

THE CIVIL AVIATION ACT, 2022
(Act No. 04 of 2022)

THE CIVIL AVIATION AIR TRAFFIC SERVICES REGULATIONS, 2024
(Under 105)

ARRANGEMENT OF REGULATIONS

**PART I
PRELIMINARY PROVISIONS**

1. Citation
2. Interpretation
3. Application

**PART II
GENERAL PROVISIONS**

4. Air Traffic Services Provider certificate
5. Objectives of the air traffic services
6. Establishment of the Air Traffic Service Provider
7. Divisions of the air traffic services
8. Determination of the need for air traffic services
9. Designation of the portions of the airspace and controlled aerodromes where air traffic services will be provided
10. Classification of airspaces
11. Performance-based navigation (PBN) operations
12. Performance-based communication (PBC) operations
13. Performance-based surveillance (PBS) operations
14. Establishment and designation of the units providing air traffic services
15. Specifications for flight information regions, control areas and control zones
16. Flight information regions or control areas in the upper airspace

17. Control zones
18. Identification of air traffic services units and airspaces
19. Establishment and identification of ATS routes
20. Establishment of change-over points
21. Establishment and identification of significant points
22. Coordination between the operator and air traffic services
23. Coordination between military authorities and air traffic services
24. Coordination of activities potentially hazardous to civil aircraft
25. Aeronautical data
26. Coordination between meteorological and air traffic services providers
27. Coordination between aeronautical information services and air traffic services
28. Minimum flight altitudes
29. Service to aircraft in the event of an emergency
30. Strayed and Unidentified aircraft
31. Interception of civil aircraft
32. Time in air traffic services
33. Establishment of requirements for carriage and operation of pressure-altitude transponders
34. Safety management
35. Fatigue management
36. Horizontal reference system
37. Vertical reference system
38. Temporal reference system
39. Language proficiency
40. Contingency arrangements
41. Identification and delineation of prohibited, restricted and danger areas
42. Instrument flight procedure design service

**PART III
AIR TRAFFIC CONTROL SERVICE**

43. Application of Air traffic control service
44. Provision of air traffic control service
45. Operation of air traffic control service
46. Separation minima
47. Responsibility for control
48. Transfer of responsibility for control
49. Coordination of transfer
50. Air traffic control clearances
51. Contents of clearances
52. Clearances for transonic flight
53. Read-back of clearances and safety-related information
54. Coordination of clearances
55. Air traffic flow management
56. Control of persons and vehicles at aerodromes
57. Provision of radar and ADS-B
58. Use of surface movement radar

**PART IV
FLIGHT INFORMATION SERVICE**

59. Application of Flight Information Service
60. Scope of flight information service
61. Application of operational flight information service broadcasts
62. Voice-automatic terminal information service broadcasts
63. Data link-automatic terminal information service (D-ATIS)
64. Automatic information service (voice and/ or data link)
65. Automatic terminal information service for arriving and departing aircraft
66. Automatic terminal information service for arriving aircraft

- 67. Automatic terminal information service for departing aircraft
- 68. VOLMET broadcasts and D-VOLMET service

**PART V
ALERTING SERVICE**

- 69. Application of alerting service
- 70. Notification of rescue coordination centres
- 71. Use of communication facilities
- 72. Plotting aircraft in a state of emergency
- 73. Information to the operator
- 74. Information to aircraft operating in the vicinity of an aircraft in a state of emergency

**PART VI
AIR TRAFFIC SERVICES REQUIREMENTS FOR COMMUNICATIONS**

- 75. Aeronautical mobile service (air-ground communications)
- 76. General application of Aeronautical fixed service (ground-ground communications)
- 77. Communications between air traffic services units
- 78. Communications between air traffic services units and other units
- 79. Description of communication facilities
- 80. Communications between flight information regions
- 81. Procedures for direct-speech communications
- 82. Communications for the control of vehicles other than aircraft on manoeuvring areas at controlled aerodromes
- 83. Recording and storage of aeronautical data

**PART VII
AIR TRAFFIC SERVICES REQUIREMENTS FOR INFORMATION**

- 84. General Meteorological information
- 85. Flight information centres and area control centres
- 86. Units providing approach control service
- 87. Aerodrome control towers
- 88. Communication stations

89. Information on aerodrome conditions and the operational status of associated facilities
90. Information on the operational status of navigation services
91. Information on unmanned free balloons
92. Information concerning volcanic activity
93. Information concerning radioactive materials and toxic chemical “clouds”

**PART VIII
EXEMPTIONS**

94. Requirements for application for exemption
95. Review and publication
96. Evaluation of the request

**PART IX
OFFENCES AND PENALTIES**

97. Offences.
98. Penalties.

**PART I
PRELIMINARY**

In exercise of the powers conferred by Section 105 of the Civil Aviation Act, No. 4 of 2022, the Minister for Public Works and Transport makes the following Regulations -

Citation and Commencement

1. (1) These Regulations may be cited as the Civil Aviation (Air Traffic Services) Regulations, 2024.

(2) The Regulations shall come into force upon publication in the Gazette.

Interpretations

2. In these Regulations, unless the context otherwise requires, words or expressions used in the Act have the same meaning -

“accepting unit” means air traffic control unit next to take control of an aircraft.

“accident” means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the

intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which -

- (a) a person is fatally or seriously injured as a result of; being in the aircraft, or direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or

direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

- (b) the aircraft sustains damage or structural failure which-

adversely affects the structural strength, performance or flight characteristics of the aircraft, and

would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windcreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

- (c) the aircraft is missing or is completely inaccessible;

“automatic Dependent Surveillance - contract (ADS-C) ” means a reporting plan which establishes the conditions of ADS-C data reporting, that is data required by the air traffic services unit and frequency of ADS-C reports which have to be agreed to prior to using ADS-C in the provision of air traffic services;

“advisory airspace” means an airspace of defined dimensions, or designated route, within which air traffic advisory service is available;

“advisory route” means a designated route along which air traffic advisory service is available;

“aerodrome” means 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 control service” means an air traffic control service for aerodrome traffic;

“Aerodrome control tower” means a unit established to provide air traffic control service to aerodrome traffic;

“Aerodrome traffic” means all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome;

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

“Aeronautical Information Publication (AIP)” means a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation;

“aeronautical mobile service ” means a mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies;

“aeronautical telecommunication station” means a station in the aeronautical telecommunication service;

“airborne collision avoidance system (ACAS)” means an aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR Transponders;

“aircraft” means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface;

“air-ground communication” means two-way communication between aircraft and stations or locations on the surface of the earth;

“AIRMET information” means an information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area ;

“air-taxiing” means movement of a helicopter/VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kts);

“air traffic” means all aircraft in flight or operating on the manoeuvring area of an aerodrome;

“air traffic advisory service” means a service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans;

“air traffic control clearance” means authorization for an aircraft to proceed under conditions specified by an air traffic control unit;

“air traffic control service” means a service provided for the purpose of -

(a) preventing collisions-

(i) between aircraft, and

(ii) on the manoeuvring area between aircraft and obstructions; and

(b) expediting and maintaining an orderly flow of air traffic. “air traffic control unit” means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;

“air traffic controller schedule” means a plan for allocating air traffic controller duty periods and non-duty periods over a period of time, otherwise referred to as a roster;

“air traffic flow management (ATFM)” means a service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilized to the maximum extent possible and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority;

“air traffic service” means a generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service);

“air traffic services airspaces” means airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified;

“Air traffic services reporting office” means a unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure;

“air traffic services unit” means a generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office;

“airway” means a control area or portion thereof established in the form of a corridor;

“ALERFA” means the code word used to designate an alert phase;

“alerting service” means a service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required;

“alert phase” means a situation wherein apprehension exists as to the safety of an aircraft and its occupants ;

“alternate aerodrome” means an aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate aerodromes include the following-

- (i) “Take-off alternate” means an alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.
- (ii) “En-route alternate” means an alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.
- (iii) “Destination alternate” means an alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.

“altitude” means the vertical distance of a level, a point or an object considered as a point, measured from mean sea level.

“approach control service” means air traffic control service for arriving or departing controlled flights;

“approach control unit” means a unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes;

“appropriate ATS authority” means the relevant authority designated by the State responsible for providing air traffic services in the airspace concerned;

“apron” means a defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance;

“apron management service” means a service provided to regulate the activities and the movement of aircraft and vehicles on an apron;

“area control centre” means a unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction;

“area control service” means air traffic control service for controlled flights in control areas;

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

“area navigation route” means an ATS route established for the use of aircraft capable of employing area navigation;

“ATS route” means a specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services;

“Authority” means the Eswatini Civil Aviation Authority established under the Civil Aviation Act, 2022;

“automatic dependent surveillance - broadcast (ADS-B)” means 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)” means a means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports;

“automatic terminal information service (ATIS)” means the automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion -

(a) “Data link-automatic terminal information service (D-ATIS)” means the provision of ATIS via data link;

(b) Voice-automatic terminal information service (Voice-ATIS)” means provision of ATIS by means of continuous and repetitive voice broadcasts;

“base turn” means a turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. the tracks are not reciprocal;

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

“change-over point” means the point at which an aircraft navigating on an ATS route segment defined by reference to very high frequency omni-directional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft;

“clearance limit” means the point to which an aircraft is granted an air traffic control clearance;

“conference communications” means communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously;

“control area” means a controlled airspace extending upwards from a specified limit above the earth;

“controlled aerodrome” means an aerodrome at which air traffic control service is provided to aerodrome traffic;

“controlled airspace” means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification;

“controlled flight” means any flight which is subject to an air traffic control clearance;

“controller-pilot data link communications (CPDLC)” means a means of communication between controller and pilot, using data link for ATC communications;

“control zone” means a controlled airspace extending upwards from the surface of the earth to a specified upper limit;

“cruising level” means a level maintained during a significant portion of a flight;

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

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

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

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

“data link communications” means a form of communication intended for the exchange of messages via a data link;

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

“data quality” means a degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity;

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

“Declared capacity” means a measure of the ability of the ATC system or any of its subsystems or operating positions to provide service to aircraft during normal activities. It is expressed as the number of aircraft entering a specified portion of airspace in a given period of time, taking due account of weather, ATC unit configuration, staff and equipment available, and any other factors that may affect the workload of the controller responsible for the airspace;

“DETRESFA” means the code word used to designate a distress phase;

“distress phase” means a situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance;

“downstream clearance” means a clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft;

“duty” means any task that an air traffic controller is required by the air traffic services provider to perform. These tasks include those performed during time-in-position, administrative work and training;

“duty period” means a period which starts when an air traffic controller is required by an air traffic services provider to report for or to commence a duty and ends when that person is free from all duties;

“emergency phase” means a generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase;

“fatigue” means a physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person’s alertness and ability to perform safety-related operational duties;

“fatigue risk management system (FRMS)” means a data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles,

knowledge and operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness;

“final approach” means that part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified -

- (a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or
- (b) at the point of interception of the last track specified in the approach procedure; and ends at a point in the vicinity of an aerodrome from which -
 - (i) a landing can be made; or
 - (ii) a missed approach procedure is initiated

“flight crew member” means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period;

“flight information centre” means a unit established to provide flight information service and alerting service;

“flight information region” means an airspace of defined dimensions within which flight information service and alerting service are provided

“flight information service” means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

“flight level” means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hpa), and is separated from other such surfaces by specific pressure intervals.

“flight plan” means specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft;

“forecast” means a statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace;

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

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

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

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

“human performance” means a human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;

“IFR” means the symbol used to designate the instrument flight rules;

“IFR flight” means a flight conducted in accordance with the instrument flight rules;

“IMC” means the symbol used to designate instrument meteorological conditions;

“INCERFA” means the code word used to designate an uncertainty phase;

“Incident” means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation;

“Instrument flight procedure design service” means a service established for the design, documentation, validation, maintenance and periodic review of instrument flight procedures necessary for the safety, regularity and efficiency of air navigation;

“Instrument meteorological conditions (IMC)” means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions;

“integrity (aeronautical data)” means a degree of assurance that an aeronautical data and its value has not been lost nor altered since the data origination or authorized amendment;

“integrity classification (aeronautical data)” means classification based upon the potential risk resulting from the use of corrupted data 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 NOTAM office” means an office designated by the Authority for the exchange of NOTAM internationally;

“level” means a generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level;

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

“meteorological office” means an office designated to provide meteorological service for international air navigation;

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

“navigation specification” means 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-

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

“night” means the time between fifteen minutes (15) after sunset and fifteen minutes (15) before sunrise, sunset and sunrise being determined at surface level and includes any time between sunset and sunrise when unlighted aircraft or other prominent unlighted object cannot clearly be seen at a distance of 4,572 m;

“non-duty period” means a continuous and defined period of time, subsequent to and/or prior to duty periods, during which the air traffic controller is free of all duties;

“NOTAM” means a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service,

procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations;

“obstacle” means all fixed (whether temporary or permanent) and mobile objects, or parts 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.

“operator” means a person, organization or enterprise engaged in or offering to engage in an aircraft operation.

