

STATUTORY INSTRUMENTS

2019 No. ...

THE CIVIL AVIATION AUTHORITY (AERONAUTICAL INFORMATION SERVICES) REGULATIONS, 2019

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2019 No. ...

The Civil Aviation Authority (Aeronautical Information Services) Regulations,
2019

(Under section 35, 61(2)(d) of the Civil Aviation Authority Act, Cap 345)

IN EXERCISE of powers conferred upon the Minister by section 61(2)(d) of the Civil Aviation Authority Act, Cap 354, and on the recommendation of Civil Aviation Authority, these Regulations are made this.....day of.....2019.

PART I- PRELIMINARY

1. Title

These Regulations may be cited as the Civil Aviation Authority (Aeronautical Information Services) Regulations, 2019.

2. Application

(1) These Regulations apply to –

- (a) an aeronautical information service provider; and
- (b) all parties involved in providing aeronautical data.

(2) Notwithstanding subsection (1), these Regulations do not apply to aeronautical information service provided by the military.

(3) For the avoidance of doubt, these Regulations apply up to the moment the aeronautical data or information is made available by the aeronautical information service provider to the next intended user.

3. Interpretation

In these Regulations unless the context otherwise requires –

“Act” means the Civil Aviation Act, Cap 354;

“aerodrome” means a defined area on land or water including buildings, installations and equipment intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft;

“aerodrome mapping data (AMD)” means data collected for the purpose of compiling aerodrome mapping information;

“aerodrome mapping database (AMDB)” means collection of aerodrome mapping data organised and arranged as a structured data set;

“aeronautical chart” means a representation of a portion of the earth, its culture and relief, specifically designated by Authority to meet the requirements of air navigation;

“aeronautical data” means a representation of aeronautical facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing;

“aeronautical data or information originator” means an entity that is accountable for data or information origination and from which the AIS organization receives aeronautical data and information;

“Aeronautical Fixed Service (AFS)” means a telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services;

“aeronautical information” means information resulting from the assembly, analysis and formatting of aeronautical data;

“aeronautical information circular” (AIC) means 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 management” (AIM) means the dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties;

“aeronautical information product” means aeronautical data and aeronautical information provided either as digital data sets or as a standardized presentation in paper or electronic media;

“Aeronautical Information Publication (AIP)” means 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 regulation and control” (AIRAC) means a system aimed at advance notification, based on common effective dates, of circumstances that necessitate significant changes in operating practices;

“Aeronautical Information Service” (AIS), means a service established within the defined area of coverage responsible for the provision of aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation;

“aeronautical information service (AIS) provider” means the organisation responsible for the provision of an AIS;

“AIP amendment” means permanent changes to the information contained in the AIP;

“AIP supplement” means temporary changes to the information contained in the AIP which are provided by means of special pages;

“Air Defence Identification Zone (ADIZ)” means special designated airspace of defined dimensions within which aircraft are required to comply with special identification and reporting procedures additional to those related to the provision of air traffic services;

“air traffic management (ATM)” means the dynamic, integrated management of air traffic and airspace, including air traffic services, airspace management and air traffic flow management, safely, economically and efficiently, through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground-based functions;

“application” means manipulation and processing of data in support of user requirements;

“area navigation (RNAV)” means a method of navigation which permits aircraft operation on any desired flight path within the coverage of ground or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these aids;

“ASHTAM” means a special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption and volcanic ash cloud that is of significance to aircraft operations;

“assemble” means a process of merging data from multiple sources into a database and establishing a baseline for subsequent processing;

“ATS surveillance services” means a term used to indicate a service provided directly by means of an ATS surveillance system;

“ATS surveillance system” means a generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft;

“Authority” means the Uganda Civil Aviation Authority;

“Automatic Dependent Surveillance – Broadcast (ADS-B)” means, a means by which aircraft, aerodrome vehicles and other objects can automatically transmit or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link;

“Automatic Dependent Surveillance – Contract (ADS- C)” means, a means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports;

“Automatic Terminal Information Service (ATIS)” means the automatic provision of current, routine information to arriving and departing aircraft throughout twenty four hours or a specified portion thereof;

“bare earth” means surface of the earth including bodies of water and permanent ice and snow, and excluding vegetation and manmade objects;

“calendar” means discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day;

“canopy” means bare earth supplemented by vegetation height;

“confidence level” mean the probability that the true value of a parameter is within a certain interval around the estimate of its value;

“Controller-Pilot Data Link Communications (CPDLC)” is a means of communication between controller and pilot, using data link for ATC communications;

“culture” means all man-made features constructed on the surface of the earth, such as cities, railways and canals;

“Cyclic Redundancy Check (CRC)” means a mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data;

“danger area” means an airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times;

“data accuracy” means a degree of conformance between the estimated or measured value and the true value;

“data completeness” means the degree of confidence that all of the data needed to support the intended use is provided;

“data format” means a structure of data elements, records and files arranged to meet standards, specifications or data quality requirements;

“data integrity (assurance level)” means a degree of assurance that an aeronautical data and its value has not been lost or altered since the origination or authorized amendment;

"Data link-VOLMET (D-VOLMET)" means provision of current aerodrome routine meteorological reports (METAR) and aerodrome special meteorological reports (SPECI), aerodrome forecasts (TAF), SIGMET, special air-reports not covered by a SIGMET and, where available, AIRMET via data link;

“data product” means a data set or data set series that conforms to a data product specification;

“data product specification” means a detailed description of a data set or data set series together with additional information that will enable it to be created, supplied to and used by another party;

“data quality” means a degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution, integrity (or equivalent assurance level), traceability, timeliness, completeness and format;

“data set” means an identifiable collection of data;

“data set series” means a collection of data sets sharing the same product specification;

“datum” means any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities;

“data resolution” means a number of units or digits to which a measured or calculated value is expressed and used;

“data timeliness” means the degree of confidence that the data is applicable to the period of its intended use;

“data traceability” means the degree that a system or a data product can provide a record of the changes made to that product and thereby enable an audit trail to be followed from the end-user to the originator;

“Digital Elevation Model (DEM)” means the representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum;

“direct transit arrangements” means special arrangements approved by the public authorities concerned by which traffic which is pausing briefly in its passage through the Contracting State may remain under their direct control;

“feature” means abstraction of real world phenomena;

“feature operation” means operation that every instance of a feature type may perform;

“feature relationship” means relationship that links instances of one feature type with instances of the same or a different feature;

“feature type” means class of real world phenomena with common properties

“geoid” means the equipotential surface in the gravity field of the earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents;

“geoid undulation” means the distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid;

“geodesic distance” means the shortest distance between any two points on a mathematically defined ellipsoidal surface;

“geodetic datum” means minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system or frame;

“gregorian calendar” means calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar;

“height” means the vertical distance of a level, point or an object considered as a point, measured from a specific datum;

“heliport” means an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters;

“human factors principles” means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;

“Integrity classification of aeronautical data” means classification based upon the potential risk resulting from the use of corrupted data;

“international NOTAM office (NOF)” means an office designated by a State for the exchange of NOTAM internationally;

“logon address” means a specified code used for data link logon to an ATS unit.

