

Schedule 22

Part B -

Aeronautical Information Services

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SUBPART A: GENERAL**22.201 Applicability**

- (a) The requirements of this Part apply to all Aeronautical Information service (AIS) providers (including applicants for a certificate to provide an AIS service).
- (b) This Part prescribes requirements governing:
 - (1) The certification and acceptable operation standards of any organization providing AIS in The Bahamas or on its behalf; and
 - (2) The provision of aeronautical information services originating from The Bahamas
- (c) The AIS provider shall comply with the operating standards for the provision of AIS contained in Annex 15 to the Convention and in an Operations Manual- Aeronautical Information Services approved by the Authority.
- (d) The AIS provider's failure to comply with any of the requirements of these regulations or provisions of any Manual of Standard issued thereunder may:
 - (1) Constitute a breach of the Civil Aviation (General) Regulations; and
 - (2) Result in proceedings for any such breaches; or
 - (3) Result in the refusal of an application for renewal of AIC; or
 - (4) Result in action to suspend, revoke or impose conditions in respect of the AIS provider's certificate.
- (e) An AIS provider shall comply with these regulations and any other applicable national legislation in force at any point during the certification process once such process has begun.
- (f) Any reference in this Part to an Annex to the Convention includes the differences notified to ICAO by The Bahamas in respect of the Standards specified in that Annex and published in the AIP of The Bahamas.

22.203 Definitions

- (a) For the purpose of the Part, the following definitions shall apply:
 1. **Accuracy.** A degree of conformance between the estimated or measured value and the true value.
 2. **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.
 3. **Aerodrome mapping data.** Data collected for the purpose of compiling aerodrome mapping information for aeronautical uses.
 4. **Aerodrome Mapping Database.** A collection of aerodrome mapping data organized and arranged as a structured data set.
 5. **Aeronautical data.** A representation of aeronautical facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing.

6. **Aeronautical information.** Information resulting from the assembly, analysis and formatting of aeronautical data.
7. **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.
8. **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.
9. **Aeronautical information service (AIS).** A service established within the defined area of coverage responsible for the provision of aeronautical data and information necessary for the safety, regularity and efficiency of air navigation.
10. **AIP Amendment.** Permanent changes to the information contained in the AIP.
11. **AIP Supplement.** Temporary changes to the information contained in the AIP which are published by means of special pages.
12. **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.
13. **AIS product.** Aeronautical information provided in the form of the elements of the Integrated Aeronautical Information Package (except NOTAM and PIB), including aeronautical charts, or in the form of suitable electronic media.
14. **Application.** Manipulation and processing of data in support of user requirements (ISO 19104*).
15. **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.
16. **Assemble.** A process of merging data from multiple sources into a database and establishing a baseline for subsequent processing.
17. **ATS surveillance service.** Term used to indicate a service provided directly by means of an ATS surveillance system.
18. **ATS surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.
19. **Automatic dependant 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.
20. **Automatic dependant 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.
21. **Automatic terminal information service (ATIS).** The automatic provision of current, routine information to arriving and departing aircraft throughout 22 hours or a specific portion thereof.

22. **Data link-automatic terminal service (D-ATIS).** The provision of ATIS via data link.
23. **Voice-automatic terminal information service (Voice-ATIS).** The provision of ATIS by means of continuous and repetitive voice broadcasts.
24. **Bare Earth.** Surface of the Earth including bodies of water and permanent ice and snow, and excluding vegetation and man-made objects.
25. **Canopy.** Bare Earth supplemented by vegetation height.
26. **Control-pilot data link communications (CPDLC).** A means of communication between controller and pilot, using data link for ATC communications.
27. **Culture.** All man-made features constructed on the surface of the Earth, such as cities, railways and canals
28. **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.
29. **Danger area.** An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.
30. **Database.** One or more files of data so structured that appropriate applications may draw from the files and update them.
33. **Data product.** Data set or data set series that conforms to a data product specification (ISO 19131*).
34. **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*).
35. **Data quality.** A degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity.
36. **Data set.** Identifiable collection of data (ISO 19101*).
37. **Data set series.** Collection of data sets sharing the same product specification (ISO 19115*).
38. **Datum.** Any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO 19104*).
39. **Digital Elevation Model (DEM).** The representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum.
40. **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.
41. **Ellipsoid height (Geodetic height).** The height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.
42. **Feature.** Abstraction of real world phenomena (ISO 19101*).
43. **Feature attribute.** Characteristic of a feature (ISO 19101*).
44. **Feature operation.** Operation that every instance of a feature type may perform (ISO 19110*).

45. **Feature relationship.** Relationship that links instances of one feature type with instances of the same or a different feature type (ISO 19101*).
46. **Feature type.** Class of real world phenomena with common properties (ISO 19110*).
47. **Geodesic distance.** The shortest distance between any two points on a mathematically defined ellipsoidal surface.
48. **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.
49. **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.
50. **Geoid undulation.** The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid.
51. **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*).
52. **Height.** The vertical distance of a level, point or an object considered as a point, measured from a specific datum.
53. **Internet aviation service provider (IASP).** An accredited company that provides aeronautical information using the Internet as the means of communication.
54. **Integrated Aeronautical Information Package.** A package which consists of the following elements:
 - (1) AIP, including amendment service;
 - (2) Supplements to the AIP;
 - (3) NOTAM and PIB;
 - (4) AIC; and
 - (5) checklists and lists of valid NOTAM
55. **Integrity (aeronautical data).** A degree of assurance that an aeronautical data and its value has not been lost or altered since the data origination or authorized amendment.
56. **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 Operations Plant quarantine and similar procedures are carried out.
57. **International NOTAM office (NOF).** An office designated by a State for the exchange of NOTAM internationally.
58. **Logon address.** A specified code used for data link logon to an AIS unit.
59. **Manoeuvring area.** That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.
60. **Metadata.** Data about data (ISO 19115*).

63. **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(s).
64. **Minimum en-route altitude (MEA).** The altitude for an en-route segment that provides adequate reception of navigation and communication signals and provide the required obstacle clearance
65. **Minimum obstacle clearance altitude (MOCA).** The minimum altitude for a defined segment of flight that provides the required obstacle clearance.
66. **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.
67. **Obstacle.** All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight.
68. **Obstacle/terrain data collection surface.** A defined surface intended for the purpose of collecting obstacle/terrain data.
69. **Orthometric height.** Height of a point related to the geoid, generally presented as an MSL elevation.
70. **Portrayal.** Presentation of information to humans (ISO 19117*).
71. **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.
72. **Post spacing.** Angular or linear distance between two adjacent elevation points.
73. **Precision.** The smallest difference that can be reliably distinguished by a measurement process.
74. **Pre-flight information bulletin (PIB).** A presentation of current NOTAM information of operational significance, prepared prior to flight.
75. **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.
76. **Quality.** Degree to which a set of inherent characteristics fulfils requirements (ISO 9000*)
77. **Quality assurance.** All the Operations Planned and systematic activities implemented within the quality system, and demonstrated as needed, to provide adequate confidence that an entity will fulfil requirements for quality (ISO 9000*).
78. **Quality control.** The operational techniques and activities that are used to fulfil requirements for quality (ISO 9000*).
79. **Quality management.** All activities of the overall management function that determine the quality policy, objectives and responsibilities, and implementing them by means such as quality Operations Planning, quality control, quality assurance and quality improvement within the quality system (ISO 9000*).
80. **Relief.** The inequalities in elevation of the surface of the Earth represented on aeronautical charts by contours, hypsometric tints, shading or spot elevations.
81. **Requirement.** Need or expectation that is stated, generally implied or obligatory (ISO 9000*).