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

“performance-based navigation (PBN)” means area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace;

“performance-based navigation (PBN)” means area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace;

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

“pilot-in-command” means the pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight;

“printed communications” means communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit;

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

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

“radiotelephony” means a form of radio communication primarily intended for the exchange of information in the form of speech;

“reporting point” means a specified geographical location in relation to which the position of an aircraft can be reported;

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

“rescue coordination centre” means a unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region;

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

“runway” means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft;

“runway visual range (RVR)” means the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line;

“safety management system (SMS)” means a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures;

“SIGMET information” means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations;

“significant point” means a specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes;

“special VFR flight” means a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC or at night;

“state safety programme” means an integrated set of regulations and activities aimed at improving safety’;

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

“strayed aircraft” means an aircraft which has deviated significantly from its intended track or which reports that it is lost;

“taxiing” means movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing;

“technical standards” means a document issued by the authority in terms of section 2 of the Civil Aviation Act, 2022;

“terminal control area” means a control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes;

“time-in-position” means the period of time when an air traffic controller is exercising the privileges of the air traffic controller’s licence at an operational position;

“track” means the projection on the earth’s surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid);

“traffic avoidance advice” means advice provided by an air traffic services unit specifying manoeuvres to assist a pilot to avoid a collision;

“traffic information” means information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision;

“transfer of control point” means a defined point located along the flight path of an aircraft, at which the responsibility for providing air traffic control service to the aircraft is transferred from one control unit or control position to the next;

“transferring unit” means air traffic control unit in the process of transferring the responsibility for providing air traffic control service to an aircraft to the next air traffic control unit along the route of flight;

“uncertainty phase” means a situation wherein uncertainty exists as to the safety of an aircraft and its occupants;

“unidentified aircraft” means an aircraft which has been observed or reported to be operating in a given area but whose identity has not been established;

“VFR” is the symbol used to designate the visual flight rules;

“VFR flight” means a flight conducted in accordance with the visual flight rules;

“visual meteorological conditions (VMC)” means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima;

“VMC” is the symbol used to designate visual meteorological conditions;

“VOLMET” means Meteorological information for aircraft in flight; and

“waypoint” means a specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation. Waypoints are identified as either -

- (a) “fly-by waypoint” means a waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or
- (b) “flyover waypoint” means a waypoint at which a turn is initiated in order to join the next segment of a route or procedure.

Application

3. These Regulations shall apply to a person providing air traffic services within a designated air space and at an aerodrome;

PART II GENERAL PROVISIONS

Air Traffic Services Provider Certificate

4. A person shall not provide air traffic services unless authorised by the Authority in accordance with Civil Aviation (Certification of ANSTs) procedures.

Air traffic services

5. Air traffic services provider shall -
- (a) prevent collisions between aircraft;
 - (b) prevent collisions between aircraft on the manoeuvring area and obstructions on that area;
 - (c) expedite and maintain an orderly flow of air traffic;
 - (d) provide advice and information useful for the safe and efficient conduct of flights; and

- (e) notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required.

Establishment of the ATS Provider

6. (1) The Authority shall determine, a portion of the airspace and an aerodromes where air traffic services shall be provided including territories over which air traffic services has jurisdiction.

(2) The Authority, by mutual agreement, may delegate to another State the responsibility for establishing and providing air traffic services in flight information regions, control areas or control zones extending over the territory of Eswatini.

(3) A portion of the airspace over the high seas or in airspace of undetermined sovereignty where air traffic services will be provided shall be determined on the basis of regional air navigation agreements.

(4) Where Eswatini has accepted the responsibility to provide air traffic services in such portions of airspace referred to in sub- regulation (3), the Authority shall cause those services to be established and provided in accordance with these Regulations.

(5) Where it has been determined that air traffic services will be provided, the Authority shall designate the Air Navigation Services Provider to be responsible for providing such services.

(6) Where air traffic services are established, information shall be published in the Aeronautical Information Publication, as necessary to permit the utilization of such services.

Divisions of the air traffic services

7. Air traffic services provided for the purpose of these Regulations shall comprise-

- (a) the air traffic control service, whose objectives are as provided in regulation 5 (a)(b) and (c), this service is divided into area control service, approach control service and aerodrome control service.
- (b) the flight information service whose objective is as provided in regulation 5(d).
- (c) the alerting service whose objective is as provided in regulation 5(e).

Determination of the need for air traffic services

8. (1) The need for the provision of air traffic services shall be determined by consideration of

the following-

- (a) the types of air traffic involved;
- (b) the density of air traffic; and
- (c) the meteorological conditions;

(2) The carriage of airborne collision avoidance Systems (ACAS) whilst flying in a given area shall not be considered as a factor in determining the need for air traffic services in that area.

Designation of the portions of the airspace and controlled aerodromes where air traffic services will be provided

9. (1) When it has been determined that air traffic services will be provided in particular portions of the airspace or at particular aerodromes, those portions of the airspace or those aerodromes shall be designated in relation to the air traffic services that are to be provided.

(2) The designation of the particular portions of the airspace or aerodromes shall be as follows -

- (a) Flight information regions
- (b) Control areas and control zones
- (c) Controlled aerodromes.
- (d) reduced vertical separation minima airspace;
- (e) a sector; and
- (f) air traffic services routes and significant points along the routes.

Classification of airspaces

10. (1) The Authority shall classify designated controlled airspace as specified in First Schedule.

(2) The Authority shall select airspace classes in accordance with the needs of the state.

(3) The requirements for flights within each class of airspace shall be as shown in the table in the First Schedule.

Performance-based navigation (PBN) operations

11. (1) An air traffic services provider shall implement performance based navigation within designated airspaces and aerodromes in accordance with requirements prescribed by the Authority.

(2) The Authority shall prescribe navigation specification requirements for PBN operations on the basis of regional Air Navigation Agreements.

(3) In prescribing navigation specification requirements for PBN operations the Authority shall consider any limitations arising from navigation infrastructure constraints or specific navigation functionality requirements.

(4) Performance-based navigation operations shall be implemented.

(5) The prescribed navigation specification shall be appropriate to the level of communications, navigation and air traffic services provided in the Eswatini airspace.

Performance based communications (PBC) operations

12. (1) The Authority shall prescribe Required Communication Performance Specifications when applying performance-based communication (PBC).

(2) Where applicable, the RCP specification(s) shall be prescribed on the basis of regional air navigation agreements.

(3) The prescribed RCP specification shall be appropriate to the air traffic services provided in the airspace concerned.

Performance Based Surveillance (PBS) operations

13. (1) The Authority shall prescribe RSP specifications when applying performance-based surveillance (PBS).

(2) Where applicable, the RSP specifications shall be prescribed on the basis of regional air navigation agreements.

(3) The prescribed RSP specification shall be appropriate to the air traffic services provided.

(4) The ATS units shall be provided with equipment capable of performance consistent with the prescribed RSP specifications where applicable.

Establishment and designation of the units providing air traffic services

14. (1) Flight information centres shall be established to provide flight information service and alerting service within flight information regions, unless the responsibility of providing such services within a flight information region is assigned to an air traffic control unit having adequate facilities for the discharge of such responsibility.

(2) Air traffic control units shall be established to provide air traffic control service, flight information service and alerting service within control areas, control zones and at controlled aerodromes.

Specifications for flight information regions, control areas and control zones

15. (1) Flight information regions shall be delineated to cover the whole of the air route structure to be served by such regions.

(2) A flight information region shall include all airspace within its lateral limits except as limited by an upper flight information region.

(3) Where a flight information region is limited by an upper flight information region, the lower limit specified for the upper flight information region shall constitute the upper vertical limit of the flight information region and shall coincide with a VFR cruising level of the tables as specified in the First Schedule in the Civil Aviation (Rules of the air and air traffic control) Regulations, 2011 or its successor.

(4) Control areas including, inter alia, airways and terminal control areas shall be delineated so as to encompass sufficient airspace to contain the flight paths of those IFR flights or portions thereof to which it is desired to provide the applicable parts of the air traffic control service, taking into account the capabilities of the navigation aids normally used in that area.

(5) A lower limit of a control area shall be established at a height above the ground or water of not less than 200 m (700 ft).

(6) An upper limit of a control area shall be established when -

(a) air traffic control service will not be provided above such upper limit; or

(b) the control area is situated below an upper control area, in which case the upper limit shall coincide with the lower limit of the upper control area.

(7) When established, such upper limit shall coincide with a VFR cruising level of table as specified in the Civil Aviation (Rules of the air and air traffic control) Regulations 2011 or its successor.

Flight information regions or control areas in the upper airspace

16. Where it is desirable to limit the number of flight information regions or control areas through which high flying aircraft would otherwise have to operate, a flight information region or control area, as appropriate, shall be delineated to include the upper airspace within the lateral limits of a number of lower flight information regions or control areas.

Control Zones

17. (1) The lateral limits of control zones shall encompass at least those portions of the airspace, which are not within control areas, containing the paths of IFR flights arriving at and departing from aerodromes to be used under instrument meteorological conditions.

(2) The lateral limits of a control zone shall extend to at least 9.3 km (5 NM) from the centre of the aerodrome or aerodromes concerned in the directions from which approaches may be made.

(3) Where a control zone is located within the lateral limits of a control area, it shall extend upwards from the surface of the earth to at least the lower limit of the control area.

Identification of air traffic services units and airspaces

18. (1) An area control centre or flight information centre shall be identified by the name of a nearby town or city or geographic feature.

(2) An aerodrome control tower or approach control unit shall be identified by the name of the aerodrome at which it is located.

(3) A control zone, control area or flight information region shall be identified by the name of the unit having jurisdiction over such airspace.

Establishment and identification of ATS routes

19. (1) When ATS routes are established, a protected airspace along each ATS route and a safe spacing between adjacent ATS routes shall be provided.

(2) ATS routes shall be identified by designators.

(3) Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles specified in the Second Schedule.

(4) Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles specified in the Third Schedule.

Establishment of change over points

20. (1) Change-over points shall be established on ATS route segments defined by reference to very high frequency omni-directional radio ranges where this will assist accurate navigation along the route segments.

(2) The establishment of change-over points shall be limited to route segments of 110 km (60 NM) or more, except where the complexity of ATS routes, the density of navigation aids or other technical and operational reasons warrant the establishment of change-over points on shorter route segments.

(3) Unless otherwise established in relation to the performance of the navigation aids or frequency protection criteria, the change-over point on a route segment shall be the mid-point between the facilities in the case of a straight route segment or the intersection of radials in the case of a route segment which changes direction between the facilities.

Establishment and identification of significant points

21. (1) Significant points shall be established for the purpose of defining an ATS route or in relation to the requirements of air traffic services for information regarding the progress of aircraft in flight.

(2) Significant points shall be identified by designators.

(3) Significant points shall be established and identified in accordance with the principles specified in the Fourth Schedule.

Coordination between the operator and air traffic services

22. (1) Air traffic services units shall have due regard for the requirements of the operators consequent on their obligations as specified in Civil Aviation (Operation of aircraft) Regulations, 2011 or its successor.

(2) The ATS units shall make available to the operators or their designated representatives such information as may be available to enable them or their designated representatives to carry out their responsibilities.

(3) The ATS Units shall provide the operator or a designated representative whenever requested, with messages including position reports in so far as practicable in accordance with locally agreed procedures.

Coordination between military authorities and air traffic service.

23. (1) Air traffic services authorities shall establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.

(2) Coordination of activities potentially hazardous to civil aircraft shall be effected in accordance with regulation 24.

(3) Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between air traffic services units and appropriate military units.

(4) Air traffic services units shall in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft.

(5) Air traffic services authorities shall designate any areas or routes where the requirements of Civil Aviation (Rules of the air and air traffic control) Regulations, 2011 or its successor, concerning flight plans, two-way communications and position reporting apply to all flights to facilitate identification of civil aircraft.

(6) Special procedures shall be established in order to ensure that -

(a) air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary; and

(b) all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.

Coordination of activities potentially hazardous to civil aircraft

24. (1). The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of Eswatini or over the high seas, shall be coordinated with the appropriate air traffic services authorities.

(2). The coordination shall be effected to permit timely promulgation of information regarding the activities in accordance with the Procedures for Air Navigation Services.

(3). Where the appropriate ATS authority is not that of the State where the organization planning the activities is located, initial coordination shall be effected through the ATS authority responsible for the airspace over the State where the organization is located.

(4). The objective of the coordination shall be to achieve the best arrangements which may avoid hazards to civil aircraft and minimize interference with the normal operations of such aircraft.

(5) In determining the arrangements in sub-regulation (4), the appropriate Air Traffic Services Authorities shall apply the following conditions-

- (a) the locations or areas, times and durations for the activities shall be selected as far as possible in order to avoid closure or realignment of established ATS routes, blocking of the most economic flight levels, or delays of scheduled aircraft operations, unless no other options exist;
- (b) the size of the airspace designated for the conduct of the activities shall be kept as small as possible; and
- (c) direct communication between the appropriate ATS authority or air traffic services unit and the organization or unit conducting the activities shall be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.

(6) The appropriate ATS authority shall ensure that a safety risk assessment is conducted, as soon as practicable, for activities potentially hazardous to civil aircraft and that appropriate risk mitigation measures are implemented.

(7) The authority shall establish procedures to enable the organization or unit conducting or identifying activities potentially hazardous to civil aircraft to contribute to the safety risk assessment in order to facilitate consideration of all relevant safety-significant factors.