“manoeuvring area” means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons;

“metadata” means data about data;

“Minimum En-route Altitude” (MEA) means the altitude for an en-route segment that provides adequate reception of relevant navigation facilities and ATS communications, complies with the airspace structure and provides the required obstacle clearance;

“Minimum Obstacle Clearance Altitude” (MOCA) means the minimum altitude for a defined segment of flight that provides the required obstacle clearance;

“movement area” means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron;

“navigation specification” means a set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace;

“next intended user” means the entity that receives the aeronautical data or information from the aeronautical information service;

“NOTAM” means 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;

“obstacle” means all fixed whether temporary or permanent and mobile objects or parts of the object, that -

- (a) are located on an area intended for the surface movement of aircraft;
- (b) extend above a defined surface intended to protect aircraft in flight; or
- (c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation;

“obstacle or terrain data collection surface” means defined surface intended for the purpose of collecting obstacle or terrain data;

"orthometric height" means height of a point related to the geoid, generally presented as an MSL elevation;

“performance-based communication (PBC)” means communication based on performance specifications applied to the provision of air traffic services;

"Performance-Based Navigation (PBN)" means area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

“performance-based surveillance” (PBS) means a surveillance based on performance specifications applied to the provision of air traffic services;

"portrayal" means presentation of information to humans;

“position (geographical)” means a set of coordinates, latitude and longitude, referenced to the mathematical reference ellipsoid which define the position of a point on the surface of the Earth;

“precision” means the smallest difference that can be reliably distinguished by a measurement process;

“pre-flight information bulletin” (PIB) means a presentation of current NOTAM information of operational significance, prepared prior to flight;

“prohibited area” means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited;

“quality” means a degree to which a set of inherent characteristics fulfils requirements;

“quality assurance” means part of quality management focused on providing confidence that quality requirements will be fulfilled;

"quality control" means part of quality management focused on fulfilling quality requirements;

“quality management” means coordinated activities to direct and control an organization with regard to quality;

“radio navigation service” means a service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids;

“requirement” means a need or expectation that is stated, generally implied or obligatory;

"Required Communication Performance (RCP) specification" means a set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based communication;

“Required navigation performance (RNP) specification” means a navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH;

"Required Surveillance Performance (RSP) specification" means a set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance.

“restricted area” means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions;

“route stage” means a route or portion of a route flown without an intermediate landing;

"station declination" means an alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated;

“SNOWTAM” means a special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of

hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area;

“terrain” means the surface of the earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles;

“traceability” means ability to trace the history, application or location of that which is under consideration;

“validation” means confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled;

“verification” means confirmation, through the provision of objective evidence, that specified requirements have been fulfilled;

“Voice-Automatic Terminal Information Service (Voice-ATIS)” means the provision of automatic terminal information service by means of continuous and repetitive voice broadcasts;

"VOLMET broadcast" means provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts.

PART II – COMMON REFERENCE SYSTEMS FOR AIR NAVIGATION

Common reference systems for air navigation

4. Horizontal reference system

- (1) The world geodetic system — 1984 (WGS-84) shall be used as the horizontal reference system for air navigation.

- (2) The published aeronautical geographical coordinates indicating latitude and longitude shall be expressed in terms of the WGS-84 geodetic reference datum.

5. Vertical reference system

- (1) The mean sea level datum shall be used as the vertical reference system for air navigation.
- (2) The earth gravitational model — 1996 (EGM-96) shall be used as the global gravity model for air navigation.
- (3) At geographical positions where the accuracy of EGM-96 does not meet the accuracy requirements for elevation and geoid undulation on the basis of EGM-96 data, the regional, national or local geoid models containing high resolution (short wave length) gravity field data shall be developed and used.
- (4) When a geoid model other than the EGM-96 model is used, a description of the model used, including the parameters required for height transformation between the model and EGM-96 shall be provided in Aeronautical Information Publication.

6. Temporal reference system

- (1) The Gregorian calendar and coordinated universal time shall be used as the temporal reference system for air navigation.
- (2) Where a different temporal reference system is used for some applications, the feature catalogue, the metadata associated with an application schema or a data set, as appropriate, shall include either a description of that system or a citation for a document that describes that temporal reference system.

PART II - RESPONSIBILITIES AND FUNCTIONS

7. Responsibility of the Authority

- (1) The Department of Aeronautical Information Management in the Authority shall, in accordance with the Act, provide aeronautical information services.
 - (2) In performing the function of providing aeronautical information services, the Department of Aeronautical Service Management shall be known as the Aeronautical Information Service provider.
 - (3) The aeronautical data and aeronautical information provided for and on behalf of the authority shall indicate that the data and information are provided under the authorisation of the authority, irrespective of the format in which they are provided.
 - (4) Subject to regulation 9, the Authority shall -
 - (a) ensure that the aeronautical data and aeronautical information provided covers the territory of Uganda for which the Authority is responsible for the provision of air traffic services;
 - (b) be responsible for the aeronautical data and aeronautical information provided in accordance with subregulation (2)(a); and
 - (c) ensure that the aeronautical data and aeronautical information provided is complete, timely and of required quality in accordance with regulation 14.
- (2) The Authority shall ensure that formal arrangements are established between originators of aeronautical data, aeronautical information and the aeronautical information service provider in relation to the timely and complete provision of aeronautical data and aeronautical information.

Responsibilities and functions of aeronautical information service provider

8. Aeronautical information service provider

- (1) The aeronautical information service provider shall make available, in a form suitable for the operational requirements of the air traffic management community, aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation, including-
 - (a) those involved in flight operations, including flight crews, flight planning and flight simulators; and
 - (b) air traffic services unit responsible for flight information service and the services responsible for pre-flight information.
- (2) Subject to subregulation (1), the aeronautical information service provider shall -
 - (a) receive, collate or assemble, edit, format, publish or store and distribute aeronautical data and aeronautical information concerning the entire territory of Uganda;
 - (b) provide aeronautical data and aeronautical information as aeronautical information products;
 - (c) where 24-hour service is not provided, make available aeronautical information service during the whole period an aircraft is in flight in the area of responsibility of an aeronautical information service, plus a period of at least two hours before and after such a period;
 - (d) make available aeronautical information service at such other time as may be requested by an appropriate ground organisation; and
 - (e) obtain aeronautical data and aeronautical information to enable it to provide pre-flight information service and to meet the need for in-flight

information from the aeronautical information services of other States or other sources that may be available.

(f) clearly identify the aeronautical data and aeronautical information obtained from the aeronautical information service of other States, when distributed, as having the Authority of the signatory State; and

(g) if possible, verify before distribution, aeronautical data and aeronautical information obtained from other sources other than aeronautical information service of other States, and if not verified shall, when distributed, be clearly identified as such.

(3) Notwithstanding subregulation (2), the aeronautical information service provider shall promptly make available to the aeronautical information services of other states, any aeronautical data and aeronautical information necessary for the safety, regularity or efficiency of air navigation required by those states.

9. Exchange of aeronautical data and aeronautical information.

Where there is an exchange of aeronautical data and aeronautical information, with other states, the aeronautical information service provider shall -

(a) designate the office to which all elements of the aeronautical information products provided by other states shall be addressed and shall ensure that the office is qualified to deal with requests for aeronautical data and aeronautical information provided by other states;

(b) define, where more than one international NOTAM office is designated within Uganda, the extent of responsibility and the territory covered by each office;

(c) establish formal arrangements with the users of aeronautical data and aeronautical information in relation to the provision of the service;

- (d) arrange, as necessary, to satisfy operational requirements for the issuance and receipt of NOTAM distributed by telecommunication;
- (e) wherever practicable, establish direct contact with other providers of aeronautical information services in order to facilitate the international exchange of aeronautical data and aeronautical information;
- (f) except as provided in paragraph (h), avail one copy of each of the following aeronautical information products, where available, upon request by the aeronautical information service of an ICAO contracting state in the mutually-agreed form without charge -
 - (i) aeronautical information publication (AIP), including amendments and supplements;
 - (ii) aeronautical information circulars;
 - (iii) NOTAM; and
 - (iv) aeronautical charts;
- (g) enter into agreement with participating ICAO contracting states and other entities for the exchange of more than one copy of the elements of aeronautical information products and other air navigation documents, including those containing air navigation legislation and regulations;
- (h) provide on the basis of agreement with concerned ICAO contracting states aeronautical information and aeronautical data provided in the form of digital data sets to be used by the aeronautical information service;
- (i) enter into separate agreement with states other than ICAO contracting states and other entities for the procurement of aeronautical data and aeronautical information, including the elements of aeronautical

information products and other air navigation documents, including those containing air navigation legislation and regulations; and

- (j) use globally interoperable aeronautical data and information exchange models for the provision of data sets.

