



Civil Aviation Authority
of Fiji

AERONAUTICAL INFORMATION SERVICES

1st-2nd Edition – 24th November 2023xx July 2024

Published by:
Civil Aviation Authority of Fiji
Private Mail Bag, NAP 0354
Nadi International Airport
Fiji
www.caaf.org.fj

Copyright © 2023 CAAF

Formatted: Justified

Formatted: Justified

Formatted: Highlight

Formatted: Justified

Formatted: Justified



Standards Document

AERONAUTICAL INFORMATION SERVICES (AIS)

DRAFT

Formatted: Justified

Civil Aviation Authority of Fiji
Private Mail Bag, NAP 0354
Nadi International Airport
Fiji

Formatted: Justified

Copyright © 2023 CAAF

Copy number: Electronic Copy

Formatted: Justified

This manual is subject to the amendment service: Yes No

Formatted: Justified

Copy Holder: _____

Formatted: Justified

Organisation: _____

Formatted: Justified



Date of Effectiveness:

~~xx Nov 2023~~ July 2024

Formatted: Highlight

Formatted: Justified

Formatted: Normal, Line spacing: single

Formatted: Justified

PREFACE

General

Fiji's National Aviation Law consists of a three tier or triple system regulatory system, comprising Acts, Regulations and Standards Documents; the purpose of which is to ensure, where deemed appropriate, compliance and conformance with ICAO Standards and Recommended Practices (SARPS).

The three tier or triple system regulatory system represents Fiji's Primary Legislation System and Specific Operating Regulations to meet Critical Elements CE1 and CE2 of ICAO's Eight Critical Element of a safety oversight system

Standards Documents (SD) are issued by the Civil Aviation Authority of Fiji under the provision of Section 14 (3) (b) of the Civil Aviation Authority Act 1979 (CAP 174A)

Where appropriate, the SD also contains guidance information (Critical Element CE5) on standards, practices, and procedures that are acceptable to the Authority.

Notwithstanding the above, and where specifically indicated in this Standards Document that such a provision is available, consideration may be given to other methods of compliance that may be presented to the Authority provided they have compensating factors that can demonstrate a level of safety equivalent to or better than those prescribed herein. Accordingly, the Authority will consider each case based on its own merits holistically in the context of and relevancy of the alternative methods to the individual applicant.

When new standards, practices, or procedures are determined to be acceptable, they will be added to this document.

Purpose

This Standards Document – Aeronautical Information Services (AIS) is issued by the Civil Aviation Authority of Fiji pursuant to *Section 6(4)(c) and 14(3)(b) of the Civil Aviation (Reform) Act 1999*. This Document is intended for use by CAAF, applicants for, and holders of – Aeronautical Information Service Certificates in Fiji for which Fiji has accepted responsibility under ICAO agreements and within territorial waters of Fiji.

Formatted: Justified

Change Notice

This Standards Document has been developed pursuant to the Authority's obligation to provide oversight on Aeronautical Information Management service providers and their personnel, as well as the operator's/service providers and applicants obligation to comply with standards notified by the Authority and is the means by which such notification is given.

THERESA LEVESTAM

Formatted: Font: 10 pt, Bold, Highlight



CHIEF EXECUTIVE



Formatted: Font: 10 pt, Bold

Commented [PK1]: Amend signature

Formatted: Justified

AMENDMENT RECORD

The following space is provided to keep a record of all amendments.

Amendment No.	Effective Date	Entered By	Date Entered	Amendment No.	Effective Date	Entered By	Date Entered
Amendment no. 1 incorporated in this edition				26			
2	22 July 2024	ANSI-APG		27			
3				28			
4				29			
5				30			
6				31			
7				32			
8				33			
9				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			

Formatted: Justified

Formatted: Font: 9 pt, Highlight

Formatted: Highlight

Formatted: Justified

Formatted: Font: 9 pt, Highlight

Formatted: Highlight

Formatted: Justified

Formatted: Highlight

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified



6.2	Aeronautical Information Regulation and Control	
6.3	Aeronautical Information product updates	
Part 2		
AISP Certification Requirements <i>(to be relocated to start of document)</i>		
Appendix		
	Appendix 1 – Aeronautical Data Catalogues.	25-26
	Appendix 2 – Contents of Aeronautical Information Publication	26
	Appendix 3 – Additional NOTAM Requirements, Format, and Form	
	Appendix 4 – Additional Requirements for AIP SUPP	
	Appendix 5 – Additional Requirements for AIC	
	Appendix 6 – AIP Review Group Terms of Reference	
	Appendix 7 – Terrain and Obstacle Data Requirements	

- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Highlight
- Formatted: Font: Italic, Highlight
- Formatted: Highlight
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified
- Formatted: Justified

DRAFT



Historical Summary of Amendments

The Civil Aviation Reform Act (1999) requires the Authority to produce standards for the provision of aeronautical information management. A draft version of Standard Document-Aeronautical Information Management (SD-AIS, 1st Edition dated July 2019) was developed and circulated internally for comments.

SD-AIS, details the AIS standards and the AIS Provider certification requirements.

Amendment	Source(s)	Subject(s)	Effective Date
1 st Edition	CAAF	Change of signatory	22 nd November 2022
2 nd Edition	Amendment -41 and 43 of Annex 15	Improvement in the availability of information on the hazardous activities to civil aviation promulgated through NOTAM will contribute to a better management of safety risks and an increased overall awareness of potentially hazardous activities; introduction of competency-based training and assessment (CBTA) methodology, editorial changes and system wide information management (SWIM) and information security to Annex 15	22 nd Novemberxx Jul 2024

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Left

Formatted: Highlight

Formatted: Highlight

Formatted: Highlight

Formatted: Highlight

Formatted: Justified



Chapter 1 GENERAL

Note 1.— The object of the aeronautical information service (AIS) is to ensure the flow of aeronautical data and aeronautical information necessary for global air traffic management (ATM) system safety, regularity, economy and efficiency in an environmentally sustainable manner. The role and importance of aeronautical data and aeronautical information changed significantly with the implementation of area navigation (RNAV), performance-based navigation (PBN), airborne computer-based navigation systems, performance-based communication (PBC), performance-based surveillance (PBS), data link systems and satellite voice communications (SATVOICE). Corrupt, erroneous, late or missing aeronautical data and aeronautical information can potentially affect the safety of air navigation.

Note 2.— These Standards and Recommended Practices are to be used in conjunction with the Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS-ABC, Doc 8400).

Note 3.— These Standards and Recommended Practices are to be used in conjunction with the Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM, Doc 10066).

Note 4.— Guidance material on the organization and operation of the AIS is contained in the Aeronautical Information Services Manual (Doc 8126).

DEFINITIONS

When the following terms are used in this document, they have the following meanings:

Aerodrome. A defined area on land or water (including any 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). Data collected for the purpose of compiling aerodrome mapping information.

Note.— Aerodrome mapping data is collected for purposes that include the improvement of the user's situational awareness, surface navigation operations, training, charting and planning.

Aerodrome mapping database (AMDB). A collection of aerodrome mapping data organized and arranged as a structured data set.

Aeronautical chart. A representation of a portion of the Earth, its culture and relief, specifically designated to meet the requirements of air navigation.

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

Aeronautical fixed service (AFS). 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. Information resulting from the assembly, analysis and formatting of aeronautical data.

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 management (AIM). 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. 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.

Note.— Aeronautical information products are intended primarily to satisfy international requirements for the exchange of aeronautical information.

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 data and aeronautical information 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 provided by means of special pages.

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 practices.

Air defence identification zone (ADIZ). Special designated airspace of defined dimensions within which aircraft are required to comply with special identification and/or reporting procedures additional to those related to the provision of air traffic services.

Air traffic management (ATM). 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. Manipulation and processing of data in support of user requirements (ISO 19104*).

Area navigation (RNAV). 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.

Note.— Area navigation includes performance-based navigation as well as other operations that do not meet the definition of performance-based navigation.

ASHTAM. A special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations.



Assemble. A process of merging data from multiple sources into a database and establishing a baseline for subsequent processing.

Note.— The assemble phase includes checking the data and ensuring that detected errors and omissions are rectified.

Formatted: Justified

ATS surveillance service. Term used to indicate a service provided directly by means of an ATS surveillance system.

Formatted: Justified

ATS surveillance system. A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.

Formatted: Justified

Note.— A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.

Formatted: Justified

Automatic dependent surveillance — broadcast (ADS-B). A means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/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). 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.

Note.— The abbreviated term “ADS contract” is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract or an emergency mode.

Formatted: Justified

Automatic terminal information service (ATIS). The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof: Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link. Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts.

Bare Earth. Surface of the Earth including bodies of water and permanent ice and snow, and excluding vegetation and man-made objects.

Calendar. Discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108*).

Canopy. Bare Earth supplemented by vegetation height.

Confidence level. The probability that the true value of a parameter is within a certain interval around the estimate of its value.

Note.— The interval is usually referred to as the accuracy of the estimate.

Formatted: Justified

Controller-pilot data link communications (CPDLC). A means of communication between controller and pilot, using data link for ATC communications.

Formatted: Justified

Culture. All man-made features constructed on the surface of the Earth, such as cities, railways and canals.

Cyclic redundancy check (CRC). A mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.



Danger area. An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

Data accuracy. A degree of conformance between the estimated or measured value and the true value.

Data completeness. The degree of confidence that all of the data needed to support the intended use is provided.

Data format. A structure of data elements, records and files arranged to meet standards, specifications or data quality requirements.

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

Data product. Data set or data set series that conforms to a data product specification (ISO 19131*).

Data product specification. 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 (ISO 19131*).

Note.— A data product specification provides a description of the universe of discourse and a specification for mapping the universe of discourse to a data set. It may be used for production, sales, end-use or other purpose.

Formatted: Justified

Data quality. 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 resolution. A number of units or digits to which a measured or calculated value is expressed and used.

Data set. Identifiable collection of data (ISO 19101*).

Data set series. Collection of data sets sharing the same product specification (ISO 19115*).

Data timeliness. The degree of confidence that the data is applicable to the period of its intended use.

Data traceability. 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.

Datum. Any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO 19104*).

Digital Elevation Model (DEM). The representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum.

Note.— Digital Terrain Model (DTM) is sometimes referred to as DEM.

Formatted: Justified



Direct transit arrangements. 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.

Ellipsoid height (geodetic height). The height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.

Feature. Abstraction of real world phenomena (ISO 19101*).

Feature attribute. Characteristic of a feature (ISO 19101*).

Note.— A feature attribute has a name, a data type and a value domain associated with it.

Formatted: Justified

Feature operation. Operation that every instance of a feature type may perform (ISO 19110*).

Note.— An operation upon the feature type dam is to raise the dam. The result of this operation is to raise the level of water in the reservoir.

Formatted: Justified

Feature relationship. Relationship that links instances of one feature type with instances of the same or a different feature type (ISO 19101*).

Feature type. Class of real world phenomena with common properties (ISO 19110*).

Note.— In a feature catalogue, the basic level of classification is the feature type.

Formatted: Justified

Geodesic distance. The shortest distance between any two points on a mathematically defined ellipsoidal surface.

Geodetic datum. A minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame.

Geoid. The equipotential surface in the gravity field of the Earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents.

Note.— The geoid is irregular in shape because of local gravitational disturbances (wind tides, salinity, current, etc.) and the direction of gravity is perpendicular to the geoid at every point.

Formatted: Justified

Geoid undulation. The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid.

Note.— In respect to the World Geodetic System — 1984 (WGS-84) defined ellipsoid, the difference between the WGS-84 ellipsoidal height and orthometric height represents WGS-84 geoid undulation.

Formatted: Justified

Gregorian calendar. Calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar (ISO 19108*).

Note.— In the Gregorian calendar, common years have 365 days and leap years 366 days divided into twelve sequential months.

Formatted: Justified

Height. The vertical distance of a level, point or an object considered as a point, measured from a specific datum.

Heliport. 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. 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 (aeronautical data). Classification based upon the potential risk resulting from the use of corrupted data. Aeronautical data is classified as:

a) routine data: 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: 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: 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.

International airport. Any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out.

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

Logon address. A specified code used for data link logon to an ATS unit.

Manoeuvring area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Metadata. Data about data (ISO 19115*).

Note.— A structured description of the content, quality, condition or other characteristics of data.

Formatted: Justified

Minimum en-route altitude (MEA). 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). The minimum altitude for a defined segment of flight that provides the required obstacle clearance.

Movement area. 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. A set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specifications:

Required navigation performance (RNP) specification. 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.

Formatted: Justified

Area navigation (RNAV) specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

Formatted: Justified



Note 1.— The Performance-based Navigation (PBN) Manual (Doc 9613), Volume II, contains detailed guidance on navigation specifications.

Note 2.— The concept of RNP has been overtaken by the concept of PBN. The term “RNP” is now solely used in the context of navigation specifications that require performance monitoring and alerting, e.g. RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting that are detailed in Doc 9613.

Formatted: Justified

Next intended user. The entity that receives the aeronautical data or information from the aeronautical information service.

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.

Obstacle. All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:
a) are located on an area intended for the surface movement of aircraft; or
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/terrain data collection surface. A defined surface intended for the purpose of collecting obstacle/terrain data.

Origination (aeronautical data or aeronautical information). The creation of the value associated with new data or information or the modification of the value of existing data or information.

Originator (aeronautical data or aeronautical information). An entity that is accountable for data or information origination and/or from which the AIS organization receives aeronautical data and information.

Orthometric height. Height of a point related to the geoid, generally presented as an MSL elevation.

Performance-based communication (PBC). Communication based on performance specifications applied to the provision of air traffic services.

Note.— A required communication performance (RCP) specification includes communication performance requirements that are allocated to system components in terms of the communication to be provided and associated transaction time, continuity, availability, integrity, safety and functionality needed for the proposed operation in the context of a particular airspace concept.

Formatted: Justified

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

Note.— Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept.

Formatted: Justified



Performance-based surveillance (PBS). Surveillance based on performance specifications applied to the provision of air traffic services.