82. **Resolution.** A number of units or digits to which a measured or calculated value is expressed and used.
 83. **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.
 84. **Risk assessment.** An evaluation of the threats to a system, the likelihood that those threats will be exploited and the impact of such exploitation.
 85. **Route stage.** A route or portion of a route flown without an intermediate landing.
 86. **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.
 87. **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.
 88. **Traceability.** Ability to trace the history, application or location of an entity by means of recorded identifications (ISO 9000*).
 89. **Validation.** Confirmation, through the provision of objective evidence, that the particular requirements for a specific intended use are fulfilled (ISO 9000*).
 90. **Verification.** Confirmation, through the provision of objective evidence that specified requirements have been fulfilled (ISO 9000*).
 91. **VOLMET.** Meteorological information for aircraft in flight.
 92. **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.
 93. **VOLMET broadcast.** Provision as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts.
- (b) Every other term shall have the same meaning as contained in the Chicago Convention and ICAO Document 9713, "International Civil Aviation Vocabulary."

22.205 Acronyms

AIC	Aeronautical Information Circular
AIP	Aeronautical information Publication
AIS	Aeronautical Information Service
ADS-B	Automatic dependant surveillance - broadcast
ADS-C	Automatic dependant surveillance – contract
ANS	Air Navigation Services
ATIS	Automatic terminal information service

D-ATIS	Data link-automatic terminal service
CPDLC	Control-pilot data link communications
CRC	Cyclic redundancy check
DEM	Digital Elevation Model
NOF	International NOTAM office
MEA	Minimum en-route altitude
MOCA	Minimum obstacle clearance altitude
PIB	Pre-flight information bulletin
D-VOLMET	Data link-VOLMET

22.207 Use of English

- (a) All documentation, written communications and data (electronic or otherwise) used in connection with AIS shall be provided in English.

22.209 Compliance with Laws, requirements and procedures

- (a) The AIS provider shall take all actions necessary to ensure that all persons employed, engaged, or contracted by the holder, are familiar with the safety and security requirements of all appropriate sections of Civil Aviation and National legislation, the requirements of this Part, all related Manuals of Standards, any applicable conditions of the ANS Certificate and the procedures specified in the AIS provider's safety assurance documentation, Quality System and Operations Plan.

22.211 Procedure compliance

- (a) Each person performing duties in relation to the provision of aeronautical information service shall comply with the applicable procedures specified in the appropriate manuals which authorize the operation.

SUBPART B: AERONAUTICAL INFORMATION SERVICE APPROVAL

22.213 Applicability

- (a) No person shall provide a service which the Authority deems to be an AIS that serves any area:
 - (1) Within the sovereign airspace of The Bahamas; or
 - (2) For which The Bahamas is responsible for the provision of air traffic or services; and
 - (3) In which The Bahamas has engaged in any formal agreement with one or more other Contracting State(s) for the provision of a joint service;
 - (i) except under the authority of, and in accordance with the provisions of an air navigation service (ans) certificate with ais certificate issued under this part.
- (b) Each person authorized to provide an AIS before the entry into force of these regulations, may continue to do so, subject to approval by the Authority and compliance with the requirements of this Part.

22.215 Application for an AIS certificate

- (a) An applicant for an AIS certificate shall apply to the Authority in the form and manner required by the Authority and at least 90 days before the date of intended operation, except the Operations Manual and Equipment Maintenance Control Manual which may be submitted later than but not less than 60 days before the date of intended operation, supplying:
 - (1) The applicant's name and address;
 - (2) The specific service or services to be provided;
 - (3) The location(s) from which the service(s) will be provided;
 - (4) The relevant elements of the Operations Plan referred to in regulation 22.143 and proof of Financial Capacity and Liability required under this Part;
 - (5) Payment of any applicable fee required by the appropriate requirements; and
 - (6) Such other particulars relating to the applicant and the intended service as may be required by the Authority
- (b) An applicant who is requesting to operate an ATS Reporting Office shall make application at least 30 days prior to the dated of intended operation.

22.217 Issue of an AIS Certificate

- (a) An applicant may be granted an AIS certificate if the Authority is satisfied that:
 - (1) The applicant meets the requirements of this Part;
 - (2) The applicant, and the applicant's key person or persons, are fit and proper persons and are deemed acceptable to the Authority; and
 - (3) The organization has the Financial Capacity and Liability Coverage required for it to execute its functions;
 - (4) The granting of the approval is not contrary to the interests of aviation safety.

22.219 Demonstration Sessions

- (a) No person may provide an Aeronautical Information Service unless it first conducts satisfactory demonstration sessions as required by the Authority.
- (b) Subject to the provision in paragraph (e) of this Subsection, no person may provide an Aeronautical Information Service following any major change(s) and/or re-certification unless it conducts a satisfactory demonstration session for the Authority.
- (c) Demonstration sessions required by paragraph (a) of this Subsection shall be conducted in accordance with the regulations applicable to the type of operation, equipment used and services provided.
- (d) The Authority may authorize deviations from this Subsection if the Authority finds that special circumstances make full compliance with this section unnecessary.

22.221 Privileges of Certificate

- (a) An AIS Certificate shall state:
 - (1) the aerodrome or airspace at, or within which, the service may be provided; and
 - (2) the type of ais which may be provided.
- (b) An AIS approval may include such conditions as the Authority may consider appropriate.
- (c) The holder of an AIS Certificate under this Subpart shall provide AIS in accordance with the provisions of this Part and with any conditions attached to the approval.

22.223 Amendment and Revocation of AIS Certificate

- (a) The Authority may amend any AIS approval or amend the conditions under which any person authorized to provide AIS before the entry into force of these regulations may continue to provide the service if:
 - (1) the authority determines that aviation safety and the public interest require the amendment; or
 - (2) the AIS provider applies for an amendment.
- (b) The Authority may, if the requirements of this Part are met, amend an AIS Certificate, where there is a change in the services provided.
- (c) If the Authority stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to aviation safety, such an amendment is effective without stay upon the AIS provider receiving notice.
- (d) The AIS provider may appeal the amendment, but shall operate in accordance with it, unless it is subsequently withdrawn.
- (e) Amendments proposed by the Authority, other than emergency amendments, become effective 30 days after notice to the AIS provider, unless the AIS provider appeals the proposal in writing prior to the effective date. The filing of an appeal stays the effective date until the appeal process is completed.
- (f) Amendments proposed by the AIS provider shall be made at least 30 days prior to the intended date of the start of any service under that amendment.
- (g) No person may provide any AIS that is not included in a current and valid AIS Certificate for which an amendment to such AIS approval is required, unless it has received notice of approval from the Authority.