13. Copyright and cost recovery

- (1) Where a product has been granted copyright protection by a state, the aeronautical information service provider shall -
 - (a) make available to a third party that product which has been granted copyright protection by the state and provided to another state, in accordance with regulation 10, on condition that the –
 - (i) third party is aware that the product is copyright protected; and
 - (ii) product is appropriately annotated that it is subject to copyright by the originating State.
- (2) For avoidance of doubt, where aeronautical information and aeronautical data is received in accordance with regulation (10) h, the aeronautical information service provider shall not provide digital data sets of the providing State to any third party without the consent of the providing State.
- (3) Subject to subregulation (1) and (2), the aeronautical information service provider shall only recover the overhead cost of collecting and compiling aeronautical data and aeronautical information.

PART IV - AERONAUTICAL INFORMATION MANAGEMENT

14. Information management requirements

The aeronautical information service provider shall establish adequate information management resources and processes to ensure the timely collection, processing, storing, integration, exchange and delivery of quality-assured aeronautical data and aeronautical information within the air traffic management system.

15. Classification of aeronautical data

(1) Aeronautical data shall be classified as follows-

- (a) routine data; means there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;
- (b) essential data; means there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and
- (c) critical data; means there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

(2) Subject to subsection (1), where classification is based upon the potential risk resulting from the use of corrupted data, it shall be known as integrity classification of aeronautical data.

16. Aeronautical data and aeronautical information validation and verification

(1) An aeronautical data originator shall, before submitting data and information to the aeronautical information service, check the material, aeronautical data and information to be issued as part of an aeronautical information product, in order to ensure that all necessary information is included and that the information is correct in detail.

- (2) Subject to subregulation (1), the aeronautical information service provider shall establish verification and validation procedures which ensure that upon receipt of aeronautical data and aeronautical information quality requirements are met.

17. Data origination requirements

- (1) Data shall be collected and transmitted to the Aeronautical Information Service in accordance with the accuracy requirements and integrity classification specified in the first schedule.
- (2) Positional data shall be classified as: surveyed points (e.g. navigation aid positions, runway threshold); calculated points (mathematical calculations from the known surveyed points of points in space, fixes); or declared points (e.g. flight information region boundary points).
- (3) Geographical coordinates indicating latitude and longitude shall be determined and reported to the aeronautical information service in terms of the World Geodetic System – 1984 (WGS-84) geodetic reference datum.
- (4) Geographical coordinates that have been transformed into WGS-84 coordinates by mathematical means and whose accuracy of original field work does not meet the applicable requirements contained in first schedule shall be identified.
- (5) In addition to elevation referenced to the MSL (geoid), for the specific surveyed ground positions, geoid undulation (referenced to the WGS-84 ellipsoid) for those positions specified in second schedule shall also be published.

18.Data quality specifications

Where data is in possession of the aeronautical information service provider, the aeronautical information service provider shall-

- (a) ensure that the order of accuracy for aeronautical data is in accordance with the intended use;
- (b) ensure that order of resolution of aeronautical data is commensurate with the actual data accuracy;
- (c) ensure that the integrity of aeronautical data is maintained throughout the data chain from origination to distribution to the next intended user;
- (d) establish procedures based on the applicable integrity classification in order to -
 - (i) for routine data- avoid corruption throughout the processing of the data;
 - (ii) for essential data- assure corruption does not occur at any stage of the entire process and may include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level; and
 - (iii) for critical data- assure corruption does not occur at any stage of the entire process and include additional integrity assurance processes to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks;
- (e) ensure and retain traceability of aeronautical data as long as the data is in use;
- (f) ensure timeliness of the aeronautical data by including limits on the effective period of the data elements;

- (g) ensure completeness of the aeronautical data in order to support its intended use;
- (h) ensure that the format of delivered aeronautical data is adequate to ensure that the data is interpreted in a manner that is consistent with its intended use; and
- (i) ensure that specifications concerning the order of the accuracy including confidence level of aeronautical data, the resolution and integrity classification related to aeronautical data are contained in Schedule 1.

19. Data error detection

Subject to regulation 17, the aeronautical information service provider shall -

- (a) use digital data error detection techniques during the transmission and storage of aeronautical data and digital data sets; and
- (b) use digital data error detection techniques in order to maintain the integrity levels of data sets as specified in regulation 17 (d).

20. Use of automation

Subject to these Regulations, the aeronautical information service provider shall –

- (a) apply automation in order to ensure the quality, efficiency and cost effectiveness of aeronautical information services;
- (b) give due consideration to the integrity of data and information when automated processes are implemented and mitigating steps taken where risks are identified.
- (c) in order to meet the data quality requirements ensure that automation –
 - (i) enables digital aeronautical data exchange between the parties involved in the data processing chain; and

- (ii) uses aeronautical information exchange models and data exchange models designed to be globally interoperable.

21. Quality management system

- (1) The aeronautical information service provider shall -
 - (a) implement and maintain a quality management system that encompasses all functions of an aeronautical information service, as specified under these Regulations;
 - (b) make the execution of the quality management system demonstrable for each function stage;
 - (c) apply the quality management to the whole aeronautical information data chain from data origination to distribution to the next intended user; and
 - (d) ensure that the established quality management system follows the International Organization for Standardization (ISO) 9000 series of quality assurance standards, and is certified by an accredited certification body.
- (2) Subject to the quality management system established under subregulation (1), the aeronautical information service provider shall -
 - (a) identify the competencies and the associated knowledge, skills and abilities required for each function;
 - (b) ensure that the personnel assigned to perform each function are appropriately trained;
 - (c) put in place processes to ensure that personnel possess the competencies required to perform specific assigned functions;
 - (d) maintain appropriate records so that the qualifications of personnel can be confirmed;

- (e) establish initial and periodic assessments that require personnel to demonstrate the required competencies; and
 - (f) use periodic assessments of personnel as a means to detect and correct shortfalls in knowledge, skills and abilities.
- (3) A quality management system established under subregulation (1), shall include the necessary policies, processes and procedures, including those for the use of metadata, to ensure and verify that aeronautical data is traceable throughout the aeronautical information data chain, so as to allow any data anomalies or errors detected in use to be identified by root cause, corrected and communicated to affected users.
- (4) The aeronautical information service provider shall ensure that a quality management system established under this regulation provides users with the necessary assurance and confidence that distributed aeronautical data and aeronautical information satisfy the aeronautical data quality requirements.
- (5) Subject to this regulation, the aeronautical information service provider shall –
- (a) take all necessary measures to monitor compliance with the quality management system in place;
 - (b) demonstrate compliance of the quality management system applied by audit;
 - (c) initiate action to determine and correct causes of nonconformities without undue delay; and
 - (d) ensure that the audit observations and remedial actions are evidenced and properly documented.