Note.— A required surveillance performance (RSP) specification includes surveillance performance requirements that are allocated to system components in terms of the surveillance to be provided and associated data delivery time, continuity, availability, integrity, accuracy of the surveillance data, safety and functionality needed for the proposed operation in the context of a particular airspace concept.

Portrayal. Presentation of information to humans (ISO 19117*).

Position (geographical). 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.

Post spacing. Angular or linear distance between two adjacent elevation points.

Precision. The smallest difference that can be reliably distinguished by a measurement process.

Note.— In reference to geodetic surveys, precision is a degree of refinement in performance of an operation or a degree of perfection in the instruments and methods used when taking measurements.

Formatted: Justified

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

Prohibited area. An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.

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.

Formatted: Justified

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

Formatted: Justified

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*).

Radio navigation service. A service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.

Formatted: Justified

Required communication performance (RCP) specification. A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based communication.

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



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.

Formatted: Justified

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

Formatted: Justified

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

Formatted: Justified

Restricted area. 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. A route or portion of a route flown without an intermediate landing.

SNOWTAM. 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.

Station declination. An alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated.

Terrain. 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. Ability to trace the history, application or location of that which is under consideration (ISO 9000*).

Note.— When considering product, traceability can relate to:

- the origin of materials and parts;
- the processing history; and
- the distribution and location of the product after delivery.

Formatted: Justified

Validation. Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled (ISO 9000)*.

Verification. Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled (ISO 9000*).

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

Formatted: Justified

VOLMET. Meteorological information for aircraft in flight.

Data link-VOLMET (D-VOLMET). 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. VOLMET broadcast. Provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts.



1.2 Common reference systems for air navigation

1.2.1 Horizontal reference system

1.2.1.1 The World Geodetic System — 1984 (WGS-84) shall be used as the horizontal (geodetic) reference system for international air navigation. Consequently, published aeronautical geographical coordinates (indicating latitude and longitude) shall be expressed in terms of the WGS-84 geodetic reference datum.

1.2.1.2 Recommendation. — In precise geodetic applications and some air navigation applications, temporal changes in the tectonic plate motion and tidal effects on the Earth's crust should be modelled and estimated. To reflect the temporal effect, an epoch should be included with any set of absolute station coordinates.

Note 1. - The ~~epoch~~ latest version of the WGS-84 (G2139) reference frame is realized through coordinates of 17 GPS tracking stations which are part of the GPS Control Segment. They are aligned to IGB14 (considered to be equivalent to ITRF2014 (International Terrestrial Reference System 2014)) at epoch 2005.0

Formatted: Highlight

Note 2. - Another precise worldwide terrestrial coordinate system is the International Earth Rotation Service (IERS) Terrestrial Reference System (ITRS), and the realization of ITRS is the IERS Terrestrial Reference Frame (ITRF). Guidance material regarding the ITRS is provided in Appendix C of Doc 9674. WGS-84 (G2139) is consistent with ITRF2014 and in practical realization the difference between these two systems is statistically insignificant for most applications, meaning WGS-84 (G2139) and ITRF2014 are essentially identical.

1.2.2 Vertical reference system

1.2.2.1 Mean sea level (MSL) datum shall be used as the vertical reference system for international air navigation.

1.2.2.2 The Earth Gravitational Model — 1996 (EGM-96) shall be used as the global gravity model for international air navigation.

1.2.2.3 At those 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, regional, national or local geoid models containing high resolution (short wavelength) gravity field data shall be developed and used. 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 the Aeronautical Information Publication (AIP).

1.2.3.1 The Gregorian calendar and Coordinated Universal Time (UTC) shall be used as the temporal reference system for international air navigation.

1.2.3.2 When a different temporal reference system is used for some applications, the feature catalogue, or 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.



1.3 Miscellaneous specifications

1.3.1 Aeronautical information products intended for international distribution shall include English text for those parts expressed in plain language.

1.3.2 Place names shall be spelt in conformity with local usage, transliterated, when necessary, into the ISO-Basic Latin alphabet.

1.3.4 ICAO abbreviations shall be used in aeronautical information products whenever they are appropriate and their use will facilitate distribution of aeronautical data and aeronautical information.

Formatted: Justified

Formatted: Justified

DRAFT



Chapter 2

RESPONSIBILITIES AND FUNCTION

2.1.1 Aeronautical Information Service Provider shall:

- a) provide an aeronautical information service (AIS); or
- b) agree with one or more other Contracting State(s) for the provision of a joint service; or
- c) delegate the authority for the provision of the service to a non-governmental agency, provided the Standards and Recommended Practices of this Annex are adequately met.

2.1.2 Aeronautical Information Service Provider shall ensure that the provision of aeronautical data and aeronautical information covers its own territory and those areas over the high seas for which it is responsible for the provision of air traffic services (ATS).

2.1.3 The Aeronautical Information Service Provider concerned shall remain responsible for the aeronautical data and aeronautical information provided in accordance with 2.1.2. Aeronautical data and aeronautical information provided for and on behalf of a State shall clearly indicate that they are provided under the authority of that State, irrespective of the format in which they are provided.

2.1.4 Aeronautical Information Service Provider shall ensure that the aeronautical data and aeronautical information provided are of required quality in accordance with 3.2.

2.1.5 Aeronautical Information Service Provider shall ensure that formal arrangements are established between originators of aeronautical data and aeronautical information and the AIS



in relation to the timely and complete provision of aeronautical data and aeronautical information.

2.2 AIS responsibilities and functions

2.2.1 An AIS shall ensure that aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation are made available in a form suitable for the operational requirements of the air traffic management (ATM) community, including:

- a) those involved in flight operations, including flight crews, flight planning and flight simulators; and
- b) the ATS unit responsible for flight information service and the services responsible for pre-flight information.

2.2.2 An AIS shall receive, collate or assemble, edit, format, publish/store and distribute aeronautical data and aeronautical information concerning the entire territory of the State as well as those areas over the high seas for which the State is responsible for the provision of ATS. Aeronautical data and aeronautical information shall be provided as aeronautical information products.

2.2.3 Where 24-hour service is not provided, service shall be available during the whole period an aircraft is in flight ~~in the~~ in the area of responsibility of the AIS, plus a period of at least two hours before and after such a period. Service shall also be available at such other time as may be requested by an appropriate ground organization.

2.2.4 An AIS shall, in addition, obtain aeronautical data and aeronautical information to enable it to provide pre-flight information service and to meet the need for in-flight information:

- a) from the AIS of other States; and
- b) from other sources that may be available.

2.2.5 Aeronautical data and aeronautical information obtained under 2.2.4 a) shall, when distributed, be clearly identified as having the authority of the originating State. 2.2.6 Aeronautical data and aeronautical information obtained under 2.2.4 b) shall, if possible, be verified before distribution and if not verified shall, when distributed, be clearly identified as such.

2.2.7 An AIS shall promptly make available to the AIS of other States any aeronautical data and aeronautical information necessary for the safety, regularity or efficiency of air navigation required by them, to enable them to comply with 2.2.1.

2.3 Exchange of aeronautical data and aeronautical information

2.3.1 Aeronautical Information Service Provider shall designate the office to which all elements of aeronautical information products provided by other States shall be addressed. Such an office shall be qualified to deal with requests for aeronautical data and aeronautical information provided by other States.



2.3.2 Formal arrangements shall be established between those parties providing aeronautical data and aeronautical information on behalf of the States and their users in relation to the provision of the service.

Guidance material on such formal arrangements is contained in the Aeronautical Information Services Manual (Doc 8126).

2.3.3 Where more than one international NOTAM office is designated within a State, the extent of responsibility and the territory covered by each office shall be defined.

2.3.4 An AIS shall arrange, as necessary, to satisfy operational requirements for the issuance and receipt of NOTAM distributed by telecommunication.

2.3.5 Wherever practicable, direct contact between AIS shall be established in order to facilitate the international exchange of aeronautical data and aeronautical information.

2.3.6 Except as provided in 2.3.8, one copy of each of the following aeronautical information products (where available) that have been requested by the AIS of a Contracting State shall be made available by the originating State and provided in the mutually agreed form(s), without charge, even where authority for publication/storage and distribution has been delegated to a non-governmental agency:

- a) Aeronautical Information Publication (AIP), including Amendments and Supplements;
- b) Aeronautical Information Circulars (AIC);
- c) NOTAM; and
- d) aeronautical charts.

2.3.8 When aeronautical data and aeronautical information are provided in the form of digital data sets to be used by the AIS, they shall be provided on the basis of agreement between the Contracting States concerned.

2.3.9 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, by States other than Contracting States and by other entities shall be subject to separate agreement between the participating States and entities.

2.3.10 Globally interoperable aeronautical data and aeronautical information exchange models shall be used for the provision of data sets.

2.4 Copyright

In order to protect the investment in the products of AISP as well as to ensure better control of their use, AISP shall apply copyright to those products in accordance with Fiji Laws

2.4.1 Any aeronautical information product which has been granted copyright protection by the originating State and provided to another State in accordance with 2.3 shall only be made available to a third party on the condition that the third party is made aware that the product is copyright protected and provided that it is appropriately annotated that the product is subject to copyright by the originating State.



2.4.2 When aeronautical data and aeronautical information are provided to a State in accordance with 2.3.8, the receiving State shall not provide the digital data sets of the providing State to any third party without the consent of the providing State.

2.5 Cost recovery

2.5.1 The overhead cost of collecting and compiling aeronautical data and aeronautical information shall be included in the cost basis for airport and air navigation services charges, as appropriate, in accordance with the principles contained in ICAO's Policies on Charges for Airports and Air Navigation Services (Doc 9082).

2.5.2 When costs of collection and compilation of aeronautical data and aeronautical information are recovered through airport and air navigation services charges, the charge to an individual customer for the supply of a particular aeronautical information product may be based on the costs of printing paper copies, production of electronic media and distribution.

DRAFT



CHAPTER 3.

AERONAUTICAL INFORMATION MANAGEMENT

3.1 Information management requirements

The information management resources and processes established by an aeronautical information service (AIS) shall be adequate to ensure the timely collection, processing, storing, integration, exchange and delivery of quality-assured aeronautical data and aeronautical information within the air traffic management (ATM) system

3.2 Data quality specifications

3.2.1 Data accuracy

The order of accuracy for aeronautical data shall be in accordance with its intended use.

3.2.2 Data resolution

The order of resolution of aeronautical data shall be commensurate with the actual data accuracy.

3.2.3 Data integrity

3.2.3.1 The integrity of aeronautical data shall be maintained throughout the data chain from origination to distribution to the next intended user.

3.2.3.2 Based on the applicable integrity classification, procedures shall be put in place in order to:

a) for routine data: avoid corruption throughout the processing of the data;

b) for essential data: ensure corruption does not occur at any stage of the data processing life cycle (e.g. collection, processing, storing, integration, exchange and delivery) and include additional measures or steps as needed to address potential risks in the overall processing of aeronautical data to further ensure data integrity at this level; and

c) for critical data: ensure corruption does not occur at any stage of the data processing life cycle (e.g. collection, processing, storing, integration, exchange and delivery) and include additional data integrity assurance processes to mitigate the risk of error.

Formatted: Highlight

Formatted: Highlight



Note. — Guidance concerning measures to ensure data integrity is contained in the Aeronautical Information Service Manual (Doc 8126), Part II, 4.1 and 6.2.

Formatted: Highlight

3.2.4 Data traceability

Traceability of aeronautical data shall be ensured and retained as long as the data is in use.

3.2.5 Data timeliness

Timeliness of aeronautical data shall be ensured by including limits on the effective period of the data elements.

3.2.6 Data completeness

Completeness of aeronautical data shall be ensured in order to support its intended use.

3.2.7 Data format

The format of delivered aeronautical data shall be adequate to ensure that the data is interpreted in a manner that is consistent with its intended use.

3.3 Aeronautical data and aeronautical information verification and validation

3.3.1 Aeronautical data and aeronautical information to be published as part of an aeronautical information product shall be thoroughly checked before being submitted to the AIS in order to ensure that all necessary information has been included and that it is correct.

Formatted: Highlight

3.3.2 An AIS shall establish verification and validation procedures which ensure that upon receipt of aeronautical data and aeronautical information, quality requirements are met.

3.4 Data error detection

3.4.1 Digital data error detection techniques shall be used during the transmission and/or storage of aeronautical data and digital data sets.

3.4.2 Digital data error detection techniques shall be used in order to maintain the integrity levels as specified in 3.2.3.

3.5 Use of automation

3.5.1 Automation shall be applied in order to ensure the quality, efficiency and cost-effectiveness of aeronautical information services.

3.5.2 Due consideration to the integrity of data and information shall be given when automated processes are implemented and mitigating steps taken where risks are identified.

3.5.3 In order to meet the data quality requirements, automation shall:

- a) enable digital aeronautical data exchange between the parties involved in the data processing chain; and
- b) use aeronautical information exchange models and data exchange models designed to be globally interoperable.



3.6 Quality management system

3.6.1 Quality management systems shall be implemented and maintained encompassing all functions of an AIS, as outlined in 2.2. The execution of such quality management systems shall be made demonstrable for each function stage.

3.6.4 Within the context of the established quality management system, the competencies and the associated knowledge, skills and attitudes required for each function shall be identified, and personnel assigned to perform those functions shall be appropriately trained. Processes shall be in place to ensure that personnel possess the competencies required to perform specific assigned functions. Appropriate records shall be maintained so that the qualifications of personnel can be confirmed. Initial and periodic assessments shall be established that require personnel to demonstrate the required competencies. Periodic assessments of personnel shall be used as a means to detect and correct shortfalls in knowledge, skills and attitudes.

3.6.5 Recommendation. — The training methodology established in accordance with 3.6.4 should follow the competency-based training and assessment methodology.

Formatted: Highlight

Note 1.— Provisions related to the competency-based training and assessment methodology are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) and in the Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM, Doc 10066).

