; and
- reviewing documents prior to issue.

### 3.2 Abbreviations and Acronyms

**AFTN :** Aeronautical Fixed Telecommunications Network

**AIC :** Aeronautical Information Circular

**AIM :** Aeronautical Information Management

**AIP :** Aeronautical Information Publication

**AIRAC :** An acronym (aeronautical information regulation and control) signifying a system aimed at advance notification based on common effective dates, of circumstances that necessitate significant changes in operating practice.

**AIS :** Aeronautical Information Services

|               |   |   |
|---------------|---|---|
| <b>ATM</b>    | : | Air Traffic Management                    |
| <b>ATS</b>    | : | Air Traffic Services                      |
| <b>CNS</b>    | : | Communication Navigation Surveillance     |
| <b>ERC</b>    | : | En-route Chart                            |
| <b>FIR</b>    | : | Flight Information Region                 |
| <b>FSS</b>    | : | Flight Safety Services                    |
| <b>ICAO</b>   | : | International Civil Aviation Organization |
| <b>IFR</b>    | : | Instrument Flight Rules                   |
| <b>PUB</b>    | : | Publication                               |
| <b>NOTAM:</b> |   | Notice to Airmen (See definition)         |
| <b>QMS</b>    | : | Quality Management System                 |
| <b>RAC</b>    | : | Rwanda Airports Company Ltd               |
| <b>RCAA:</b>  |   | Rwanda Civil Aviation Authority           |

**Time System:** Coordinated Universal Time (UTC) is used in the air navigation services and in publications issued by the Aeronautical Information Service. No seasonal modifications are occurring upon the time (hours) in Rwanda. The local time in Rwanda is two (2) hours ahead of UTC (UTC+2).

## 4. CONTEXT OF ORGANIZATION

### 4.1 Understanding context

Aeronautical Information Management office has emphasized quality service as one of the most important factors in order to ensure high level of customer satisfaction. Nevertheless, AIM has its own internal strengths and weaknesses, and is positively or negatively affected by external factors hereunder grouped in Opportunities and Threats.

Opportunities and threats are determined by gradual monitoring of all AIM processes.

| INTERNAL             | ISSUES   | IMPACT ON QMS  |
|----------------------|--|--|
| <b>STRENGTHS</b>     | <ul style="list-style-type: none"> <li>- AIM Unit is under RAC, and the top management is responsible to fund all AIM activities.</li> <li>- Having in place infrastructure and standard equipment</li> <li>- State focal point of aeronautical information</li> </ul> | <ul style="list-style-type: none"> <li>- Quality objectives will be achieved efficiently.</li> <li>- QMS support from RAC top management is provided on time.</li> </ul>   |
| <b>WEAKNESSES</b>    | <ul style="list-style-type: none"> <li>- Lack of refresher course</li> <li>- Shortage of staff</li> <li>- Aeronautical Information Services are not automated</li> </ul>   | <ul style="list-style-type: none"> <li>- QMS will assist to implement training programs</li> <li>- Opportunity to learn from the guidance provided through QMS requirement procedures.</li> <li>- QMS will assist to implement automation</li> </ul> |
| <b>OPPORTUNITIES</b> | <ul style="list-style-type: none"> <li>- Social working environment</li> <li>- Strong internet connectivity</li> </ul>   | <ul style="list-style-type: none"> <li>- Compliance with QMS requirements</li> <li>- Timely service delivery</li> </ul>  |

|                        |   |   |
|------------------------|---|---|
| <b>THREATS</b>         | COVID -19   | - QMS will assist to put in place the preventive measures of COVID-19 |
| <b>EXTERNAL ISSUES</b> | <ul style="list-style-type: none"> <li>- Political</li> <li>- Social economical factors</li> <li>- Natural Hazards</li> </ul> |   |

**Table 1. SWOT Analysis**

## 4.2 Interested parties

An AIS does not normally originate the information it processes and ultimately issues. The “raw data” must be provided by those responsible for the operation of the various air navigation facilities and services. This, in turn, is necessary to ensure timely distribution of all significant information both within the State and to other States as required.

In order to fulfil efficiently the dual role of collecting and distributing information from and to all concerned, AIM must also establish and maintain a direct and continuous liaison with different parties interested in our services, such as:

- a) the AIS in other States from which it is necessary to receive information to meet operational requirements within the Rwanda for pre-flight information;
- b) technical services within RAC that are directly concerned with the provision and maintenance of the various air navigation facilities, services and procedures, namely:
  - Air Traffic Management Unit, to ensure immediate transmission of all required information, services for air traffic control and for in-flight information purposes;
  - Communication, Navigation and Surveillance Unit;
  - Aeronautical Meteorology Unit;
  - Aerodrome and Ground Aids Department;
  - Finance Department;
  - Airport Operations
- c) Rwanda Civil Aviation Authority, being the regulator of Air Navigation Services, to provide information concerning regulations, Clearances, Airworthiness, Aviation security and other related data;

- d) Rwanda Defense Force (RDF), as necessary, to receive and distribute information concerning navigation warnings (military exercises, etc.) or any special military facilities or procedures available to or affecting civil aviation;
- e) all aircraft operating agencies conducting operations in or through Rwanda, to ensure that pre-flight information requirements are adequately met;
- f) Rwanda Directorate General of immigration and Emigration, for the provision of data concerning entry, transit and departure of passengers and crew;
- g) Rwanda Revenue Authority, for provision of information concerning customs, entry, transit and departure of cargo, and
- h) Any other services that may either be a source of information of interest to civil aviation or have a legitimate reason for requiring information about civil aviation.

For coordination between AIM Unit and raw data providers, refer to **chapter 14 of AIM Manual of Operations**, which is shared with our raw data providers and who in turn share theirs with us.

### 4.3 Scope of the QMS

The information handled by AIM may vary widely in terms of the duration of its applicability. For example, information related to airports and its facilities may remain valid for many years while changes in the availability of those facilities (for instance, due to construction or repair) will only be valid for a relatively short period. Information may be valid for as short a time as days or hours.

The urgency attached to information may also vary, as well as the extent of its applicability in terms of the number of operators or types of operations affected by it. Information may be lengthy or concise or include graphics.