(8) The appropriate ATS authorities shall be responsible for initiating the promulgation of information regarding the activities.

(9) Where activities potentially hazardous to civil aircraft take place on a regular or continuing basis, special committees shall be established as required to ensure that the requirements of all parties concerned are adequately coordinated.

(10) Adequate steps shall be taken to prevent emission of laser beams from adversely affecting flight operations subject to the provisions of the Civil Aviation (Aerodrome) Regulations, 2011 or its successor.

(11) The Air Navigation Service Provider together with the military authorities, through the civil and military coordination arrangements, shall establish procedures providing for a flexible use of airspace reserved for military or other special activities in order to provide added airspace capacity and to improve efficiency and flexibility of aircraft operations.

(12) The procedures in sub-regulation (11) shall permit all airspace users to have safe access to such reserved airspace

Aeronautical data

25. (1) Determination and reporting of air traffic services-related aeronautical data shall be in accordance with the accuracy and integrity classification required to meet the needs the end user of aeronautical data.

(2) Digital data error detection techniques shall be used during transmission and storage of aeronautical data and digital sets.

(3) The Air navigation Service Provider shall ensure that integrity of aeronautical data is maintained throughout the data process from survey or origin to the next intended user.

(4) The validation and verification procedures shall be based on the applicable integrity classification, the validation and verification procedures shall for-

- (a) routine data to avoid corruption throughout the processing of the data;
- (b) essential data to 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
- (c) critical data to 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 by thorough analysis of the overall system architecture as potential data integrity risks.

(5) Electronic aeronautical data sets shall be protected by the inclusion in the data sets of a 32-bit cyclic redundancy check implemented by the application dealing with the data sets and shall apply to the protection of all integrity levels of data sets as specified in sub-regulation (4).

(6) Geographical coordinates indicating latitude and longitude shall be determined and reported to the aeronautical information services authority in terms of the World Geodetic System - 1984 (WGS-84) geodetic reference datum, identifying those geographical coordinates which have been transformed into WGS-84 coordinates by mathematical means and whose accuracy of original field work does not meet the requirements in Table 1, Fifth schedule.

(7) The order of accuracy of the field work and determinations and calculations derived there from shall be such that the resulting operational navigation data for the phases of flight will be within the maximum deviations, with respect to an appropriate reference frame, as indicated in the tables contained in Fifth schedule.

Coordination between meteorological and air traffic services providers

26. (1) Meteorological and air traffic services providers shall make arrangements to ensure that aircraft receive the most up-to-date meteorological information for aircraft operations.

(2) Meteorological and air traffic services authorities shall make arrangements where necessary for air traffic personnel to -

- (a) report if observed by air traffic services personnel or communicated by aircraft, such other meteorological elements as may be agreed upon in addition to using indicating instruments;
- (b) report as soon as possible to the associated meteorological office meteorological phenomena of operational significance, if observed by air traffic services personnel or communicated by aircraft, which have not been included in the aerodrome meteorological report; and
- (c) report as soon as possible to the associated meteorological office pertinent information concerning pre-eruption volcanic activity, volcanic eruptions and information concerning volcanic ash cloud.

(3) Area Control Centres and Flight Information Centres shall report the information in sub-regulation (2) (c) to the associated Meteorological Watch Office and Volcanic Ash Advisory Centres.

(4) Area control centres, flight information centres and associated meteorological watch offices shall maintain close coordination to ensure that information on volcanic ash included in NOTAM and SIGMET messages is consistent.

Coordination between aeronautical information services and air traffic

27. (1) To ensure aeronautical information services units obtain information to enable them to provide up-to-date pre-flight information and to meet the need for inflight information, Aeronautical information services and air traffic services authorities responsible for air traffic services shall make arrangements to report to the responsible aeronautical information services unit, with a minimum delay -

- (a) information on aerodrome conditions;
- (b) the operational status of associated facilities, services and navigation aids within their area of responsibility;

- (c) the occurrence of volcanic activity observed by air traffic services personnel or reported by aircraft; and
- (d) any other information considered to be of operational significance.

(2) Arrangements between aeronautical information services and air traffic services authorities responsible for air traffic services shall be made to ensure that aeronautical information services units obtain up to date pre-flight information to meet and to meet the need of in-flight information.

(3) Before introducing changes to the air navigation system, due account shall be taken by the services responsible for such changes of the time needed by the aeronautical information service for the preparation, production and issuance of relevant material for promulgation and to ensure timely provision of the information to the aeronautical information service, close coordination between those services concerned shall be required.

(4) Changes to aeronautical information that affect charts and computer-based navigation systems which qualify to be notified by the Aeronautical Information Regulation and Control (AIRAC) system, shall be as specified in the Civil Aviation (Aeronautical Information Services) Regulation, 2022.

(5) Subject to sub-regulation (4), the predetermined, internationally agreed AIRAC effective dates in addition to fourteen (14) days postage time shall be observed by the responsible air traffic services when submitting the raw information/data to aeronautical information services.

(6) The air traffic services responsible for the provision of raw aeronautical information and data to the aeronautical information services shall do so while taking into account accuracy and integrity requirements necessary to meet the needs of the end user of aeronautical data.

Minimum flight altitudes

28. (1) The Authority shall determine and promulgate minimum flight altitudes for each Air Traffic Service route and control area.

(2) The minimum flight altitudes determined in sub-regulation (1) shall provide a minimum clearance above the controlling obstacle located within the areas concerned.

Service to aircraft in the event of an emergency

29. (1) An aircraft known or believed to be in a state of emergency, including being subjected to unlawful interference, shall be given maximum consideration, assistance and priority over other aircraft as may be necessitated by the circumstances.

(2) An aircraft equipped with an appropriate data link capability or an SSR transponder to indicate that the aircraft is in a state of emergency, shall operate the equipment as follows -

- (a) on Mode A, Code 7700;
- (b) on Mode A, Code 7500, to indicate specifically that it is being subjected to unlawful interference;
- (c) activate the appropriate emergency or urgency capability of ADS-B or ADS-C; or
- (d) transmit the appropriate emergency message via CPDLC.

(3) Human Factors principles shall be observed in communications between Air Traffic Services units and aircraft in the event of an emergency.

(4) The Air Traffic Services units shall attend promptly to requests by an aircraft when an occurrence of unlawful interference with the aircraft takes place or is suspected.

(5) Information pertinent to the safe conduct of the flight as referred to in sub-regulation (4) shall be transmitted and the necessary action shall be taken to expedite the conduct of all phases of the flight, especially the safe landing of the aircraft.

(6) The Air Traffic Services units in accordance with locally agreed procedures shall immediately inform the appropriate authority designated by the State and exchange necessary information with the operator or its designated representative when an occurrence of unlawful interference with an aircraft takes place or is suspected.

Strayed and unidentified aircraft

30. (1) An air traffic services unit shall take all necessary steps as outlined in sub-regulations (2) and (3) to assist strayed aircraft and to safeguard its flight as soon as the unit becomes aware of the strayed aircraft.

(2) Where the aircraft's position is not known, the air traffic services unit shall -

- (a) attempt to establish two-way communication with the aircraft, unless such communication already exists;
- (b) use all available means to determine its position;
- (c) inform other ATS units into whose area the aircraft may have strayed or may stray, taking into account all the factors which may have affected the navigation of the aircraft in the circumstances;

(d) inform, in accordance with locally agreed procedures, appropriate military units and provide them with pertinent flight plan and other data concerning strayed aircraft; and

(e) request from the units referred to in (c) and (d) and from other aircraft in flight every assistance in establishing communication with the aircraft and determining its position.

(3) When the aircraft's position is established, the air traffic services unit shall -

(a) advise the aircraft of its position and corrective action to be taken; and

(b) provide, as necessary, other ATS units and appropriate military units with relevant information concerning the strayed aircraft and any advice given to that aircraft.

(4) When an air traffic services unit becomes aware of an unidentified aircraft in its area, the air traffic services unit shall endeavour to establish the identity of the aircraft whenever this is necessary for the provision of air traffic services or required by the appropriate military authorities in accordance with locally agreed procedures.

(5) Subject to sub-regulation (4) the air traffic services unit shall take the following steps-

(a) attempt to establish two-way communication with the aircraft;

(b) inquire of other air traffic services units within the flight information region about the flight and request their assistance in establishing two-way communication with the aircraft;

(c) inquire of air traffic services units serving the adjacent flight information regions about the flight and request their assistance in establishing two-way communication with the aircraft; and

(d) attempt to obtain information from other aircraft in the area.

(6) The air traffic services unit shall, inform the appropriate military unit as soon as the identity of the aircraft has been established.

(7) The appropriate State agency shall immediately be informed, in accordance with locally agreed procedures when the ATS unit considers that a strayed or unidentified aircraft may be the subject of unlawful interference.

Interception of civil aircraft

31. (1) When an air traffic services unit learns that an aircraft is being intercepted in its area

of responsibility, the air traffic services unit shall take the following steps as are appropriate in the circumstances-

- (a) attempt to establish two-way communication with the intercepted aircraft via any means available, including the emergency radio frequency 121.5 MHz, unless such communication already exists;
- (b) inform the pilot of the intercepted aircraft of the interception;
- (c) establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide it with available information concerning the aircraft;
- (d) relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary;
- (e) in close coordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft; and
- (f) inform ATS units serving adjacent flight information regions if it appears that the aircraft has strayed from such adjacent flight information regions.

(2) When an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, the air traffic services unit shall take the following steps as are appropriate in the circumstances -

- (a) inform the ATS unit serving the airspace in which the interception is taking place, providing this unit with available information that will assist in identifying the aircraft and requesting it to take action in accordance with sub-regulation (1); and
- (b) relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.

Time in air traffic services

32. (1) Air traffic services units shall use Coordinated Universal Time (UTC) and shall express the time in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.

(2) Air traffic services units shall be equipped with clocks indicating the time in hours, minutes and seconds, clearly visible from each operating position in the unit concerned.

(3) Air traffic services unit clocks and other time recording devices shall be checked as

necessary to ensure correct time to within plus or minus 30 seconds of UTC.

(4) Wherever data link communications are utilized by an air traffic services unit, clocks and other time-recording devices shall be checked as necessary to ensure correct time to within 1 second of UTC.

(5) The correct time shall be obtained from a standard time station or, if not possible, from another unit which has obtained the correct time from such station.

(6) Aerodrome control towers shall, prior to an aircraft taxiing for take-off, provide the pilot with the correct time, unless arrangements have been made for the pilot to obtain it from other sources.

(7) Air traffic services units shall provide aircraft with the correct time on request and time checks shall be given to the nearest half minute.

Establishment of requirements for carriage and operation of pressure-altitude reporting transponders

33. The Authority shall establish requirements for carriage and operation of pressure-altitude reporting transponders within defined portions of airspace.

Safety Management

34. (1) An air traffic services provider shall establish a safety management system in accordance to specifications in the technical standards.

(2) Any significant safety-related change to the ATS system, including the implementation of a reduced separation minimum or a new procedure, shall only be effected after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted.

(3) The ATS provider, when appropriate, shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.

Fatigue Management

35. (1) The Authority shall establish procedures for the purpose of managing fatigue in the provision of air traffic control services.

(2) The procedures referred to in sub-regulation (1) above, shall be based upon scientific principles, knowledge and operational experience, with the aim of ensuring that air traffic controllers perform at an adequate level of alertness.

(3) The Authority shall prescribe -

- (a) scheduling limits in accordance with Seventh Schedule; and
- (b) conditions to manage fatigue in accordance with Eighth Schedule when authorizing air traffic services providers to use a fatigue risk management system (FRMS).

(4) The Authority shall require air traffic services provider, for the purposes of managing its fatigue-related safety risks, establish one of the following -

- (a) air traffic controller schedules commensurate with the service(s) provided and in compliance with the Scheduling Limits in sub-regulation (3)(a) above; or
- (b) a FRMS, in compliance with conditions established by the Authority in accordance with sub-regulation (3)(b) above, for the provision of all air traffic control services; or
- (c) a FRMS, in compliance with conditions established by the Authority in accordance with sub-regulation (3) (b) above, for a defined part of its air traffic control services in conjunction with schedules in compliance with the Scheduling Limits established in accordance with sub-regulation (3) (a) above for the remainder of its air traffic control services.

(5) Where the air traffic services provider complies with Scheduling Limits in the provision of part or all of its air traffic control services in sub-regulation (3)(a) above, the Authority shall -

- (a) require evidence that the limitations are not exceeded and that non-duty period requirements are met;
- (b) require air traffic services provider to familiarize its personnel with the principles of fatigue management and its policies with regard to fatigue management;
- (c) establish a process to allow variations from the applicable Scheduling Limits to address any additional risks associated with sudden, unforeseen operational circumstances; and
- (d) Where an air traffic services provider demonstrates that any associated risk is managed to a level of safety equivalent to, or better than, that achieved through the applicable Scheduling Limits, the Authority may approve variations to these limits (Part VIII of these Regulations) in order to address strategic operational needs in exceptional circumstances.

(6) Where an air traffic services provider implements an FRMS to manage fatigue-related safety risks in the provision of part or all of its air traffic control services in accordance with

Sub-Regulation (3) (b), the Authority shall-

- (a) require the air traffic services provider to have processes to integrate FRMS functions with its other safety management functions; and
- (b) approve a FRMS, according to a documented process, that provides a level of safety acceptable to the Authority.