Formatted: Highlight

Note 2.— Additional guidance concerning a competency-based training and assessment methodology to ensure the competency of personnel in accordance with the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) is contained in the Manual on Aeronautical Information Services Training (Doc 9991).

Formatted: Highlight

3.6.6 Each quality management system 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.

3.6.7 The established quality management system shall provide users with the necessary assurance and confidence that distributed aeronautical data and aeronautical information satisfy the aeronautical data quality requirements.

3.6.8 All necessary measures shall be taken to monitor compliance with the quality management system in place.

3.6.9 Demonstration of compliance of the quality management system applied shall be by audit. If nonconformity is identified, initiating action to correct its cause shall be determined and taken without undue delay. All audit observations and remedial actions shall be evidenced and properly documented.

3.7 Human factors considerations

3.7.1 The organization of an AIS as well as the design, contents, processing and distribution of aeronautical data and aeronautical information shall take into consideration human factors principles which facilitate their optimum utilization.



3.7.2 Due consideration shall be given to the integrity of information where human interaction is required and mitigating steps taken where risks are identified.

3.7.3 Human factors procedure at AIS must address how to avoid negative safety consequences

CHAPTER 4.

SCOPE OF AERONAUTICAL DATA AND AERONAUTICAL INFORMATION

Note.— The scope of aeronautical data and aeronautical information provides the minimum requirement to support aeronautical information products and services, aeronautical navigation data bases, air navigation applications and air traffic management (ATM) systems.

4.1 Scope of aeronautical data and aeronautical information

4.1.1 The aeronautical data and aeronautical information to be received and managed by the aeronautical information service (AIS) shall include at least the following sub-domains:

- a) national regulations, rules and procedures;
- b) aerodromes and heliports;
- c) airspace;
- d) air traffic services (ATS) routes;
- e) instrument flight procedures;
- f) radio navigation aids/systems;
- g) obstacles;
- h) terrain; and
- i) geographic information.

Determination and reporting of aeronautical data shall be in accordance with the accuracy and integrity classification required to meet the needs of the end-user of aeronautical data.

4.2 Metadata

4.2.1 Metadata shall be collected for aeronautical data processes and exchange points.

4.2.2 Metadata collection shall be applied throughout the aeronautical information data chain, from origination to distribution to the next intended user.



CHAPTER 5.

AERONAUTICAL INFORMATION PRODUCTS AND SERVICES

5.1.1 Aeronautical information shall be provided in the form of aeronautical information products and associated services.

5.1.2 When aeronautical data and aeronautical information are provided in multiple formats, processes shall be implemented to ensure data and information consistency between formats.

5.2 Aeronautical information in a standardized presentation

5.2.1 Aeronautical information provided in a standardized presentation shall include the aeronautical information publication (AIP), AIP Amendments, AIP Supplements, AIC, NOTAM and aeronautical charts.

5.2.1.1 The AIP, AIP Amendment, AIP Supplement and AIC shall be provided on paper and/or as an electronic document.

5.2.2 Aeronautical Information Publication

AIP shall include:

- a) a statement of the competent authority responsible for the air navigation facilities, services or procedures covered by the AIP;
- b) the general conditions under which the services or facilities are available for international use;
- c) a list of significant differences between the national regulations and practices of the State 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;
- d) the choice made by a State in each significant case where an alternative course of action is provided for ICAO Standards, Recommended Practices and Procedures.

5.2.3 AIP Supplement

A checklist of valid AIP Supplements shall be regularly provided.



5.2.4 Aeronautical Information Circulars

5.2.4.1 An AIC shall be used to provide:

- a) a long-term forecast of any major change in legislation, regulations, procedures or facilities; or
- 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 purely administrative matters.

5.2.4.2 An AIC shall not be used for information that qualifies for inclusion in AIP and NOTAM.

5.2.4.3 The validity of AIC currently in force shall be reviewed at least once a year.

5.2.4.4 A checklist of currently valid AIC shall be regularly provided.

5.2.5 Aeronautical charts

5.2.5.1 The aeronautical charts listed below shall, when available for designated international aerodromes/heliports, form part of the AIP, or be provided separately to recipients of the AIP:

- a) Aerodrome/Heliport Chart — ICAO;
- b) Aerodrome Ground Movement Chart — ICAO;
- c) Aerodrome Obstacle Chart — ICAO Type A;
- d) Aerodrome Obstacle Chart — ICAO Type B (when available);
- e) Aerodrome Terrain and Obstacle Chart — ICAO (Electronic);
- f) Aircraft Parking/Docking Chart — ICAO;
- g) Area Chart — ICAO;
- h) ATC Surveillance Minimum Altitude Chart — ICAO;
- i) Instrument Approach Chart — ICAO;
- j) Precision Approach Terrain Chart — ICAO;
- k) Standard Arrival Chart — Instrument (STAR) — ICAO;
- l) Standard Departure Chart — Instrument (SID) — ICAO; and
- m) Visual Approach Chart — ICAO.

Formatted: Highlight

5.2.5.2 The En-route Chart -ICAO shall when available form part of the AIP or be provided separately to recipients of the AIP

Formatted: Highlight

5.2.5.3 The aeronautical charts listed below shall, when available, be provided as aeronautical information products:

- a) World Aeronautical Chart — ICAO 1:1 000 000;



- b) Aeronautical Chart — ICAO 1:500 000;
- c) Aeronautical Navigation Chart — ICAO Small Scale; and
- d) Plotting Chart — ICAO chart.

5.2.5.4 Electronic aeronautical charts shall be provided based on digital databases and the use of geographic information systems.

5.2.5.5 The chart resolution of aeronautical data shall be that as specified for a particular chart.

5.2.6 NOTAM

Note.— Detailed specifications for NOTAM, including formats for SNOWTAM and ASHTAM, are contained in the PANS-AIM (Doc 10066).

A checklist of valid NOTAM shall be regularly provided.

Note. — Detailed specifications concerning the frequency for providing checklists of valid NOTAM are contained in the PANS-AIM (Doc 10066).

5.3 Digital data sets

5.3.1 General

5.3.1.1 Digital data shall be in the form of the following data sets:

- a) AIP data set;
- b) terrain data sets;
- c) obstacle data sets;
- d) aerodrome mapping data sets; and
- e) instrument flight procedure data sets.

Note. — Detailed specifications concerning the content of the digital data sets are contained in the PANS-AIM (Doc 10066).

5.3.1.2 Each data set shall be provided to the next intended user together with at least the minimum set of metadata that ensures traceability.

Note. — Detailed specifications concerning metadata are contained in the PANS-AIM (Doc 10066).

5.3.1.3 A checklist of valid data sets shall be regularly provided.

5.3.2 AIP data set

5.3.2.1 An AIP data set shall be provided covering the extent of information as provided in the AIP.

5.3.2.2 When it is not possible to provide a complete AIP data set, the data subset(s) that are available shall be provided.



5.3.2.3 The AIP data set shall contain the digital representation of aeronautical information of lasting character (permanent information and long duration temporary changes) essential to air navigation.

5.3.3 Terrain and obstacle data sets

Note 1.— Numerical requirements for terrain and obstacle data sets are contained in the PANS AIM (Doc 10066), Appendices 1 and 8.

Note 2.— Requirements for terrain and obstacle data collection surfaces are contained in the PANS-AIM (Doc 10066), Appendix 8.

5.3.3.1 The coverage areas for terrain and obstacle data sets shall be specified as:

- i. Area 1: the entire territory of a State;
- ii. Area 2: within the vicinity of an aerodrome, subdivided as follows:
 - iii. Area 2a: a rectangular area around a runway that comprises the runway strip plus any clearway that exists;

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;

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

Area 2d: an area outside Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing terminal control area (TMA) boundary, whichever is nearest;

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; and

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.

5.3.3.3 Terrain data sets

5.3.3.3.1 Terrain data sets shall contain the digital representation of the terrain surface in the form of continuous elevation values at all intersections (points) of a defined grid, referenced to common datum.

5.3.3.3.2 Terrain data shall be provided for Area 1.

5.3.3.3.3 For aerodromes regularly used by international civil aviation, terrain data shall be provided for:

- a) Area 2a;
- b) the take-off flight path area; and
- c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.



5.3.3.4 Obstacle data sets

5.3.3.4.1 Obstacle data sets shall contain the digital representation of the vertical and horizontal extent of obstacles.

5.3.3.4.2 Obstacle data shall not be included in terrain data sets.

5.3.3.4.3 Obstacle data shall be provided for obstacles in Area 1 whose height is 100 m or higher above ground.

5.3.3.4.4 For aerodromes regularly used by international civil aviation, obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.

5.3.3.4.5 For aerodromes regularly used by international civil aviation, obstacle data shall be provided for:

a) 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 a 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;

b) 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

c) penetrations of the aerodrome obstacle limitation surfaces.

5.3.4 Aerodrome mapping data sets

5.3.4.1 Aerodrome mapping data sets shall contain the digital representation of aerodrome features.

5.3.5 Instrument flight procedure data sets

5.3.5.1 Instrument flight procedure data sets shall contain the digital representation of instrument flight procedures.

5.4 Distribution services

5.4.1 General

5.4.1.1 Aeronautical information products shall be distributed to authorized users who request them.

5.4.1.2 AIP, AIP Amendments, AIP Supplements and AIC shall be made available by the most expeditious means.

5.4.2 NOTAM distribution

5.4.2.1 NOTAM shall be distributed on the basis of a request.

5.4.2.2 NOTAM shall be prepared in conformity with the relevant provisions of the ICAO communication procedures.



5.4.2.3 The aeronautical fixed service (AFS) shall, whenever practicable, be employed for NOTAM distribution.

5.4.2.4 When a NOTAM is sent by means other than the AFS, a six-digit date-time group indicating the date and time of NOTAM origination, and the identification of the originator shall be used, preceding the text. The originating State shall select the NOTAM that are to be given international distribution.

5.4.2.5 International exchange of NOTAM shall take place only as mutually agreed between the international NOTAM offices concerned, and between the NOTAM offices and multinational NOTAM processing units.

5.4.2.6 The originating State shall, upon request, grant distribution of NOTAM series other than those distributed internationally.

5.4.3 Data set information services

5.4.3.1 Recommendation. — When provided, the digital data sets specified in 5.3 should be made available through information services.

Note 1. — In the context of system-wide information management, the notion of information service addresses machine-to-machine interaction in a service-oriented architecture.

Note 2.— Procedures on information services are contained in the Procedures for Air Navigation Services Information Management (PANS-IM, Doc 10199).

Note 3.— Guidance material on information services can be found in the Manual on System-wide Information Management Implementation (Doc 10203).

5.4.3.1.1 A data set information service shall provide, as a minimum, the ability to query and retrieve as a whole each of the digital data sets specified in 5.3.

5.4.3.1.2 Recommendation. — A data set information service should provide the ability to query and retrieve selected elements of the digital data sets specified in 5.3.

Note. — Guidance material on how to query digital data sets is contained in the Aeronautical Information Services Manual (Doc 8126), Part IV.

5.4.3.1.3 Recommendation. — A data set information service should provide the option to subscribe to notifications on data set updates.

5.5 Pre-flight information service

5.5.1 For any aerodrome/heliport used for international air operations, aeronautical information relative to the route stages originating at the aerodrome/heliport shall be made available to flight operations personnel, including flight crews and services responsible for pre-flight information.

5.5.2 Aeronautical information provided for pre-flight planning purposes shall include information of operational significance from the elements of aeronautical information products.

5.6 Post-flight information service

Formatted: Highlight

Formatted: Highlight



5.6.1 For any aerodrome/heliport used for international air operations, arrangements shall be made to receive information concerning the state and operation of air navigation facilities or services noted by flight crews.

5.6.2 The arrangements specified in 5.6.1 shall ensure that such information is made available to the aeronautical information service (AIS) for distribution as the circumstances necessitate.

5.6.3 For any aerodrome/heliport used for international air operations, arrangements shall be made to receive information concerning the presence of wildlife hazards observed by flight crews.

5.6.4 The information about presence of wildlife hazards shall be made available to the aeronautical information service for distribution as the circumstances necessitate.

DRAFT

Chapter 6

AERONAUTICAL INFORMATION UPDATES

6.1 General specifications

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

6.2 Aeronautical information regulation and control (AIRAC)



6.2.1 Information concerning the following circumstances shall be distributed under the regulated system (AIRAC), i.e. basing establishment, withdrawal or significant changes upon a series of common effective dates at intervals of 28 days, including 8 November 2018:

a) limits (horizontal and vertical), regulations and procedures applicable to:

- 1) flight information regions;
- 2) control areas;
- 3) control zones;
- 4) advisory areas;
- 5) air traffic services (ATS) routes;
- 6) permanent danger, prohibited and restricted areas (including type and periods of activity when known) and air defence identification zones (ADIZ);
- 7) permanent areas or routes or portions thereof 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 stopways;

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 a State.

6.2.2 The information notified under the AIRAC system shall not be changed further for at least another 28 days after

the effective date, unless the circumstance notified is of a temporary nature and would not persist for the full period.

6.2.3 Information provided under the AIRAC system shall be made available by the aeronautical information service (AIS) so as to reach recipients at least 28 days in advance of the effective date.

Note.— AIRAC information is distributed by the AIS unit at least 42 days in advance of the AIRAC effective dates with the objective of reaching recipients at least 28 days in advance of the effective date.



6.2.4 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.

6.2.5 Implementation dates other than AIRAC effective dates shall not be used for pre-planned operationally significant changes requiring cartographic work and/or for updating of navigation databases.

6.2.6 The regulated system (AIRAC) shall be used for the provision of information relating to the establishment and withdrawal of, and premeditated significant changes in, the circumstances listed below:

- 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.

6.2.7 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 56 days in advance of the effective date. This shall be applied to the establishment of, and premeditated major changes in, the circumstances listed below, and other major changes if deemed necessary:

- a) new aerodromes for international instrument flight rules (IFR) operations;
- b) new runways for IFR operations at international aerodromes;
- c) design and structure of the ATS 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 6.2.1 if the entire State or any significant portion thereof is affected or if cross-border coordination is required.