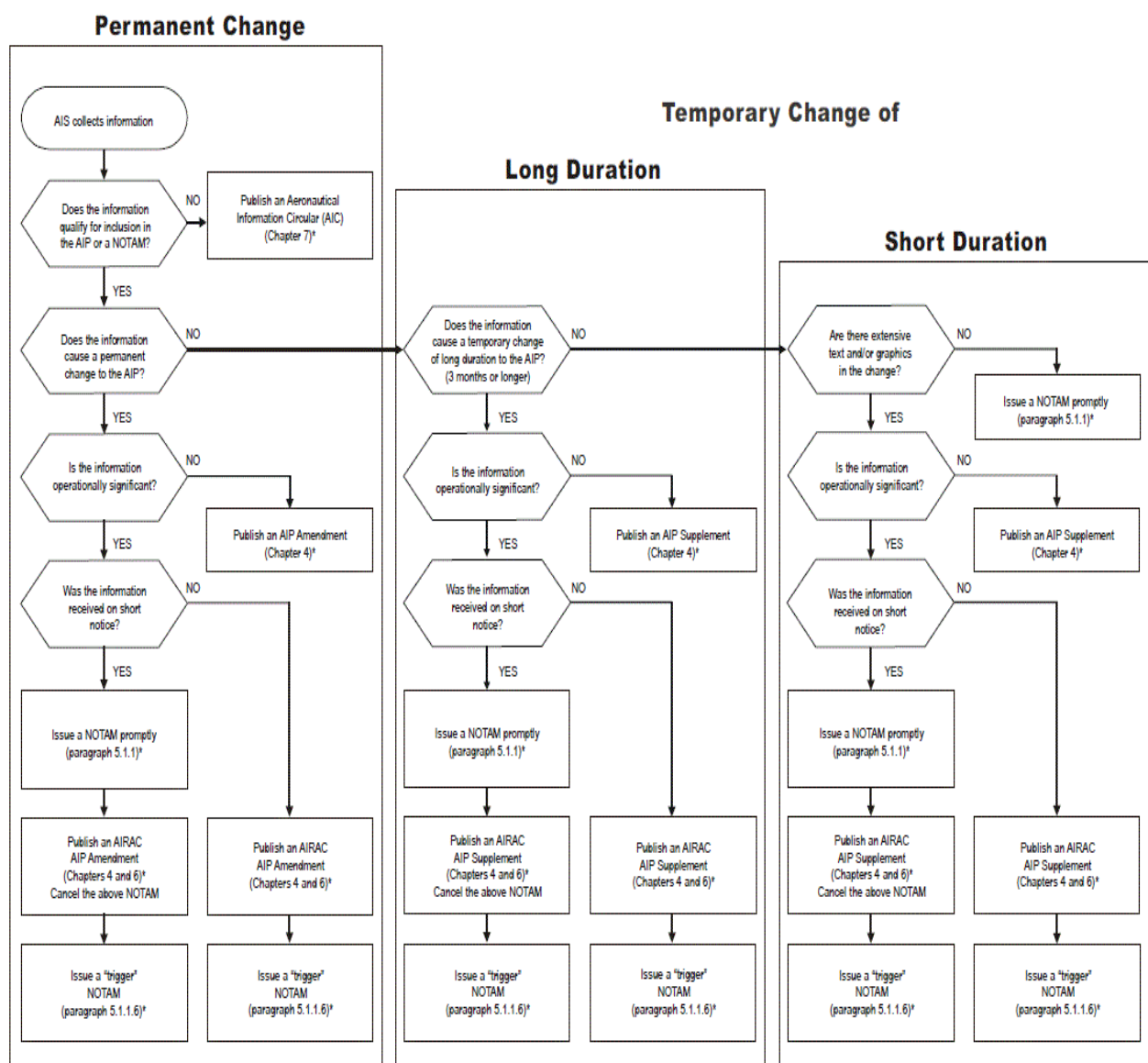
Therefore, aeronautical information is handled differently depending on its urgency, operational significance, scope, volume and the length of time it will remain valid and relevant to users. Annex 15 specifies that, Aeronautical information shall be provided in the form of aeronautical information products and associated services and composed of the following elements:

- Aeronautical Information Publications (AIP), including Amendments and Supplements;
- Aeronautical Information Circulars (AIC);
- aeronautical charts;
- NOTAM; and
- Digital data sets.

Each element is used to distribute specific types of aeronautical information, as per this quality management system.

#### 4.4 QMS and its processes

AIM Unit has established this quality system and put in place quality management procedures at all stages (receiving and/or originating, collating or assembling, editing, formatting, publishing, storing and distributing) of the aeronautical information/data process as follows;



#### **4.5 PROCESSES VS RISKS VS MITIGATION**

AIM Unit will update risks when they are no longer valid or will add new risks whenever they are identified. Refer to the **Processes vs Risks vs Mitigation Document**.



| PROCESSES                           | RISK IDENTIFICATION   | MITIGATIONS  |
|-------------------------------------|---|--|
| NOTAM                               | <ul style="list-style-type: none"> <li>- Lack of automated NOTAM processing system</li> <li>- Transmission of wrong information, due to manual system that could not detect errors before transmission.</li> <li>- You can't tell if transmitted messages have reached the destination.</li> <li>- NOTAM request received untimely</li> </ul> | <ul style="list-style-type: none"> <li>- Acquiring Automated system (D-AIM)</li> <li>- Continuous awareness on providing timely data.</li> </ul>   |
| AIP,<br>AMENDMENT AND<br>SUPPLEMENT | <ul style="list-style-type: none"> <li>- Lack of automated AIP processing system</li> <li>- Raw Data received untimely</li> <li>- High consumption of resources, e.g. papers, cartridge etc.</li> <li>- High cost of amendment postage.</li> </ul>  | <ul style="list-style-type: none"> <li>- Continuous awareness on providing timely data.</li> <li>- Acquiring Automated system (D-AIM)</li> </ul>   |
| Flight Plan Management              | <ul style="list-style-type: none"> <li>- Lack of automated flight plan processing system</li> <li>- Flight plans from Airline operators received untimely</li> <li>- High consumption of papers.</li> <li>- Manual processing of FPL is time consuming, hence delaying flights</li> </ul>   | <ul style="list-style-type: none"> <li>- Acquiring automated system (D-AIM) that would allow receiving online flight plans and repetitive flight plans.</li> <li>- Continuous awareness on providing timely data.</li> </ul> |
| -Trainings                          | <ul style="list-style-type: none"> <li>- Inadequate trainings could cause some errors in AIM daily Operations.</li> </ul>   | <ul style="list-style-type: none"> <li>- Training of personnel, refresher courses and workshops</li> </ul>   |

## 5. LEADERSHIP

### 5.1 Leadership and commitment

#### 5.1.1 General

A Leadership principle is a fundamental rule for leading, operating, supporting and developing an organization with the objective of continually improving performance over the long term through a focused approach to all stakeholders, employees and customers in particular.

The RAC top management through its directorates is committed towards fully implementation of quality management system and takes full accountability for its effectiveness.

The quality objectives and quality policies are established by the Manager of AIM Unit. While doing so they ensure that the quality policies and quality objectives are compatible with the context and strategic direction of Rwanda Airports Company.

All AIM operations are conducted as per QMS requirements and for each core process of our operations, a plan – do – check - act approach is adopted. Risk based thinking is applied at each of these steps. For effective implementation of QMS, the RAC top management is responsible for allocation of budget, the Financial, human & other physical resources as and when required.

The importance of QMS requirements to the RAC and its processes are communicated through regular meetings, e-mail, website, advisory circulars and AIP (Aeronautical Information Publication). AIM Unit has identified the inputs to its operation processes and defined responsibilities for achieving conformity of services. Different forms are put in place to check whether our daily activities comply with intended results of the QMS.

RAC is engaged, in directing and supporting all employees, to contribute to the effectiveness of QMS for the growth and improvement of Rwanda aviation industry.

All Directors, Managers of departments are responsible to demonstrate their leadership in their units and departments and keep entire staff engaged in achieving organizational objectives.

#### 5.1.2 Customer focus

AIM Unit has put in place an adequate compliant environment to identify the needs and expectations of our customers through use of “**customer satisfaction form**” refer to **Appendix 1** of this Manual, and use of emails.

Different issues that can affect conformity of services and the ability to enhance customer satisfaction are determined and addressed through QMS. Customer satisfaction feedback is considered in order to enhance and maintain customer satisfaction.

## 5.2 Policy

### 5.2.1 Quality Policy

“AIM commits to providing quality aeronautical information products and services that enable our customers to effectively plan and safely operate within the national airspace and International boundaries. AIM achieves this goal by meeting and exceeding customer expectations and continually improving the timeliness and accuracy of our information and processes.”