Horizontal reference system

36. (1) World Geodetic System -1984 shall be used as the horizontal-reference system for air navigation.

(2) Reported aeronautical geographical coordinates indicating latitude and longitude shall be expressed in terms of the World Geodetic System-1984 geodetic reference datum.

Vertical reference system

37. Mean Sea Level datum, which gives the relationship of gravity-related height or elevation to a surface known as the geoids shall be used as the vertical reference system for air navigation.

Temporal reference system

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

(2) When a different temporal reference system is used, the temporal reference system shall be indicated in GEN 2.1.2 of the Aeronautical Information Publication (AIP).

Language proficiency

39.(1) An air traffic services provider shall ensure that air traffic controllers speak and understand the language(s) used for radiotelephony communications as specified in Civil Aviation (Personnel licensing) Regulations, 2011 or its successor.

(2) The English language shall be used for communications between air traffic control units except when conducted in a mutually agreed language.

Contingency arrangements

40. (1) Air traffic services authorities shall develop and promulgate contingency plans for implementation in the event of disruption, or potential disruption, of air traffic services and related supporting services in the airspace for which they are responsible for the provision of

such services.

(2) The contingency plans shall be developed with the assistance of International Civil Aviation Organization in coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned.

Identification and delineation of prohibited, restricted and danger areas

41. (1) All prohibited, restricted or danger areas shall upon initial establishment, be given identification and full details and be promulgated by the Authority.

(2) The identification so assigned shall be used to identify the area in all subsequent notifications pertaining to that area.

(3) The identification shall be composed of a group of letters and figures as follows -

- (a) nationality letters for location indicators assigned to the State or territory which has established the airspace;
- (b) a letter P for prohibited area, R for restricted area and D for danger area as appropriate; and
- (c) a number, unduplicated within the State or territory.

(4) Identification numbers shall not be reused for a period of at least one year after cancellation of the area to which they refer to avoid confusion.

(5) When a prohibited, restricted or danger area is established, the area shall be as small as practicable and be contained within simple geometrical limits, so as to permit ease of reference by all concerned.

Instrument flight procedure design service

42. The Authority shall ensure that an instrument flight procedure design service is in place in accordance with the prescribed technical standards as well as in accordance with the sixth schedule.

**PART III
AIR TRAFFIC CONTROL SERVICE**

Application of Air traffic control service

43. Air traffic control service shall be provided to all-

- (a) IFR flights in airspace Classes A, B, C, D and E;
- (b) VFR flights in airspace Classes B, C and D;
- (c) special VFR flights; and
- (d) aerodrome traffic at controlled aerodromes.

Provision of air traffic control service

44. The parts of air traffic control service described in regulation 6 (1) shall be provided by the various units as follows -

(a) Area control service by-

- (i) an area control centre; or
- (ii) the unit providing approach control service in a control zone or in a control area of limited extent which is designated primarily for the provision of approach control service and where no area control centre is established.

(b) Approach control service by -

- (i) an aerodrome control tower or area control centre when it is necessary or desirable to combine under the responsibility of one unit the functions of the approach control service with those of the aerodrome control service or the area control service;
- (ii) an approach control unit when it is necessary or desirable to establish a separate unit; or
- (c) Aerodrome control service by an aerodrome control tower.

Operation of air traffic control service

45. (1) An air traffic control unit, in order to provide air control service traffic control service shall -

- (a) be provided with information on the intended movement of each aircraft, or variations there from, and with current information on the actual progress of each aircraft;

- (b) determine from the information received, the relative positions of known aircraft to each other;
 - (c) issue clearances and information for the purpose of preventing collision between aircraft under its control and of expediting and maintaining an orderly flow of traffic; and
 - (d) coordinate clearances as necessary with other units -
 - (i) whenever an aircraft might otherwise conflict with traffic operated under the control of such other units; and
 - (ii) before transferring control of an aircraft to such other units.
- (2) Information on aircraft movements, together with a record of air traffic control clearances issued to such aircraft, shall be so displayed as to permit ready analysis in order to maintain an efficient flow of air traffic with adequate separation between aircraft.
- (3) Clearances issued by air traffic control units shall provide separation between -
- (a) all flights in airspace Classes A and B;
 - (b) IFR flights in airspace Classes C, D and E;
 - (c) IFR flights and VFR flights in airspace Class C;
 - (d) IFR flights and special VFR flights; and
 - (e) special VFR flights when so prescribed by the appropriate ATS authority.
- (4) A flight may be cleared without separation being provided in respect of a specific portion of the flight conducted in visual meteorological conditions when requested by an aircraft and if so prescribed by the appropriate ATS authority for the cases listed under sub- regulation (3) (b) in airspace Classes D and E.
- (5) Separation by an air traffic control unit shall be obtained by at least one of the following -
- (a) vertical separation, obtained by assigning different levels selected from -
 - (i) the appropriate table of cruising levels described in the Civil Aviation (Rules of the air and Air traffic control) Regulations, 2011 or its successor; or

(ii) a modified table of cruising levels, when so prescribed in accordance with the Civil Aviation (Rules of the air and Air traffic control) Regulations, 2011 or its successor for flight above FL 410, except that the correlation of levels to track as prescribed therein shall not apply whenever otherwise indicated in appropriate aeronautical information publications or air traffic control clearances;

(b) horizontal separation, obtained by providing -

(i) longitudinal separation, by maintaining an interval between aircraft operating along the same, converging or reciprocal tracks, expressed in time or distance; or

(ii) lateral separation, by maintaining aircraft on different routes or in different geographical areas; and

(c) composite separation, consisting of a combination of vertical separation and one of the other forms of separation contained in sub-regulation (6)(b) using minima for each which may be lower than, but not less than half of, those used for each of the combined elements when applied individually.

(6) Composite separation shall only be applied on the basis of regional air navigation agreements.

(7) A programme shall be instituted, on a regional basis, for monitoring the height-keeping performance of aircraft operating at a reduced vertical separation minimum of 300 m (1 000 ft.) is applied between FL 290 and FL 410 inclusive, in order to ensure that the continued application of this vertical separation minimum meets the safety objectives.

(8) The scope of regional monitoring programmes shall be adequate to conduct analyses of aircraft group performance and evaluate the stability of altimetry system error.

(9) Where RCP/RSP specifications are applied, programmes shall be instituted for monitoring the performance of the infrastructure and the participating aircraft against the appropriate RCP and/or RSP specifications, to ensure that operations in the applicable airspace continue to meet safety objectives.

(10) The scope of monitoring programmes shall be adequate to evaluate communication and surveillance performance, as applicable.

Separation minima

46. (1) The selection of separation minima for application within a given portion of airspace shall be as follows -

- (a) the separation minima shall be selected from those prescribed by the provisions of the PANS-ATM (Doc 4444) and the Regional Supplementary Procedures (Doc 7030) as applicable under the prevailing circumstances except that, where types of aids are used or circumstances prevail which are not covered by these Regulations, other separation minima shall be established as necessary by -
 - (i) the appropriate ATS Authority following consultation with operators, for routes or portions of routes contained within the sovereign airspace of Eswatini;
 - (ii) regional air navigation agreements for routes or portions of routes contained within airspace over the high seas.
- (b) the selection of separation minima shall be made in consultation between the appropriate ATS authorities responsible for the provision of air traffic services in neighbouring airspaces when -
 - (i) traffic passes from one into the other of the neighbouring airspaces;
 - (ii) routes are closer to the common boundary of the neighbouring airspaces than the separation minima applicable in the circumstances.

(2) Details of the selected separation minima and of their areas of application shall be notified to -

- a) the ATS units concerned; and
- b) pilots and operators through aeronautical information publications, where separation is based on the use by aircraft of specified navigation aids or specified navigation techniques.

Responsibility for control

47. (1) A controlled flight shall be under the control of only one air traffic control unit at any given time.

(2) Responsibility for the control of all aircraft operating within a given block of airspace shall be vested in a single air traffic control unit.

(3) The control of an aircraft or groups of aircraft may be delegated to other air traffic control units provided that coordination between all air traffic control units concerned is assured.

Transfer of responsibility for control

48. The responsibility for the control of an aircraft shall be transferred from one air traffic control unit to another in accordance with the principles specified in the ninth Schedule.

Coordination of transfer

49. (1) Responsibility for control of an aircraft shall not be transferred from one air traffic control unit to another without the consent of the accepting control unit.

(2) The consent of the accepting control unit shall be obtained in accordance with the principles specified in the ninth Schedule.

Air traffic control clearances

50. Air traffic control clearances shall be based solely on the requirements for providing air traffic control service.

Contents of clearances

51. (1) An air traffic control clearance shall indicate-

- (a) aircraft identification as shown in the flight plan;
- (b) clearance limit;
- (c) route of flight;
- (d) level(s) of flight for the entire route or part of the route and changes of levels if required; and
- (e) any necessary instructions or information on other matters such as approach or departure manoeuvres, communications and the time of expiry of the clearance.

(2) Standard departure and arrival routes and associated procedures shall be established when necessary to facilitate -

- (a) safe, orderly and expeditious flow of air traffic; and
- (b) description of the route and procedure in air traffic control clearances.

Clearances for transonic flight

52. (1) The air traffic control clearance relating to the transonic acceleration phase of a supersonic flight shall extend at least to the end of that phase.

(2) The air traffic control clearance relating to the deceleration and descent of an aircraft from supersonic cruise to subsonic flight shall provide for uninterrupted descent, at least during the transonic phase.

Read-back of clearances and safety-related information

53. (1) The flight crew shall read back to the air traffic controller safety-related parts of Air Traffic Control clearances and instructions which are transmitted by voice.

(2) The flight crew shall always read back the following items of Air Traffic Control clearances and instructions -

- (a) ATC route clearances;
- (b) clearances and instructions to enter, land on, take off from, hold short of, cross and backtrack on any runway; and
- (c) Runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions and, whether issued by the controller or contained in ATIS broadcasts, transition levels.

(3) Other clearances or instructions, including conditional clearances, shall be read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with.

(4) The controller shall listen to the read-back to ascertain that the clearance or instruction has been correctly acknowledged by the flight crew and shall take immediate action to correct any discrepancies revealed by the read-back.

(5) Vehicle drivers operating or intending to operate on the manoeuvring area shall read back to the air traffic controller safety-related parts of instructions which are transmitted by voice, e.g. instructions to enter, hold short of, cross and operate on any operational runway or taxiway.

(6) The controller shall listen to the read-back to ascertain that the instruction has been correctly acknowledged by the vehicle driver and shall take immediate action to correct any discrepancies revealed by the read-back.

(7) Unless specified by the appropriate Air Traffic Services Authority, voice read-back of Controller Pilot Data Link Communication messages shall not be required.

Coordination of clearances

54. (1) An air traffic control clearance shall be coordinated between air traffic control units to cover the entire route of an aircraft or a specified portion of the route.

(2) An aircraft shall be cleared for the entire route to the aerodrome of first intended landing-

(a) when it has been possible, prior to departure, to coordinate the clearance between all the units under whose control the aircraft will come; or

(b) when there is reasonable assurance that prior coordination will be effected between those units under whose control the aircraft will subsequently come.

(3) When coordination as in sub-regulation (2) has not been achieved or is not anticipated, the aircraft shall be cleared only to that point where coordination is reasonably assured and prior to reaching such point, or at such point, the aircraft shall receive further clearance, holding instructions being issued as appropriate.

(4) When prescribed by the appropriate Air Traffic Services authority, aircraft shall contact a downstream air traffic control unit, for the purpose of receiving a downstream clearance prior to the transfer of control point.

(5) Aircraft shall maintain the necessary two-way communication with the current air traffic control unit while obtaining a downstream clearance.

(6) A clearance issued as a downstream clearance shall be clearly identifiable as such to the pilot.

(7) Downstream clearances shall not affect the aircraft's original flight profile in any airspace, other than that of the air traffic control unit responsible for the delivery of the downstream clearance unless the downstream clearance has been coordinated.

(8) Where data link communications are used to facilitate downstream clearance delivery, two-way voice communications between the pilot and the air traffic control unit providing the downstream clearance shall be available.

(9) When an aircraft intends to depart from an aerodrome within a control area to enter another control area within a period of thirty minutes, or such other specific period of time as has been agreed between the area control centres concerned, coordination with the subsequent

area control centre shall be effected prior to issuance of the departure clearance.

(10) When an aircraft intends to leave a control area for flight outside controlled airspace, and re-enter the same or another control area, a clearance from point of departure to the aerodrome of first intended landing shall be issued.

(11) Clearance or revisions referred to in sub-regulation (10) shall apply only to those portions of the flight conducted within controlled airspace Air traffic flow.

Air traffic flow management

55. (1) Air traffic flow management shall be implemented for management airspace where air traffic demand at times exceeds, or is expected to exceed, the declared capacity of the air traffic control services concerned.

(2) Air traffic flow management shall be implemented on the basis of regional air navigation agreements or, if appropriate, through multilateral agreements and such agreements shall make provision for common procedures and common methods of capacity determination.

(3) When it becomes apparent to an ATC unit that traffic additional to that already accepted cannot be accommodated within a given period of time at a particular location or in a particular area, or can only be accommodated at a given rate, that unit shall so advise the ATFM unit, when such is established, as well as, when appropriate, ATS units concerned.