6.3 Aeronautical information product updates

6.3.1 AIP updates

6.3.1.1 The aeronautical information publication (AIP) shall be amended or reissued at such regular intervals as may be necessary to keep it up to date.

6.3.1.2 Permanent changes to the AIP shall be published as AIP Amendments.



6.3.1.3 Temporary changes of long duration (three months or longer) and information of short duration which contains extensive text and/or graphics shall be published as AIP Supplements.

6.3.2 NOTAM

6.3.2.1 When an AIP Amendment or an AIP Supplement is published in accordance with AIRAC procedures, a Trigger NOTAM shall be originated.

6.3.2.2 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 and/or graphics.

6.3.2.3 A NOTAM shall be originated and issued concerning the following information:

- a) establishment, closure or significant changes in operation of aerodrome(s) or heliport(s) or runways;
- b) establishment, withdrawal or significant changes in operation of aeronautical services (aerodromes, AIS, ATS, communications, navigation and surveillance (CNS), meteorology (MET), search and rescue (SAR), etc.);
- c) establishment, withdrawal or significant changes in operational capability of radio navigation and air-ground communication services. This includes: interruption or return to operation, change of frequencies, change in notified hours of service, change of identification, change of orientation (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 to visual aids;
- f) interruption of or return to operation of major components of aerodrome lighting systems;
- g) establishment, withdrawal or significant changes 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, e.g. prohibited areas for SAR action;
- m) presence of hazards not otherwise promulgated, which affect air navigation (including obstacles, military exercises and operations, intentional and unintentional radio frequency interferences, rocket launches, displays, fireworks, sky lanterns, rocket debris, races and major parachuting events);



- 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/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 thereof 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/heliport rescue and firefighting category provided (see Annex 14, Volume I, Chapter 9, and Attachment A, Section 17);
- t) presence or removal of, or significant changes in, hazardous conditions due to snow, slush, ice, 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 and/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 thereof 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 and/or limitations which affect air navigation; and
- z) implementation of short-term contingency measures in cases of disruption, or partial disruption, of ATS and related supporting services

6.3.2.4 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/heliports that do not affect the safe operation of aircraft;
- d) partial failure of aerodrome/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 (see 6.3.2.3 m)), 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/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 or unavailability of, or changes in, operation of aerodrome(s)/heliport(s) outside the aerodrome(s)/heliport(s) operational hours;
- s) other non-operational information of a similar temporary nature.
- t) to promulgate information that is required to be promulgated by AIP Amendment
- u) as the main tool for updating information already published;

Note-Information which relates to an aerodrome and its vicinity and does not affect its operational status shall be distributed locally during pre-flight or in-flight briefing or other local contact with flight crews.

6.3.3 Data set updates



6.3.3.1 Data sets shall be amended or reissued at such regular intervals as may be necessary to keep them up to date.

6.3.3.2 Permanent changes and temporary changes of long duration (three months or longer) made available as digital data shall be issued in the form of a complete data set or a subset that includes only the differences from the previously issued complete data set.

6.3.3.3 Recommendation. — When made available as a completely reissued data set, the differences from the previously issued complete data set should be indicated.

6.3.3.4 Recommendation. — When temporary changes of short duration are made available as digital data (digital NOTAM), they should use the same aeronautical information model as the complete data set. 6.3.3.5 Updates to AIP and digital data sets shall be synchronized.

DRAFT



Appendix 1

CERTIFICATION REQUIREMENTS

1.1 Applicability

(a) The Minister responsible for Civil Aviation has directed the Civil Aviation Authority of Fiji to carry out the State's obligations pursuant to Article 28 of the Convention on International Civil Aviation pertaining to procedures for Aeronautical Information Services in Annex 15 -. As a Contracting State, Fiji is obligated to:

- (1) provide an aeronautical information service; or
- (2) agree with one or more other Contracting State(s) for the provision of a joint service; or
- (3) delegate the authority for the provision of the service to a non-governmental agency, provided the Standards and Recommended Practices of this Annex are adequately met.

(b) Notwithstanding 1.1(a) (2) and (3), the Authority is responsible for the information published and shall certificate the organisation performing the AIS function provided the required Standards are met. Aeronautical information published for and on behalf of a State shall clearly indicate that it is published under the authority of that State.

(c) In order that the Authority's responsibility in (b) above can be satisfactorily met, any person providing or applying to provide aeronautical information services shall establish an arrangement with and to the satisfaction of the Authority regarding any review of or amendment to the AIS.

(d) Pursuance to 1.1(b), a provider of AIS for Fiji shall take all necessary measures to ensure that the aeronautical information/data it provides relating to the entire territory of Fiji, as well as areas in which Fiji is responsible for aeronautical information services outside its territory, is adequate, of required quality and timely. This shall include arrangements for the timely provision of required information/data to the aeronautical information service by each of the State services associated with aircraft operations.

(e) Where 24-hour service is not provided, service shall be available 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. The service shall also be available at such other time as may be requested by an appropriate ground organization. (f)

This SD-AIS issued by the Authority prescribes the requirements— (1) governing the certification and operation of organisations or persons providing an aeronautical information service Fiji on behalf of the State; and (2) for Fiji Integrated Aeronautical Information Package including AICs issued by the Authority. This Standard prescribes the –

- a) Governing of the certification of aeronautical information service (AIS) to ensure the flow of aeronautical data and aeronautical information necessary for air traffic management (ATM) system safety, regularity, economy and efficiency in an environmentally sustainable manner.



- b) This Standard is to be used in conjunction with the Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS-ABC, Doc 8400).
- c) This Standard is to be used in conjunction with the Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM, Doc 10066)
- d) This Standard is to be used in conjunction with Aeronautical Information Services Manual (Doc 8126).
- e) In this Standard, unless the context otherwise requires, “certificate” means an Aeronautical Information Service Provider Certificate.
- f) Where the provision of the Standard is silent, not sufficient or lacking the ICAO reference shall be used to ensure compliance

Formatted: Justified

Formatted: Justified

Formatted: Justified

1.2 Requirement for certificate

No person shall provide an aeronautical information service for —

- (a) the Fiji airspace; or
- (b) the areas of the Nadi Oceanic FIR for which Fiji has responsibility for aeronautical information services — except under the authority of, and in accordance with the provisions of, an aeronautical information service certificate issued under this SD-AIS Air Navigation Regulation 145E.

Formatted: Justified, Indent: Left: 1.25 cm

Formatted: Justified

1.3 Application for certificate

An applicant is entitled to an aeronautical information service certificate if the Authority is satisfied that—

- (a) the applicant meets the requirements of paragraph 2; and
- (b) the applicant, and the applicant’s senior person or persons required by subparagraphs 2.1(a)(1), (2) and (3) are fit and proper persons; and
- (c) the granting of the certificate is not contrary to the interests of aviation safety.

Formatted: Justified

1.4 Issuance of certificate

An applicant shall be entitled to the grant of a certificate if the Authority is satisfied that the—

- (1) applicant meets the requirements of Chapter 2;
- (2) applicant and the senior persons required under para 2.1(a) are fit and proper persons;
- (3) applicant is in compliance with instrument flight procedure service standards published by the Authority; and
- (4) grant of the certificate is not contrary to the interests of aviation safety.

Formatted: Justified

1.5 Privileges of certificate

- (1) The aeronautical information service certificate specifies the aeronautical information services that the certificate holder is authorised to provide.

Formatted: Justified

1.6 Duration of certificate

- (a) A certificate shall be granted or renewed for a period up to 1 year.
- (b) A certificate shall remain in force until it expires, or is suspended or revoked.

Formatted: Justified

1.7 Renewal of certificate



(a) An application for the renewal of an aeronautical information service certificate shall be made on form GS700

(b) The application shall be submitted to the Authority before the application renewal date specified on the certificate or, if no such date is specified, not less than 30 days before the certificate expires.

1.8 Conditions and Exemptions

In granting or renewing a certificate, the Authority in doing so may also prescribe conditions. Upon application supported by aeronautical studies and a safety risk assessment, the Authority may exempt any person from any requirement in this SD-AIS.

2.0 Personnel Requirements

(a) Each applicant for the grant of an aeronautical information service certificate shall engage, employ or contract:

(1) A senior person identified as the Accountable Manager who has the authority within the applicant's organisation to ensure that each aeronautical information service listed in their exposition —

(i) can be financed and is provided to meet operational requirements; and

(ii) is provided in accordance with the requirements prescribed by this SD-AIS;

(2) a senior person or group of senior persons who having successfully completed an approved course in AIS and cartography and are responsible for ensuring that the applicant's organisation complies with the requirements of this SD-AIS. Such nominated person or persons shall be ultimately responsible to the Accountable Manager;

(3) A senior person responsible for quality assurance and safety management systems; and

(4) Sufficient personnel to collect, collate, check, coordinate, edit, and publish aeronautical information for the aeronautical information services listed in the applicant's exposition.

(b) The applicant shall —

(1) establish a procedure to initially and periodically assess the competence of those personnel authorised by the applicant to check, edit and publish aeronautical information for the aeronautical information services listed in their exposition; and

(2) establish a procedure to maintain the competence of those authorised personnel by developing a training programme which ensures periodic refresher training is conducted; and

(3) Provide those authorised personnel with written evidence of the scope of their authorization.



(c) The applicant shall —

(1) establish the design of systems, procedures and operating environment that take into consideration human factors principles which facilitate their optimum utilization in the design, contents, processing and distribution of aeronautical data and aeronautical information; and.

(2) Give due consideration to the integrity of information where human interaction is required and mitigating steps taken where risks are identified.

2.1 Facility Requirements

Each applicant for the grant of an aeronautical information service certificate shall establish offices, facilities and equipment that —

(1) are appropriate for the aeronautical information services listed in their exposition; and

(2) meet the applicable requirements of 4.1(b) and 4.2; and

(3) Ensures automation of AIS for quality, efficiency and cost-effectiveness

2.2 Documentation

(a) Each applicant for the grant of an aeronautical information service certificate shall —

(1) document the format and standards for the aeronautical information published under the authority of their certificate; and

(2) ensure that the format and standards take into account the circumstances under which the information will be used; and

(3) Hold copies of relevant reference material, standards, practices and procedures, and any other documentation that is necessary for the aeronautical information services listed in their exposition.

(b) The applicant shall establish a procedure to control all the documentation required by paragraph (a),

to ensure that —

(1) the documentation is reviewed and authorised by appropriate personnel before issue; and

(2) current issues of relevant documentation are available to staff at all locations where they need access to such documentation for the aeronautical information services listed in their exposition; and

(3) all obsolete documentation is promptly removed from all points of issue or use; and

(4) changes to documentation are reviewed and approved by appropriate personnel; and

(5) The current version of each item of documentation can be identified to preclude the use of out-of-date editions.



2.5 Collection of Information

(a) Each applicant for the grant of an aeronautical information service certificate shall establish procedures to collect and collate, verify and validate the information required for the aeronautical information services listed in their exposition.

(b) An aeronautical information service shall, in addition, obtain information to enable it to provide pre-flight information service and to meet the need for in-flight information. The procedures shall ensure —

(1) applicable information is obtained from organisations that provide services in support of Fiji air navigation system and from other sources that may be available; and

(2) Applicable information is obtained from the aeronautical information services of other States relevant to the requirements of international aircraft operators operating —

(i) In the areas of the Nadi Oceanic FIR in which Fiji is responsible for air traffic services; and

(ii) On international air routes originating from Fiji; and

(3) Arrangements for the timely provision of information are made with the information originators

prescribed in paragraph (b)(1) and (2); and

(4) information/data received from the information originators prescribed in paragraph (b)(1) is certified as accurate by a person identified by the originator to be responsible for the accuracy of that information, and if not verified shall be clearly identified as such; and

(5) Information/data received from the information originators prescribed in paragraph (b) (2) shall be clearly identified as having the authority of the State of Origin.

(c) The procedures for the NOTAM service shall, in addition to paragraph (b), ensure that any originator's request for the issue of a NOTAM does not require the NOTAM to be effective for more than 3 months.

2.5.1 Exchange of aeronautical data and aeronautical information

2.5.1.1 Each applicant for the grant of an aeronautical information service certificate shall designate the office to which all elements of aeronautical information products provided by other States shall be addressed. Such an office shall be qualified to deal with requests for aeronautical data and aeronautical information provided by other States.

2.5.1.2 This Standard recommends formal arrangements should be established between applicant for the grant of an aeronautical information service certificate and those parties providing aeronautical data and aeronautical information on behalf of Fiji and their users in



relation to the provision of the service.

2.5.1.3 Each applicant for the grant of an aeronautical information service certificate shall establish procedures to arrange, as necessary, to satisfy operational requirements for the issuance and receipt of NOTAM distributed by telecommunication.

2.5.1.4 Each applicant for the grant of an aeronautical information service certificate shall establish procedures for direct contact between AIS in order to facilitate the international exchange of aeronautical data and aeronautical information.

2.6 Publication of Aeronautical Information

(a) Each applicant for the grant of an aeronautical information service certificate shall establish procedures to verify, validate, co-ordinate, edit, publish and disseminate aeronautical information for the services listed in their exposition.