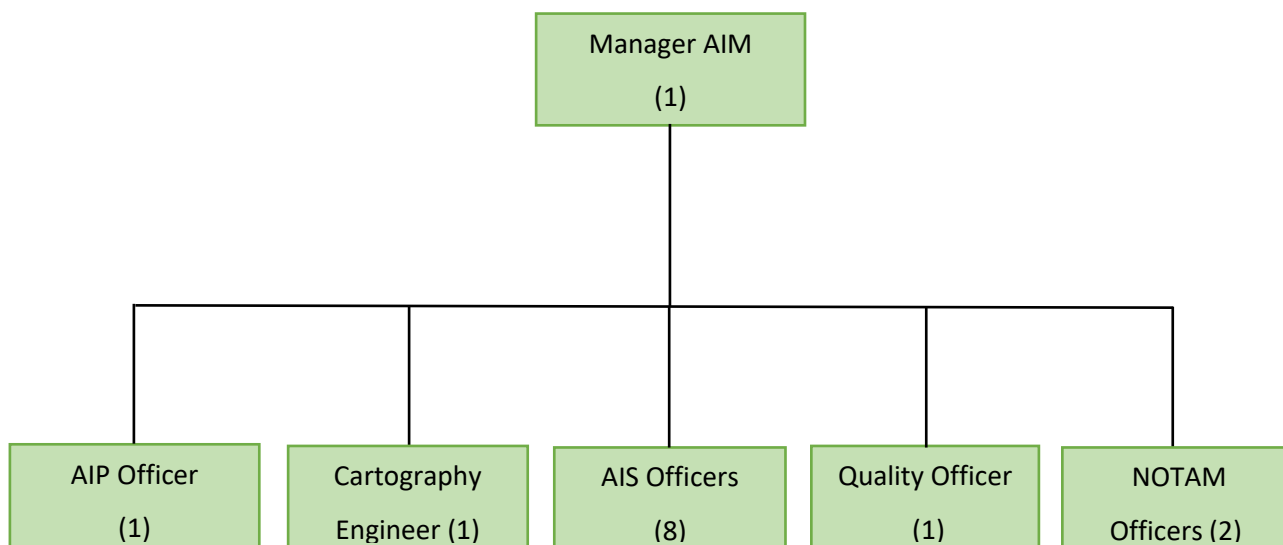
### 5.2.2 Communicating the quality policy

The quality policy is communicated through RAC management meetings, memoranda to other Managers of departments, the departmental regular meetings and is also displayed on notice board. This office ensures that the quality policy is understood by all staff and it is applied within the department.

## 5.3 Organizational roles, responsibilities and authorities

RAC management has appointed the AIM QMS officer in charge of reporting performance of the QMS and opportunities for improvement in AIM Unit, as indicated in the AIM organization structure below, extracted from RAC organization structure, refer to **AIM Manual of operations Appendix 26**.

### 5.3.1 AIM Organization Structure



### 5.3.2 Job Title, Description, Responsibilities and Qualifications

#### 1. Manager AIM

Reports to: Director of Air Navigation Services

##### 1.1. Job Description

- Implements and monitors the operating procedures, standards and processes of the station.
- Reviews aeronautical information and data for the station published in the aeronautical Information Products.
- Recommends appropriate amendments for publication
- Coordinates the collection and timely submission of raw data at the station
- Liaises with Director ANS on the needs in human resources and skills requirements.
- Liaises with Head of Human Resource to develop training needs analysis for AIM Unit in RAC.
- Performs staff appraisal, monitoring and evaluation of performance and reports accordingly to the ANS Director.
- To oversee the promulgation and updating of national and foreign NOTAM.
- Prepares AIS needs (facilities, equipment, personnel) for inclusion in the annual RAC budget and submits to DANS for validation and approval.
- Performs any other duty as assigned by the DANS.

##### 1.2. Qualifications

- BBA, BSC degree and related field, such as, IT, Aviation, Geography and Management.
- A Certificate in Aeronautical Information Services (ICAO 021).
- Training course in Middle Level Management.
- A certificate in Aeronautical Digital Cartography or Geographic Information System

##### 1.3. Experience

- 5 years of experience in the Aeronautical Information Service operations and NOTAM office.

#### 1.4. Knowledge and skills

- Knowledge of Quality Management Systems in AIS
- Knowledge of relevant ICAO standards.
- Proficiency in office suite and desktop publishing tools.

## 2. Quality Officer

### Reports to Manager AIM

#### 2.1. Job Description

- Preparation and amendment of AIM's Operations and Quality Manuals;
- Withdraw of obsolete copies of AIM quality and operations manuals from their receivers;
- Confirm if the procured products conform to the AIM quality requirements before put in use;
- Ensure that the results of audit are reported to the relevant management through the Manager AIM
- Conduct regular review of QMS to ensure its continuing suitability and effectiveness;
- Ensure that management reviews of the quality management system are conducted
- Perform any other duty as assigned by the Manager AIM.

#### 2.2. Qualifications

- A0 in science discipline and five years of experience in AIS operations.
- Certificate in Aeronautical Information Services (ICAO 021) from an ICAO recognized training institution
- Certificate in ISO 9001:2015, Quality Management systems — Requirements

#### 2.3. Experience

- Successfully completed on-job- training in Aeronautical Information Service operations.
- User knowledge of AIS systems and procedures.
- Basic knowledge of ICAO and relevant publications.
- Knowledge of applicable charges.
- Basic computer skills.

## 3. NOTAM Officer

## Reports to Manager AIM

### 3.1. Job Description

- Processes national NOTAMS; Monitor the NOTAM procedures and update database.
- Prepares and validates all PIBs before sending to ARO.
- Prepares monthly NOTAM Checklist
- Prepares and disseminates NOTAM, ASHTAM, SNOWTAM and/or TRIGGER NOTAM both locally and internationally in accordance with the series via the Aeronautical Fixed Telecommunications Network (AFTN) or Automatic Message Handling System (AMHS).
- Prepares monthly NOTAM summary of valid NOTAM printed in plain language
- Ensures update of foreign NOTAMS received in the database.
- Conducts on-the-job training and submits training reports.
- Performs any other duty as assigned by the Manager AIM

### 3.2. Qualifications

- A2 in Science discipline and ten years of experience in AIS or a Bachelor degree in a related field, such as IT, Aviation, Geographical Information Systems any other field and
- A Certificate in Aeronautical Information Services (ICAO 021) or NOTAM management courses.

### 3.3. Experience

- Successfully completed on-job- training in Aeronautical Information Service operations and NOTAM Office
- Knowledge and skills
- Knowledge of Quality Management Systems in AIS and NOTAM
- Knowledge of relevant ICAO Annexes.
- Computer skills

## 4. Aeronautical Information Officer

### Reports to Manager AIM

#### 4.1. Job Description

- Receives and Analyses flight plan for
  - a) Accuracy,
  - b) Conformance
  - c) Compliance
- Processing of flight plan and transmission to all relevant ATS units
- Delivery of pre-flight bulletins to crew members and ensuring accurate information is imparted during flight planning and crew-briefing process (Verbal briefing).
- Receives Post flight information bulletins and other client's feedback.
- Analyses Aircraft weight and provides revenue officers with relevant information for Air Navigation Charges invoicing.
- Conducts on-job-training and submits training reports to Manager AIM
- Ensures implementation of processes and procedures related to QMS during flight planning and crew- briefing.
- In the absence of NOTAM Officer, Aeronautical Information Officer shall review, analyse and issue NOTAM.
- Performs any other duty as assigned by the Manager AIM

#### 4.2. Qualifications

- A2 in Science discipline and ten years of experience in AIS or a Bachelor degree in a related field, such as IT, Aviation, Geographical Information Systems and any other field and
- A certificate in Aeronautical Information Services (ICAO 021).