22. Human factor considerations

The aeronautical information service provider shall -

- (a) provide for human factors in the organisation of an AIS, design, contents, processing and distribution of aeronautical data and aeronautical information; and
- (b) give due consideration to the integrity of information where human interaction is required and mitigating steps are taken where risks are identified.

PART V – SCOPE OF AERONAUTICAL DATA AND AERONAUTICAL INFORMATION

23. Scope of aeronautical data and aeronautical information

- (1) The aeronautical data and aeronautical information to be received and managed by the aeronautical information service provider shall include the following sub-domains-
 - (a) national regulations, rules and procedures;
 - (b) aerodromes and heliports;
 - (c) airspace;
 - (d) ATS routes;
 - (e) instrument flight procedures;
 - (f) radio navigation aids or systems;
 - (g) obstacles;
 - (h) terrain; and
 - (i) geographic information.
- (3) In determining and reporting of aeronautical data, the aeronautical information service provider shall, ensure that the determination and reporting of the aeronautical data is in accordance with the accuracy and integrity classification required to meet the needs of the end-user of

aeronautical data.

24.Metadata

- (1) The aeronautical information service provider shall collect metadata for aeronautical data processes and exchange points.
- (2) Metadata collection shall be applied throughout the aeronautical information data chain, from origination to distribution to the next intended user.
- (3) The metadata to be collected under subregulation (1), shall include-
 - (a) the names of the organizations or entities performing any action of originating, transmitting or manipulating the data;
 - (b) the action performed; and
 - (c) the date and time the action was performed.

PART VI – AERONAUTICAL INFORMATION PRODUCTS AND SERVICES

25.Aeronautical information

- (1) Aeronautical information shall be provided in the form of aeronautical information products and associated services.
- (2) When aeronautical data and aeronautical information are provided in multiple formats, the aeronautical information service provider shall implement processes to ensure data and information consistency between formats.

26.Aeronautical information in a standardized presentation

- (1) Aeronautical information provided in a standardized presentation shall include the AIP, AIP amendments, AIP supplements, AICs, NOTAMs and aeronautical charts.
- (2) The AIP, AIP amendment, AIP supplement and AIC shall be provided by the

aeronautical information service provider on paper or as an electronic document.

- (3) The AIP, AIP amendment, and AIP supplement and AIC when provided as an electronic document (eAIP) shall be in a format that allows for displaying on electronic devices and printing on paper.

27. Aeronautical Information Publication

The aeronautical information service provider shall ensure that the Aeronautical Information Publication (AIP) includes -

- (a) a statement of the competent Authority responsible for the air navigation facilities, services and procedures covered by the aeronautical information publication;
- (b) the general conditions under which the services or facilities are available for international use;
- (c) the choice made by the Authority in each significant case where an alternative course of action is provided for in International Civil Aviation Organisation standards, recommended practices and procedures;
- (d) a list of significant differences between the national regulations and practices of the Authority and the related ICAO Standards, recommended practices and procedures, given in a form that would enable a user to differentiate readily between the requirements of the State and the related ICAO provisions; and
- (e) concise, current information relating to, and arranged under, the subject headings listed in the Schedule 2.

28. Aeronautical Information Publication (AIP) Supplement

- (1) The aeronautical information service provider shall provide a checklist of valid AIP supplements.

- (2) Each AIP Supplement shall be allocated a serial number which consecutive and based on the calendar year.
- (3) Each AIP Supplement shall be provided on distinctive pages allowing for easy identification from the regular Aeronautical Information Publication content.
- (4) Whenever an AIP Supplement is issued as a replacement of a NOTAM, a reference to the series and number of the NOTAM shall be included.
- (5) A checklist of valid AIP Supplements shall be issued at intervals of not more than one month as part of the checklist of NOTAM and with distribution as for the Aeronautical Information Publication Supplements.
- (6) Each AIP Supplement page shall show a publication date.
- (7) Each Aeronautical Information Regulation and Control AIP Supplement page shall show a publication date and an effective date.

29. Aeronautical Information Circulars (AIC)

- (1) An AIC shall be used to provide -
 - (a) a long-term forecast of any major change in legislation, regulations, procedures or facilities;
 - (b) information of a purely explanatory or advisory nature liable to affect flight safety; or
 - (c) information or notification of an explanatory or advisory nature concerning technical, legislative or administrative matters.
- (2) For avoidance of doubt, an AIC shall not be used for information that qualifies for inclusion in the AIP or NOTAM.
- (3) The validity of an AIC in force shall be reviewed at least once a year.

(4) The aeronautical information service provider shall regularly provide a checklist of valid AIC.

(5) An AIC shall be provided whenever it is desirable to promulgate-

- (a) forecasts of important changes in the air navigation procedures, services and facilities provided;
- (b) forecasts of implementation of new navigational systems;
- (c) significant information arising from aircraft accident/incident investigation which has a bearing on flight safety;
- (d) information on regulations relating to the safeguarding of international civil aviation against acts of unlawful interference;
- (e) advice on medical matters of special interest to pilots;
- (f) warnings to pilots concerning the avoidance of physical hazards;
- (g) effect of certain weather phenomena on aircraft operations;
- (h) information on new hazards affecting aircraft handling techniques;
- (i) regulations relating to the carriage of restricted articles by air;
- (j) reference to the requirements of, and publication of changes in, national legislation;
- (k) aircrew licensing arrangements;
- (l) training of aviation personnel;
- (m) application of, or exemption from, requirements in national legislation;
- (n) advice on the use and maintenance of specific types of equipment;
- (o) actual or planned availability of new or revised editions of aeronautical charts;
- (p) carriage of communication equipment;
- (q) explanatory information relating to noise abatement;
- (r) selected airworthiness directives;
- (s) changes in NOTAM series or distribution, new editions of AIP or major;
- (t) changes in their contents, coverage or format; and
- (u) other information of a similar nature.

(6) Subject to this regulation, the aeronautical information provider shall-

- (a) select the AICs that are to be given international distribution and give them the same distribution as for the AIP;
- (b) allocate each AIC a serial number which shall be consecutive and based on the calendar year;
- (c) separately identify each series of AIC by a letter in the event that they are provided in more than one series;
- (d) issue a checklist of AIC currently in force at least once a year, with distribution as for the aeronautical information circulars; and
- (e) include in the NOTAM checklist of AIC provided internationally.

30. Aeronautical charts

The aeronautical information service provider shall -

- (a) make available the aeronautical charts listed in subparagraphs (i) to (xiii), when available for designated international aerodromes or heliports, to form part of the aeronautical information publication, or to be provided separately to recipients of the aeronautical information publication, as follows -
 - (i) Aerodrome or Heliport Chart — ICAO;
 - (ii) Aerodrome Ground Movement Chart — ICAO;
 - (iii) Aerodrome Obstacle Chart — ICAO Type A;
 - (iv) Aerodrome Obstacle Chart — ICAO Type B (when available);
 - (v) Aerodrome Terrain and Obstacle Chart — ICAO;
(Electronic);
 - (vi) Aircraft Parking or Docking Chart — ICAO;
 - (vii) Area Chart — ICAO;

- (viii) ATC Surveillance Minimum Altitude Chart — ICAO;
 - (ix) Instrument Approach Chart — ICAO;
 - (x) Precision Approach Terrain Chart — ICAO;
 - (xi) Standard Arrival Chart — Instrument (STAR) — ICAO;
 - (xii) Standard Departure Chart — Instrument (SID) — ICAO; and
 - (xiii) Visual Approach Chart — ICAO;
- (b) provide the Enroute Chart, when available, as part of the AIP, or separately to recipients of the AIP;
- (c) provide the aeronautical charts listed in subparagraphs (i) to (vi), when available, as aeronautical information products, as follows -
- (i) Aerodrome Obstacle Chart — ICAO Type B;
 - (ii) World Aeronautical Chart — ICAO 1:1 000 000;
 - (iii) Aeronautical Chart — ICAO 1:500 000;
 - (iv) Aeronautical Navigation Chart — ICAO Small Scale; and
 - (v) ATC Surveillance Minimum Altitude Chart — ICAO.
- (d) provide electronic aeronautical charts based on digital databases and the use of geographic information systems; and
- (e) ensure that the chart resolution of aeronautical data is as specified for a particular chart.