22.225 Duration of Certificate

- (a) An AIS Certificate shall be valid for a period not exceeding one (1) calendar year from the date of issuance until midnight of the date of expiry.
- (b) An AIS Certificate shall remain in force until it is suspended or revoked.
- (c) The holder of an ANS Certificate that has been suspended or revoked shall forthwith surrender the certificate to the Authority.
- (d) The AIS provider shall make any payment required by the appropriate requirements in respect of continued validity or amendment of the approval.

22.227 Renewal of Certificate

- (a) The application for the renewal of an AIS Certificate shall be in a form and manner prescribed by the Authority.
- (b) The application shall be submitted to the Authority not less than 30 days before the certificate expiry date.

22.229 Establishment or transfer of service

- (a) An applicant for the grant of an AIS Certificate that intends to assume responsibility for providing any AIS from an existing AIS provider shall include with its application full details of transitional arrangements endorsed by the Accountable Managers of both organizations.

22.231 Withdrawal or transfer of service

- (a) The holder of an AIS Certificate who wishes permanently to withdraw the provision of AIS shall give the Authority at least 90 days' notice of the proposal and include in that notice a summary of factors considered in arriving at the decision to withdraw the service.
- (b) The holder of an AIS Certificate who is the outgoing provider of an air traffic service shall provide all necessary assistance in the preparation and execution of the transitional arrangements required by paragraph 22.285.

SUBPART C: DUTIES AND RESPONSIBILITIES OF AIS PROVIDER

22.233 Aeronautical Information Service

- (a) The AIS provider shall receive, collate or assemble, edit, format, publish, store and distribute aeronautical data and aeronautical information concerning the entire territory of the Bahamas as well as those areas over the high seas in which the Bahamas is responsible for air traffic services.

22.235 Division of Services

- (a) The provision of aeronautical information services in the Bahamas shall be divided into the following AIS/MAP functional areas of responsibility:
 - (1) AIS International NOTAM Office (NOF)
 - (2) AIS Publications/Editing/Text producing Unit

22.237 Aeronautical Information Services to be provided

- (a) Subject to the Service Definition Agreement required under Subpart D, the AIS provider shall be responsible for providing aeronautical data and information as an Integrated Aeronautical Information Package in accordance with the AIS Operations Manual and shall consist of the following—
- (1) The Bahamas Aeronautical Information Publication (AIP) ;
 - (2) AIP Amendments ;
 - (3) AIP Supplements ;
 - (4) Aeronautical Information Circulars; and
 - (5) Checklists and lists of valid NOTAM.
- (b) The AIS provider shall, in addition to sub- paragraph (a):
- (1) Designate an office as the Bahamas's point of contact with the aeronautical information services of other States for the interchange of the Integrated Aeronautical Information Package, except NOTAM; and
 - (2) Make the Bahamas AIP, AIP Amendments, AIP Supplements and AIC 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 Bahamas AIP, AIP Amendments, AIP Supplements, aeronautical charts, and AIC in accordance with the AIS Operations Manual; and
 - (4) Ensure that all aeronautical charts published as part of the Bahamas AIP conform to the applicable standards for the charts; and
 - (5) Coordinate the input of all aeronautical information from the originators prescribed in the AIS Operations manual and ICAO Doc. 8126, except:
- (c) Information which is of immediate operational significance necessitating the immediate issue of a NOTAM; and
- (d) Temporary information of a duration of less than three months that only requires the issue of a NOTAM.

22.239 NOTAM service

- (a) The AIS Provider shall:
- (1) designate a Notam Office (NOF) for the Bahamas; 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 Aeronautical Fixed Telecommunications Network (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; and
- (b) promptly issue a NOTAM that is in accordance with the Operations Manual- Aeronautical Information Services, whenever information received as described therein requires the issue of a NOTAM; and
 - (c) at intervals of not more than one month, issue a checklist over the AFTN of the NOTAM that are currently in force.

22.241 Aeronautical Information Regulation and Control (AIRAC)

- (a) Information concerning the circumstances listed in the applicable sections of the Operations Manual- Aeronautical Information Services, 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.
- (b) The information notified therein shall not be changed further for at least another 28 days after an effective date, unless the circumstance notified is of a temporary nature and would not persist for the full period.
- (c) The regulated system (AIRAC) should also be used for the provision of information relating to the establishment and withdrawal of; and premeditated significant changes in, the circumstances listed in the applicable section of the Operations Manual- Aeronautical Information Services.
- (d) When information has not been submitted by the AIRAC date, a NIL notification shall be originated and distributed by NOTAM or other suitable means, not later than one cycle before the AIRAC effective date concerned.
- (e) Implementation dates other than AIRAC effective dates shall not be used for pre-Operations Planned operationally significant changes requiring cartographic work and/or for updating of navigation databases.
- (f) The use of the date in the AIRAC cycle which occurs between 21 December and 17 January inclusive should be avoided as an effective date for the introduction of significant changes under the AIRAC system.

22.243 Aeronautical Charts

- (a) The AIS provider shall ensure the charts listed in (b) are readily available to users.
- (b) The AIS provider shall, subject to the requirements of the Service Definition Document (SDD) required under Subpart D and any agreements contained therein with any commercial service provider or government agency, secure the publication of aeronautical maps pursuant to these regulations and includes but is not limited to the production of one or more of the charts specified by the Authority.
- (c) The Authority may require that any Chart be published where the Authority deems such action necessary in the public interest as it relates to safety or efficiency.
- (d) Where the AIS provider sub-contracts the production of any Aeronautical Chart to any commercial service provider or government agency, any agreement entered into relating thereto shall be approved by the Authority.

- (e) Aeronautical Charts and all elements contained therein shall be developed, prepared and promulgated in accordance with:
 - (1) the *AIS Operations Manual*;
 - (2) other standards required by the Authority from time to time.
- (f) The AIS provider shall take all reasonable measures to ensure that the information it provides and the aeronautical charts made available are adequate and accurate and that they are maintained up to date by an adequate revision service.

22.245 Exchange of Aeronautical Data and Information

- (a) The NOF office mentioned in 22.295 (a) (1) shall serve as the office to which all elements of the Integrated Aeronautical Information Package originated by other States shall be addressed. Such an office shall be qualified to deal with requests for aeronautical data and aeronautical information originated by other States.
- (b) Where more than one international NOTAM office is designated in the SDD, the SDD shall define the extent of responsibility and the territory covered by each office.
- (c) The Authority may require, as a part of the SDD, and wherever practicable, the establishment of direct contact between aeronautical information service providers in order to facilitate the international exchange of aeronautical data and aeronautical information.
- (d) One copy of each of the elements of the Integrated Aeronautical Information Package, that have been requested by the aeronautical information service provider of an ICAO Contracting State shall be made available by the originating State in the mutually-agreed form(s), without charge, even where authority for publication/ storage and distribution has been delegated to a non-governmental agency.