#### 4.3. Experience

- Successfully completed on-job- training in Aeronautical Information Service operations.
- Knowledge and skills
- User knowledge of AIS systems and procedures.

- Basic knowledge of ICAO and relevant publications.
- Knowledge of applicable charges.
- Basic computer skills.

## 5. Cartography Engineer

### Reports to Manager AIM

#### 5.1. Responsibilities

- Collects aeronautical data for use to develop or amend charts in the Rwanda airspace
- Analyses and formats the aeronautical data into an acceptable state for entry and processing into the AIS Database.
- Collates raw data for development and updating of aeronautical maps/charts.
- Prepare, draft, print and distribute maps and charts as per the current subscription list
- Maintains the inventory of maps and charts and ensure they are up to date
- Maintain tools and equipment for cartographic drafting
- Plot and update navigation warnings in Rwanda FIR
- Avail maps and charts relevant to Rwanda FIR and ensure they are up to date
- Assist manager AIM in cartographic drafting.
- Avail summary of mandatory and recommended charts and their uses
- Perform Data quality checks on raw data before using it for cartographic drafting.
- Supervises the on-job-training of new staff.
- Coordinates with charting authorities in the neighboring FIRs for continuity of world area charts
- Performs any other duties assigned by Manager AIM

#### 5.2. Qualifications

- A Bachelor degree in computer science, computer engineering, Geographical Information System or IT.
- A Certificate in Aeronautical Information Services from an ICAO recognized training institution



- Certificate in Quality Management System.
- A certificate in Aeronautical Digital Cartography

### 5.3. Experience

- 
- Successfully completed on-job- training in digital cartography
- Knowledge of relevant ICAO Annexes.
- Knowledge on relevant Rwanda Civil Aviation Regulations
- Knowledge of relevant Rwanda Civil Aviation technical guidance materials
- Basic Computer skills
- Basic knowledge of drawing software program.
- Has a minimum of four years in AIM Unit

## 6. AIP Officer

### Reports to Manager AIM

#### 6.1. Job Description

- Prepare, draft, print and distribute AIP, AIP Amendments, AIP Supplements and AICs as per the current subscription list;
- Collect aeronautical data for use to develop or amend Rwanda AIP and aeronautical charts;
- Receive and amend AIP as well as AIP supplement and Aeronautical Information Circulars from other states;
- Receive and respond to inquiries from national and international data users on Rwanda AIP;
- Ensure the adherence to ICAO AIRAC Cycle in AIP publications as well as other Rwanda Civil Aviation Regulations;
- Conduct On Job Training (OJT) to new AIS officers and submits training report to the Manager AIM;
- Ensure aeronautical information products conform to aeronautical data quality requirements
- Perform any other duty as assigned by the Manager AIM.

#### 6.2. Qualifications

- Bachelor's degree in Information Technology, Computer Science or computer Engineering.
- A Certificate in Aeronautical Information Services or NOTAM management courses from an ICAO recognized training institution.

### 6.3. Experience

- Successfully completed on-job-training in Aeronautical Information Management operations and NOTAM.
- Knowledge of Quality Management Systems in AIS
- Knowledge of relevant ICAO standards and RCAA regulations.
- Proficiency in office suite and desktop publishing tools.

## 6. PLANNING

### 6.1 Actions taken to address Risks and Opportunities

AIM Unit has identified and assessed different issues that can impact QMS, and hence developed a mitigation plan which is documented against each process as indicated in 4.5 above.

### 6.2 Quality objectives and planning to achieve them

AIM Unit carries out all the activities as per RCAA standards and requirements (RCARS and RCATS), the recommendations of ICAO and set deadlines to carry them out accordingly. The quality procedures for product realization adhere to the provisions set for each activity.

It is the responsibility of the customer (Internal/External) to provide information in time, complete with all the statutory and regulatory formalities.

6.2.1 AIM Unit is committed to the following quality objectives;

- Accuracy of flight plan transmitted should be 95% by June 2023.
- Degree of satisfaction of AIM customers on products and services will be 95% by June 2023.
- NOTAM plain language will be shared to AIM customers at least one hour after transmission, by June 2023.

#### 6.2.2 When planning how to achieve its quality objectives, AIM shall determine;

Each staff member of the AIM Unit has access to this manual and consequently to the Quality Policy and Quality Objectives. The Manager AIM is responsible for making staff aware of the Quality Policy and Quality Objectives, for the implementation of quality practices to achieve these Objectives, and to monitor their application. Staff members are kept informed of these matters through staff meetings, performance agreements, appraisals and competency checks.

The plan to achieve quality objectives is contained in individual processes approved by the management for operationalization.

### 6.3 Planning of changes

Manager of AIM Unit basing on reports from performance evaluation, management reviews and internal audits will initiate changes in the quality objectives. Any need for change in the QMS is carried out in a planned manner considering:

- a) The purpose of the changes and their potential consequences;
- b) The maintenance of integrity of the QMS
- c) The availability of resources
- d) The allocation or reallocation of responsibilities and authorities.

## **7. SUPPORT**

### **7.1 Resources**

#### **7.1.1 General**

Rwanda Airports Company provides resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system, considering:

- a) The capabilities of, and constraints on, existing internal resources;
- b) What needs to be obtained from external providers

#### **7.1.2 People**

All needed staff have been availed for the implementation of the QMS and for the operation and control of its processes. In case of shortage of staff, Manager AIM prepares staff request basing on RAC organization structure and forwards it to HR department.

#### **7.1.3 Infrastructure**

Rwanda Airports Company provides necessary infrastructures (Buildings and associated utilities, Office facilities, specialized systems, Internet, Telephone lines, etc.) for the operation of a safe, regular and efficient Air Navigation Services, in order to facilitate the achievement of conformity of services and sustainability.

#### **7.1.4 Environment for the Operation of Processes**

Rwanda Airports Company has modern offices and support equipment necessary for good conduct of QMS processes and shall achieve conformity of services as planned. The interactive policy within our organization ensures smooth flow of information, instructions, guidance and thus addressing all social, psychological and physical issues among the organization has become easy.

### **7.1.5 Monitoring and measuring resources**

#### **7.1.5.1 General**

AIM Unit is responsible for identifying the resources needed and their specifications to satisfy customer needs as per Rwanda Civil Aviation Technical Standards (RCATS-AIS001, chapter 3.5) regarding Aeronautical Information Services. A relevant form to check if the resources meet technical requirements is available as RAC-AIM-RSC001.

All equipment in AIM Unit are maintained by the technical Units within RAC that provided the equipment. Evidences for the maintenance plan of our equipment and systems are found in the CNS and IT Units (in charge of maintenance of different facilities and equipment in AIM office).

#### **7.1.5.2 Measurement Traceability**

AIM Unit is responsible for all aeronautical information it promulgates. Data and information are available in both hard and soft copy depending on customers' request.