31.NOTAM

- (1) The aeronautical information service provider shall regularly provide a checklist of valid NOTAM.

- (2) Except as otherwise provided, each NOTAM shall contain the information in the order shown in the NOTAM format in Schedule 3.
- (3) NOTAM text shall be composed of the significations or uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language.
- (4) All NOTAM shall be issued in the English language.
- (5) Information providing a surface condition report notifying the presence or cessation of hazardous conditions due to standing water or water shall be disseminated by means of a SNOWTAM, and shall contain the information in the order shown in the SNOWTAM format in Schedule 4.
- (6) Information concerning an operationally significant change in volcanic activity, volcanic eruption or volcanic ash cloud shall, when reported by means of an ASHTAM, contain the information in the order shown in the ASHTAM format in Schedule 5.
- (7) Subject to this regulation, the aeronautical information service provider shall-
 - (a) publish NOTAM with sufficient lead time for the affected parties to take any required action, except in the case of unserviceability, volcanic activity, release of radioactive material, toxic chemicals and other events that cannot be foreseen;
 - (b) give an estimate of the period of unserviceability or the time at which restoration of service is expected for NOTAM notifying unserviceability of aids to air navigation, facilities or communication services;

- (c) give at least seven days' advance notice of the activation of established danger, restricted or prohibited areas and of activities requiring temporary airspace restrictions other than for emergency operations;
- (d) give as soon as possible notice of any subsequent cancellation of the activities or any reduction of the hours of activity or the dimensions of the airspace;
- (e) within three months from the issuing of a permanent NOTAM, the information contained in the NOTAM is included in the aeronautical information products affected;
- (f) within three months from the issuing of a temporary NOTAM of long duration, the information contained in the NOTAM is included in the AIP Supplement;
- (g) when a NOTAM with estimated end of validity unexpectedly exceeds the three-month period, issue a replacement NOTAM unless the condition is expected to last for a further period of more than three months, in this case, an AIP Supplement shall be issued;
- (h) when an AIP Amendment or an AIP Supplement is published in accordance with AIRAC procedures, originate a Trigger NOTAM giving a brief description of the contents, the effective date and time, and the reference number of the amendment or supplement;
- (i) ensure the Trigger NOTAM comes into force on the same effective date and time as the amendment or supplement and the Trigger NOTAM shall remain valid in the pre-flight information bulletin for a period of fourteen days;

(j) in the case of an AIP Supplement that is valid for less than fourteen days, ensure the Trigger NOTAM remains valid for the complete validity period of the AIP Supplement; and

(k) in the case of an AIP Supplement that is valid for fourteen days or more, ensure the Trigger NOTAM remains valid for at least fourteen days.

32. Digital data sets

Where collection of data is digital, the aeronautical information service provider shall -

- (a) ensure that digital data is in the form of the following data sets -
 - (i) AIP data set;
 - (ii) terrain data sets;
 - (iii) obstacle data sets;
 - (iv) aerodrome mapping data sets; and
 - (v) instrument flight procedure data sets;
- (b) provide to the next intended user each data set together, with at least the minimum set of metadata that ensures traceability; and
- (c) regularly provide checklist of valid data sets.

33. AIP data set

Where digital data is in the form of AIP data set, the aeronautical information service provider shall -

- (a) provide an AIP data set covering the extent of information as provided in the AIP;

- (b) provide the available data subsets, when it is not possible to provide a complete AIP data set; and
- (c) ensure that the AIP data set contains the digital representation of aeronautical information of lasting character that is permanent information and long duration temporary changes, essential to air navigation.

34. Terrain and obstacle data sets

(1) The coverage areas for sets of terrain and obstacle data shall be specified as follows –

- (a) Area 1- the entire territory of Uganda;
- (b) Area 2- within the vicinity of an aerodrome, subdivided as follows-
 - (i) Area 2a- a rectangular area around a runway that comprises the runway strip plus any clearway that exists;
 - (ii) Area 2b- an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side;
 - (iii) Area 2c- an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a; and
 - (iv) Area 2d- an area outside the Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing Terminal Area boundary, whichever is nearest;
- (c) Area 3- the area bordering an aerodrome movement area that extends horizontally from the edge of a runway to 90 m from the runway centre line and 50 m from the edge of all other parts of the aerodrome movement area;
- (d) Area 4- the area extending 900 m prior to the runway threshold and 60 m each side of the extended runway centre line in the direction of the

approach on a precision approach runway, category II or III;

- (2) where the terrain at a distance greater than 900 m from the runway threshold is mountainous or otherwise significant, the length of Area 4 is extended to a distance not exceeding 2,000 m from the runway threshold.

35. Terrain data sets

Subject to regulation 33, the aeronautical information service provider shall-

- (a) ensure that terrain data sets contain the digital representation of the terrain surface in the form of continuous elevation values at all intersections or points of a defined grid, referenced to common datum;
- (b) provide terrain data for Area 1;
- (c) for aerodromes regularly used by international civil aviation, provide-
 - (i) terrain data for-
 - (aa) Area 2a;
 - (bb) the take-off flight path area; and
 - (cc) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces;
 - (ii) additional terrain data within Area 2 as follows-
 - (aa) in the area extending to 10 km from the ARP; and
 - (bb) within the area between 10 km and the TMA boundary or 45-km radius, whichever is smaller, where terrain penetrates a horizontal terrain data collection surface specified as 120 m above the lowest runway elevation.
 - (iii) terrain data for Area 3;
 - (iv) terrain data for Area 4 for all runways where precision approach Category II or III operations have been established and where detailed

terrain information is required by operators to enable them to assess the effect of terrain on decision height determination by use of radio altimeters.

- (d) make arrangements for the coordination of providing terrain data for adjacent aerodromes where their respective coverage areas overlap to assure that the data for the same terrain are correct;
- (e) make arrangements with states concerned to share terrain data for those aerodromes located near territorial boundaries;
- (f) where additional terrain data is collected to meet other aeronautical requirements, expand the terrain data sets to include this additional data;
- (g) ensure that the feature attributes describing terrain are those listed in Schedule 6 and those annotated as mandatory are to be recorded in the terrain data set; and
- (h) ensure that terrain data for each area conforms to the applicable numerical requirements in contained in Schedule 1.

36.Obstacle data sets

The aeronautical information service provider shall-

- (a) ensure that obstacle data sets contain the digital representation of the vertical and horizontal extent of obstacles;
- (b) ensure that obstacle data is-
 - (i) not included in terrain data sets;
 - (ii) provided for obstacles in Area 1 whose height is 100 m or higher above ground.
- (c) for aerodromes regularly used by international civil aviation, provide obstacle data for-

- (i) all obstacles within Area 2 that are assessed as being a hazard to air navigation;
- (ii) Area 2a for those obstacles that penetrate an obstacle data collection surface outlined by a rectangular area around a runway that comprises the runway strip plus any clearway that exists.