(4) Flight crews of aircraft destined to the location or area in question and operators concerned referred to in sub -regulation (3) shall also be advised of the delays expected or the restrictions that will be applied.

Control of persons and vehicles at aerodromes

56. (1) The movement of persons or vehicles including towed aircraft on the manoeuvring area of an aerodrome shall be controlled by the aerodrome control tower to avoid hazard to them or to aircraft landing, taxiing or taking off.

(2) In conditions where low visibility procedures are in operation -

- (a) persons and vehicles operating on the manoeuvring area of an aerodrome shall be restricted to the essential minimum, and particular regard shall be given to the requirements to protect the Instrument Landing System or Micro Landing System sensitive area(s) when Category II or Category III precision instrument operations are in progress;

(b) subject to the provisions in sub-regulation (3), the minimum separation between vehicles and taxiing aircraft shall be as prescribed by the appropriate Air Traffic Service Authority taking into account the aids available;

(c) when mixed Instrument Landing System or Micro Landing System Category II or Category III precision instrument operations are taking place to the same runway continuously, the more restrictive Instrument Landing System or Micro Landing System critical and sensitive areas shall be protected.

(3) Emergency vehicles proceeding to the assistance of an aircraft in distress shall be afforded priority over all other surface movement traffic.

(4) Subject to sub-regulation (3), vehicles on the manoeuvring area shall be required to comply with the following rules -

(a) vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing;

(b) vehicles shall give way to other vehicles towing aircraft;

(c) vehicles shall give way to other vehicles in accordance with Air Traffic Services unit instructions; and

(d) notwithstanding sub-regulations (4) (a), (b) and (c), vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.

(5) The Air Traffic Services provider shall establish runway safety programmes to enhance runway safety using collaborative approach that involves; regulators, aircraft operators, aerodrome operators and air navigation service providers.

Provision of radar and ADS-B

57. Radar and ADS-B ground systems shall provide for the display of safety-related alerts and warnings, including conflict alert, conflict prediction, minimum safe altitude warning and unintentionally duplicated SSR codes.

Use of surface movement radar

58. In the absence of visual observation of all or part of the manoeuvring area or to supplement visual observation, Surface Movement Radar provided in the Civil Aviation (Aerodromes) Regulations, 2022 or its successor, or other suitable surveillance equipment, shall be utilized to -

- (a) monitor the movement of aircraft and vehicles on the manoeuvring area;
- (b) provide directional information to pilots and vehicle drivers as necessary; and
- (c) provide advice and assistance for the safe and efficient movement of aircraft and vehicles on the manoeuvring area.

PART IV
FLIGHT INFORMATION SERVICE

Application of Flight Information Service

59. (1) Flight information service shall be provided to all aircraft which are likely to be affected by the information and which are -

- a) provided with air traffic control service; or
- b) otherwise known to the relevant air traffic services units.

(2) Where air traffic services units provide both flight information service and air traffic control service, the provision of air traffic control service shall have precedence over the provision of flight information service whenever the provision of air traffic control service so requires.

Scope of flight information service

60. (1) Flight information service shall include the provision of pertinent -

- (a) SIGMET and AIRMET information;
- (b) information concerning pre-eruption volcanic activity, volcanic eruptions and volcanic ash clouds;
- (c) information concerning the release into the atmosphere of radioactive materials or toxic chemicals;
- (d) information on changes in the availability of radio navigation services;
- (e) information on changes in condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas when they are affected by significant depth of water;
- (f) information on unmanned free balloons; and

(g) any other information likely to affect safety.

(2) Flight information service provided to flights shall include, in addition to that outlined in sub-regulation (1), the provision of information concerning -

(a) weather conditions reported or forecast at departure, destination and alternate aerodromes;

(b) collision hazards, to aircraft operating in airspace Classes C, D, E, F and G as specified in the First schedule; and

(c) for flight over water areas, in so far as practicable and when requested by a pilot, any available information such as radio call sign, position, true track, speed, etc., of surface vessels in the area.

(3) Air Traffic Services units shall transmit, as soon as practicable, special air-reports to other aircraft concerned, to the associated meteorological office, and to other Air Traffic Services units concerned.

(4) Transmissions to aircraft referred in sub-regulation (3) shall be continued for a period to be determined by agreement between the meteorological and air traffic services authorities concerned.

(5) Flight information service provided to VFR flights shall include, in addition to that outlined in sub-regulation (1), the provision of available information concerning traffic and weather conditions along the route of flight that are likely to make operation under the visual flight rules impracticable.

Application of operational flight information service broadcasts

61. (1) The meteorological information and operational information concerning radio navigation services and aerodromes included in the flight information service shall, whenever available, be provided in an operationally integrated form.

(2) The applicable Operational flight information service (OFIS) message(s) shall be transmitted by the appropriate Air Traffic Services unit when requested by the pilot.

Voice-automatic terminal information service broadcasts

62. (1) Voice-automatic terminal information service broadcasts shall be provided at aerodromes where there is a requirement to reduce the communication load on the Air Traffic Service Very High Frequency air-ground communication channels.

(2) When provided, Voice-automatic terminal information service broadcast shall comprise -

- (a) one (1) broadcast serving arriving aircraft; or
- (b) one (1) broadcast serving departing aircraft; or
- (c) one (1) broadcast serving both arriving and departing aircraft; or
- (d) two (2) broadcasts serving arriving and departing aircraft respectively at those aerodromes where the length of a broadcast serving both arriving and departing aircraft would be excessively long.

(3) A discrete Very High Frequency shall, whenever practicable, be used for Voice-ATIS broadcasts.

(4) If a discrete frequency is not available, the transmission may be made on the voice channel(s) of the most appropriate terminal navigation aid(s), preferably a Very High Frequency Omni- directional Radio Range provided the range and readability are adequate and the identification of the navigation aid is sequenced with the broadcast so that the latter is not obliterated.

(5) Voice-automatic terminal information service broadcasts shall not be transmitted on the voice channel of an Instrument Landing System.

(6) Whenever Voice-automatic terminal information service is provided, the broadcast shall be continuous and repetitive.

(7) The information contained in the current broadcast shall immediately be made known to the Air Traffic Services unit(s) concerned with the provision to aircraft of information relating to approach, landing and take-off, whenever the message has not been prepared by that (those) unit(s).

(8) Voice-automatic terminal information service broadcasts provided at designated aerodromes for use by international air services shall be available in the English language as a minimum.

(9) Where Voice-automatic terminal information service broadcasts are available in more than one language, a discrete channel shall be used for each language.

Data link-automatic terminal information service (D-ATIS)

63. (1) The information shall be identical in both content and format to the applicable Voice-automatic terminal information service broadcast where a Data link-automatic terminal

information service supplements the existing availability of Voice-automatic terminal information service.

(2) The content, for the purpose of maintaining the same designator, shall be considered identical where real-time meteorological information is included but the data remains within the parameters of the significant change criteria.

(3) Voice-automatic terminal information service and Data link-automatic terminal information service shall be updated simultaneously where a Data link-automatic terminal information service supplements the existing availability of Voice-automatic terminal information service and the automatic terminal information service requires updating.

Automatic information service (voice and/ or data link)

64. (1) Whenever voice-automatic terminal information service or Data link-automatic terminal information service is provided -

- (a) the information communicated shall relate to a single aerodrome;
- (b) the information communicated shall be updated immediately a significant change occurs;
- (c) the preparation and dissemination of the automatic terminal information service message shall be the responsibility of the air traffic services;
- (d) individual automatic terminal information service messages shall be identified by a designator in the form of a letter of the International Civil Aviation Organization spelling alphabet and designators assigned to consecutive automatic terminal information service messages shall be in alphabetical order;
- (e) aircraft shall acknowledge receipt of the information upon establishing communication with the Air Traffic Services unit providing approach control service or the aerodrome control tower, as appropriate;
- (f) the appropriate Air Traffic Services unit shall, when replying to the message in sub-regulation (e) or, in the case of arriving aircraft, at such other time as may be prescribed by the appropriate Air Traffic Services Authority, provide the aircraft with the current altimeter setting; and
- (g) the meteorological information shall be extracted from the local meteorological routine or special report.

(2) When rapidly changing meteorological conditions make it inadvisable to include a weather report in the automatic terminal information service, the automatic terminal information service messages shall indicate that the relevant weather information will be given on initial contact with the appropriate Air Traffic Services unit.

(3) Information contained in a current automatic terminal information service, the receipt of which has been acknowledged by the aircraft concerned, need not be included in a directed transmission to the aircraft, with the exception of the altimeter setting, which shall be provided in accordance with sub regulation (1) (f).

(4) If an aircraft acknowledges receipt of an automatic terminal information service that is no longer current, any element of information that needs updating shall be transmitted to the aircraft without delay.

(5) Contents of automatic terminal information service shall be kept as brief as possible and information additional to that specified in regulations 65, 66 and 67 shall only be included when justified in exceptional circumstances.

Automatic terminal information service for arriving and departing aircraft

65. Automatic terminal information service messages containing both arrival and departure information shall contain the arriving and departing following elements of information in the order listed below -

- (a) name of aerodrome;
- (b) arrival and/or departure indicator;
- (c) contract type, if communication is via Data link-automatic terminal information service;
- (d) designator;
- (e) time of observation, if appropriate;
- (f) type of approach(es) to be expected;
- (g) the runway(s) in use; status of arresting system constituting a potential hazard, if any;
- (h) significant runway surface conditions and, if appropriate, braking action;
- (i) holding delay, if appropriate;

- (j) transition level, if applicable;
- (k) other essential operational information;
- (l) surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of unway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;
- (m) visibility and, when applicable, Runway Visual Range;
- (n) present weather;
- (o) cloud below 1 500 m (5 000 ft.) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
- (p) air temperature;
- (q) dew point temperature;
- (r) altimeter setting(s);
- (s) any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;
- (t) trend forecast, when available; and
- (u) specific automatic terminal information service instructions.
- (v) trend forecast, when available; and
- (w) specific automatic terminal information service instructions.

Automatic terminal information service for arriving aircraft

66. Automatic terminal information service messages information service for containing arrival information only shall contain the following elements arriving aircraft of information in the order listed.

Automatic terminal information service for departing aircraft

67. Automatic terminal information service messages containing departure information only shall contain the following elements of information in the order listed -

- (a) name of aerodrome;
- (b) departure indicator;
- (c) contract type, if communication is via Data link-automatic terminal information service;
- (d) designator;
- (e) time of observation, if appropriate;
- (f) runway(s) to be used for take-off; status of arresting system constituting a potential hazard, if any;
- (g) significant surface conditions of runway(s) to be used for take-off and, if appropriate, braking action;
- (h) departure delay, if appropriate;
- (i) transition level, if applicable;
- (j) other essential operational information;
- (k) surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;
- (l) visibility and, when applicable, Runway Visual Range;
- (m) present weather;
- (n) cloud below 1 500 m (5 000 ft.) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
- (o) air temperature;

- (p) dew point temperature;
- (q) altimeter setting(s);
- (r) any available information on significant meteorological phenomena in the climb-out area including wind shear;
- (s) trend forecast, when available; and
- (t) specific automatic terminal information service instructions

VOLMET broadcasts and D-VOLMET service

68. (1) High Frequency or Very High Frequency VOLMET broadcasts and D-VOLMET service shall be provided when it has been determined by regional air navigation agreements that a requirement exists.

- (2) VOLMET broadcasts shall use standard radiotelephony phraseologies.

**PART V
ALERTING SERVICE**

Application of alerting service

69. (1) Air Traffic Services units shall provide alerting service -

- (a) for all aircraft provided with air traffic control service;
- (b) in so far as practicable, to all other aircraft having filed a flight plan or otherwise known to the air traffic services; and
- (c) to any aircraft known or believed to be the subject of unlawful interference.

(2) Flight information centres or area control centres shall serve as the central point for collecting all information relevant to a state of emergency of an aircraft operating within the Johannesburg flight information region or control area concerned and for forwarding such information to the rescue coordination centre.

(3) In the event of a state of emergency arising to an aircraft while it is under the control of an aerodrome control tower or approach control unit, such unit shall notify immediately the flight information centre or area control centre responsible which shall in turn notify the rescue coordination centre.

(4) The notification referred in sub regulation (3) shall not be required when the nature of the emergency is such that the notification would be unnecessary.

(5) Where the urgency of the situation so requires, the aerodrome control tower or approach control unit responsible shall first alert and take other necessary steps to set in motion all appropriate local rescue and emergency organizations which can give the immediate assistance required.

Notification of rescue coordination centres

70. (1) Without prejudice to any other circumstances that may render such notification advisable, air traffic services units shall, except as prescribed in regulation 73 (1), notify rescue coordination centres immediately an aircraft is considered to be in a state of emergency in accordance with the following -

(a) Uncertainty phase when -

- (i) no communication has been received from an aircraft within a period of thirty minutes after the time a communication shall have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier; or
- (ii) an aircraft fails to arrive within thirty minutes of the estimated time of arrival last notified to or estimated by air traffic services units, whichever is the later, except when no doubt exists as to the safety of the aircraft and its occupants.

(b) Alert phase when -

- (i) following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft, or when.
- (ii) an aircraft has been cleared to land and fails to land within five minutes of the estimated time of landing and communication has not been re-established with the aircraft, or when.
- (iii) information has been received which indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely, except when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants, or when.
- (iv) an aircraft is known or believed to be the subject of unlawful interference.