### **7.1.6 Organizational Knowledge**

Aeronautical Information Management has ATS Reporting Officers, NOTAM Officers, Aeronautical Cartographers, AIP Officers and Quality Officers that complement each other in fulfilling the objectives of the AIM Office. Specific knowledge as it applies to the operation of processes is given in **chapter 5.3** of this manual.

#### **7.1.7 Management of constraints of existing resources**

In order to manage constraints of existing resources we consider two points:

- Current priorities, because setting priorities will keep the entire team focused on the right activities at all times, and thus ensuring higher success.
- See if we have a resource plan that matches our project plans, because understanding all of our upcoming activities and aligning resources to execute those activities will show us how the team stacks up against what is projected.

Managing those constraints passes through the following procedures:

- Prioritization of individual tasks assigned to each staff.
- Managing resource constraints through encouraging staff multitasking
- Timely maintenance of equipment and systems.
- Efficient use of available office stationaries

## 7.2 Competence

In the process of providing quality services for international air navigation, all AIM staff have to be trained in their respective fields so that they cope-up with changing technology and operating procedures. This will therefore increase their confidence towards achieving RCAA and ICAO standards in as far as operation processes are concerned.

Training adds not only competence to the technical staff, but also equips them with sufficient skills concerning communication so that any necessary information and data from RAC/AIM office is efficiently disseminated to national and international institutions responsible for aviation operations including other designated centers for provision of air navigation services. Detailed training programme and plan refer to **AIM Manual of Operations chapter 5**.

Regular Performance Assessment and competency assessment tests shall be completed and done for all staff once a year.

Manager AIM based on each staff responsibilities, prepares written and oral tests. Tests are done and marked based on the marking scheme and the average pass mark shall be 70% and above. After compilation of the test results, Manager AIM makes a report, files it and sends a copy to the Human resource department.

Should an individual's competence fall below an acceptable level, it is the organization's responsibility to identify suitable support and measures that are necessary to attain satisfactory competency. For example, by training, mentoring or working under supervision.

## 7.3 Awareness

The quality policy, quality objectives and staff contribution to the effectiveness of the QMS is communicated through regular meetings and sharing of documented information to all concerned.

Staff are also made aware of the benefit of their improved performance and the implication of not conforming to the QMS requirements. The Quality officer is responsible for the implementation of this process.

#### 7.4 Communication

Aeronautical Information Management has established the following channels relevant to QMS to communicate both internally and externally:

| ENTITY           | COMMUNICATION  |  |  |   |                                 |
|------------------|--|--|--|---|---------------------------------|
|                  | ON WHAT  | WHEN   | WITH WHOM                                  | HOW   | BY WHO                          |
| <b>Staff</b>     | QMS operational processes  | Monthly and when necessary   | Manager AIM                                | Meeting, emails, internal memos, Office Log Book                                      | Manager AIM / Quality Officer   |
| <b>Customers</b> | Aeronautical Information Services  | Regularly on time and in lead time, depending on customer requirements | All end users of our products and services | Print out hard copies, official email, AFTN, recordable telephone, web site and links | Manager AIM / Any staff on duty |
| <b>Regulator</b> | Progress of conforming / Non-conforming processes and corrective action Plan (CAP) | Quarterly  | Rwanda Civil Aviation Authority            | Official communication  | Manager AIM                     |



## 7.5 Documented Information

All documented information regarding Aeronautical Information Management is controlled by Aeronautical Information Management (AIM). AIM Unit creates and amends all useful documents to its operation process; all documents are kept in AIM office for its daily operation references.

When delivering new version or amendment, Quality officer in collaboration with Manager AIM make sure that the amendments reach the receivers of the document according to the distribution list of this manual.

When any external persons need to access/take away any AIM documented information shall write an email to AIM Manager requesting to be given the documented information. Upon approval for taking the documented information, He or she will fill the RAC-AIM-DBR001 form.

## 8. OPERATION

### 8.1 Operational Planning and Control

AIM office has developed relevant plans and controls of its processes to meet the requirements for the provision of its services and implementation of quality actions as per our plan. Some of the procedures and related activities in AIM daily operations are documented in AIM manual of operations (RAC-KIA-ANS-AIM001) and cartography manual of operations (RAC-KIA-ANS-CART001).

### 8.2 Requirements for products and services

#### 8.2.1 Customer communication

AIM Unit has put in place different ways to communicate to customers, interested parties and other end users through:

- ✓ Recordable telephone
- ✓ Workshops
- ✓ E-mails and Website links
- ✓ Customer satisfaction forms
- ✓ Post Flight Report form
- ✓ Verbal conversation

Any complain raised by customer through Customer Satisfaction Form, Post Flight Report form or by any means above shall be received and analyzed for its merits and action shall be taken by duty officer in response to the raised complaint or forwarded to relevant department. Constructive criticisms are encouraged in the service as a matter of policy.

#### 8.2.2 Preservation of documents

AIM maintains both hard and electronic documents. All documents are kept in secure places. They should be easily available to operational personnel in case of reference. A master list of documents (RAC-AIM-ML001) used in AIM Unit is available for easy document retrieval and maintenance.

Detail of how documents are preserved are found in chapter 11 of AIM manual of operations (**RAC-KIA-ANS-AIM001**).

### **8.3 Design and development of products and services**

Clause 8.3 is excluded as AIM Unit does not design and develop products.

### **8.4 Control of Externally Provided Processes, Products and Services**

Aeronautical Information Management is an integral part of Rwanda Airports Company, as a private entity, procurement of products and services that form part of its processes is governed by the Rwanda Airports Company procurement manual.

A list of required items, articles and their specifications is made by Manager AIM Unit and the list is forwarded to the Director ANS for approval of the purchase, the letter bearing the approval signature of the Director ANS, is then sent to the procurement section of RAC. The procurement section forwards the approved list to RAC Managing Director's office for final approval.

Once a purchased product has been delivered, the logistics department in consultation with the Manager AIM and will arrange for control and verify whether the product meets the specifications in the contract. Once the product meets the specifications, it will be released to the Manager AIM. If it does not meet the specifications, then Manager AIM will deny the product and report to relevant management.

### **8.5 Production and service provision**

AIM KIA provides the following products and services:

- Aeronautical information Products and services;
  - i) AIP, including amendment and Supplements;
  - ii) Aeronautical charts;
  - iii) AIC;
  - iv) NOTAM and
  - v) Digital data Sets.

- Flight Plan management
- Briefing
- Charging clearance, navigation and airport fees for Ad-Hoc flights

Detailed information on characteristics and procedures of products and services to be provided by AIM refer to **AIM Manual of Operations chapter 3, and Cartography Manual of Operations chapter 3.**

### 8.5.1 Property belonging to customers or external providers

AIM shall exercise and take care of properties owned by external providers while AIM Unit is using them. This will be done through coordination with the concerned party in Rwanda Airports Company Ltd. Whenever a property belonging to external provider to be used by the AIM Unit is brought in or taken out, the officer on duty shall record it on the PROPERTY IN/OUT Form (**RAC-AIM-QMS007**).

Whenever a property that belongs to a customer is found in our office, the officer on duty records in the logbook the property's description, time found and kept in a safe place. If the owner is known, the property is directly handed over to her/him and record property received and sign in the logbook. If she/he is not known or there are doubts on the owner, the property is handed over to the Manager AIM for further actions.