(b) The procedures shall ensure that —

(1) The information received under 2.5 is checked against available information to verify its accuracy prior to publication;

(2) The information received under 2.5 is edited, accurately published, and disseminated —

(i) in the format applicable to the operational significance of the information;

(ii) where applicable, in accordance with 6.1, 6.2, 6.3; and

(iii) in a format that takes account of the circumstances under which the information will be used;

(3) Except for paragraph (b) (4), permanent publications and long-term temporary publications are clearly identified as being published under the authority of the applicant's aeronautical information service certificate;

(4) When aeronautical information obtained from the aeronautical information services of other States under 2.5 (b) (2) is disseminated, that information is clearly identified as having the authority of the originating State;

(5) When information that has not been certified as required under 2.5 (b) (4) is disseminated, that information is clearly identified as being unverified;

(6) Any permanent change to published information is coordinated with other applicable information originators before the change is published;

(7) Temporary information that is published without a defined expiry date is reviewed at an appropriate time to ensure that the originator takes the required action to cancel or reissue the



information;

(8) The aeronautical information is published in the English language;

(9) Place names are spelt according to local usage, transliterated when necessary into the Latin alphabet;

(10) Units of measurement are consistent with those prescribed in Standards Document-units of measure or any difference filed by the state;

(11) Abbreviations, consistent with those prescribed in ICAO Doc 8400, are used in the published

aeronautical information when —

(i) Their use is appropriate; and

(ii) Their use will facilitate the dissemination of the information; and

(12) Any of the aeronautical information published is promptly made available to the aeronautical information services of other States, upon request by those States;

(13) The aeronautical information is made available in a form that is suitable for the operational requirements of —

(i) Flight operations personnel, including flight crew members and the services responsible for pre-flight briefing; and

(ii) The air traffic service units responsible for the provision of air traffic control services, flight information services and, where appropriate, the provision of Search and Rescue services.

(c) The procedures for the AIP service shall, in addition to paragraph (b), ensure that —

(1) Aeronautical charts, and operationally significant information published in AIP Amendments and AIP Supplements, are published in accordance with the AIRAC system;

(2) The information published under the AIRAC system is clearly identified with the acronym

AIRAC;

(3) The information published under the AIRAC system is distributed so that recipients receive the information at least 28 calendar days before its effective date;

(4) the information published under the AIRAC system is not changed for at least 28 calendar days after the effective date, unless the circumstance notified is of a temporary nature and would not

persist for the full period;



(5) Where an AIP Supplement is published to replace a NOTAM, the supplement includes a reference to the serial number of the NOTAM;

(6) Where an AIP Amendment or AIP Supplement is published under the AIRAC system, a NOTAM is originated giving a brief description of the operationally significant contents, the effective date

and the reference number of each amendment or supplement. The NOTAM shall —

- (i) Come into force on the same effective date as the amendment or supplement; and
- (ii) Remain in force until the next AIRAC date; and

(7) When there is no applicable information to be published by the AIRAC date, a NIL notification is issued; and

(8) A NOTAM is originated when information to be published as an AIP Amendment or AIP Supplement takes effect prior to the effective date of the amendment or supplement.

2.7 Error Correction in Aeronautical Information

(a) Each applicant for the grant of an aeronautical information service certificate shall establish procedures to record, investigate, correct, and report any errors including digital data errors that are detected in the aeronautical information published under the authority of their certificate.

(b) The procedures shall ensure that —

- (1) the error is detected and corrected by the most appropriate means relative to the operational significance of the error;
- (2) the correction is clearly identified in the republished information;
- (3) the source of the error is identified and, where possible, eliminated; and
- (4) The Authority is notified of a promulgated information incident in accordance with Air Navigation

Regulation.71 – Mandatory Occurrence Reporting and Investigation.

2.8 Records

(a) Each applicant for the grant of an aeronautical information service certificate shall establish procedures to identify, collect, index, store, maintain, protect and dispose of the records that are necessary for the aeronautical information services listed in their exposition.

(b) The procedures shall ensure that —

- (1) there are records enabling all incoming and outgoing aeronautical information to be readily identified by serial number and date, and that supplementary information can be similarly



verified and, where necessary, authenticated; and

(2) there is a record of each person who is authorised by the applicant to check, edit, and publish aeronautical information; and

(3) there is a record of each occurrence of error correction under the procedures required by 2.7;

and

(4) there is a record of each internal quality assurance review of the applicant's organisation carried out under the procedures required by 2.9; and

(5) all records are legible and of a permanent nature; and

(6) All records are retained for at least 5 years except NOTAM, AIP Supplements and Aeronautical

Information Circulars, which need only be retained for 30 days after cancellation.

2.9 Internal Quality Assurance

(a) Each applicant for the grant of an aeronautical information service certificate shall establish and

maintain internal quality system containing procedures, processes and resources to ensure compliance

with, and the adequacy of, the procedures required to implement demonstrable quality management at

each function stage.

(b) The procedures shall specify —

(1) the level of quality that the applicant intends to achieve;

(2) the level and frequency of internal reviews;

(3) the person or persons responsible for carrying out the internal reviews;

(4) how the findings of the internal reviews are to be recorded and reported to the certificate holder's Accountable Manager;

(5) how quality indicators such as error reports, incidents, and complaints are incorporated into the internal quality assurance procedures;

(6) the senior person's responsibilities for analysis and overview of the internal reviews; an

(7) the means for rectifying any deficiencies found during an internal review;

(8) applicability to the whole aeronautical data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data;

Formatted: Justified



(9) 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 under para 2.7 ; and

(10) The documentation requirements for all aspects of the review.

(c) The senior person who has the responsibility for internal quality assurance shall have direct access to the certificate holder's Accountable Manager on matters affecting the adequacy, accuracy, timeliness, format, and dissemination of the published aeronautical information.

Note: It is recommended that the quality system established in accordance with 2.9 (a) and (b) should be in conformity with International Organization for Standardization (ISO) 9000 series of quality assurance standards.

2.10 Organisation Exposition

(a) An applicant for the grant of an aeronautical information service certificate shall provide the Authority with an exposition containing —

(1) a statement signed by the Accountable Manager on behalf of the applicant's organisation confirming that —

(i) The exposition and any included manuals define the organisation and demonstrates its means and methods for ensuring ongoing compliance with this SD-AIS; and

(ii) The exposition and any included manuals will be complied with at all times; and

(2) the titles and names of the senior person or persons required by 2.1(a)(1), (2); and (3) and

(3) the duties and responsibilities of the senior persons specified in paragraph (a)(2) and (3)

including matters for which they have responsibility to deal directly with the Authority on behalf of the organisation; and

(4) an organisation chart showing lines of responsibility of the senior persons specified in

paragraph (a)(2) and (3); and(5) a summary of the applicant's staffing structure for each aeronautical information service listed

under paragraph (a)(6); and

(6) a list of the aeronautical information services to be covered by the certificate; and

(7) for a pre-flight information service, details of the area, aerodromes and air routes required by 2.3; and



(8) the location and address details of the applicable offices required by 4.1(b)(1) and 4.2 (1); and

(9) details of the applicant's format and standards required by 2.4(a)(1) for their published aeronautical information; and

(10) details of the applicant's procedures required regarding

(i) The competence of personnel; and

(ii) The control of documentation; and

(iii) The collection of information; and

(iv) The publication of aeronautical information; and

(v) The correction of errors in published information; and

(vi) The identification, collection, indexing, storage, maintenance, and disposal of records;

and

(vii) Internal quality assurance; and

(11) Procedures to control, amend and distribute the exposition.

(b) The applicant's exposition must be acceptable to the Authority.

Chapter 3 Operating Requirements

3.1 Continued Compliance

Each holder of an aeronautical information service certificate shall —

(1) hold at least one complete and current copy of their exposition at each office listed in their exposition; and

(2) comply with all procedures and standards detailed in their exposition; and

(3) make each applicable part of their exposition available to personnel who require those parts to carry out their duties; and

(4) continue to meet the standards and comply with the requirements of Chapter 2 prescribed for certification under ANR 145E; and

(5) notify the Authority of any change of address for service, telephone number, facsimile number or email address required by form GS700 within 5 days of the change; and

(6) Notify the Authority of any change in the personnel nominated in 2.1(a) (1), (2) and (3) within 3 days of the change.

Chapter 4 Services

4.1 AIP Service



(a) The holder of the aeronautical information service certificate for the AIP service shall publish—

- (1) Fiji-AIP in accordance with 6.1; and
- (2) Fiji-AIP Amendments in accordance with 6.1.3; and
- (3) Fiji-AIP Supplements in accordance with 6.1.4 for notification of
 - (i) Temporary changes that are effective for 3 months or longer; and
 - (ii) Information of less than 3 months duration which contains extensive text or graphics

(b) The certificate holder shall, in addition to paragraph (a), —

(1) designate an office as Fiji's point of contact with the aeronautical information services of other States for the interchange of the Integrated Aeronautical Information Package, except AIC; and

(2) make the Fiji AIP, AIP Amendments and AIP Supplements available to any person upon payment of any charge that may apply to the supply of the publications; and

(3) establish a system to disseminate the Fiji AIP, AIP Amendments, AIP Supplements and aeronautical charts in accordance with 2.6 (c)(3); and

(4) ensure that all aeronautical charts published as part of the Fiji AIP conform to the applicable standards for the charts and/or instrument flight procedures design; and

(5) coordinate the input of all aeronautical information from the originators prescribed in 2.5 (b)(1), ~~except~~, except —

- (i) information which is of immediate operational significance necessitating the immediate issue of a NOTAM; and
- (ii) Temporary information of a duration of less than three months that only requires the issue of a NOTAM.

4.2 NOTAM Service

The holder of the aeronautical information service certificate for the NOTAM service shall —

- (1) designate a NOF for Fiji; and
- (2) operate the NOF on a 24-hour basis; and
- (3) establish agreements with other international NOTAM offices for the exchange of NOTAM; and
- (4) ensure that —
 - (i) the NOF is connected to the AFTN; and



- (ii) the AFTN connection provides for printed communication; and
- (iii) the NOF has appropriate facilities to issue and receive NOTAM distributed by means of telecommunication or other means acceptable to the Authority; and
- (5) promptly issue a NOTAM that is in accordance with 6.3, whenever information received under 2.5 requires the issue of a NOTAM; and
- (6) At intervals of not more than one month, issue a checklist over the AFTN or other means acceptable to the Authority of the NOTAMs that are currently in force.

4.3 Pre-flight Information Service

(a) Each holder of an aeronautical information service certificate for a pre-flight information service shall make available to flight operations personnel and flight crew members, aeronautical information that —

- (1) is essential for the safety, regularity and efficiency of air navigation; and
- (2) Relates to the geographic area, aerodromes and air routes of the intended operations listed in their exposition.

(b) The aeronautical information provided under paragraph (a) shall include, where applicable, but is not limited to —

- (1) a summary of current NOTAM and other information of an urgent character, in a plain text PIB; and
- (2) relevant elements of the Integrated Aeronautical Information Package except AICs; and
- (3) relevant maps and charts (but refer to 4.1 (b)(2) re charges for charts or other items); and
- (4) current information relating to the aerodrome of departure, alternates and arrival concerning any of the following:
 - (i) construction or maintenance work on or immediately next to the manoeuvring area:
 - (ii) rough portions of any part of the manoeuvring area, whether marked or not, including broken parts of the surface of runways and taxiways:
 - (iii) presence and depth of snow, ice, or water on runways and taxiways, including their effect on surface friction:
 - (iv) snow, drifted or piled on or next to runways or taxiways:
 - (v) parked aircraft or other objects on or immediately next to taxiways:
 - (vi) the presence of other temporary hazards including those created by birds or animals:
 - (vii) failure or irregular operation of part or all of the aerodrome lighting system including



approach, threshold, runway, taxiway, and obstruction lights, and manoeuvring area unserviceability lights, and aerodrome power supply:

(viii) failure, irregular operation or changes in the operational status of air navigation facilities including ILS and markers, GNSS, DME, ADS-B, ADS-C, CPDLC, ATIS, VOR, NDB, VHF aero mobile channels, , other services and/or facilities nominated by the Authority and secondary power supply.

Chapter 5 Other Requirements

5.1 Changes to Certificate Holder's Organisation

(a) Each holder of an aeronautical information service certificate shall ensure that their exposition is amended so as to remain a current description of the holder's organisation and services.

(b) The certificate holder shall ensure that any amendments made to the holder's exposition meet the

applicable requirements of this SD-AIS and comply with the amendment procedures contained in the holder's exposition.

(c) The certificate holder shall provide the Authority with a copy of each amendment to the holder's exposition as soon as practicable after its incorporation into the exposition.

(d) Where a certificate holder proposes to make a change to any of the following, prior notification to and acceptance by the Authority is required:

(1) the Accountable Manager required under 2.1 (a)(1):

(2) the listed senior persons required under 2.1 (a)(2) and (3):

(3) the aeronautical information services provided by the holder:

(4) The format and standards for the aeronautical information published under the authority of their certificate.

(e) The Authority may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).

(f) A certificate holder shall comply with any conditions prescribed under paragraph (e).

(g) Where any of the changes referred to in this standard requires an amendment to the certificate, the certificate holder shall forward the certificate to the Authority as soon as practicable.

(h) The certificate holder shall make such amendments to the holder's exposition as the Authority may consider necessary in the interests of aviation safety.

5.2 Safety Inspections and Audits



(a) The Authority may in writing require the holder of an aeronautical information service certificate to undergo or carry out such inspections and audits of the holder's offices, facilities, documents,

and records as the Authority considers necessary in the interests of civil aviation safety and security in accordance with section 15 of the Act.

(b) The Authority may require the holder of an aeronautical information service certificate to provide such information as the Authority considers relevant to the inspection or audit.

5.3 Transitional Arrangements

(a) After SD-AIS comes into force, any organisation that currently provides an aeronautical information service and which is required under SD-AIS to hold an aeronautical information service certificate may continue to provide the service under existing delegations until the expiry of a period of 12 months from the date that SD-AIS commences.

(b) At the expiry of 12 months all such organisations must be operating under an SD-AIS certificate.

If an organisation is unable by itself to meet any requirements for certification, then it must contract for the provision of such services that it cannot provide with an organisation that can meet the requirements that is acceptable to the Authority



APPENDIX 2

AERONAUTICAL DATA CATALOGUE

The Aeronautical Data Catalogue shall be maintained by AIS and is available electronically and provided as part of the PANS-AIM.

The Aeronautical Data Catalogue is a general description of the aeronautical Information management (AIM) data scope and consolidates all data that shall be collected and maintained by the Aeronautical Information Service (AIS). It provides a reference for aeronautical data origination and publication requirements.