SUBPART D: SERVICE DEFINITION DOCUMENT**22.247 Service Definition Document (SDD)**

- (a) The Authority shall, with the close co-operation of the AIS provider or applicant for any such approval, establish a Service Definition Document (SDD) that defines the Aeronautical Information Services to be provided and to ensure the fulfilment of the State's responsibility to provide AIS. Before approving the SDD, the Authority will consult users, including:
- (1) commercial and private pilots; and
 - (2) commercial air operators; and
 - (3) Air Traffic Services (where separate);
 - (4) Meteorological Service provider(s); and
 - (5) Other interested parties.
- (b) In addition to the users' opinions, the Authority will also consider the requirements of the ICAO Regional Air Navigation Agreement and Operations Plan with regard to AIS in The Bahamas.
- (c) The Authority will formally consult the users at not more than five (5) year intervals in order to ensure that the services provided remain appropriate.
- (d) The results of the definition process shall be captured within the SDD which shall define:
- (1) the services to be provided, including the definition of the area of coverage of the information;
 - (2) the International NOTAM Office for the Bahamas (which must be connected to the aeronautical fixed service); and
 - (3) The methods by which information shall be collected, collated and distributed;
 - (4) The locations and hours during which services shall be provided;
 - (5) The standards and criteria to be applied;
 - (6) The quality management system which shall be used by the service provider; and
 - (7) The requirement for agreements between the AIS provider, any sub-contacted service providers, AIS Units, ATS Units, Meteorological Service provider(s), Air Operators and other users where appropriate.
- (e) The agreement shall include the specific requirement for compliance with the Operations Manual- Aeronautical Information Services for:
- (1) The compilation, production and distribution of an AIP;
 - (2) A specific reference to the requirements for NOTAM and their receipt and distribution.
 - (3) A specific reference to the requirements for compliance with the AIRAC cycle; and

- (4) specific reference to the requirement for Aeronautical Information Circulars, their contents and distribution
- (f) The AIS provider shall make any payment required by the appropriate requirements in respect of continued validity or amendment of the SDD.

22.249 Arrangement of service provision

- (a) The SDD shall identify a primary AIS provider which shall be responsible overall for the provision of AIS within the Territory and which may be:
 - (1) an AIS Office established by the Minister; or
 - (2) an ATS provider certified under the Part "A" to this Schedule that also holds the AIS Certificate
 - (3) a commercial service provider certified under the requirements of this Part
- (b) The AIS provider may sub-contract all or parts of the service, such as AIP publication or issue of NOTAMs, to one or more other accredited agencies or service providers which may be:
 - (1) another State 's or Territory's AIS Office; or
 - (2) a commercial service provider.
- (c) Where any services are sub-contracted in accordance with paragraph Sub-paragraph (b) above the AIS provider shall ensure that:
 - (1) There is in each case a letter of agreement or formal contract between:
 - (i) The ASI provider and the subcontractor to ensure that the services and the standards to be provided by each party are clearly defined, taking into account the requirements specified in the SDD; and
 - (ii) The service overall fully meets that defined by the SDD.
- (d) Any agreement or contract shall include the requirement for a quality management system to be implemented by the Aeronautical Information Services provider in accordance with Subpart G.

SUBPART E: SURVEILLANCE AND REVALIDATION

22.251 Continuing Validation of the Certification Basis Required

- (a) The AIS provider shall be subject to a continuing system of surveillance administered by the Authority to validate the original certification basis and the organization's continued eligibility to hold AIS Certificate.
- (b) The AIS provider shall allow the Authority to conduct tests and inspections, at any time or place, to determine whether an AIS provider is complying with the applicable laws, regulations and any terms and conditions of the AIS Certificate.
- (c) The AIS provider shall:

- (1) continue to meet the standards and comply with the requirements of this Part; and
- (2) comply with all procedures and programmes detailed in the approved Operations Plan and the Manual of Operations ; and
- (3) provide, at each location described in the Operations Plan, hold in hard copy, electronic or other form acceptable to the Authority:
 - (i) all portions of its current Air Navigation Service Certificate and AIS Certificate;
 - (ii) All portions and sufficient copies of the operations manual that are readily accessible by all personnel who may need to refer to it.
 - (iii) All portions of its Equipment Maintenance Manuals;
 - (iv) At least one current copy of the relevant sections of the Operations Plan applicable to the operation; and
 - (v) A current listing that includes the location and individual positions responsible for each record, document and report required to be kept by the AIS provider under the applicable aviation law, regulations or standards.
- (d) The AIS provider shall make its records available to the Authority upon request, either at the Authority's offices or other location stipulated by the Authority.
- (e) Failure by any AIS provider to make available to the Authority upon request, all portions of the Certificate, Operations and Equipment Maintenance Manuals and any required record, document or report is grounds for suspension of all or part of the approval.

22.253 Access for Inspection

- (a) To determine continued compliance with the applicable regulations, the AIS provider shall-
 - (1) Grant the Authority free and uninterrupted access to and co-operation with any of its organizations, facilities and equipment;
 - (2) Ensure that any person authorized by the Authority shall have free and uninterrupted access to any documentation relating to activities associated with the approval.
 - (3) Ensure that the Authority is granted access to and co-operation with any organization or facilities that it has contracted for services associated with any service provided by the AIS provider and equipment maintenance for those services; and
 - (4) Grant the Authority free and uninterrupted access to the AIS unit at any time during operations.
 - (5) Be responsible for ensuring that, if requested to do so by an authorized person, documentation is produced within a period prescribed by the Authority.

22.255 Changes to AIS provider's organization

- (b) The AIS provider shall ensure that the relevant section of the Operations Plan is amended so as to remain a current description of the holder's organization and services.
- (c) The AIS provider shall ensure that any amendments made to the holder's operations plan:

- (1) meets the applicable requirements of this Part; and
 - (2) complies with the amendment procedures contained in the certificate holder's operations plan.
- (d) Subject to paragraph sub-paragraph (d) below, the AIS provider shall provide the Authority with a copy of each amendment to the certificate holder's operations plan as soon as practicable after its incorporation into the Operations Plan as follows:
- (1) printed amendments, at least 15 working days in advance of their effective date; and
 - (2) amendments of an urgent or immediate nature, without delay, and no later than the date on which they are effective.
- (e) Prior notification to and acceptance by the Authority is required whenever a AIS provider proposes to make a change to any of the following,:
- (1) the Accountable Manager; or
 - (2) the listed key personnel.
- (f) The Authority may prescribe conditions under which an AIS provider may operate during or following any of the changes specified in this paragraph and the AIS provider shall comply with those conditions.
- (g) Where any of the changes referred to in this paragraph require an amendment to the Certificate, the holder shall forward the documentation describing the change(s) to the Authority for review as soon as practicable.
- (h) The Certificate holder shall make such amendments to the holder's Operations Plan as the Authority may consider necessary in the interests of aviation safety.

22.257 Subsequent Certification Requirement

- (a) The Authority may require that a full certification process be completed prior to the implementation of any major change in any aspect of the AIS provider's service provision described in 22.211 or as prescribed by the Authority.