### 8.5.2 Control of changes

For effective operational control of the products, the following are in place:

- i. Effective dates for the publications;
- ii. Prearranged production program;
- iii. Predetermined internationally agreed formats;
- iv. Check list of AIP Supplements;
- v. Quality Manual that includes quality procedures and procedures specific to AIM;
- vi. Work Instructions;
- vii. Circulars and guidelines; and
- viii. Products are released to the next process after satisfactory checks.

## 8.6 Release of Products and services

All products and services provided by AIM Unit undergo different stages of verification and approval before release to the customer to ensure they meet standards and requirements. **Refer to MoU between RCAA and RAC regarding publications.**

## 8.7 Control of Nonconforming Outputs

### 8.7.1 Procedure for the control on Non-Conforming Products / Services

The product non-conformities could occur in any of the stages of product realization as on scrutiny by AIM office, on scrutiny by RAC administration or even detected by customer at pre- or post-audit delivery stage.

Thus, all non-conforming products are identified and controlled to prevent their unintended use or delivery.

Upon realization of a non-conformity, these are procedures to be followed:

- Identify non-conformities
- Inform the Manager AIM
- Correct the detected non-conformities
- Reprocess the product or service to ensure its conformity to the requirements;
- Make records

An officer on duty is responsible to take decision on the action in respect of non-conformity. Unless the decision to be taken by the duty officer is beyond her/his capacity then seek advice from Manager AIM.

## 9. PERFORMANCE EVALUATION

### 9.1 Monitoring, Measurement, Analysis and Evaluation

#### 9.1.1 General

Monitoring, measurement, analysis, evaluation and improvement in processes are planned to be done once a year, through internal audits, for the following purposes:

- ✓ To demonstrate conformity to the product.
- ✓ To ensure conformity of QMS (Refer Internal Audit and Management Review Process); and
- ✓ To continually improve the effectiveness of QMS (refer Data Analysis & Management Review Process).

Information from this process are appropriately documented as evidence of the results.

#### 9.1.2 Customer Satisfaction

The performance of quality management system, whether AIM Unit has fulfilled customer requirement, is monitored through the following:

- Monitoring customer perception through user opinion, customer query/feedback on delivered product and service quality communicated verbally or written etc.;
- Dealing with feedback & queries through emails, Customer satisfaction form **refer to Appendix 1** of this manual and Publications Distribution Tracking Form **refer to Appendix 24 of AIM Manual of operations**
- Improving existing procedures as an ongoing process.

#### 9.1.3 Analysis and Evaluation

Data is collected to assess performance of plans, projects, objectives and quality system in terms of time, quality and benchmarks.

Data is analyzed to determine the areas of occurrence, trends, effectiveness of processes/procedures and customer satisfaction where improvements can be made.

Data is collected from the following sources:

- Inspection finding is by self and third party;
- Result of audit findings; and
- Number of non-conformity reported by customer after delivery.

### 9.1.4 Aeronautical data and aeronautical information verification and validation

Aeronautical data and aeronautical information received or collected by AIM unit are verified and validated by AIM Quality Officer to ensure aeronautical data quality are met by use of (Appendix 6) and standardized presentation of aeronautical information products, by using checklists ( NOTAM Quality Checklist, AIP SUP Quality Checklist, AIP AMDT Quality Checklist, AIC Quality Checklist, AIP Quality Checklist)

## 9.2 Internal Audit

Internal quality auditing of our operation process is planned and conducted by Quality and Safety department at least once a year to determine if our QMS conforms to our requirements for the QMS and the requirements of ISO 9001:2015.

Internal auditors are selected by Manager Quality and Safety basing on their QMS qualifications.

This is done to determine whether the QMS is effectively being implemented and maintained. The internal auditors will need the following to carry out audit process

### A. Scope

- i. The audit scope covers all the processes defined in the quality manual and may also include the support systems on which the quality of the process depends; and
- ii. The audit scope will be defined and communicated to the auditee prior to the commencement of the audit.

### B. Responsibility

The audit team drawn from the staff of RAC having adequate experience and operational independence.

### C. Procedure

#### C.1 Define Auditor's Responsibilities

The responsibilities of internal auditors are as follows:

- Planning and carrying out the audit plan;
- Complying with acceptable audit standards;
- Communicating the observations; and
- Following up on Audit Observations.

### C.2 Define Audit Organization

The audit team will comprise of a Lead Auditor and other Auditors as determined by Manager Quality and Safety.

### C.3 Audit Frequency

The Audit frequency of twelve months is decided based on:

- Risk assessment;
- Statutory requirements; and
- Quality certification requirements.

### C.4 Audit Plan

There will be an audit plan that will define the following:

- Scope and objectives of audit;
- The composition of the audit team-Lead Auditor and members;
- Identification of the reference documents that will be used;
- The time, place and coverage period of the audit;
- The coverage of the Audit in terms of locations, departments; and
- The name of the clients to whom the audit report will be distributed.

### C.5 Audit process

The audit process followed will conform to the quality standards of Internal Audit department as laid out in the Internal Audit quality process. The elements of the processes are as under:

- There will be a standard audit program incorporating a checklist of areas to be audited.
- A profile of the processes will be drawn up;
- Sample sizes will be based on the risk profile;
- The audit will be carried out using techniques laid down by the audit team in the audit plan.
- Each audit report will be filed to retain evidence of the audit and results.



Quality officer will ensure that the results of audit are reported to the relevant management through the Manager AIM.

### **9.3 Management Review**

#### **9.3.1 General**

Quality officer is responsible for conducting regular review of QMS to ensure its continuing suitability and effectiveness.

She/he reports reviews to the Management representative (Quality and Safety Manager in RAC) who participates in RAC management meetings and ensures that management reviews are successfully conducted.

#### **9.3.2 Management Review Inputs**

The following are discussed in each review meeting for monitoring current performance and identifying improvement opportunities:

- i. audit reports and results thereof;
- ii. results of customer/user feedback;
- iii. result of process performance and product non-conformities including customer complaints;
- iv. status of corrective and preventive actions;
- v. planned changes including regulatory requirements that could affect the QMS;
- vi. recommendations for improvements; and
- vii. Status of follow-up actions from previous management review meetings.

#### **9.3.3 Management Review outputs**

The outputs from the management review shall include actions related to:

- i. improvement of effectiveness of the QMS and its processes;
- ii. improvement of product related customer requirements; and
- iii. Identification of needs for additional resources.

## 10. IMPROVEMENT

### 10.1 General

AIM Unit has selected risks and opportunities in its operation process system that can affect intended results of its quality management system. AIM is committed to implement all necessary actions to meet customer requirements and enhance customer satisfaction. These include:

- i. Improving products and services to meet requirements as well as to address future needs and expectations;
- ii. Correcting, preventing or reducing undesired effects;
- iii. Improving the performance and effectiveness of the quality management system
- iv. Issuing customer satisfaction forms and other forms to insure that the services of RAC are improved.

### 10.2 Nonconformity and corrective action

In case non-conformity has occurred due to non-compliance of regulatory requirements, including complaints from customer feedback forms, data from data originators and/or AIM products and services provided by the department, this is the procedure to be followed;

- 1) Record non-conformities
- 2) Determine the causes of non-conformities
- 3) Determine actions required to prevent re-occurrences of non-conformities
- 4) Advise the originator
- 5) Implement corrective action
- 6) File records created after corrective action taken.

The AIM Unit makes sure that corrective actions taken are appropriate to the effects of the nonconformities encountered. **Appendix 5** to this manual is the Corrective Action Form for nonconformities, used in this process.