The Aeronautical Data Catalogue provides a means for Aeronautical Information Service Provider(AISP) to facilitate the identification of the organizations and authorities responsible for the origination of the aeronautical data and aeronautical information. It also provides a common list of terms and facilitates the formal arrangements between data originators and the AIS. It includes data quality requirements applicable from origination through to publication.

The Aeronautical Data Catalogue contains the aeronautical data subjects, properties and sub-properties organized in:

Table A1-1 Aerodrome data;

Table A1-2 Airspace data;

Table A1-3 ATS and other routes data;

Table A1-4 Instrument flight procedure data;

Table A1-5 Radio navigation aids/systems data;

Table A1-6 Obstacle data;

Table A1-7 Geographic data;

Table A1-8 Terrain data;

Table A1-9 Data types; and

Table A1-10 Information about national and local regulation, services and procedures.

The Aeronautical Data Catalogue provides detailed descriptions of all subjects, properties and sub-properties, the data quality requirements and the data types.



The data types describe the nature of the property and sub-property and specify the data elements to be collected.

The tables of the Aeronautical Data Catalogue are composed of the following columns:

- (1) Subject for which data can be collected.
- (2)(3) Property is an identifiable characteristic of a subject which can be further defined into sub-properties. The classification of a catalogue element as subject, property or sub-property does not impose a certain data model.
- (4) The data is classified in different types. See Table A1-9 for more information on data types.
- (5) A description of the data element.
- (6) Notes are additional information or conditions of the provision.
- (7) Accuracy requirements for aeronautical data are based on a 95 per cent confidence level. For those fixes and points that are serving a dual purpose, e.g. holding point and missed approach point, the higher accuracy applies.

Accuracy requirements for obstacle and terrain data are based on a 90 per cent confidence level.

- (8) Integrity classification.
- (9) Origination type. Positional data is identified as surveyed, calculated or declared.
- (10) Publication resolution. The publication resolutions for geographical position data (latitude and longitude) are applicable to coordinates formatted in degrees, minutes and seconds. When a different format is used (such as degrees with decimals for digital data sets) or when the location is significantly further to the north/south, the publication resolution needs to be commensurate with the accuracy requirements.

- (11) Chart resolution

Note 8.— The Aeronautical Data Catalogue contains quality requirements for aeronautical data as originally provided in: Annex 4 — Aeronautical Charts, Appendix 6; Annex 11 — Air Traffic Services, Appendix 5; Annex 14 — Aerodromes, Volume I — Aerodromes Designs and Operations, Appendix 4 and Volume II — Heliports, Appendix 1;

Annex 15 — Aeronautical Information Services, Appendices 7 and 8, and the Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS, Doc 8168), Volume II — Construction of Visual and Instrument Flight Procedures. The framework of the Aeronautical Data Catalogue is designed to adapt to future quality requirements for the remaining aeronautical data properties and sub-properties.



Appendix 3

CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP)

The AIP is intended primarily to satisfy international requirements for the exchange of aeronautical information of a lasting character essential to air navigation.

The AIP constitutes the basic information source for permanent information and long duration temporary changes.

Detailed specifications about *AIP, AIP Amendments, AIP Supplements, AIC and NOTAM* are contained in the PANS-AIM (Doc 10066).

DRAFT



APPENDIX 4

USING PUBLIC INTERNET FOR AERONAUTICAL PUBLICATION

(e-AIP, NOTAM and Charts)

Back ground

The word “Internet” is a contraction of the phrase “interconnected network”. Internet continued its explosive growth due to increasing interest and the availability of powerful personal computers, communication links such as optical fibre, and local area networks/wide area networks. Traditionally, the civil aviation community has insisted on having its own dedicated communication systems on the grounds of reliability, integrity, security and their impact on aviation safety. This has caused a degree of reluctance by many aviation personnel to formalize the use of the Internet, which is not under the control of any aviation entity. Nevertheless, due to its widespread availability, accessibility (especially by the public), affordability, speed and ease of use, some States have started using the Internet for certain applications (e.g. meteorology and aeronautical information services).

The information content of the eAIP and the structure of chapters, sections and subsections shall follow the content and structure of the paper AIP. The eAIP shall include files that allow for printing a paper AIP.

New or revised information shall be identified either by an annotation against it in the margin or by a mechanism that allows comparing the new/revised information with the previous information.

The eAIP available online on the Internet shall reviewed at least every 2 years

AISP shall ensure that prior notification for intentional outages for maintenance or other reason is carried out or any indication that the website is offline for. This is critical to operators to support continuous operation.

AIS websites shall include a function where a user can be added to a distribution list and notified via email anytime a new publication is posted to the website. This helps end users avoid missing updates from their respective libraries and helps in automated tracking of changes

AIS website shall provide users with access to valid NOTAMs.

When the above is impossible due to planned maintenance or other unknown reasons the Daily NOTAM Update shall be sent instead.

The purpose of this chapter is to identify the aeronautical information that can be provided via the Internet and in which context.

The Standards and Recommended Practices (SARPs) in Annex 15 — *Aeronautical Information Services*, Annex 4 — *Aeronautical Charts*, and the guidance material contained in the *Aeronautical Information Services Manual* (Doc 8126) have been established to satisfy uniformity and consistency in the provision of aeronautical information.



Although aeronautical information services provided via the Internet may be tailored to support the operational needs of users (flight operations personnel including flight crews, flight planning and flight simulators as well as the air traffic services unit responsible for flight information service and the services responsible for pre-flight information), they should conform to the above-mentioned standards.

A quality management system should be in place to provide users with the necessary assurance and confidence that distributed aeronautical information satisfy specified requirements for quality and traceability (Annex 15, Chapter 3, 3.2.5, refers).

TIME-CRITICAL AERONAUTICAL INFORMATION

The following aeronautical information is considered time-critical and, when provided via the Internet, should not be relied upon for time-critical operational decisions, either in flight or immediately prior to departure:

- a) dynamic information of a temporary nature, such as current national and foreign NOTAM (including SNOWTAM, ASHTAM and checklists); and
- b) other information of urgent character made available to flight crews in the form of plain-language pre-flight information bulletins (PIB).

Annex 15, Chapter 5, 5.3.2.1, specifies that the AFS shall, whenever practicable, be employed for NOTAM distribution.

The provision of value-added pre-flight information bulletins or products with customized format and graphics, when appropriate, need to provide at least the services that would be available in a paper-based environment.

NON-TIME-CRITICAL AERONAUTICAL INFORMATION

The following static and basic AIS information is considered non-time-critical and can be provided via the Internet:

- a) **Static information.** Common documented permanent or long-term information, such as:
 - 1) Aeronautical Information Publications (AIP) (which include aerodrome information, detailed descriptions of flight information regions (FIR), nav aids, maps, charts, obstacle data, air routes, etc.);
 - 2) AIP Amendments, both aeronautical information regulation and control (AIRAC) and regular amendments;
 - 3) AIP Supplements, both AIRAC and regular supplements;
 - 4) Aeronautical Information Circulars (AIC);
 - 5) monthly printed plain-language list of valid NOTAM, which also includes indications of the latest AIP amendments, AIC issued and a checklist of AIP Supplements; and
 - 6) NOTAM containing a checklist of valid NOTAM, issued monthly, which also refers to the latest AIP Amendments, AIP Supplements and at least the internationally distributed AIC.



b) **Basic information.** Data required for enabling the processing of other information, which can consist of permanent, long-term or static data not provided to users (i.e. reference lists, custom/regular routes, distribution files, selection criteria, association criteria).

PROVISION OF STATIC AND BASIC INFORMATION

Static and basic information can either be permanent or of long-term duration. The effective date of the information needs to be identified. Each publication should be dated. If pages have different effective dates, each page should be individually dated. Where data elements are published independently, they require an identifiable effective date.

Common effective dates, at intervals of 28 days under the regulated system (AIRAC), are to be used for the information listed in Annex 15, Appendix 4, Part 1, and are also recommended for the that listed in Part 2 (Annex 15, Chapter 6, provides details). To ease the transition from an effective date to the next publication date (AIRAC cycle date), previous, current and next-cycle aeronautical information should be provided for a specified period. When making such a service available, it becomes increasingly important to clearly identify the effective date for all aeronautical information.

The Internet may be used to provide information under the AIRAC system. However, appropriate arrangements for the provision of information in paper copy form should remain available (Annex 15, Section 6.2, refers). The AIRAC system is intended to provide pre-planned information to specific recipients: AIS third-party providers, aviation agencies, chart and database producers, etc. Confidentiality is highly recommended. If AIS is considering the provision of this information then it needs to ensure that users are well aware of the AIRAC system and are fully advised about the implementation dates associated with the information.

PROVISION OF CHARTS

The provisions of Annexes 4 and 15 are applicable to the content and visual presentation of the ICAO Annex 4 chart types and other AIP charts including those made available by AISP over the Internet. Charts should be presented at scales that are compatible with Annex 4 requirements. If chart scaling is permitted, users should be informed of the scale range that will preserve chart quality. It is envisaged that, in the near term, most charts to be provided over the Internet will be identical in visual presentation to current hard-copy charts. However, some cartographic and geographic information systems (GIS) are capable of providing charts in formats with greater functionality including the ability for chart users to control what information is displayed. It is important that when electronic charts are presented in such formats, all relevant information be initially displayed to the user and that safety-critical information cannot be deselected.

The optimum graphic formats for the posting of maps and charts on the Internet may be different from those used in document production and must be chosen with the following general considerations in mind:

- a) the availability of graphic output options from cartographic production software or scanners;
- b) the availability of posted charts to clients (compatibility with operating systems, web browsers, color rendering and client printers);
- c) chart functionality and image quality;



d) chart data size (and therefore the transfer time); and
whether the format is an open standard or a commercial one with associated costs.

DRAFT

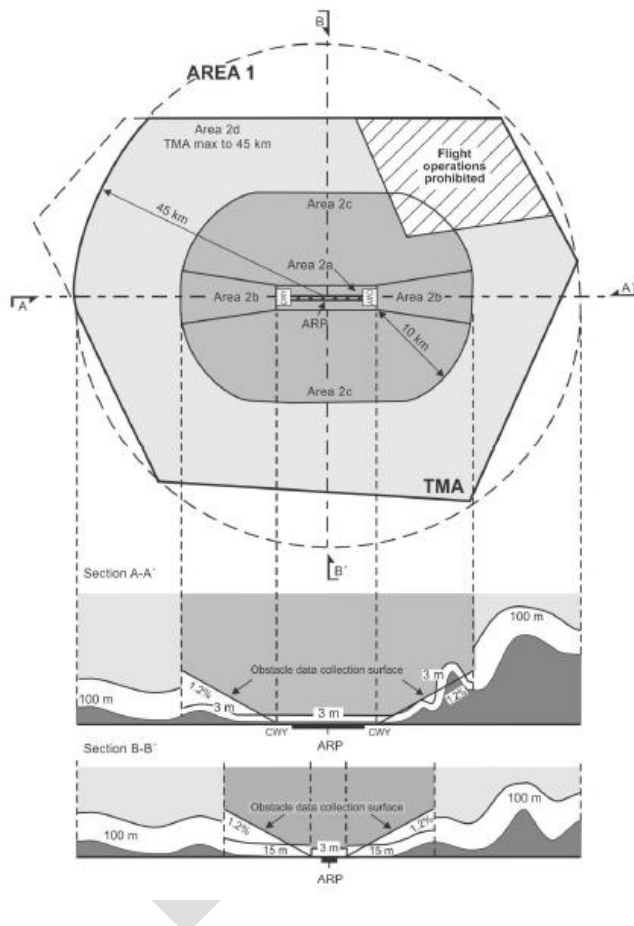


Appendix 5

TERRAIN AND OBSTACLE ATTRIBUTES PROVISION REQUIREMENTS
Table A6-1. Terrain attributes

Terrain attribute	Mandatory
Area of coverage	Mandatory
Data originator identifier	Mandatory
Data source identifier	Mandatory
Acquisition method	Mandatory
Post spacing	Mandatory
Horizontal reference system	Mandatory
Horizontal resolution	Mandatory
Horizontal accuracy	Mandatory
Horizontal confidence level	Mandatory
Horizontal position	Mandatory
Elevation	Mandatory
Elevation reference	Mandatory
Vertical reference system	Mandatory
Vertical resolution	Mandatory
Vertical accuracy	Mandatory
Vertical confidence level	Mandatory
Surface type Optional	Mandatory
Recorded surface	Mandatory
Penetration level	Mandatory
Known variations	Mandatory
Integrity	Mandatory

- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified
- ← Formatted: Justified



Within the area covered by a 10-km radius from the aerodrome reference point (ARP), terrain data shall comply with the Area 2 numerical requirements.

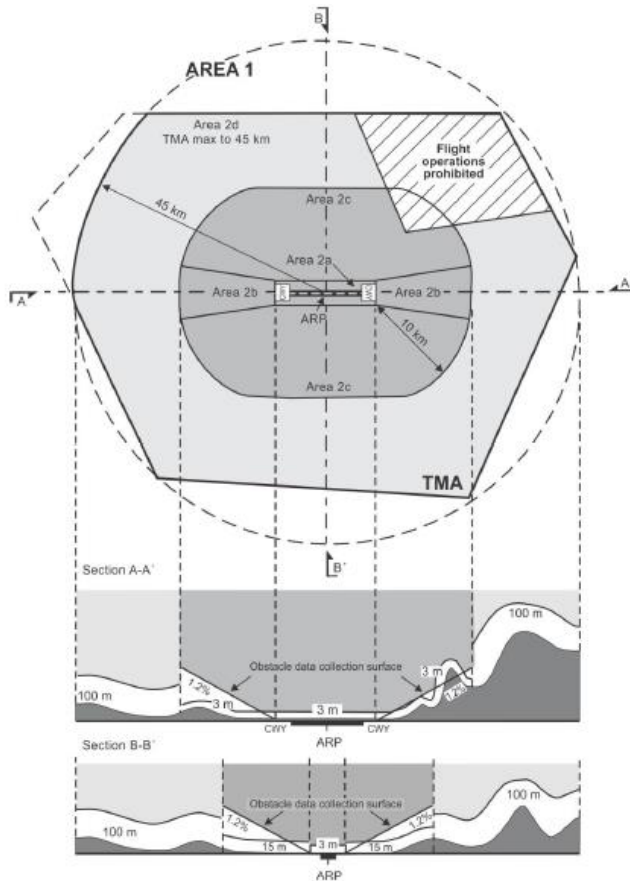
2. In the area between 10 km and the terminal control area (TMA) boundary or 45-km radius (whichever is smaller), data on terrain that penetrates the horizontal plane 120 m above the lowest runway elevation shall comply with the Area 2 numerical requirements.