The Area 2a obstacle collection surface shall have height of 3 m above the nearest runway elevation measured along the runway centre line, and for those portions related to a clearway, if one exists, at the elevation of the nearest runway end;

- (iii) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and
- (iv) penetrations of the aerodrome obstacle limitation surfaces;
- (v) Areas 2b, 2c and 2d for obstacles that penetrate the relevant obstacle data collection surface specified as follows -
 - (1) Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15% to each side. The Area 2b obstacle collection surface has a 1.2% slope extending from the ends of Area 2a at the elevation of the runway end in the direction of departure, with a length of 10 km and a splay of 15% to each side;
 - (2) Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a. The Area 2c obstacle collection surface has a 1.2% slope extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a. The initial elevation of Area 2c shall be the elevation of the point of Area 2a at which it commences; and
 - (3) Area 2d: an area outside the Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing TMA boundary, whichever is nearest. The Area 2d obstacle collection

surface has a height of 100 m above ground;

except that data need not be collected for obstacles less than a height of 3 m above ground in Area 2b and less than a height of 15 m above ground in Area 2c.

- (vi) Area 3 for obstacles that penetrate the relevant obstacle data collection surface extending a half-metre (0.5 m) above the horizontal plane passing through the nearest point on the aerodrome movement area.
 - (vii) Area 4 for all runways where precision approach Category II or III operations have been established.
- (d) make arrangements;
- (i) for the coordination of providing obstacle data for adjacent aerodromes where their respective coverage areas overlap to assure that the data for the same obstacle are correct.
 - (ii) With States concerned to share obstacle data for those aerodromes located near territorial boundaries.
- (e) where additional obstacle data are collected to meet other aeronautical requirements, expand the obstacle data sets to include these additional data.

37. Aerodrome mapping data sets

The aeronautical information service provider shall -

- (a) ensure that aerodrome mapping data sets contain the digital representation of aerodrome features;
- (b) make available aerodrome mapping data sets for aerodromes regularly used by international civil aviation.

38. Instrument flight procedure data sets

The aeronautical information service provider shall -

- (a) ensure that instrument flight procedure data sets contain the digital representation of instrument flight procedures. and
- (b) make available instrument flight procedures data sets for aerodromes regularly used by international civil aviation.

39. Distribution services

The aeronautical information service provider shall -

- (a) distribute aeronautical information products to authorized users who request for them;
- (b) make available the AIP, AIP amendments, AIP supplements and AIC by the most expeditious means; and
- (c) whenever practicable, employ global communication networks and web services, for the provision of aeronautical information products.

40. NOTAM distribution

(1) The aeronautical information service provider shall -

- (a) distribute NOTAM on the basis of a request;
- (b) prepare NOTAM in conformity with the relevant provisions of the Civil Aviation (Communication Procedures) Regulations, 2019;
- (c) whenever practicable, employ the Aeronautical fixed service (AFS) for NOTAM distribution;
- (d) when a NOTAM is sent by means other than the AFS, use a six- digit date-time group indicating the date and time of NOTAM origination, and the identification of the originator, preceding the text;
- (e) select the NOTAM that are to be given international distribution;
- (f) exchange NOTAM International only as mutually agreed with the

international NOTAM offices concerned and multinational NOTAM Processing Units; and ensure that as far as practicable, cover the needs of operations personnel including flight crew members;

- (g) upon request grant distribution of NOTAM series other than those distributed internationally; and
 - (h) when practicable use selective distribution lists.
- (2) The international exchange of ASHTAM and NOTAM, where NOTAM is used for distribution of information on volcanic activity, shall include volcanic ash advisory centre and the centre designated by regional air navigation agreement for the operation of AFS Secure Aviation Data Information Service (SADIS) and the World Area Forecast System (WAFS) Internet file service (WIFS), and shall take account of the requirements of long-range operations.
- (3) A predetermined distribution system for NOTAM transmitted on the AFS in accordance with Regulation 42 shall be used whenever possible, subject to the requirements of sub regulation (1) (f).

41.Pre-Flight information service

- (1) The aeronautical information service provider shall -
- (a) make available aeronautical information relative to the route stages originating at the aerodrome or heliport to flight operations personnel including flight crews and services responsible for pre- flight information, for any aerodrome or heliport used for international air operations ;
 - (b) ensure that aeronautical information provided for pre-flight planning purposes includes information of operational significance from the elements of the aeronautical information products.
 - (c)) use Automated pre-flight information systems to make aeronautical data and aeronautical information available to operations personnel including flight crew members for self-briefing, flight planning and flight information service purposes. The aeronautical data and aeronautical information made available shall comply with the provisions of these regulations;

- (d) (d) use self-briefing facilities of an automated pre-flight information system to provide access to operations personnel, including flight crew members and other aeronautical personnel concerned. The human/machine interface of such facilities when provided shall ensure easy access in a guided manner to all relevant information/data.
- (2) Automated pre-flight information systems for the supply of aeronautical data and aeronautical information for self-briefing, flight planning and flight information service shall-
- (a) provide for continuous and timely updating of the system database and monitoring of the validity and quality of the aeronautical data stored;
 - (b) permit access to the system by operations personnel including flight crew members, aeronautical personnel concerned and other aeronautical users through suitable telecommunications means;
 - (c) ensure provision, in paper copy form, of the aeronautical data and aeronautical information accessed, as required;
 - (d) use access and interrogation procedures based on abbreviated plain language and ICAO location indicators, as appropriate, or based on a menu-driven user interface or other appropriate mechanism as agreed between the civil aviation Authority and operator concerned; and
 - (e) provide for rapid response to a user request for information.
- (3) Automated pre-flight information systems providing a harmonized, common point of access by operations personnel, including flight crew members and other aeronautical personnel concerned, to aeronautical information are established by an agreement between the civil aviation Authority and the relevant meteorology department.
- (4) Where automated pre-flight information systems are used to provide the harmonized, common point of access by operations personnel, including flight

crew members and other aeronautical personnel concerned, to aeronautical data, aeronautical information and meteorological information, the Air Navigation Service Provider shall remain responsible for the quality and timeliness of the aeronautical data and aeronautical information provided by means of such a system.

42. Post-flight information service

The aeronautical information service provider shall -

- (a) make arrangements to receive information concerning the state and operation of air navigation facilities or services noted by aircrews, for any aerodrome or heliport used for international air operations and ensure that the information is made available to the aeronautical information service for distribution as the circumstances necessitate;
- (b) make arrangements to receive information concerning the presence of wildlife hazard observed by flight crews, for any aerodrome or heliport used for international air operations.
- (c) distribute information about presence of wildlife hazard made available to the aeronautical information service as the circumstances necessitate.

PART VII - AERONAUTICAL INFORMATION UPDATES

43. General specifications for aeronautical information updates

Aeronautical data and aeronautical information shall be kept up-to-date.

44. Aeronautical Information Regulation and Control (AIRAC)

- (1) The aeronautical information service provider shall distribute under the regulated system (AIRAC) information concerning, the following circumstances, basing establishment, withdrawal or significant changes, upon a series of common effective dates at intervals of twenty eight days as follows-

- (a) horizontal and vertical limits, regulations and procedures applicable to-
 - (i) flight information regions;
 - (ii) control areas;
 - (iii) control zones;
 - (iv) advisory areas;
 - (v) ATS routes;
 - (vi) permanent danger, prohibited and restricted areas including type and periods of activity when known and ADIZ;
 - (vii) permanent areas or routes or portions where the possibility of interception exists;
- (b) positions, frequencies, call signs, identifiers, known irregularities and maintenance periods of radio navigation aids, and communication and surveillance facilities;
- (c) holding and approach procedures, arrival and departure procedures, noise abatement procedures and any other pertinent ATS procedures;
- (d) transition levels, transition altitudes and minimum sector altitudes;
- (e) meteorological facilities, including broadcasts and procedures;
- (f) runways and stop ways;
- (g) taxiways and aprons;
- (h) aerodrome ground operating procedures including low visibility procedures;
- (i) approach and runway lighting; and
- (j) aerodrome operating minima if published by the Authority.