(c) **Distress phase when-**

- (i) following the alert phase, further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress, or when.
- (ii) the fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety; or
- (iii) information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely, or when information is received or it is reasonably certain that the aircraft is about to make or has made a forced landing, except when there is reasonable certainty that the aircraft and its occupants are not threatened by grave and imminent danger and do not require immediate assistance.

(2) The notification shall contain the following information as is available in the order listed -

- (a) INCERFA, ALERFA or DETRESFA, as appropriate to the phase of the emergency;
- (b) agency and person calling;
- (c) nature of the emergency;
- (d) significant information from the flight plan;
- (e) unit which made last contact, time and means used;
- (f) last position report and how determined;
- (g) colour and distinctive marks of aircraft;
- (h) dangerous goods carried as cargo;
- (i) any action taken by reporting office; and
- (j) other pertinent remarks.

(3) The information specified in sub-regulation (2), which is not available at the time the notification is made to a rescue coordination centre, shall be sought by an air traffic services unit prior to the declaration of a distress phase, if there is reasonable certainty that this phase will eventuate.

(4) Further to the notification in sub-regulation (1), the rescue coordination centre shall, without delay, be furnished with -

- (a) any useful additional information, especially on the development of the state of emergency through subsequent phases; or
- (b) Information that the emergency situation no longer exists.

Use of communication facilities

71. Air traffic services units shall use all available communication facilities to establish and maintain communication with an aircraft in a state of emergency, and to request news of the aircraft.

Plotting aircraft in a state of emergency

72. (1) When a state of emergency is considered to exist, the flight of the aircraft involved shall be plotted on a chart in order to determine the probable future position of the aircraft and its maximum range of action from its last known position.

(2) The flights of other aircraft known to be operating in the vicinity of the aircraft involved shall also be plotted in order to determine their probable future positions and maximum endurance.

Information to the operator

73. (1) When an area control or a flight information centre decides that an aircraft is in the uncertainty or the alert phase, it shall, when practicable, advise the operator prior to notifying the rescue coordination centre.

(2) All information notified to the rescue coordination centre by an area control or flight information centre shall, whenever practicable, also be communicated, without delay, to the operator.

Information to aircraft operating in the vicinity of an aircraft in a state of emergency

74. (1) When it has been established by an air traffic services unit that an aircraft is in a state of emergency, other aircraft known to be in the vicinity of the aircraft involved shall, except as provided in sub-regulation (2) be informed of the nature of the emergency as soon as practicable.

(2) When an air traffic services unit knows or believes that an aircraft is being subjected to unlawful interference, no reference shall be made in Air Traffic Service air-ground

communications to the nature of the emergency unless the unlawful interference has first been referred to in communications from the aircraft involved and there is certainty that such reference will not aggravate the situation.

PART VI

AIR TRAFFIC SERVICES REQUIREMENTS FOR COMMUNICATIONS

Aeronautical mobile service (air-ground communications)

75. (1) Radiotelephony or data link shall be used in air-ground communications for air traffic services purposes.

(2) Where a Required Communication Performance (RCP) specification has been prescribed by the Authority for performance-based communication, Air Traffic Services units shall, in addition to the requirements specified in sub-regulation (1), have communication equipment which will enable them to provide Air Traffic Services in accordance with the prescribed Required Communication Performance specification(s).

(3) When direct pilot-controller two-way radiotelephony or data link communications are used for the provision of air traffic control service, recording facilities shall be provided on all such air-ground communication channels.

(4) Recordings of communications channels as required in sub-regulation (3) shall be retained for a period of at least thirty days.

(5) Air-ground communication facilities shall enable two-way communications to take place between a unit providing flight information service and appropriately equipped aircraft flying anywhere within the flight information region.

(6) Air-ground communication facilities for flight information service shall permit direct, rapid, continuous and static-free two-way communications whenever practicable.

(7) Air-ground communication facilities shall enable two-way communications to take place between a unit providing area control service and appropriately equipped aircraft flying anywhere within the control area(s).

(8) Air-ground communication facilities for area control service shall permit direct, rapid, continuous and static-free two-way communications whenever practicable.

(9) Where air-ground voice communication channels are used for area control service and are worked by air-ground communicators, suitable arrangements shall be made to permit direct pilot-controller voice communications, as and when required.

(10) Air-ground communication facilities shall enable direct, rapid, continuous and static-free two-way communications to take place between the unit providing approach control service and appropriately equipped aircraft under its control.

(11) Where the unit providing approach control service functions as a separate unit, air-ground communications shall be conducted over communication channels provided for its exclusive use.

(12) Air-ground communication facilities shall enable direct, rapid, continuous and static-free two-way communications to take place between an aerodrome control tower and appropriately equipped aircraft operating at any distance within 45 km (25 NM) of the aerodrome concerned.

General application of Aeronautical fixed service (ground – ground communications)

76. Direct-speech or data link communications shall be used in ground-ground communications for air traffic services purposes.

Communications between air traffic services units

77. (1) A flight information centre shall have facilities for communications with the following units providing a service within its area of responsibility -

- (a) the area control centre, unless collocated;
- (b) approach control units; and
- (c) aerodrome control towers.

(2) An area control centre, in addition to being connected to the flight information centre as prescribed in sub-regulation (1), shall have facilities for communications with the following units providing a service within its area of responsibility-

- (a) approach control units;
- (b) aerodrome control towers; and
- (c) air traffic services reporting offices, when separately established.

(3) An approach control unit, in addition to being connected to the flight information centre and the area control centre as prescribed in sub-regulations (1) and (2) shall have facilities for communications with the associated aerodrome control tower(s) and, when separately established, the associated air traffic services reporting office(s).

(4) An aerodrome control tower, in addition to being connected to the flight information centre, the area control centre and the approach control unit as prescribed in sub-regulations (1), (2) and (3) shall have facilities for communications with the associated air traffic services reporting office, when separately established.

Communications between air traffic service units and other units

78. (1) A flight information centre and an area control centre shall have facilities for communications with the following units providing a service within their respective area of responsibility-

- (a) appropriate military units;
- (b) the meteorological office serving the centre;
- (c) the aeronautical telecommunications station serving the centre;
- (d) appropriate operator's offices;
- (e) the rescue coordination centre or, in the absence of such centre, any other appropriate emergency service; and
- (f) the international NOTAM office serving the centre.

(2) An approach control unit and an aerodrome control tower shall have facilities for communications with the following units providing a service within their respective area of responsibility -

- (a) appropriate military units;
- (b) rescue and emergency services (including ambulance, fire, etc.);
- (c) the meteorological office serving the unit concerned;
- (d) the aeronautical telecommunications station serving the unit concerned; and
- (e) the unit providing apron management service, when separately established.

(3) The communication facilities required in sub- regulation (1)(a) and (2)(a) shall include provisions for rapid and reliable communications between the air traffic services unit concerned and the military unit(s) responsible for control of interception operations within the area of responsibility of the air traffic services unit.

Description of communication facilities

79. (1) The communication facilities required under regulation 77, regulation 78 (1)(a) and regulation 78(2) (a), (b) and (c) shall include provisions for -

- (a) communications by direct speech alone, or in combination with data link communications, whereby for the purpose of transfer of control using radar or Automatic Dependent Surveillance-Broadcast, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds; and
- (b) printed communications, when a written record is required; the message transit time for such communications being no longer than five minutes.

(2) Air Traffic Service units shall provide suitable facilities for automatic recording in all cases where automatic transfer of data to or from air traffic services computers is required.

(3) The communication facilities required under regulation 78 (2) (a), (b) and (c) shall include provisions for communications by direct speech arranged for conference communications.

(4) All facilities for direct-speech or data link communications between air traffic services units and between air traffic services units and other units described under regulations 77 and 78 shall be provided with automatic recording.

(5) Recordings of data and communications as required in sub-regulations (2) and (4) shall be retained for a period of at least thirty (30) days.

Communications between flight information regions

80. (1) Flight information centres and area control centres shall have facilities for communications with all adjacent flight information centres and area control centres.

(2) The communication facilities referred to in sub-regulation (1) shall in all cases include provisions for messages in a form suitable for retention as a permanent record, and delivery in accordance with transit times specified by regional air navigation agreements.

(3) Unless otherwise prescribed on the basis of regional air navigation agreements, facilities for communications between area control centres serving contiguous control areas shall, include provisions for direct speech and, where applicable, data link communications, with automatic recording, for the purpose of transfer of control using radar, Automatic Dependent Surveillance - Broadcast or Automatic Dependent Surveillance-Contract data.

(4) The communications in sub regulation (3) may be established instantaneously and for other purposes the communications may normally be established within fifteen (15) seconds.

(5) When so required by agreement between the Authorities concerned in order to eliminate or reduce the need for interceptions in the event of deviations from assigned track, facilities for communications between adjacent flight information centres or area control centres other than those mentioned in sub-regulation (3) shall include provisions for direct speech alone, or in combination with data link communications.

(6) The communication facilities referred to in sub- regulation (5) shall be provided with automatic recording.

(7) Suitable facilities for automatic recording shall be provided in all cases where automatic exchange of data between air traffic services computers is required.

(8) Recordings of data and communications as required in sub-regulation (7) shall be retained for a period of at least thirty (30) days.

Procedures for direct-speech communications

81. Appropriate procedures for direct speech communications shall be developed to permit immediate connections to be made for very urgent calls concerning the safety of aircraft, and the interruption, if necessary, of less urgent calls in progress at the time.

Communications for the control of vehicles other than aircraft on manoeuvring areas at controlled aerodromes.

82. (1) Air Traffic Services shall provide Aerodrome control service with two-way radiotelephony communication facilities for the control of vehicles on the manoeuvring area, except where communication by a system of visual signals is deemed to be adequate.

(2) Separate communication channels shall be provided for the control of vehicles on the manoeuvring area where conditions warrant.

(3) Automatic recording facilities shall be provided on all separate communication channels provided for the control of vehicles on the manoeuvring area.

(4) Recordings of communications as required in sub- regulation (3) shall be retained for a period of at least thirty (30) days.

Recording and storage of aeronautical data

83. (1) Surveillance data from primary and secondary radar equipment or other systems used

as an aid to air traffic services, shall be automatically recorded for use in accident and incident investigations, search and rescue, air traffic control and surveillance systems evaluation and training.

(2) Subject to sub-regulation (1), stored aeronautical data and automatic surveillance recordings shall be retained for a period of at least thirty (30) days.

(3) Recordings pertinent to accident and incident investigations shall be retained for longer periods until it is evident that they will no longer be required.

PART VII AIR TRAFFIC SERVICES REQUIREMENTS FOR INFORMATION

General meteorological information

84. (1) Air traffic services units shall be supplied with up-to-date information on existing and forecast meteorological conditions as necessary for the performance of their respective functions.

(2) The information referred to in sub-regulation (1) shall be supplied in such a form as to require a minimum of interpretation on the part of air services personnel and with a frequency which satisfies the requirements of the air traffic services units concerned.

Flight information centres and area control centres

85. (1) Flight information centres and area control centres shall be supplied with meteorological information as described in the ninth schedule of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2022 with particular emphasis being given to the occurrence or expected occurrence of weather deterioration as soon as this can be determined.

(2) The reports and forecasts referred to in sub-regulation (1) shall cover the flight information region or control area and such other areas as may be determined on the basis of regional air navigation agreements.

(3) Flight information centres and area control centres shall be provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information centre or area control centre concerned.

Units providing Approach Control service

86. (1) Units providing approach control service shall be supplied with meteorological information as described in the ninth schedule of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2022 for the airspace and the aerodromes with which they are concerned.

(2) Special reports and amendments to forecasts shall be communicated to the units providing approach control service as soon as they are necessary in accordance with established criteria, without waiting for the next routine report or forecast.

(3) Where multiple anemometers are used, the indicators to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each anemometer.

(4) Units providing approach control service shall be provided with current pressure data for setting altimeters, for locations specified by the unit providing approach control service.

(5) Units providing approach control service for final approach, landing and take-off shall be equipped with surface wind display(s).

(6) The display(s) referred to in sub-regulation (5) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and in the meteorological station, where such a station exists.

(7) Units providing approach control service for final approach, landing and take-off at aerodromes where runway visual range values are assessed by instrumental means shall be equipped with display(s) permitting read-out of the current runway visual range value(s).

(8) The display(s) referred to in sub-regulation (7) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding displays in the aerodrome control tower and in the meteorological station, where such a station exists.

(9) Units providing approach control service for final approach, landing and take-off shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach.

Aerodrome control towers

87. (1) The meteorological service provider shall supply aerodrome control towers with meteorological information as described in the ninth schedule of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2022 for the aerodrome with which they are concerned.

(2) The meteorological service provider shall communicate special reports and amendments to forecasts to the aerodrome control towers as soon as they are necessary in accordance with established criteria, without waiting for the next routine report or forecast.

(3) The meteorological service provider shall provide aerodrome control towers with current pressure data for setting altimeters for the aerodrome concerned.

(4) Aerodrome control towers shall be equipped with surface wind display(s).

(5) The surface wind display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such a station exists.

(6) Where multiple sensor(s) are used, the surface wind displays to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor.