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SUBPART F: AERONAUTICAL INFORMATION SERVICE MANUALS & DOCUMENTATION

22.259 Operations Plan

- (a) An applicant for the grant of AIS Certificate shall provide the Authority with a copy of the relevant section of the Operations Plan that shall be approved by the Authority in accordance with 22.143 of this schedule.
- (b) The AIS provider shall:
 - (1) hold at least one complete, current copy of the relevant section of the Operations Plan at each AIS unit listed in the Operations Plan, except that parts relating solely to a particular place need only be held at principal locations and the place concerned;
 - (2) amend or revise the Operations Plan, as is necessary, to ensure that the information contained therein is kept up to date;
 - (3) incorporate in the Operations Plan, any material as the Authority may require;
 - (4) comply with all procedures and standards detailed in the Operations Plan;
 - (5) make each applicable part of the Operations Plan available to personnel who require those parts to carry out their duties;
 - (6) continue to meet the standards and comply with the requirements of this Part; and
 - (7) Notify the Authority promptly of any change of address for service, telephone number or facsimile number prior to and within 30 days of the intended date of the change.

22.261 AIS Operations Manual

- (a) An AIS provider shall prepare and keep current for compliance by its personnel, an operations manual acceptable to the Authority that contains the procedures and policies for the use and guidance of its personnel in the provision of the services listed in the Operations Plan.
- (b) The Accountable manager shall sign an operations manual submitted to the Authority for approval.
- (c) The Operations Manual shall be amended or revised as directed by the Authority and as otherwise necessary to ensure that the information contained therein is appropriate and kept up-to-date. Amendments shall be recorded and brought to the attention of all controllers concerned in a manner that facilitates a record of acknowledgement of any such amendment.
- (d) The AIS provider shall control the distribution of the operations manual, or pertinent portions, together with all amendments and revisions to ensure their provision to all personnel that are required to use them.
- (e) No person may provide for use of its personnel in the provision of AIS, any operations manual or any portion of such manual which has not been reviewed and found acceptable or approved by the Authority.

22.263 Submission and Revision of Manuals

- (a) Each manual required by this Part must –
 - (1) include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;
 - (2) be in a form that is easy to revise and contains a system which allows personnel to determine the current revision status of each manual;
 - (3) have a date of the last revision on each page concerned;
 - (4) not be contrary to any requirement under these regulations and/or as prescribed by any Authorized Person and the AIS provider's Certificate; and
 - (5) Observe Human Factors Principles in their design and utilization
- (b) No person may use, or cause the use of, any policy and procedure for any AIS function prior to co-ordination with or approval by the Authority.
- (c) The AIS provider shall ensure that hard and soft copies of the manuals required under this Part and any other manual outlining any policy or procedure arrive at the Authority:
 - (1) for initial reviews: No later than 60 business days prior to the intended date of publication
 - (2) for all other reviews: No later than 30 business days
- (d) A report that demonstrates compliance with the applicable Civil Aviation Regulations, the requirements of this Part and the procedures contained in the Operations Manual– Aeronautical Information Services shall accompany all manuals submitted to the Authority as appropriate. The compliance document shall be deemed acceptable and appropriate to the Authority.
- (e) AIS operational publications, including the AIS MANOPs and any other unit specific manuals shall be kept up to date and any requests for amendments thereto shall be forwarded to the Authority:
 - (1) At least 15 working days in advance of their effective date; or
 - (2) In the case of amendments of an urgent or immediate nature, without delay, and no later than the date on which they are effective.
- (f) Operations personnel shall be expeditiously informed of the amendments to the manual of operations applying to their duties as well as of their entry into force
- (g) Upon receipt of material that the Authority prescribes as mandatory for inclusion in any portion of any manual required under these regulations, the AIS provider shall make the necessary amendments as soon as reasonably possible or at a time specified by the Authority.
- (h) The AIS provider shall ensure that the contents of the operational manuals and publications required under this subpart includes at least those subjects designated by the Authority that are applicable to the AIS provider's operations, including any additional materials made mandatory by the Authority.

22.265 Operational Documentation

- (a) The AIS provider shall hold copies of the relevant manuals and any other document necessary for the provision and operation of the services listed in the Operations Plan.
- (b) The AIS provider shall establish a procedure to control all the documentation required under this Part which shall ensure that:
 - (1) All incoming documentation, including amendments, are reviewed, and actioned;
 - (2) All 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 the Operations Plan;
 - (3) All documentation is reviewed and authorised before issue;
 - (4) All obsolete documentation shall be removed promptly from all points of issue or use; and
 - (5) Any obsolete documents retained as archives are suitably identified as obsolete; and
 - (6) Changes to documentation are reviewed and approved by an Inspector of the Air Navigation Services Division who shall have access to pertinent background information upon which to base their review and approval; and
 - (7) Safety-significant changes are assessed in accordance with the safety management system; and
 - (8) The current version of each item of documentation can be identified to preclude the use of out-of-date editions.
- (c) Current issues of the following documents shall be made available to personnel at all locations where they need access to such documentation for the provision of aeronautical information service. These documents shall include but not limited to:
 - (1) the Civil Aviation Act and Civil Aviation (General) Regulations of the Bahamas
 - (2) the Operations Manual – Aeronautical Information Services;
 - (3) the operations manual;
 - (4) Aerodrome Manual of Operations, where applicable;
 - (5) relevant ICAO Annexes and Documents;
 - (6) records of all incoming and outgoing aeronautical information to be identified by serial number and date;
 - (7) records of each person who is authorized to check, edit and publish aeronautical information;
 - (8) records of internal quality and safety audit reports;
 - (9) records of reporting, investigation and correction of error; and
 - (10) records of job description, training programme and Operations Plan of each staff.

22.267 Electronic Record Keeping

- (a) The AIS provider shall ensure that where documents are held as computer based records and where paper copies of computer based records are made, they are subjected to the same control as paper documents.

22.269 Checklists

- (a) The AIS provider shall issue and display at each operating position, as appropriate, a condensed checklist of procedures approved by the Authority as applicable for use during the provision of AIS.
- (b) The AIS provider shall ensure that approved procedures include each item necessary for operational personnel to safely Takeover and Handover watches and for systems abnormalities and emergencies.
- (c) The AIS provider shall make the approved procedures readily useable at each operating position and the operations personnel shall be required to follow them when required by any operational manual submitted to the Authority.
- (d) The AIS provider shall ensure that the checklist procedures are designed so that operations personnel will not need to rely upon their memory for items to be checked, unless such items are required by an emergency check list.
- (e) The design and utilization of checklists shall observe relevant Human Factors Principles.

SUBPART G: SAFETY AND QUALITY MANAGEMENT SYSTEMS

22.271 Safety Management System

- (a) In accordance with regulation 22.159, the AIS provider shall establish a safety management system appropriate to the size and complexity of the operation, for the proactive management of safety, that integrates the management of operations and technical systems with financial and human resource management, and that reflects quality assurance principles.
- (b) The safety management system shall include policy and objectives for continuous improvement to the organisation's overall safety performance.
- (c) The safety management system shall clearly define lines of safety accountability throughout the operator's organisation, including a direct accountability for safety on the part of senior management.

22.273 Quality management system

- (a) In accordance with regulation 22.161, the AIS provider shall implement and maintain internal quality assurance procedures that encompass all functions of an aeronautical information service to ensure compliance with, and the adequacy of, the procedures as prescribed by these regulations.