Root cause analysis of the product non-conformities, customer feedback, customer queries and non-conformities related to any other QMS process is identified and solutions provided in order to prevent their re-occurrence.


### 10.3 Continual Improvement

AIM Unit shall continually improve the suitability, adequacy and effectiveness of the QMS. Improvement initiatives are based on the results of analysis, audit reports, evaluation and the outputs from management review to determine if there are needs or opportunities that are addressed as part of continual improvement.

Continual improvement includes the objective evidence from the following:


1. Audit findings;
2. Audit conclusions;
3. Resolution of user queries;
4. Analysis of data; and
5. Management review.

# **APPENDIX 1: CUSTOMER SATISFACTION FORM**

|   |                              |   |                            |                                   |                         |                              |
|---|------------------------------|---|----------------------------|-----------------------------------|-------------------------|------------------------------|
|  |                              | <b>RWANDA AIRPORTS COMPANY</b><br><b>AIR NAVIGATION SERVICES</b><br><b>AERONAUTICAL INFORMATION MANAGEMENT</b><br><b>(AIM)</b><br><b>Tel: 0724123022 / 0724123076</b> |                            |                                   |                         |                              |
|   |                              | <b>Document Number</b><br><b>RAC-AIM-QM5001</b><br><b>Revision: 0</b>   |                            | <b>CUSTOMER SATISFACTION FORM</b> |                         | <b>Page 1 of .....</b>       |
| <b>Aeronautical Information Products and Services</b>                             |                              | <b>Degree of Satisfaction</b>   |                            |                                   |                         |                              |
|   |                              | <b>Very Dissatisfied</b><br>(1)   | <b>Dissatisfied</b><br>(2) | <b>Fairly Satisfied</b><br>(3)    | <b>Satisfied</b><br>(4) | <b>Very Satisfied</b><br>(5) |
| <b>1) Degree of RAC Aeronautical Information compliance with ICAO SARPS.</b>      | NOTAM                        |   |                            |                                   |                         |                              |
|   | AIP                          |   |                            |                                   |                         |                              |
|   | Flight Plan                  |   |                            |                                   |                         |                              |
| <b>2) Degree of accuracy of the aeronautical information</b>                      | NOTAM                        |   |                            |                                   |                         |                              |
|   | AIP                          |   |                            |                                   |                         |                              |
|   | Flight Plan                  |   |                            |                                   |                         |                              |
|   | Landing & Navigation Charges |   |                            |                                   |                         |                              |
| <b>3) Quality of the aeronautical information</b>                                 | NOTAM                        |   |                            |                                   |                         |                              |
|   | AIP                          |   |                            |                                   |                         |                              |
|   | Flight Plan                  |   |                            |                                   |                         |                              |
| <b>4) Availability of reference Aeronautical information.</b>                     | NOTAM                        |   |                            |                                   |                         |                              |
|   | AIP                          |   |                            |                                   |                         |                              |
|   | Flight Plan                  |   |                            |                                   |                         |                              |
| <b>5) Easiness of locating Aeronautical information in the AIP</b>                | AIP                          |   |                            |                                   |                         |                              |
|   |                              |   |                            |                                   |                         |                              |
| <b>Rating Scale: 1=20%, 2=40%, 3=60%, 4=80%, 5=100%</b>                           |                              |   |                            |                                   |                         |                              |
| <b>Comment or Complaint:</b>  |                              |   |                            | <b>Company name:</b>              |                         |                              |
|   |                              |   |                            | <b>Signature:</b>                 |                         |                              |
|   |                              |   |                            | <b>Dates:</b>                     |                         |                              |
| <b>This is a controlled document</b>  |                              |   |                            | <b>Issued on: January 2021</b>    |                         |                              |

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**APPENDIX 2: CHECKLIST FOR PRODUCTS**


|   |  |                      |
|---|--|----------------------|
|  | <p>RWANDA AIRPORTS COMPANY</p> <p><b>AERONAUTICAL INFORMATION<br/>MANAGEMENT<br/>(AIM)</b></p> | <p>Revision : 0</p>  |
| <p>Document Number<br/>RAC-AIM-QMS003</p>   | <p>Title : <b>Checklist for products</b></p>   | <p>Page 1 of ...</p> |

| N° | Product | Produced by | Checked by | Authorized for<br>publication by |
|----|---------|-------------|------------|----------------------------------|
|    |         |             |            |                                  |
|    |         |             |            |                                  |
|    |         |             |            |                                  |
|    |         |             |            |                                  |
|    |         |             |            |                                  |
|    |         |             |            |                                  |
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|    |         |             |            |                                  |

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|-------------------------------|-----------------------|

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## APPENDIX 3: DOCUMENT ISSUED LISTS


|   |  |                      |
|---|--|----------------------|
|  | <p style="text-align: center;">RWANDA AIRPORTS COMPANY</p> <p style="text-align: center;"><b>AERONAUTICAL INFORMATION<br/>MANAGEMENT<br/>(AIM)</b></p> | <p>Revision : 0</p>  |
| <p>Document Number<br/>RAC-AIM-QMS004</p>   | <p>Title : <b>Document issued lists</b></p>  | <p>Page 1 of ...</p> |

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**APPENDIX 4: DATA AND INFORMATION FROM OTHER STATES**


|   |  |                      |
|---|--|----------------------|
|  | <p>RWANDA AIRPORTS COMPANY</p> <p><b>AERONAUTICAL INFORMATION<br/>MANAGEMENT<br/>(AIM)</b></p> | <p>Revision : 0</p>  |
| <p>Document Number<br/>RAC-AIM-QMS005</p>   | <p>Title : <b>Data and Information from other states</b></p>                                   | <p>Page 1 of ...</p> |

| N° | Date | Information | state | source | Received by |
|----|------|-------------|-------|--------|-------------|
|    |      |             |       |        |             |
|    |      |             |       |        |             |
|    |      |             |       |        |             |
|    |      |             |       |        |             |
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|    |      |             |       |        |             |

|                               |                       |
|-------------------------------|-----------------------|
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# APPENDIX 5: CORRECTIVE ACTION FORM FOR NONCONFORMITIES

|  |      | RWANDA AIRPORTS COMPANY                                       |                |                       | Revision : 0  |
|---|------|---|----------------|-----------------------|---------------|
|   |      | <b>AERONAUTICAL INFORMATION<br/>MANAGEMENT<br/>(AIM)</b>      |                |                       |               |
| Document Number<br>RAC-AIM-QMS006   |      | Title : <b>Corrective Action Form for<br/>nonconformities</b> |                |                       | Page 1 of ... |
| N°  | Date | Nonconformity<br>detected                                     | Document title | Action taken          | Done by       |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
|   |      |   |                |                       |               |
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## APPENDIX 6: AERONAUTICAL DATA QUALITY REQUIREMENTS