(7) Aerodrome control towers at aerodromes where runway visual range values are measured by instrumental means shall be equipped with display(s) permitting read-out of the current runway visual range value(s).

(8) The display(s) referred to in sub-regulation (7) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such a station exists.

(9) Aerodrome control towers shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach and aircraft on the runway during the landing roll or take-off run.

(10) Aerodrome control towers or other appropriate units shall be supplied with aerodrome warnings.

Communication stations

88. Current meteorological reports and forecasts shall be supplied to communication stations for flight information purposes, and a copy of such information shall be forwarded to the flight information centre or the area control centre.

Information on aerodrome conditions and the operational status of associated facilities

89. Aerodrome control towers and units providing approach control service shall be kept currently informed of the operationally significant conditions of the movement area, including the existence of temporary hazards, and the operational status of any associated facilities at the aerodrome(s) with which they are concerned.

Information on the operational status of navigation services

90. (1) Air Traffic Services units shall be kept currently informed of the operational status of radio navigation services and visual aids essential for take-off, departure, approach and landing procedures within their area of responsibility and those radio navigation services and

visual aids essential for surface movement.

(2) Information on the operational status, and any changes thereto, of radio navigation services and visual aids as referred to in sub-regulation (1) shall be received by the appropriate Air Traffic Services unit(s) on a timely basis consistent with the use of the service(s) and aid(s) involved.

Information on unmanned free balloons

91. Operators of unmanned free balloons shall keep the appropriate air traffic services units informed of details of flights of unmanned free balloons in accordance with the provisions contained in the Civil Aviation (Rules of the air and air traffic control) Regulations, 2022.

Information concerning volcanic activity

92. (1) Air Traffic Services units shall be informed, in accordance with local agreement of pre-eruption volcanic activity, volcanic eruptions and volcanic ash cloud which could affect airspace used by flights within their area of responsibility.

(2) Area control centres and flight information centres shall be provided with volcanic ash advisory information issued by the associated Volcanic Ash Advisory Centres.

Information concerning radioactive materials and toxic chemical “clouds”

93. Air Traffic Services units shall be informed, in accordance with local agreement, of the release into the atmosphere of radioactive materials or toxic chemicals which could affect airspace used by flights within their area of responsibility.

**PART VIII
EXEMPTIONS**

Requirements for application for exemption.

94. (1) A person may apply to the Authority for an exemption from any provision of these Regulations.

(2) Unless in case of emergency, a person requiring exemptions from any of these regulations shall make an application to the Authority at least sixty (60) days prior to the proposed effective date, giving the following information -

(a) name and contact address including electronic mail and fax if any;

(b) telephone number;

- (c) a citation of the specific requirement from which the applicant seeks exemption;
- (d) justification for the exemption;
 - (i) a description of the type of operations to be conducted under the proposed exemption;
- (e) the proposed duration of the exemption;
- (f) an explanation of how the exemption would be in the public interest;
- (g) a detailed description of the alternative means by which the applicant will ensure a level of safety equivalent to that established by the regulation in question;
- (h) a safety risk assessment carried out in respect of the exemption applied for;
- (i) if the applicant handles international operations and seeks to operate under the proposed exemption, an indication whether the exemption would contravene any provision of the Standards and Recommended Practices of the International Civil Aviation Organization; and
- (j) any other information that the Authority may require.

(3) Where the applicant seeks emergency processing of an application for exemption, the application shall contain supporting facts and reasons for not filing the application within the time specified in sub-regulation (2) and satisfactory reason for deeming the application an emergency.

(4) The Authority may in writing, refuse an application made under sub regulation (3), where in the opinion of the Authority, the reasons given for emergency processing are not satisfactory.

(5) The application for exemption shall be accompanied by a fee prescribed by the Authority.

Review and publication.

95. (1) The Authority shall review the application for exemption made under regulation 94 for accuracy and compliance and if the application is satisfactory, publish a detailed summary of the application for comments, within a prescribed time, in either -

- (a) the Eswatini Gazette;

(b) Aeronautical information circular; or

(c) a daily newspaper with national circulation.

(2) Where application requirements have not been fully complied with, the Authority shall request the applicant in writing, to comply prior to publication or making a decision under regulation 94 (3).

Evaluation of the request

96. (1) Where the application requirements have been satisfied, the Authority shall conduct an evaluation of the request to include -

(a) determination of whether an exemption would be in the public interest;

(b) a determination, after a technical evaluation of whether the applicant's proposal would provide a level of safety equivalent to that established by the regulation, although where the Authority decides that a technical evaluation of the request would impose a significant burden on the Authority's technical resources, the Authority may deny the exemption on that basis;

(c) a determination of whether a grant of the exemption would contravene these Regulations; and

(d) a recommendation based on the preceding elements, of whether the request should be granted or denied, and of any conditions or limitations that should be part of the exemption.

(2) The Authority shall notify the applicant in writing, the decision to grant or deny the request and publish a detailed summary of its evaluation and decision.

(3) The summary referred to in sub-regulation (2) shall specify the duration of the exemption and any conditions or limitations of the exemption.

(4) If the request is for emergency relief, the Authority shall publish the decision after processing the application.

(5) If the exemption affects a significant population of the aviation community of the State, the Authority shall publish the summary in aeronautical information circular.

PART IX
OFFENCES AND PENALTIES

offence.

97. The Authority may cancel or suspend a certificate or permit granted by the Authority when the provisions of these Regulations are contravened.

Penalty

98. A person who contravenes any provision of these Regulations shall upon conviction be liable to a fine not exceeding One Hundred Thousand (£100, 000) or to ten (10) years imprisonment or both.

FIRST SCHEDULE

AIR TRAFFIC SERVICES AIRSPACE CLASSES - SERVICES

PROVIDED AND

FLIGHT REQUIREMENTS

(Regulation 10(1))

Class	Type of flight	Separation provided	Service provided	Speed limitation*	Radio communication requirement	Subject to an ATC clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
B	IFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
C	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	VFR from IFR	1) Air traffic control service for separation from IFR; 2) VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
D	IFR	IFR from IFR	Air traffic control service, traffic information about VFR flights (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
E	IFR	IFR from IFR	Air traffic control service and, as far as practical, traffic information about VFR flights	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	Traffic information as far as practical	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No
F	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No
G	IFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No

* When the height of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL 100 should be used in lieu of 10 000 ft.

SECOND SCHEDULE**PRINCIPLES GOVERNING THE IDENTIFICATION OF NAVIGATION SPECIFICATIONS AND THE IDENTIFICATION OF ATS ROUTES OTHER THAN STANDARD DEPARTURE AND ARRIVAL ROUTES
(Regulation 19 (3))**

1. Designators for ATS routes and navigation specifications.

1.1 The purpose of a system of route designators and navigation specification(s) applicable to specified ATS route segment(s), route(s) or area is to allow both pilots and ATS, taking into account automation requirements -

- (a) to make unambiguous reference to any ATS route without the need to resort to the use of geographical coordinates or other means in order to describe it;
- (b) to relate an ATS route to a specific vertical structure of the airspace, as applicable;
- (c) to indicate a required level of navigation performance accuracy, when operating along an ATS route or within a specified area; and
- (d) to indicate that a route is used primarily or exclusively by certain types of aircraft.

Note 1. - Specifications governing the publication of navigation specifications are given in the Civil Aviation (Aeronautical Charts) Regulations 201....., the Civil Aviation (Aeronautical Information Services) Regulations 201..

Note 2. - In relation to this part and for flight planning purposes, a prescribed navigation specification is not considered an integral part of the ATS route designator.

1.2 In order to meet this purpose, the designation system shall -

- (a) permit the identification of any ATS route in a simple and unique manner;
- (b) avoid redundancy;
- (c) be usable by both ground and airborne automation systems;
- (d) permit utmost brevity in operational use; and
- (e) provide sufficient possibility of extension to cater for any future requirements without the need for fundamental changes.

1.3 Controlled, advisory and uncontrolled ATS routes, with the exception of standard arrival and departure routes, shall therefore be identified as specified hereafter.

2. Composition of designator

2.1 The ATS route designator shall consist of a basic designator supplemented, if necessary, by -

(a) one prefix as prescribed in 2.3; and

(b) one additional letter as prescribed in 2.4.

2.1.1 The number of characters required to compose the designator shall not exceed six characters.

2.1.2 The number of characters required to compose the designator should, whenever possible, be kept to a maximum of five characters.

2.2 The basic designator shall consist of one letter of the alphabet followed by a number from 1 to 999.

2.2.1 Selection of the letter shall be made from those listed hereunder -

a) A, B, G, R for routes which form part of the regional networks of ATS routes and are not area navigation routes;

b) L, M, N, P for area navigation routes which form part of the regional networks of ATS routes;

c) H, J, V, W for routes which do not form part of the regional networks of ATS routes and are not area navigation routes;

d) Q, T, Y, Z for area navigation routes which do not form part of the regional networks of ATS routes.

2.3 Where applicable, one supplementary letter shall be added as a prefix to the basic designator in accordance with the following -

(a) K to indicate a low-level route established for use primarily by helicopters;

(b) U to indicate that the route or portion thereof is established in the upper airspace;

(c) S to indicate a route established exclusively for use by supersonic aircraft during acceleration, deceleration and while in supersonic flight.

2.4 When prescribed by the appropriate ANSP or on the basis of regional air navigation agreements, a supplementary letter may be added after the basic designator of the ATS route in question in order to indicate the type of service provided in accordance with the following -

- a) the letter F to indicate that on the route or portion thereof advisory service only is provided;
- b) the letter G to indicate that on the route or portion thereof flight information service only is provided.

3. Assignment of basic designators

3.1 Basic ATS route designators shall be assigned in accordance with the following principles.

3.1.1 The same basic designator shall be assigned to a main trunk route throughout its entire length, irrespective of terminal control areas, States or regions traversed.

3.1.2 Where two or more trunk routes have a common segment, the segment in question shall be assigned each of the designators of the routes concerned, except where this would present difficulties in the provision of air traffic service, in which case, by common agreement, one designator only shall be assigned.

3.1.3 A basic designator assigned to one route shall not be assigned to any other route.

3.1.4 States' requirements for designators shall be notified to the Regional Offices of ICAO for coordination.

4. Use of designators in communications

4.1 In printed communications, the designator shall be expressed at all times by not less than two and not more than six characters.

4.2 In voice communications, the basic letter of designator shall be spoken in accordance with the ICAO spelling alphabet.

4.3 Where the prefixes K, U or S specified in 2.3 are used, they shall, in voice communications, be spoken as follows -

K — KOPTER

U — UPPER

S — SUPERSONIC

The word “kopter” shall be pronounced as in the word “helicopter” and the words “upper” and “supersonic” as in the English language.

- 4.4 Where the letters “F” or “G” specified in 2.4 are used, the flight crew should not be required to use them in voice communications.

THIRD SCHEDULE

PRINCIPLES GOVERNING THE IDENTIFICATION OF STANDARD DEPARTURE AND ARRIVAL ROUTES AND ASSOCIATED PROCEDURES (Regulation 19 (4))

1. Designators for standard departure and arrival routes and associated procedures
 - 1.1 The system of designators shall -
 - a) permit the identification of each route in a simple and unambiguous manner;
 - b) make a clear distinction between -
 - (i) departure routes and arrival routes;
 - (ii) departure or arrival routes and other ATS routes;
 - (iii) routes requiring navigation by reference to ground based radio aids or self-contained airborne aids, and routes requiring navigation by visual reference to the ground;
 - c) be compatible with ATS and aircraft data processing and display requirements;
 - d) be of utmost brevity in its operational application;
 - e) avoid redundancy;
 - f) provide sufficient possibility for extension to cater for any future requirements without the need for fundamental changes.

- 1.2 Each route shall be identified by a plain language designator and a corresponding coded designator.
- 1.3 The designators shall, in voice communications, be easily recognizable as relating to a standard departure or arrival route and shall not create any difficulties in pronunciation for pilots and ATS personnel.

2. Composition of designators

2.1 Plain language designator

2.1.1 The plain language designator of a standard departure or arrival route shall consist of -

- a) a basic indicator; followed by
- b) a validity indicator; followed by
- c) a route indicator, where required; followed by
- d) the word “departure” or “arrival”; followed by
- e) the word “visual”, if the route has been established for use by aircraft operating in accordance with the visual flight rules (VFR).

2.1.2 The basic indicator shall be the name or name-code of the significant point where a standard departure route terminates or a standard arrival route begins.

2.1.3 The validity indicator shall be a number from 1 to 9.

2.1.4 The route indicator shall be one letter of the alphabet. The letters “I” and “O” shall not be used.

2.2 Coded designator

2.2.1 The coded designator of a standard departure or arrival route, instrument or visual, shall consist of:

- a) the coded designator or name-code of the significant point described in -

2.2.2 a); followed by

- b) the validity indicator in 2.1.1 b); followed by

c) the route indicator in 2.1.1 c), where required.

3. Assignment of designators

- 3.1 Each route shall be assigned a separate designator.
- 3.2 To distinguish between two or more routes which relate to the same significant point (and therefore are assigned the same basic indicator), a separate route indicator as described in 2.1.4 shall be assigned to each route.