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SUBPART H: ORGANIZATIONAL REQUIREMENTS

22.275 Applicability

- (a) This Subpart provides those certification requirements that apply to AIS organizational requirements

22.277 Personnel training

- (a) The AIS provider shall establish policies and procedures that are approved by the Authority, for the recruitment and training of all personnel to ensure that all its personnel, including cartographic technical staff, possess the skills and competencies required in the provision of aeronautical information services.
- (b) The AIS provider shall develop an overall training policy and programme and detailed job descriptions for its staff. The training policy and programme shall describe the training courses that different levels of staff have to undergo to perform their duties, including initial, recurrent and specialized training in normal and emergency procedures and require that each staff member be assessed on such.
- (c) The programmes and procedures in sub-paragraph (a) shall ensure that operational personnel are trained, given regular recurrent training, at least annually, in normal and emergency procedures and are assessed on such.
- (d) The job descriptions mentioned in paragraph (b) above and minimum qualifications for all staff required to provide a safe AIS shall be subject to the approval of the Authority.
- (e) The training and recruitment programmes and procedures established in accordance with sub-paragraph (a) above shall be designed to assess and ensure the initial and continuing competence of operational personnel including continued competence in using new equipment procedures, updated communications and record keeping policies.
- (f) The AIS provider shall conduct a yearly review of the training Operations Plan for each staff at the beginning of the year to identify any gaps in competency, changes in training requirement and prioritize the type of training required for the coming year.
- (g) The Authority may issue interim training programme approval in order to permit the conduct of required training subject to such conditions as may be stipulated. Following evaluation of the programme by the Authority, the results of which are satisfactory, final training programme approval will be issued.
- (h) The AIS provider shall submit to the Authority any revision to an approved training programme, and shall receive written approval from the Authority before that revision can be used.
- (i) The job description shall depict the job purpose, key responsibilities, and outcome to be achieved of each staff.
- (j) The AIS provider shall ensure that its staff undergoes a suitable period of supervised on-the-job training before being deployed for duties.
- (k) The AIS provider shall ensure, as far as practicable, that its personnel do not provide any Aeronautical Information Service:
 - (1) Unless they are familiar with all relevant and current information;
 - (2) Unless they are medically fit to provide the service ;

- (3) While under the influence of any psychoactive substance; or
 - (4) When any decrease in their medical fitness might render them unable to safely provide the service.
- (l) The AIS provider shall report to the Authority, the details of any instance in which any person employed to the AIS organization has reported for or performs duties while suspected or known to be under the influence of any psychoactive substance and inform the Authority of any corrective action taken.
 - (m) The AIS provider shall maintain individual training records for each of its staff, which should include a training Operations Plan detailing the courses completed by each staff as well as the time-frame for attending future courses as required under his training Operations Plan.
 - (n) The AIS provider shall provide in the MANOPs an analysis of the number of personnel required to perform the AIS taking into account the duties and workload required.

22.279 Personnel Requirements

- (a) The AIS provider shall engage, employ or contract:
 - (1) An Accountable Manager, who has the authority within the applicant's organization to ensure that each aeronautical information service listed in the Operations Plan:
 - (i) Provides a safe service to aircraft to the highest degrees of safety standards required by the Authority;
 - (ii) Can be adequately and continuously financed and resourced; and
 - (iii) Is provided in accordance with the requirements prescribed by this Part.
 - (2) A key person or group of key persons who are responsible for ensuring that the applicant's organization complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the accountable manager.
 - (3) Sufficient personnel to collect, collate, check, coordinate, edit, and publish aeronautical information for the AIS listed in the applicant's Operations Plan.
- (b) Persons mentioned in sub-paragraph (a) above shall be available and serve in the following positions or their equivalent –
 - (1) AIS/MAP Aerodrome unit/ ATS Reporting Office specialist.
 - (2) International NOTAM Office specialist.
 - (3) AIS/MAP database specialist.
 - (4) AIS/MAP documentation/editing/text producing specialist.
 - (5) Aeronautical cartography specialist.
- (c) The applicant for an AIS certificate shall:
 - (1) establish a procedure to assess the competence of those personnel authorized by the applicant to check, edit, and publish aeronautical information for the aeronautical information services listed in the Operations Plan;
 - (2) establish a procedure to maintain the competence of those authorized personnel; and

- (3) provide those authorized personnel with written evidence of the scope of their authorisation.

22.281 Facility Requirements

- (a) The AIS provider shall establish offices and facilities that:
 - (1) are appropriate for the aeronautical information services listed in their Operations Plan; and
 - (2) meet the applicable requirements of this Part.

22.283 Security

- (a) The AIS provider shall establish a security programme which shall specify the physical security, practices and procedures to be followed to minimise the risk of destruction of, damage to, or interference with the operation of any AIS facility where such destruction, damage or interference is likely to endanger the safety of aircraft.
- (b) The security programme shall conform to all requirements prescribed in the National Aviation Security Programme.
- (c) The security programme shall include and specify such physical security requirements, practices and procedures that may be necessary:
 - (1) to ensure that all appropriate personnel are familiar, and comply with, the relevant requirements of all national security programmes;
- (d) to ensure that all employees are acquainted with preventive security measures and techniques in regards to all related air transport operations so that they may contribute to the prevention of acts of sabotage or other forms of unlawful interference;
 - (1) to ensure that a report of unlawful inference is made, without delay, to the Authority and any other designated local authority;
 - (2) to ensure that all operating positions contain a checklist of the procedures to be followed in the event of unlawful interference or other security provisions. All checklists shall observe Human Factors Principles and shall be supported by guidance –:
 - (i) on the course of action to be taken should a bomb or suspicious object be found;
 - (ii) to ensure that access to permanent AIS facilities operated by the applicant are subject to control to prevent unauthorised entry;
 - (iii) to protect personnel on duty;
 - (iv) to secure operational data that is received or produced or otherwise employed, so that access to it is restricted only to those authorized;
 - (v) to be followed in the event of a bomb threat or other threat of violence against an AIS unit;
 - (vi) to monitor unattended AIS unit buildings to ensure that any intrusion or interference is detected;

- (vii) To conduct security risk assessments and mitigation, security monitoring and improvement, security reviews and lesson dissemination; and
 - (viii) To contain the effects of security breaches and to identify recovery action and mitigation procedures to prevent re- occurrence.
- (e) An AIS provider shall ensure the security clearance of its personnel and coordinate with the relevant authorities to ensure the security of its facilities, personnel and data.

22.285 Scope of pre-flight information service

- (a) The applicant for the grant of an AIS certificate for a pre-flight information service shall, for the pre-flight services listed in the Operations Plan, specify:-
- (1) the geographic area;
 - (2) the aerodromes; and
 - (3) the applicable airspace.

22.287 Documentation

- (a) The AIS provider shall:
- (1) document the format and standards for the aeronautical information published under the authority of their certificate;
 - (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 the operations plan.

22.289 Collection of Information

- (a) The AIS provider shall establish procedures to collect and collate the information required for the aeronautical information services listed in the Operations Plan.
- (b) The procedures shall ensure that:
- (1) applicable information is obtained from organizations that provide services in support of Bahamas Air Navigation; and
 - (2) applicable information is obtained from the AIS of other States relevant to the requirements of international aircraft operators operating :
 - (i) within the sovereign airspace of The Bahamas and any other area for which the Bahamas has assumed responsibility for the provision of AIS ; and
 - (ii) on international air routes originating from The Bahamas.
- (c) The procedures shall ensure that arrangements for the complete and timely provision of aeronautical information of the required quality are made with the information originators mentioned in subparagraph (b)(1) and (2) above.