(2) The information notified under the AIRAC system shall not be changed

further for at least another twenty eight days after the effective date, unless the circumstance notified is of a temporary nature and would not persist for the full period.

- (3) Information provided under the AIRAC system shall be made available by the AISP so as to reach recipients at least twenty eight days in advance of the AIRAC effective date.
- (4) When information has not been submitted by the AIRAC date, a NIL notification shall be distributed not later than one cycle before the AIRAC effective date concerned.
- (5) Implementation dates other than AIRAC effective dates shall not be used for pre-planned operationally significant changes requiring cartographic work or for updating of navigation databases.
- (6) The regulated AIRAC system shall be used for the provision of information relating to the establishment and withdrawal of, and premeditated significant changes in, the following circumstances-
 - (a) position, height and lighting of navigational obstacles;
 - (b) hours of service of aerodromes, facilities and services;
 - (c) customs, immigration and health services;
 - (d) temporary danger, prohibited and restricted areas and navigational hazards, military exercises and mass movements of aircraft; and
 - (e) temporary areas or routes or portions thereof where the possibility of interception exists.
- (7) Whenever major changes are planned and where advance notice is desirable

and practicable, information shall be made available by the AIS so as to reach recipients at least fifty six days in advance of the effective date and the effective date shall be applied to the establishment of, and premeditated major changes in, the following circumstances and other major changes if deemed necessary -

- (a) New aerodromes for international IFR operations;
- (b) New runways for IFR operations at international aerodromes;
- (c) Design and structure of the air traffic services route network;
- (d) Design and structure of a set of terminal procedures including change of procedure bearings due to magnetic variation change;
- (e) circumstances listed in sub regulation (1) if the entire State or any significant portion is affected or if cross- border coordination is required.

45. Aeronautical Information Publication (AIP) updates

The aeronautical service provider shall -

- (a) amend or reissue AIP at such regular intervals as may be necessary to keep them up to date;
- (b) publish permanent changes to the AIP as AIP Amendments; and
- (c) publish temporary changes of long duration, three months or longer, and information of short duration which contains extensive text or graphics as AIP supplements.

46. NOTAM updates

- (1) A -Trigger|| NOTAM shall be originated when an AIP amendment or an AIP supplement is published in accordance with AIRAC procedures.
- (2) A NOTAM shall be originated and issued promptly whenever the information

to be distributed is of a temporary nature and of short duration or when operationally significant permanent changes or temporary changes of long duration are made at short notice, except for extensive text or graphics.

- (3) A NOTAM shall be originated and issued concerning the following information-
- (a) establishment, closure or significant changes in operation of aerodrome or heliport or runways;
 - (b) establishment, withdrawal and significant changes in operation of aeronautical services;
 - (c) establishment, withdrawal and significant changes in operational capability of radio navigation and air-ground communication services including interruption or return to operation, change of frequencies, change in notified hours of service, change of identification, change of orientation or directional aids, change of location, power increase or decrease amounting to 50 per cent or more, change in broadcast schedules or contents, or irregularity or unreliability of operation of any radio navigation and air-ground communication services or limitations of relay stations including operational impact, affected service, frequency and area;
 - (d) unavailability of back-up and secondary systems, having a direct operational impact;
 - (e) establishment, withdrawal or significant changes made to visual aids;
 - (f) interruption of or return to operation of major components of aerodrome lighting systems;
 - (g) establishment, withdrawal or significant changes made to procedures for air navigation services;
 - (h) occurrence or correction of major defects or impediments in the manoeuvring area;
 - (i) changes to and limitations on availability of fuel, oil and oxygen;

- (j) major changes to search and rescue facilities and services available;
- (k) establishment, withdrawal or return to operation of hazard beacons marking obstacles to air navigation;
- (l) changes in regulations requiring immediate action, such as prohibited areas for search and rescue action;
- (m) presence of hazards which affect air navigation including obstacles, military exercises, displays, fireworks, sky lanterns, rocket debris, races and major parachuting events outside promulgated sites;
- (n) planned laser emissions, laser displays and search lights if pilots' night vision is likely to be impaired;
- (o) erecting or removal of, or changes to, obstacles to air navigation in the take-off or climb, missed approach, approach areas and runway strip;
- (p) establishment or discontinuance including activation or deactivation as applicable, or changes in the status of prohibited, restricted or danger areas;
- (q) establishment or discontinuance of areas or routes or portions of the areas or routes where the possibility of interception exists and where the maintenance of guard on the VHF emergency frequency 121.5 MHz is required;
- (r) allocation, cancellation or change of location indicators;
- (s) changes in aerodrome or heliport rescue and firefighting category provided;
- (t) presence or removal of, or significant changes in, hazardous conditions due to radioactive material, toxic chemicals, volcanic ash deposition or water on the movement area;
- (u) outbreaks of epidemics necessitating changes in notified requirements for inoculations and quarantine measures;
- (v) observations or forecasts of space weather phenomena, the date and time of their occurrence, the flight levels where provided, and portions of the airspace which may be affected by the phenomena;

- (w) an operationally significant change in volcanic activity, the location, date and time of volcanic eruptions or horizontal and vertical extent of volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes which could be affected;
 - (x) release into the atmosphere of radioactive materials or toxic chemicals following a nuclear or chemical incident, the location, date and time of the incident, the flight levels and routes or portions which could be affected and the direction of movement;
 - (y) establishment of operations of humanitarian relief missions, such as those undertaken under the auspices of the United Nations, together with procedures or limitations which affect air navigation;
 - (z) implementation of short-term contingency measures in cases of disruption or partial disruption, of air traffic services and related supporting services; and
 - (aa) specific loss of satellite based navigation systems integrity.
- (4) The following information shall not be notified by NOTAM -
- (a) routine maintenance work on aprons and taxiways which does not affect the safe movement of aircraft;
 - (b) runway marking work, when aircraft operations can safely be conducted on other available runways, or the equipment used can be removed when necessary;
 - (c) temporary obstructions in the vicinity of aerodromes or heliports that do not affect the safe operation of aircraft;
 - (d) partial failure of aerodrome or heliport lighting facilities where such failure does not directly affect aircraft operations;
 - (e) partial temporary failure of air-ground communications when suitable alternative frequencies are known to be available and are operative;
 - (f) the lack of apron marshalling services and road traffic control;

- (g) the unserviceability of location, destination or other instruction signs on the aerodrome movement area;
- (h) parachuting when in uncontrolled airspace under VFR, when controlled at promulgated sites or within danger or prohibited areas;
- (i) training activities by ground units;
- (j) unavailability of back-up and secondary systems if these do not have an operational impact;
- (k) limitations to airport facilities or general services with no operational impact;
- (l) national regulations not affecting general aviation;
- (m) announcement or warnings about possible or potential limitations, without any operational impact;
- (n) general reminders on already published information;
- (o) availability of equipment for ground units without containing information on the operational impact for airspace and facility users;
- (p) information about laser emissions without any operational impact and fireworks below minimum flying heights;
- (q) closure of movement area parts in connection with planned work locally coordinated of duration of less than one hour;
- (r) closure, changes, unavailability in operation of aerodrome or heliport other than aerodrome or heliport operation hours; and
- (s) other non-operational information of a similar temporary nature.