3. In the area between 10 km and the TMA boundary or 45-km radius (whichever is smaller), data on terrain that does not penetrate the horizontal plane 120 m above the lowest runway elevation shall comply with the Area 1 numerical requirements.



4. In those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions and/or regulations, terrain data shall comply with the Area 1 numerical requirements.

Note. — Terrain data numerical requirements for Areas 1 and 2 are specified in Appendix 1.

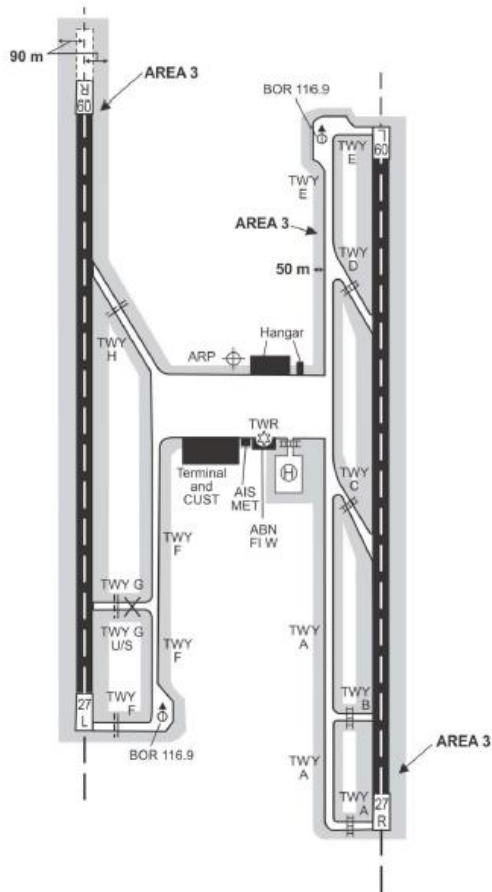


Obstacle data shall be collected and recorded in accordance with the Area 2 numerical requirements specified in Appendix 1.

2. In those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions and/or regulations, obstacle data shall be collected and recorded in accordance with the Area 1 requirements.



3. Data on every obstacle within Area 1 whose height above the ground is 100 m or higher shall be collected and recorded in the database in accordance with the Area 1 numerical requirements specified in Appendix 1.





Appendix 7 -Personnel

Personnel Requirements

An AIS provider shall ensure that job descriptions, training programs, training plans and training records are developed, maintained and continuously improved based on the ICAO competency framework.

Competencies

The AIS competency framework is aligned with Amendment 5 to the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) and other ICAO competency frameworks.

To achieve the required competencies, AIS management and AIS training organizations shall develop and implement CBTA for its AIS personnel. This is accomplished by establishing a training plan that describes how the required competencies are met and an assessment plan for gathering valid and reliable evidence during training.

All main functions, roles or tasks performed in a specific AIS organization shall be identified including any additional tasks to describe all tasks performed. Then develop an adapted competency model meeting the requirements of the specific AIS organization.

	Aeronautical data and information awareness	Comprehends aeronautical data and information requirements, monitors the aeronautical data and information process(es) and detects anomalies and potential threats that can degrade the flow and the quality of data and information and affect its use	<ol style="list-style-type: none"> 1. Maintains awareness of the aeronautical data and information requirements based on the intended use of aeronautical data and information 2. Validates and verifies that aeronautical data is compliant with quality requirements on reception (accuracy, resolution, completeness, format, timeliness) 3. Monitors the quality of aeronautical data and information along the aeronautical data process from origination to distribution to internal and external stakeholders (integrity, timeliness, traceability) 4. Uses available tools to gather,

Formatted: Justified



		<p>monitor and comprehend aeronautical data and information in its different stages (collection, storage, processing, distribution)</p> <p>5. Manages the aeronautical data and information based on the user's context</p> <p>6. Identifies and manages potential threats that can cause degradation of aeronautical data and information flow (e.g. interruption of aeronautical data process) or degradation of the quality of the aeronautical data and information</p> <p>7. Develops effective contingency plans based upon potential threats</p> <p>8. Maintains awareness of latest international standards, recommended practices and procedures in aeronautical information management</p>
Coordination	<p>Comprehends and adheres to applicable formal arrangements and if required coordinates with originators, personnel in different operational positions and with other affected stakeholders to ensure that the agreed requirements are met</p>	<p>1. Maintains awareness of the entities accountable for data or information origination and/or from which he receives aeronautical data and aeronautical information, as defined in the formal arrangement (aeronautical data and information originators)</p> <p>2. Adheres to the applicable formal arrangement with originators, operational units and other affected stakeholders</p> <p>Monitors the requirements agreed in the formal arrangements and initiates appropriate action or improvement to achieve the agreed requirements</p> <p>4. Coordinates with aeronautical data originators, personnel in different</p>

Formatted: Justified



			operational positions and with other affected stakeholders if anomalies in performance are detected 5. Uses available tools to monitor and analyse the performance achieved and generates performance reports as required
Application of Procedures	Identifies and applies data procedures in accordance with published operating instructions and applicable regulations and standards		1. Identifies the source of operating instructions 2. Follows the operating instructions in a timely manner 3. Performs the required quality procedures and proposes improvements if required. 4. Correctly operates information systems and associated equipment 5. Complies with applicable regulations and standards 6. Complies with applicable procedures 7. Applies relevant procedural knowledge
Communication	Communicates effectively (in oral and written forms) with all stakeholders involved in the aeronautical data process		Accurately interprets and processes aeronautical data and information received 2. Asks relevant and effective questions to understand the content of aeronautical data and information if it is ambiguous 3. Uses appropriate vocabulary and expressions for communication with stakeholders 4. Presents appropriate and accurate information in a clear and concise manner in all media (paper, electronic, digital) 5. Ensures the recipient is ready and able to receive the information in verbal Briefings. Listens actively and demonstrates understanding

Formatted: Justified

Formatted: Justified



			<p>when receiving questions</p> <p>from internal or external stakeholders</p> <p>7. Manages non-standard situations by communicating effectively</p> <p>8. Notify the errors in the data and products effectively to internal and external stakeholders</p>
		<p>Manages available resources efficiently to</p> <p>prioritise and perform all assigned information</p> <p>tasks in a timely manner under all circumstances</p>	<p>1. Plans, prioritises and schedules all assigned information tasks effectively</p> <p>2. Manages time efficiently when carrying out assigned information tasks</p> <p>3. Reviews, monitors and cross-checks actions</p> <p>4. Verifies that information tasks are completed to the expected outcome</p> <p>5. Manages and recovers from interruptions, distractions, variations and failures</p> <p>6. Offers and accepts assistance, delegates when necessary and asks for help early</p> <p>7. Maintains self-control in all encountered situations</p> <p>8. Manage stress in an appropriate manner and adapts to the demands of a situation as needed</p>
	Self-Management and	Demonstrate personal attributes that improve performance and maintain an	<p>1. Improves own job performance through self-evaluation</p>

Formatted: Justified

Formatted: Justified



	Continuous Learning	active involvement in self-learning and self-development	<ol style="list-style-type: none">2. Seeks and accepts feedback to improve own job performance3. Uses feedback to improve own job performance4. Takes responsibility for own job performance by detecting and resolving own errors in the context of the quality management system5. Engages in continuous improvement in the process6. Improves own job performance from received training7. Keeps up to date on specialized technical knowledge and skills Recognizes trends in practice of one's own technical area and anticipates changes

Formatted: Justified

Formatted: Justified



APPENDIX 8

AIP REVIEW GROUP & TERMS OF REFERENCE

1.0 Aeronautical Information Publication

1.1 The Aeronautical Information Publication (AIP Fiji Islands)

2.0 Background

The Aeronautical Information Publication (AIP Fiji Islands) is a state-owned document and [Fiji Airports \(FA\)](#) AIS is authorized to publish this document on behalf of the State. The State is represented by CAAF.

1.2 The updated electronic copy of the AIP Fiji Islands can be downloaded from the FA website, www.airportsfiji.com, but only for subscribers to the AIP.

1.3 This document includes such information as the physical characteristics of an aerodrome and the facilities associated with it, the types and location of navigation aids along air routes, the air traffic management, communications and meteorological services provided and the basic procedures associated with these facilities and services.

1.4 AIP which is a part of aeronautical information product is intended to primarily satisfy international requirements for the exchange of aeronautical information.

1. Purpose

2.1 The AIP is prepared in accordance with the Standards and Recommended Practices (SARPs) of Annex 15 to the Convention on International Civil Aviation and the ICAO Aeronautical Information Services Manual (Doc 8126).

2.2 Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and the ICAO Aeronautical Chart Manual (Doc 8697).

2.3 Ensure that all necessary quality assurance and management has been carried out. This also includes the verification and validation process of the data and information proposed for inclusion in the AIP Fiji Islands.

2. Term

This Terms of Reference (TOR) shall be [valid for a period of](#) every two years, [effective](#) at a date set by CAAF.

[4.3](#) Membership

The following personnel shall be members of the AIPRG:

- a) CAAF
- b) Fiji Airports
- c) Customs



- d) Meteorology
- e) Health
- f) Security
- g) Aerodrome/Airside

~~34.~~ Roles

_____ Chairman – ANSI-APC CAAF

_____ SECRETARY – AIS -PUBLICATION OFFICER,

~~65.~~ Responsibilities

~~65.1~~ The responsibilities of the roles identified above are as follows:

AIPRG Chairman

The AIPRG Chairman shall:

- Chair all the meeting of the AIPRG
- Ensure that the AIRG TOR is complied with
- Seek clarity from CAAF CEO in case of sensitive information to be published in AIP
- Ensure that AIRAC is complied with at all times

AIPRG Secretary

The AIPRG Secretary shall:

- Record all minutes for the meeting of the AIPRG
- Send out meeting invitation
- Prepare draft amendments and circulate to members one week prior to the meeting
- Record amendments ~~to e~~Ensure that the AIRG TOR is complied with
- Seek clarity from ~~CAAF CEO~~AIPRG Chairman in case of sensitive information to be published in AIP
- Ensure that AIRAC is complied with at all times. All cut off dates shall be adhered to.

AIPRG Committee shall

- Review all proposals to be included in the AIP FIJI GEN section
- Review all proposals to be included in the AIP FIJI ENR section



- Review all proposals to be included in the AIP FIJI AD section
- Review all proposals to be included in the Charts (RNAV, VOR, ENR and Aeronautical Chart)

76. Meetings

All meetings will be chaired by ANSI-APC CAAF or SANSI in his absence

A meeting quorum will be FIVE members of the AIPRG

Decisions made by consensus (i.e. members are satisfied with the decision even though it may not be their first choice).

If not possible, Chairman makes final decision after consulting with EMGS

Meeting agendas minutes will be provided by AIPRG Secretary; ~~AIS Publication Officer~~ and this includes:

preparing agendas and supporting papers

preparing meeting notes and information.

Meetings will be held 3 times a year at an agreed location

If required subgroup meetings will be arranged outside of these times at a time convenient to subgroup members.

87 Amendment, Modification or Variation

This Terms of Reference may be amended, varied or modified in writing after consultation and agreement by CAAF and Fiji Airports.



Appendix 9

SAFETY MANAGEMENT SYSTEM FOR AISP

Recognizing and managing safety risks is critical to organizations that provide safety-critical products and services, such as an AISP. The AISP shall identify hazards and establish processes for continually assessing and controlling the risk that may be associated with those hazards.

AISP shall ensure that safety risk management processes establish formal methods for identifying hazards, controlling and continually assessing risks throughout the lifecycle of aeronautical data and aeronautical information.

Safety risk management shall be integrated into processes that control the AISP's activities. It ensures that organizational processes, procedures and behaviours related to aeronautical data and aeronautical information management do not negatively affect safety.

A safety management system for AISP shall be defined by four components, namely:

- a) safety policy;
- b) safety risk management;
- c) safety assurance; and
- d) safety promotion.

2.2.3 Table below provides a framework describing the four SMS components and responsibilities for AISP. The AISP SMS establishes a commitment to continually improve safety by defining policies, processes, procedures and competent AIS technical personnel needed to meet safety goals within the aeronautical information domain.

SMS components and responsibilities for AIS

SMS Component	State	AISP
Safety Policy	SD-AIS	AIS QMS Manual
Management	SD-AIS	AIS QMS Manual
Safety Assurance	SD-AIS	AIS QMS Manual
Safety Promotion	SD-AIS	AIS QMS Manual

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified

Formatted: Justified



An AISP should consider the following with respect to safety management processes and procedures:

- a) **SMS awareness training:** To ensure that AIS technical personnel are aware of the SMS implementation and requirements;
- b) **Safety communication:** To ensure that AIS technical personnel are aware of the SMS to a degree commensurate with their roles and responsibilities; and
- c) **Hazard identification:** To ensure that AIS technical personnel effectively identify and assess safety risks associated with identified hazards.

Formatted: Justified

AIS SAFETY TARGETS AND KEY PERFORMANCE INDICATORS

The aeronautical information service provider shall ensure that the AIS key performance indicators are monitored effectively.

The following key performance indicators shall be monitored by AIS:

- 1) Total percentage of error NOTAMs
- 2) Total percentage of AIP error
- 3) Total percentage of aeronautical chart error
- 4) Timely dissemination of NOTAM with the require timeslot
- 5) Addressing of stakeholders queries related to AIS.