- (d) The procedures shall ensure that information received from the information originators mentioned in sub-paragraph (b)(1) is certified as accurate by a person identified by the originator to be responsible for the accuracy of that information.
- (e) The procedures for the NOTAM service shall 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.

22.291 Publication of Aeronautical Information

- (a) The AIS provider shall establish procedures to receive and/or originate, check, co-ordinate, edit, format, publish/store and disseminate aeronautical information for the services listed in the Operations Plan.
- (b) The procedures shall ensure that:
 - (1) The information received under 22.245 is checked against available information to verify its accuracy and integrity as specified in the applicable section of Annex 15 prior to publication;
 - (2) The information received under 22.245 is edited, accurately published, and disseminated:
 - (i) in the format applicable to the operational significance of the information; and
 - (ii) in accordance with the Operations Manual– AIS;
 - (iii) in a format that takes account of the circumstances under which the information will be used; and
 - (iv) as a part of the Integrated Aeronautical Information Package;
 - (3) Except for sub-paragraph(b) (2)(iv), permanent publications and long term temporary publications are clearly identified as being published under the Authority of the AIS provider;
 - (4) When aeronautical information obtained from the aeronautical information services of other States under 22.245 (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 22.245 (d) 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) All aeronautical information is published in the English language;
 - (9) Place names are spelt according to local usage;
 - (10) Units of measurement are consistent with those prescribed under these regulations, the Bahamas AIP and as per the tables contained in ICAO Annex 5 – Units of Measurement to be used in Air and Ground Operations;
 - (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;
- (12) Any of the aeronautical information published is promptly made available to the aeronautical information services of other States, upon request by those States; and
- (13) The aeronautical data and aeronautical information necessary for the safety, regularity or efficiency of air navigation is made available in a form that is suitable for the operational requirements of the Air Navigation community, including:
 - (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 flight information services.
- (c) The procedures for the Bahamas AIP service shall, in addition to paragraph (b), ensure that:
 - (1) Aeronautical charts, and operationally significant information published in the Bahamas 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 days before its effective date;
 - (4) The information published under the AIRAC system is not changed for at least 28 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;
 - (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.

22.293 Error Correction in Published Information

- (a) The AIS provider shall establish procedures to record, investigate, correct, and report any 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 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 these regulations.

22.295 Records

- (a) The AIS provider shall establish procedures to identify, collect, index, store, maintain and dispose of the records that are necessary for the aeronautical information services listed in their Operations Plan.
- (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;
 - (2) there is a record of each person who is authorized by the applicant to check, edit, and publish aeronautical information;
 - (3) there is a record of each occurrence of error correction under the procedures required by 22.259;
 - (4) there is a record of each internal quality assurance review of the applicant's organization carried out under the procedures required by 22.239;
 - (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 90 days after cancellation.
- (c) The AIS provider shall ensure that its procedures for providing information to the persons designated to complete a specific record are provided in a timely way so that the record is continuously up-dated and available for consideration for the Operations Planning and provision AIS.
- (d) The person(s) designated to complete a specific record shall be given that designation in writing and provided training and written policy guidance for the completion of the document with respect to timing and accuracy.
- (e) Every person designated to complete or sign a record required under these regulations shall make the required entries accurately and in a timely manner so that the record used for the provision of AIS reflects the true situation at the time of use.
- (f) Every record required for The AIS provider's operations and equipment maintenance purposes shall be completed in ink or indelible pen, unless otherwise approved by the Authority.
- (g) Any Certificate holder that withholds any records described under this subsection following any request from any Authorized person shall be guilty of an offence.

SUBPART I: SERVICE PROTECTION AND FATIGUE PREVENTION

22.297 General

- (a) The AIS provider shall establish an operating procedure to ensure that a service is provided during the hours of operation referred to in sub-regulation 22.271 for the performance of those duties required:
 - (1) Before providing an air traffic service; and
 - (2) After ceasing to provide an air traffic service.

22.299 Watch log

- (a) The Authority may require that an AIS provider shall ensure that a watch log, with sequentially numbered pages, is kept at each AIS unit or where a unit has physically separate operations areas at each such location within the unit.
- (b) The watch log procedures shall ensure that:
 - (3) The watch log is maintained by the key person on duty, or the person on watch at a nominated operating position;
 - (4) The watch log is maintained throughout the hours of watch of the unit or operations room;
 - (5) All entries include the time of entry; and
 - (6) The person responsible for maintaining the watch log signs 'Take Over Watch' and 'Hand Over Watch' and that transfer of responsibility is indicated by successive 'Take Over Watch' and 'Hand Over Watch' entries;
- (c) Watch log entries shall be:
 - (1) in chronological sequence and in indelible ink; and
 - (2) without erasure, defacement, or obliteration; and
 - (3) corrected by drawing a single line through the erroneous information and initialling the correction;
- (d) Actual times of opening and closing watch are recorded in the watch log, together with the reason for every variation from published hours of service;
- (e) Significant items affecting any operational position is recorded accurately in the watch log; and
- (f) Watch logs are retained for a period of 3 years from the date of final entry.

22.3100 Prevention of Fatigue

- (a) An AIS provider shall provide a 24 hour service in accordance with procedures approved by the Authority which are established and maintained to mitigate the effects of fatigue on AIS operational staff.

SUBPART J: OPERATIONAL REQUIREMENTS

22.3101 Applicability

(b) This Subpart sets out the operational requirements on the AIS provider.

22.3103 Operational Standards

The AIS provider shall adhere to:

- (1) The requirements of these regulations;
- (2) The requirements of the SDD;
- (3) The Standards and, where required in the SDD, the recommendations of ICAO Annex 15;
- (4) The Operations Manual- AIS; and
- (5) Applicable requirements contained in ICAO Regional Air Navigation Agreement and Operations Plan with regard to AIS..

22.3105 General

(a) The AIS holder shall develop, promulgate and maintain all aeronautical data and information, including the following publications and AIS elements in accordance with standards specifications mentioned in sub-paragraph 22.261 above :

- (1) The Bahamas AIP
- (2) AIP Amendments
- (3) AIP Supplements
- (4) NOTAM
- (5) AIC
- (6) Pre-Flight and Post-Flight Information Data
- (7) Electronic Terrain and Obstacle Data
- (8) Aerodrome Mapping Data

22.3107 Liaison with related services

(a) The AIS provider shall establish and maintain systems and procedures to ensure, where applicable, effective two-way co-ordination and direct and continuous liaison between the AIS

provider and at least the following agencies:

- (1) the AIS in other States from which it is necessary to receive information to meet operational requirements within The Bahamas for pre-flight information;
- (2) technical services that are directly concerned with the provision and maintenance of the various air navigation facilities, services and procedures;