47.Data set updates

- (1) Data sets shall be amended or reissued at such regular intervals as may be necessary to keep them up to date.
- (2) Permanent changes and temporary changes of long duration that is three months or longer, made available as digital data shall be issued in the form of

a complete data set or a sub-set that includes only the differences from the previously issued complete data set.

- (3) The differences from the previously issued complete data set shall be indicated when made available as a completely re-issued data set.
- (4) When temporary changes of short duration are made available as digital data that is digital NOTAM), they shall use the same aeronautical information model as the complete data set.
- (5) Updates to AIP, digital data sets shall be synchronised.

PART XIII – EXEMPTIONS

48. Requirements for application for exemption

- (1) A person may apply to the Authority for an exemption from any provision of these Regulations.
- (2) Unless in case of emergency, a person who requires an exemption from any provision of these regulations shall apply to the Authority at least sixty days prior to the proposed effective date, giving the following information-
 - (a) name and contact address including electronic mail and fax if any;
 - (b) telephone number;
 - (c) a citation of the specific requirement from which the applicant seeks exemption;
 - (d) justification for the exemption;
 - (e) a description of the type of operations to be conducted under the proposed exemption;
 - (f) the proposed duration of the exemption;
 - (g) an explanation of how the exemption would be in the public interest;

- (h) a detailed description of the alternative means by which the applicant will ensure a level of safety equivalent to that established by the regulation in question;
 - (i) a safety risk assessment carried out in respect of the exemption applied for;
 - (j) if the applicant handles international operations and seeks to operate under the proposed exemption, an indication whether the exemption would contravene any provision of the standards and recommended practices of the International Civil Aviation Organization; and
 - (k) any other information that the Authority may require.
- (3) Where the applicant seeks emergency processing of an application for exemption, the application shall contain supporting facts and reasons for not filing the application within the time specified in subregulation (2) and satisfactory reason for deeming the application an emergency.
- (4) The Authority may in writing, refuse an application made under sub regulation (3), where in the opinion of the Authority, the reasons given for emergency processing are not satisfactory.
- (5) The application for exemption shall be accompanied by a fee prescribed by the Authority.

49. Review and publication

- (1) The Authority shall review the application for exemption made under regulation 47 for accuracy and compliance and if the application is satisfactory, the Authority shall publish a detailed summary of the application for comments, within a prescribed time, in either -
- (a) the Gazette;
 - (b) aeronautical information circular; or
 - (c) a daily newspaper with national circulation.

- (2) The Authority shall request the applicant in writing, to comply prior to publication or making a decision where application requirements have not been fully complied with.

50. Evaluation of the request

- (1) The Authority shall, where the application requirements are satisfied, conduct an evaluation of the request to include-
 - (a) determination of whether an exemption would be in the public interest;
 - (b) a determination, after a technical evaluation of whether the proposal of the applicant would provide a level of safety equivalent to that established by the regulation, although where the Authority decides that a technical evaluation of the request would impose a significant burden on the technical resources of the Authority, the Authority may deny the exemption on that basis;
 - (c) a determination of whether a grant of the exemption would contravene these Regulations; or
 - (d) a recommendation based on the preceding elements, of whether the request should be granted or denied and of any conditions or limitations that should be part of the exemption.
- (2) The Authority shall notify the applicant in writing, the decision to grant or deny the request and publish a detailed summary of its evaluation and decision.
- (3) The summary referred to in sub-regulation (2) shall specify the duration of the exemption and any conditions or limitations of the exemption.
- (4) The Authority shall publish the decision after processing the application if the request is for emergency relief.
- (5) The Authority shall publish the summary in aeronautical information circular if the exemption affects a significant population of the aviation community of the State.

PART XIV - GENERAL PROVISIONS

51. Miscellaneous specifications

The aeronautical service provider shall -

- (a) include English text for those parts of the aeronautical information products intended for international distribution expressed in plain language;
- (b) spell the names of places in conformity with local usage, transliterated, when necessary, into the ISO-Basic Latin alphabet;
- (c) use ICAO abbreviations in the aeronautical information products whenever they are appropriate and their use will facilitate distribution of aeronautical data and aeronautical information; and
- (d) use units of measurement in the origination, processing and distribution of aeronautical data and aeronautical information consistent with the tables contained in the Civil Aviation (Units of Measurement for air and ground Operations) Regulations, 2019.

52. Use and retention of approvals and records.

(1) A person shall not -

- (a) use an approval, permission, exemption or any other document issued or required by or under these Regulations which is forged, altered, revoked, suspended or which the person is not entitled to use;
- (b) forge or alter an approval, permission, exemption or any other document issued or required by or under these Regulations;
- (c) lend a licence, certificate, approval, permission, exemption or any other document issued or required by or under these Regulations to any other person;
or
- (d) make any false representation for the purposes of procuring for himself, herself or any other person, issuance, renewal or variation of an approval, permission or exemption or other document.

(2) A person shall not, during the period for which it is required under these Regulations to be preserved -

- (a) mutilate, alter, render illegible or destroy an approval or any entry made in any record;
- (b) make, procure or assist in the making of any false entry in an approval or record; or
- (c) omit to make a material entry in an approval or record.

(3) A record required to be maintained under these Regulations shall be recorded in a permanent and indelible material.

(4) A person shall not purport to issue an approval or exemption for the purposes of these Regulations unless that person is authorised to do so.

(5) The Authority may suspend or cancel an approval of AIS service provider who contravenes any provision of these Regulations.

53. Aeronautical information and data that requires regulatory approval.

(1) Aeronautical information and data submitted to the AISP may require regulatory approval from the Authority before submission can be accepted by the AISP for publication in the AIP.

(2) Aeronautical information and data requiring regulatory approval in sub regulation (1) shall be prescribed by the Authority and this data shall include -

- (a) Controlled or Regulated Airspace;
- (b) Ground or Satellite base Navigation Systems;
- (c) Instrument Flight Procedures;
- (d) VHF or UHF frequencies;
- (e) Danger or Restricted Areas;
- (f) Civil or Military Aerodrome Traffic Zones;
- (g) Aerodrome Runway Declared Distances;

(h) Aerodrome Rescue & Fire Fighting categories.

(3) For aeronautical data that requires regulatory approval, data originators shall take into account of the additional time required by the Authority for the approvals process.

54. Deviations from regulations and procedures.

Any deviation from a prescribed requirement or procedure in these Regulations shall be set out in an endorsement on the MANSOPS.

55. Inspections and audits.

The Authority shall –

- (a) carry out such inspections and audits as may be necessary for the purpose of verifying the application and implementation of these Regulations; and
- (b) carry out inspections and audits of any document and records of Cartographic service provider, which may be necessary to determine compliance with the appropriate requirements as prescribed in these Regulations.

PART XV - SAVINGS AND TRANSITION

56. Savings and Transition

Any approval, permission, exemption or any document issued to a AIS provider prior to the commencement of these Regulations shall continue in force as if it was issued under these Regulations until it expires or is cancelled by the Authority.

57. Revocation.

The Civil Aviation (Air Navigation Services) Regulations, 2008 is hereby repealed.

DRAFT

Eng. Monica Azuba Ntege,
Minister of Works and Transport.

Cross references

The Civil Aviation (Aerodromes) Regulations, 2019

The Civil Aviation (Aeronautical Charts) Regulations, 2019

The Civil Aviation (Communication Procedures) Regulations, 2019

Civil Aviation (Units of Measurement for air and ground Operations) Regulations, 2019.

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