Table 1 Latitude and Longitude

| Latitude and longitude   | Chart resolution | Integrity Classification |
|--|------------------|--------------------------|
| Flight information region boundary points .....  | as plotted       | routine                  |
| P, R, D area boundary points (outside CTA/CTR boundaries) .....  | as plotted       | routine                  |
| P, R, D area boundary points (inside CTA/CTR boundaries) .....   | as plotted       | essential                |
| CTA/ CTR boundary points .....   | as plotted       | essential                |
| En-route navaids, intersections and waypoints, and holding, and STAR/SID points .....                              | 1 sec            | essential                |
| Obstacles in Area 1 (the entire State territory) .....   | as plotted       | routine                  |
| Aerodrome/heliport reference point .....   | 1 sec            | routine                  |
| Navaids located at the aerodrome/heliport .....  | as plotted       | essential                |
| Obstacles in Area 3 .....  | 1/10 sec         | essential                |
| Obstacles in Area 2 .....  | 1/10 sec         | essential                |
| Final approach fixes/points and other essential fixes/points<br>comprising the instrument approach procedure ..... | 1 sec            | essential                |
| Runway thresholds .....  | 1 sec            | critical                 |
| Taxiway centre line/parking guidance line points .....   | 1/100 sec        | essential                |
| Runway end .....   | 1 sec            | critical                 |
| Runway holding position .....  | 1 sec            | critical                 |
| Taxiway intersection marking line .....  | 1 sec            | essential                |
| Exit guidance line .....   | 1 sec            | essential                |
| Apron boundaries (polygon) .....   | 1 sec            | routine                  |
| De-/anti-icing facility (polygon) .....  | 1 sec            | routine                  |
| Aircraft standpoints/TNS checkpoints .....   | 1/100 sec        | routine                  |
| Geometric centre of TLOF or FATO thresholds, heliports .....   | 1 sec            | critical                 |

*Note.— See Annex 15, Appendix 8, for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.*

Table2. Elevation/altitude/height

| Elevation/altitude/height  | Chart resolution                    | Integrity Classification |
|--|-------------------------------------|--------------------------|
| Aerodrome/heliport elevation .....   | 1 m or 1 ft                         | essential                |
| WGS-84 geoid undulation at aerodrome/heliport elevation position .....                                     | 1 m or 1 ft                         | essential                |
| Runway or FATO threshold, non-precision approaches .....   | 1 m or 1 ft                         | essential                |
| WGS-84 geoid undulation at runway or FATO threshold, TLOF geometric centre, non-precision approaches ..... | 1 m or 1 ft                         | essential                |
| Runway or FATO threshold, precision approaches .....   | 0.5 m or 1 ft                       | critical                 |
| WGS-84 geoid undulation at runway or FATO threshold, TLOF geometric centre, precision approaches .....     | 0.5 m or 1 ft                       | critical                 |
| Threshold crossing height (Reference datum height), precision approaches .....                             | 0.5 m or 1 ft                       | critical                 |
| Obstacle clearance altitude/height (OCA/H) .....   | as specified in PANS-OPS (Doc 8168) | essential                |
| Obstacles in Area 1 (the entire State territory) .....   | 3 m (10 ft)                         | routine                  |
| Obstacles in Area 2 .....  | 1 m or 1 ft                         | essential                |
| Obstacles in Area 3 .....  | 1 m or 1 ft                         | essential                |
| Distance measuring equipment (DME) .....   | 30 m (100 ft)                       | essential                |
| Instrument approach procedures altitude .....  | as specified in PANS-OPS (Doc 8168) | essential                |
| Minimum altitudes .....  | 50 m or 100 ft                      | routine                  |
| Heliport crossing height, PinS approaches .....  | 1 m or 1 ft                         | essential                |

*Note.— See Annex 15, Appendix 8, for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.*

Table3. Gradient and angles

| Type of gradient/angle  | Chart resolution | Integrity Classification |
|---|------------------|--------------------------|
| Non-precision final approach descent gradient.....  | 0.1 per cent     | critical                 |
| Final approach descent angle (Non-precision approach or approach with vertical guidance)..... | 0.1 degree       | critical                 |
| Precision approach glide path/elevation angle.....  | 0.1 degree       | critical                 |

Table4. Magnetic variation

| Magnetic variation                         | Chart resolution | Integrity Classification |
|--|------------------|--------------------------|
| Aerodrome/heliport magnetic variation..... | 1 degree         | essential                |

Table5. Bearing

| Bearing   | Chart resolution | Integrity Classification |
|---|------------------|--------------------------|
| Airway segments.....  | 1 degree         | routine                  |
| Bearing used for the formation of an en-route and of a terminal fix.....    | 1/10 degree      | routine                  |
| Terminal arrival/departure route segments.....                              | 1 degree         | routine                  |
| Bearing used for the formation of an instrument approach procedure fix..... | 1/10 degree      | essential                |
| ILS localizer alignment.....  | 1 degree         | essential                |
| MLS zero azimuth alignment.....   | 1 degree         | essential                |
| Runway and FATO bearing.....  | 1 degree         | routine                  |

Table6. Length/distance/dimension

| Length/distance/dimension  | Chart resolution  | Integrity Classificatic |
|--|-------------------|-------------------------|
| Airway segment length.....   | 1 km or 1 NM      | routine                 |
| Distance used for the formation of an en-route fix .....                                 | 2/10 km (1/10 NM) | routine                 |
| Terminal arrival/departure route segment length.....                                     | 1 km or 1 NM      | essential               |
| Distance used for the formation of a terminal and instrument approach procedure fix..... | 2/10 km (1/10 NM) | essential               |
| Runway and FATO length, TLOF dimensions .....  | 1 m               | critical                |
| Runway width.....  | 1 m               | essential               |
| Stopway length and width .....   | 1 m               | critical                |
| Landing distance available.....  | 1 m               | critical                |
| Take-off run available.....  | 1 m               | critical                |
| Take-off distance available.....   | 1 m               | critical                |
| Accelerate-stop distance available.....  | 1 m               | critical                |
| ILS localizer antenna-runway end, distance .....   | as plotted        | routine                 |
| ILS glide slope antenna-threshold, distance along centre line .....                      | as plotted        | routine                 |
| ILS marker-threshold distance.....   | 2/10 km (1/10 NM) | essential               |
| ILS DME antenna-threshold, distance along centre line.....                               | as plotted        | essential               |
| MLS azimuth antenna-runway end, distance .....   | as plotted        | routine                 |
| MLS elevation antenna-threshold, distance along centre line.....                         | as plotted        | routine                 |
| MLS DME/P antenna-threshold, distance along centre line .....                            | as plotted        | essential               |

**APPENDIX 7: CORRECTIVE ACTION REQUEST (CAR) FORM****CORRECTIVE ACTION REQUEST (CAR) FORM****KIA-ANS-AIM-CAR001****Revision: 002**

CAR NO. \_\_\_\_\_ OF \_\_\_\_\_

|  |                          |             |                              |
|--|--------------------------|-------------|------------------------------|
| ORGANIZATION:  |                          | Audit No:   |                              |
| Organization representative:   |                          | Audit date: |                              |
| Details of Non-conformity:   |                          |             | Category<br>(Major or Minor) |
| Signed ..... Signed.....<br>Org. Representative      Audit team leader |                          |             | .....                        |
| Correction to be taken to restore normal conditions:                   |                          |             |                              |
| Root cause analysis:   |                          |             |                              |
| Corrective action to be taken to prevent recurrence:                   |                          |             |                              |
| Signed..... Date of Completion.....<br>Org. representative             |                          |             |                              |
| Follow up action (to be completed by the auditor)                      |                          |             |                              |
| Action fully completed   | <input type="checkbox"/> | Reason      |                              |
| Action partially completed   | <input type="checkbox"/> |             |                              |
| No action taken  | <input type="checkbox"/> |             |                              |
| Signed.....  |                          |             |                              |
| Auditor  | Name                     | Date        |                              |
| Signed.....  |                          |             |                              |
| Org. representative  | Name                     | Date        |                              |