- (3) military services, as necessary, to receive and distribute information concerning navigation warnings (military exercises, etc.) or any special military facilities or procedures available to or affecting civil aviation;
 - (4) air traffic services within the Bahamas, to ensure immediate transmission of all required information to services for air traffic control and for in-flight information purposes;
 - (5) all aircraft operating agencies conducting operations in or through The Bahamas, to ensure that pre-flight information requirements are adequately met; and
 - (6) any other services that may either be a source of information of interest to civil aviation or have a legitimate reason for requiring information about civil aviation; and
 - (7) Any other agency specified by the Authority.
- (b) Procedures shall facilitate both regular and ad- hoc communication and take account of any urgent need to pass information.
- (c) The procedures shall:
- (1) Detail such matters as are necessary for effective co-ordination between the parties; and
 - (2) Be kept current; and
 - (3) Be supported by a letter of agreement, in the form prescribed by ICAO Document 9377, signed by senior representatives of the parties involved; and
 - (4) Be part of the applicant's Manual of AIS operations

□ **22.3109 Provision of information in paper copy form**

- (a) Information provided under the AIRAC system shall be published in paper copy form and shall be distributed by the AIS unit at least 42 days in advance of the effective date with the objective of reaching recipients at least 28 days in advance of the effective date.
- (b) Whenever major changes are Operations Planned and where advance notice is desirable and practicable, information published in paper copy form should be distributed by the AIS unit at least 56 days in advance of the effective date should be used.

22.3111 Provision of information as electronic media

- (a) AIS Service that have established an aeronautical database shall, when updating its contents concerning the circumstances listed in the Operations Manual– AIS and ICAO Annex 15, Appendix 4, Part 1, ensure that the effective dates of data coincide with the established AIRAC effective dates.
- (b) Information provided as electronic media, concerning the circumstances listed in the Operations Manual– AIS and ICAO Annex 15, Appendix 4, Part 1, shall be distributed/made available by the AIS unit so as to reach recipients at least 28 days in advance of the AIRAC effective date.
- (c) Whenever major changes are Operations Planned and where advance notice is desirable and practicable, information provided as electronic media shall be distributed/made available at least 56 days in advance of the effective date.

22.3113 Hours of Operation

- (a) An AIS shall normally be provided on a 24-hour basis.
- (b) 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 2 hours before and after such a period, or
- (c) available at such other time as may be requested.

22.3115 Aeronautical Information Management

- (a) The AIS provider shall ensure that Information management resources and processes ensure the timely collection, processing storage integration, exchange and delivery of quality-assured aeronautical data and aeronautical information within the Air Traffic Management system.
- (b) Material to be issued as part of the Integrated Aeronautical Information Package shall be thoroughly checked before it is submitted to the AIS, in order to make certain that all necessary information has been included and that it is correct in detail prior to distribution/
- (c) An AIS provider shall establish, validation and verification procedures which shall ensure that upon receipt of aeronautical data and aeronautical information, quality requirements (accuracy, resolution integrity) and traceability requirements are met.

22.3117 Resolution

- (a) The AIS provider shall ensure that the order of publication resolution of aeronautical data shall comply with the applicable sections of the *Operations Manual– AIS* and ICAO Annex 15, paragraph 3 and Appendices 1 and 7.
- (b) The resolution of the data features contained in any of the AIS provider's databases be commensurate with the data accuracy requirements

22.3119 Integrity

- (a) The integrity classification for aeronautical data shall be as specified in Tables A7-1 to A7-5 of Appendix 7 of Annex 15.
- (b) The AIS provider shall ensure that the integrity of aeronautical data is maintained throughout the data process from survey/origin to distribution to the next intended user (the entity that receives the aeronautical information from the AIS provider).
- (c) Based on the applicable integrity classifications, the validation and verification procedures shall:
 - (1) For routine data: avoid corruption throughout the processing of the data
 - (2) For essential data: assure corruption does not occur at any stage of the entire process and may include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level; and

- (3) For critical data: assure corruption does not occur at any stage of the entire process and include additional integrity assurance procedures to fully mitigate the effects of faults identified throughout analysis of the overall system architecture as potential data integrity risks.

22.3121 Metadata

- (a) The AIS provider shall collect metadata for aeronautical data processes and exchange points. This metadata collection shall be applied throughout the aeronautical information data chain, from survey/origin to distribution to the next intended user.
- (b) The metadata to be collected shall include, as a minimum:
 - (1) The name of the organizations or entities performing any action of originating, transmitting or manipulation of the data;
 - (2) The action performed; and
 - (3) The date and time the action was performed

22.3123 Data protection

- (a) Aeronautical data shall be protected in accordance with data error detection, security and authentication techniques.
- (b) Electronic aeronautical data sets shall be protected by the inclusion in the data sets of a 32-bit cyclic redundancy check (CRC) implemented by the application dealing with the data sets. This shall apply to the protection of all integrity levels of data sets as specified in sub-paragraph (b)
- (c) The AIS provider shall ensure the protection of electronic aeronautical data by totally monitoring such data while stored or in transit by the cyclic redundancy check (CRC) as follows
 - (1) To achieve protection of the integrity level of critical and essential aeronautical data as classified in 26.107(d) above, a 32- or 22-bit CRC algorithm shall apply respectively.
 - (2) To achieve protection of the integrity level of routine aeronautical data as classified in 26.107(d) above, a 16-bit CRC algorithm should apply

22.3125 Automation

- (a) Automation in AIS shall be introduced with the objective of improving the timeliness, quality, efficiency and cost-effectiveness of aeronautical information services.
- (b) Where aeronautical data and aeronautical information are provided in multiple formats, processes shall be implemented to ensure data and information consistency between formats
- (c) In order to meet the data quality requirements automation shall:
 - (1) Enable digital aeronautical data exchange between the parties involved in the data processing chain; and
 - (2) Use aeronautical information and data exchange models designed to be globally interoperable.

- (d) The aeronautical information model used should encompass the aeronautical data and aeronautical information to be exchanged.
- (e) The aeronautical information model used shall:
 - (1) Use the Unified Modelling Language (UML) to describe the aeronautical information features and their properties, associations, and data types;
 - (2) Include data value constraints and data verification rules;
 - (3) Include provisions for metadata as specified in 22.279; and
 - (4) Include a temporality model to enable capturing the evolution of the properties of an aeronautical information feature during its life cycle.
- (f) The aeronautical data exchange model used should:
 - (1) apply a commonly used data encoding format;
 - (2) cover all the classes, attributes, data types and associations of the UML information model mentioned in sub-paragraph (e) above; and
 - (3) provide an extension mechanism, by which groups of users can extend the properties of existing features and add new features which are not relevant for global standardization.

22.3127 Copyright

- (a) Any product of the Bahamas's AIS which has been granted copyright protection by the Bahamas and provided to another State 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.

22.3129 Drug and Alcohol Testing

- (a) The AIS provider shall comply with all of the appropriate Drug and Alcohol testing requirements prescribed in the CAGR's 2017 Subpart B.

22.3131 Deviation from standards

- (a) An AIS provider may only deviate from the requirements of this Part or any of the operational standards prescribed in paragraph 22.261 if an emergency or other circumstance arises that makes the deviation necessary in the interest of aviation safety.
- (b) The AIS provider shall notify the Authority in writing and submit the details of such occurrence within 48 hours of the deviation.

End of Schedule 22 - Part B