The indicators used for safety monitoring should express the safety aspect of the process

see the example below:

Indicators “B” and “C”, used in a QMS, express the safety aspect of the process for issuing NOTAMs as follows:

$$C = 100 * B/A$$

Where: A - number of NOTAMs issued,

B - number of NOTAMs issued containing an error,

C - percentage of NOTAMs issued containing an error.



**APPENDIX 10 - ICARD REGISTRATION PROCEDURE – AUTHORIZED USERS
- ICARD PROCESS FLOW CHART**

ICARD REGISTRATION PROCESS

There are **three** steps to registration as an ICARD 5LNC Planner.

- If you do not yet have user access to the ICAO Secure Portal, complete all three steps.
- If you already have access to the ICAO Secure Portal but not to ICARD, go to Step 2.
- If you already have access to ICARD, but are not registered as an ICARD_5LNC_PLANNER, go to Step 3.

1. Register for access to the ICAO Secure Portal (you may already have this access. If so, proceed directly to step 2.)

- i. Go to <http://portal.icao.int/>
- ii. Click on [Request an account](#)
- iii. Follow the instructions. You will be notified when your registration for access to the ICAO Secure Portal is approved.

2. Log in to the ICAO Secure Portal <http://portal.icao.int> with your secure login credentials, then register for ICARD as follows:

- i. Click on the **PROFILE** link in your Secure Portal home page
- ii. A new window will open. In the menu on the left of the new window, click on the **GROUP SUBSCRIBE/UNSUSCRIBE** link.
- iii. Enter the group name **ICARD** in the **SUBSCRIBE TO** field, and add the justification for your request in the **JUSTIFICATION** field.
- iv. Click the **SUBMIT CHANGES** button.

3. Register for ICARD_5LNC_PLANNER in the same manner as described in step 2: Log in to the ICAO Secure Portal <http://portal.icao.int> with your secure login credentials, then register for ICARD_5LNC_PLANNER as follows:

- i. Click on the **PROFILE** link in your Secure Portal home page
- ii. A new window will open. In the menu on the left of the new window, click on the **GROUP SUBSCRIBE/UNSUSCRIBE** link.
- iii. Enter the group name **ICARD_5LNC_PLANNER** in the **SUBSCRIBE TO** field, and add the justification for your request in the **JUSTIFICATION** field.
- iv. Click the **SUBMIT CHANGES** button.

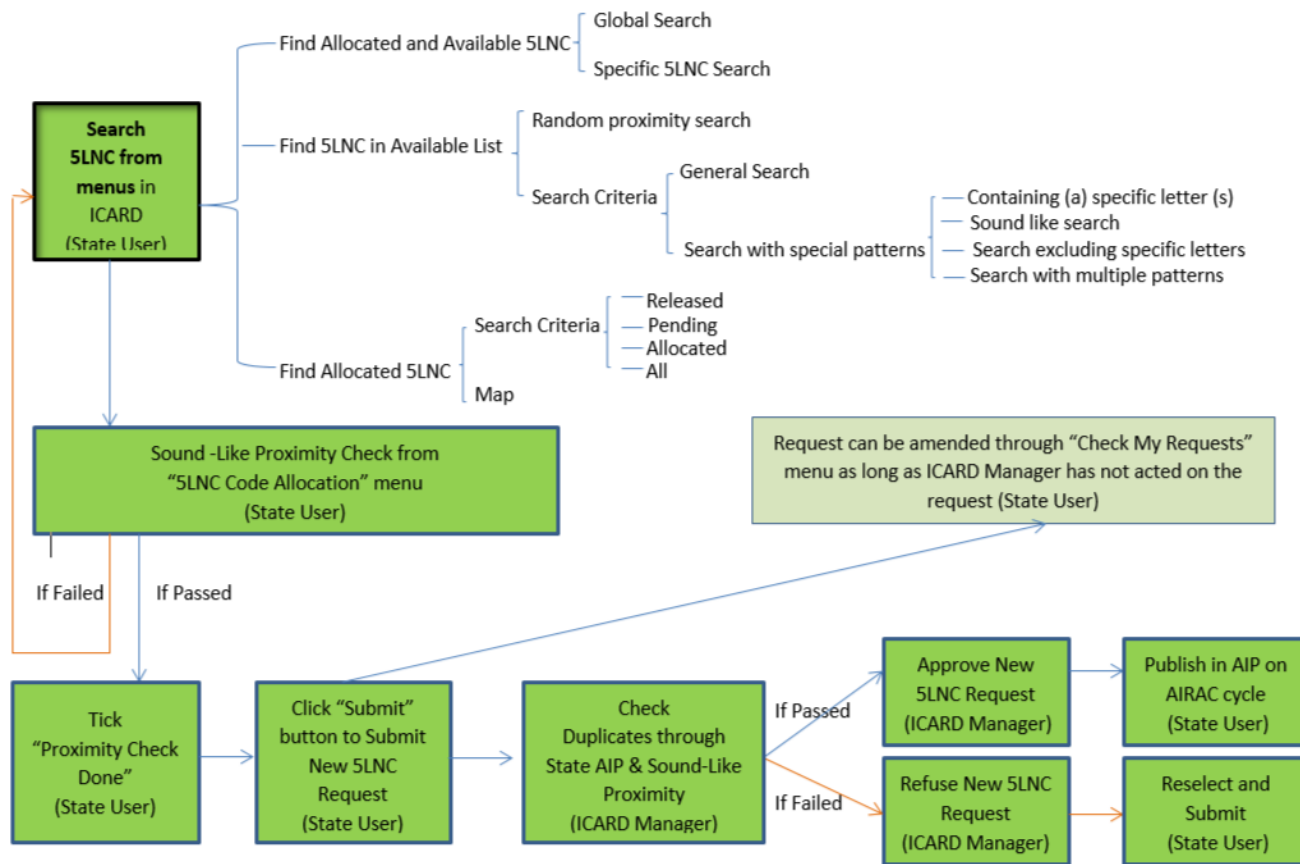
.....

Formatted: Justified



C - 1

DRAFT



Flow Chart for New 5LNC Request

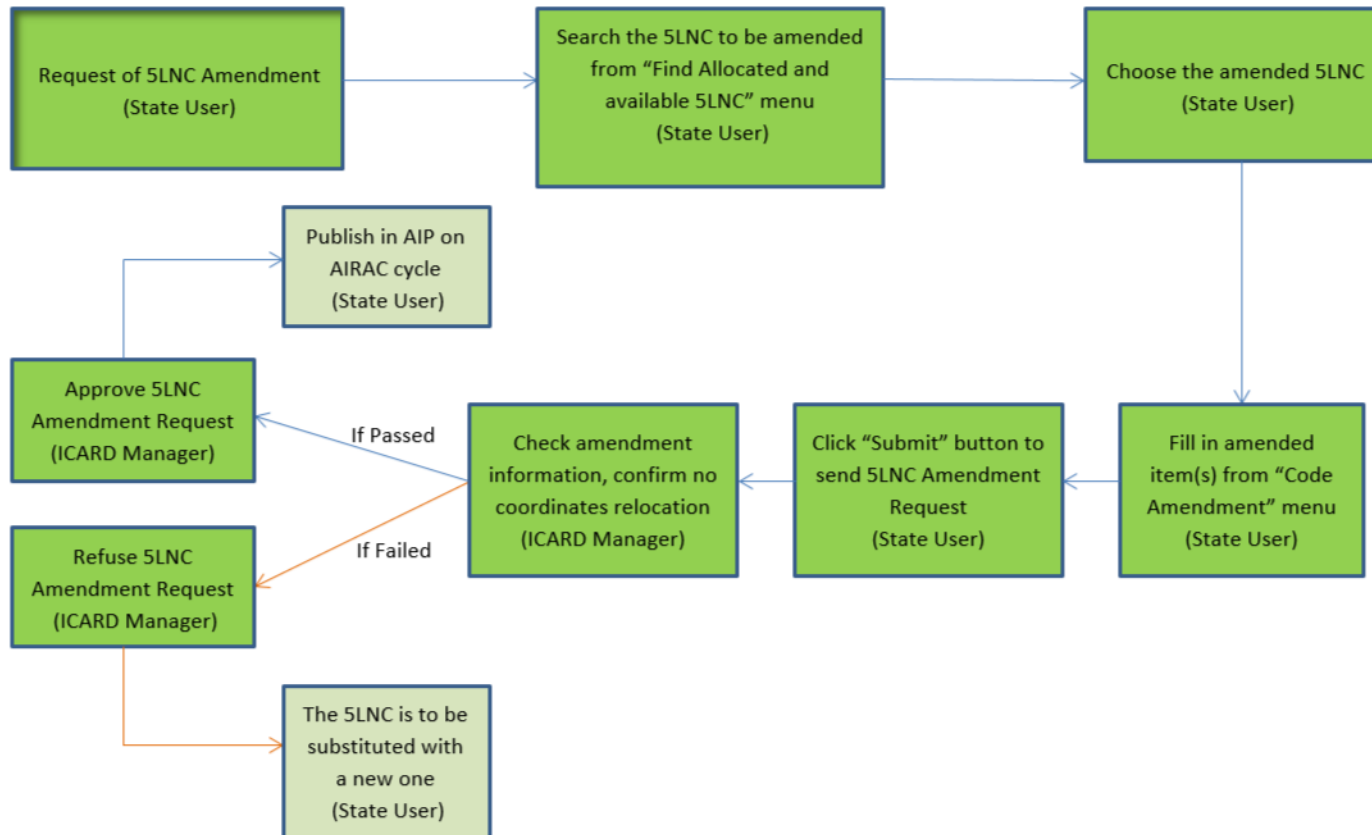
C - 2



In all cases, the coordinates of the requested new 5LNC must be within the territory or any FIR of the requesting State.

- For 5LNCs on FIR boundaries, the requesting State has to coordinate with all State(s) concerned before the new 5LNCs are requested, implemented and published in relevant AIPs, in accordance with the AIRAC cycle and prior notification requirement of Annex 15.
- After the submission of new 5LNC request, State User's request has been successfully recorded BUT NOT YET approved by ICARD Regional Data Manager. States must wait for Notification of approval by the ICARD Regional Data Manager before proceeding to publication in AIP. If requests are urgent, ICARD Users should inform the ICARD Regional Data Manager by e-mail to expedite processing.

DRAFT



Flow Chart for 5LNC Amendment



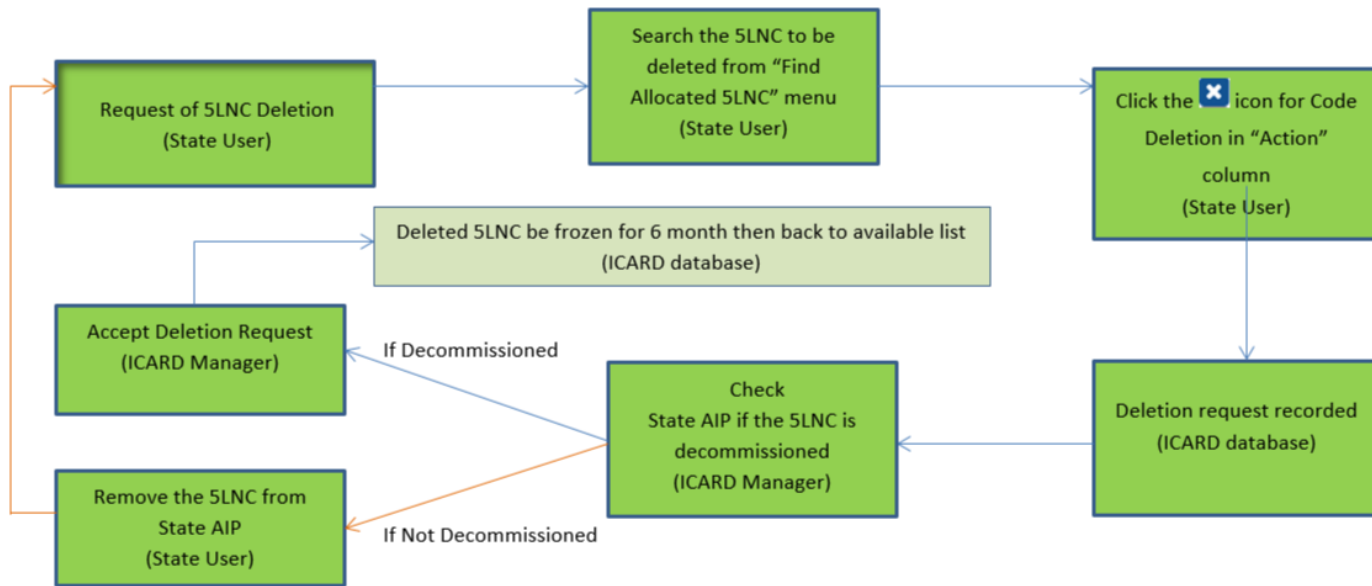
Notes:

- There are many types of amendments requested by State users, eg. changes of coordinates, comments, purpose, addition or deletion of coordinating States, etc. It is advised to add reason and purpose of the amendment in the “comment box”.
- If the request is the change of coordinates not published yet in States AIP, after proximity checking, if the result is fine, the request can be approved.
- For an implemented 5LNC is to be relocated, it must be substituted with a new 5LNC drawn from ICARD (Annex 11 Appendix 2 paragraph 3.4); and
- For 5LNCs on FIR boundaries, the State/Administration requesting State must coordinate with the State(s) concerned before the submission of amendment request.

DRAFT



Asia/Pacific Plan for Collaborative AIM – Appendix C



Flow Chart for 5LNC Deletion

Note:

C - 6



Asia/Pacific Plan for Collaborative AIM – Appendix C

Before the submission of a 5LNC deletion request, the 5LNC must be deleted from Fiji AIP(s):

- For the 5LNC deletion which is at FIR boundary, make sure it has been coordinated between all States concerned and removed from all State AIPs involved; and
- Deleted 5LNC will remain frozen for a period of 6 months. After that time, it will automatically return to the reserve list of the ICARD database of the same ICAO Region.

DRAFT