4. Assignment of validity indicators

- 4.1 A validity indicator shall be assigned to each route to identify the route which is currently in effect.
- 4.2 The first validity indicator to be assigned shall be the number “1”.
- 4.3 Whenever a route is amended, a new validity indicator, consisting of the next higher number, shall be assigned. The number “9” shall be followed by the number “1”.

5. Examples of plain language and coded designators

5.1 Example 1: Standard departure route - instrument -

- a) Plain language : BRECON ONE
designator : DEPARTURE
- b) Coded designator : BCN 1

5.1.1 Meaning: The designator identifies a standard instrument departure route which terminates at the significant point BRECON (basic indicator). BRECON is a radio navigation facility with the identification BCN (basic indicator of the coded designator). The validity indicator ONE (1 in the coded designator) signifies either that the original version of the route is still in effect or that a change has been made from the previous version NINE (9) to the now effective version ONE (1) (see 4.3). The absence of a route indicator (see 2.1.4 and 3.2) signifies that only one route, in this case a departure route, has been established with reference to BRECON.

5.2 Example 2: Standard arrival route - instrument:

- a) Plain language : KODAP TWO ALPHA
 designator : ARRIVAL
- b) Coded designator : KODAP 2 A

5.2.1 Meaning: This designator identifies a standard instrument arrival route which begins at the significant point KODAP (basic indicator). KODAP is a significant point not marked by the site of a radio navigation facility and therefore assigned a five-letter name-code in accordance with Appendix 2. The validity indicator TWO (2) signifies that a change has been made from the previous version ONE (1) to the now effective version TWO (2). The route indicator ALPHA identifies one of several routes established with reference to KODAP and is a specific character assigned to this route.

5.3 Example 3: Standard departure route - visual:

- a) Plain language : ADOLA FIVE BRAVO
 Designator : DEPARTURE VISUAL
- b) Coded designator : ADOLA 5 B

5.3.1 Meaning: This designator identifies a standard departure route for controlled VFR flights which terminates at ADOLA, a significant point not marked by the site of a radio navigation facility. The validity indicator FIVE (5) signifies that a change has been made from the previous version FOUR (4) to the now effective version FIVE (5). The route indicator BRAVO (A) identifies one of several routes established with reference to ADOLA.

6. Composition of designators for MLS/RNAV approach procedures

6.1 Plain language designator

6.1.1 The plain language designator of an MLS/RNAV approach procedure shall consist of:

- a) "MLS"; followed by
- b) a basic indicator; followed by
- c) a validity indicator; followed by

- d) a route indicator; followed by
- e) the word “approach”; followed by
- f) the designator of the runway for which the procedure is designed.

6.1.2 The basic indicator shall be the name or name-code of the significant point where the approach procedure begins.

6.1.3 The validity indicator shall be a number from 1 to 9.

6.1.4 The route indicator shall be one letter of the alphabet. The letters “I” and “O” shall not be used.

6.1.5 The designator of the runway shall be in accordance with the Civil Aviation (Aerodromes Designs and Operations) Regulations, as amended.

6.2 Coded designator.

6.2.1 The coded designator of an MLS/RNAV approach procedure shall consist of:

- a) “MLS”; followed by
- b) the coded designator or name-code of the significant point described in
- c) the validity indicator in 6.1.1 c); followed by
- d) the route indicator in 6.1.1 d); followed by
- e) the runway designator in 6.1.1 f).

6.3 Assignment of designators

6.3.1 The assignment of designators for MLS/RNAV approach procedures shall be in accordance with paragraph 3. Procedures having identical tracks but different flight profiles shall be assigned separate route indicators.

6.3.2 The route indicator letter for MLS/RNAV approach procedures shall be assigned uniquely to all approaches at an airport until all the letters have been used. Only then shall the route indicator letter be repeated. The use of the same route indicator for two routes using the same MLS ground facility shall not be permitted.

6.3.3 The assignment of validity indicator for approach procedures shall be in accordance with paragraph 4.

6.4 Example of plain language and coded designators

6.4.1 Example:

a) Plain language MLS HAPPY ONE ALPHA

designator : APPROACH RUNWAY

ONE EIGHT LEFT

b) Coded designator: MLS HAPPY 1 A 18L

Meaning: The designator identifies an MLS/RNAV approach procedure which begins at the significant point HAPPY (basic indicator). HAPPY is a significant point not marked by the site of a radio navigation facility and therefore assigned a five-letter name-code in accordance with Appendix 2. The validity indicator ONE (1) signifies that either the original version of the route is still in effect or a change has been made from the previous version NINE to the now effective version ONE (1). The route indicator ALPHA (A) identifies one of several routes established with reference to HAPPY and is a specific character assigned to this route.

7. Use of designators in communications

7.1 In voice communications, only the plain language designator shall be used.

Note. - For the purpose of identification of routes, the words “departure”, “arrival” and “visual” described in 2.1.1 d) and 2.1.1 e) are considered to be an integral element of the plain language designator.

7.2 In printed or coded communications, only the coded designator shall be used.

8. Display of routes and procedures to air traffic control

8.1 A detailed description of each currently effective standard departure and/or arrival route/approach procedure, including the plain language designator and the coded designator, shall be displayed at the working positions at which the routes/procedures are assigned to aircraft as part of an ATC clearance, or are otherwise of relevance in the provision of air traffic control services.

8.2 Whenever possible, a graphic portrayal of the routes/procedures shall also be displayed.

FOURTH SCHEDULE**PRINCIPLES GOVERNING THE ESTABLISHMENT AND IDENTIFICATION
OF SIGNIFICANT POINTS****(Regulation 21 (3))****1. Establishment of significant points**

- 1.1 Significant points should, whenever possible, be established with reference to ground-based or space-based radio navigation aids, preferably VHF or higher frequency aids.
- 1.2 Where such ground-based or space-based radio navigation aids do not exist, significant points shall be established at locations which can be determined by self-contained airborne navigation aids, or, where navigation by visual reference to the ground is to be effected, by visual observation. Specific points may be designated as “transfer of control” points by agreement between adjacent air traffic control units or control positions concerned.

2. Designators for significant points marked by the site of a radio navigation aid

- 2.1 Plain language name for significant points marked by the site of a radio navigation aid.
 - 2.1.1 Whenever practicable, significant points shall be named with reference to an identifiable and preferably prominent geographical location.
 - 2.1.2 In selecting a name for the significant point, care shall be taken to ensure that the following conditions are met -
 - a) the name shall not create difficulties in pronunciation for pilots or ATS personnel when speaking in the language used in ATS communications. Where the name of a geographical location in the national language selected for designating a significant point gives rise to difficulties in pronunciation, an abbreviated or contracted version of this name, which retains as much of its geographical significance as possible, shall be selected;

Example: FUERSTENFELDBRUCK = FURSTY

- b) the name shall be easily recognizable in voice communications and shall be free of ambiguity with those of other significant points in the same general area. In addition, the name shall not create confusion with respect to other communications exchanged between air traffic services and pilots;

- c) the name should, if possible, consist of at least six letters and form two syllables and preferably not more than three;
 - d) the selected name shall be the same for both the significant point and the radio navigation aid marking it.
- 2.2 Composition of coded designators for significant points marked by the site of a radio navigation aid.
- 2.2.1 The coded designator shall be the same as the radio identification of the radio navigation aid. It shall be so composed, if possible, as to facilitate association with the name of the point in plain language.
- 2.2.2 Coded designators shall not be duplicated within 1 100 km (600 NM) of the location of the radio navigation aid concerned, except as noted hereunder.
- 2.3 States' requirements for coded designators shall be notified to the Regional Offices of ICAO for coordination.

3. Designators for significant points not marked by the site of a radio navigation aid

- 3.1 Where a significant point is required at a position not marked by the site of a radio navigation aid, and is used for ATC purposes, it shall be designated by a unique five-letter pronounceable "name-code" This name-code designator then serves as the name as well as the coded designator of the significant point.
- 3.2 The name-code designator shall be selected so as to avoid any difficulties in pronunciation by pilots or ATS personnel when speaking in the language used in ATS communications. Examples: ADOLA, KODAP
- 3.3 The name-code designator shall be easily recognizable in voice communications and shall be free of ambiguity with those used for other significant points in the same general area.
- 3.4 The unique five-letter pronounceable name-code designator assigned to a significant point shall not be assigned to any other significant point. When there is a need to relocate a significant point, a new name-code designator shall be chosen. In cases when a State wishes to keep the allocation of specific name-codes for reuse at a different location, such name-codes shall not be used until after a period of at least six months.
- 3.5 States' requirements for unique five-letter pronounceable name-code designators shall be notified to the Regional Offices of ICAO for coordination.

- 3.6 In areas where no system of fixed routes is established or where the routes followed by aircraft vary depending on operational considerations, significant points shall be determined and reported in terms of World Geodetic System - 1984 (WGS-84) geographical coordinates, except that permanently established significant points serving as exit and/or entry points into such areas shall be designated in accordance with the applicable provisions in 2 or 3.

4. Use of designators in communications

- 4.1 Normally the name selected in accordance with 2 or 3 shall be used to refer to the significant point in voice communications. If the plain language name for a significant point marked by the site of a radio navigation aid selected in accordance with 2.1 is not used, it shall be replaced by the coded designator which, in voice communications, shall be spoken in accordance with the ICAO spelling alphabet.
- 4.2 In printed and coded communications, only the coded designator or the selected name code all be used to refer to a significant point.

5. Significant points used for reporting purposes

- 5.1 In order to permit ATS to obtain information regarding the progress of aircraft in flight, selected significant points may need to be designated as reporting points.
- 5.2 In establishing such points, consideration shall be given to the following factors -
- (a) the type of air traffic services provided;
 - (b) the amount of traffic normally encountered;
 - (c) the accuracy with which aircraft are capable of adhering to the current flight plan;
 - (d) the speed of the aircraft;
 - (e) the separation minima applied;
 - (f) the complexity of the airspace structure;
 - (g) the control method(s) employed;
 - (h) the start or end of significant phases of a flight (climb, descent, change of direction, etc.);
 - (i) transfer of control procedures;

- (j) safety and search and rescue aspects;
 - (k) the cockpit and air-ground communication workload.
- 5.3 Reporting points shall be established either as “compulsory” or as “on-request”.
- 5.4 In establishing “compulsory” reporting points the following principles shall apply-
- (a) compulsory reporting points shall be limited to the minimum necessary for the routine provision of information to air traffic services units on the progress of aircraft in flight, bearing in mind the need to keep cockpit and controller workload and air-ground communications load to a minimum;
 - (b) the availability of a radio navigation aid at a location should not necessarily determine its designation as a compulsory reporting point;
 - (c) compulsory reporting points should not necessarily be established at flight information region or control area boundaries.
- 5.5 “On-request” reporting points may be established in relation to the requirements of air traffic services for additional position reports when traffic conditions so demand.
- 5.6 The designation of compulsory and on-request reporting points shall be reviewed regularly with a view to keeping the requirements for routine position reporting to the minimum necessary to ensure efficient air traffic services.
- 5.7 Routine reporting over compulsory reporting points should not systematically be made mandatory for all flights in all circumstances. In applying this principle, particular attention shall be given to the following -
- a) high-speed, high-flying aircraft should not be required to make routine position reports over all reporting points established as compulsory for low-speed, low-flying aircraft;
 - b) aircraft transiting through a terminal control area should not be required to make routine position reports as frequently as arriving and departing aircraft.
- 5.8 In areas where the above principles regarding the establishment of reporting points would not be practicable, a reporting system with reference to meridians of longitude or parallels of latitude expressed in whole degrees may be established.

FIFTH SCHEDULE

AERONAUTICAL DATA QUALITY REQUIREMENTS
(Regulation 25)

Table 1. Latitude and longitude

<i>Latitude and longitude</i>	<i>Accuracy Data type</i>	<i>Integrity Classification</i>
Flight information region boundary points.....	2 km declared	routine
P, R, D area boundary points (outside CTA/CTR boundaries).....	2 km declared	routine
P, R, D area boundary points (inside CTA/CTR boundaries).....	100 m calculated	essential
CTA/CTR boundary points	100 m calculated	essential
En-route nav aids and fixes, holding, STAR/SID points.....	100 m surveyed/calculated	essential
Obstacles in Area 1 (the entire State territory)	50 m surveyed	routine
Obstacles in Area 2 (the part outside the aerodrome/heliport boundary)	5 m surveyed	essential
Final approach fixes/points and other essential fixes/points comprising the instrument approach procedure.....	3 m surveyed/calculated	essential

a) Table 2. Elevation/altitude/height

<i>Elevation/altitude/height</i>	<i>Accuracy Data type</i>	<i>Integrity Classification</i>
Threshold crossing height (Reference datum height), precision approaches	0.5 m calculated	critical
Obstacle clearance altitude/height (OCA/H)	as specified in PANS-OPS (Doc 8168)	essential
Obstacles in Area 1 (the entire State territory), elevations	30 m surveyed	routine
Obstacles in Area 2 (the part outside the aerodrome/heliport boundary)	3 m surveyed	essential
Distance measuring equipment (DME), elevation	30 m (100 ft) surveyed	essential
Instrument approach procedures altitude	as specified in PANS-OPS (Doc 8168)	essential
Minimum altitudes	50 m calculated	routine

b) Table 3. Declination and magnetic variation

<i>Declination/variation</i>	<i>Accuracy Data type</i>	<i>Integrity Classification</i>
VHF NAVAID station declination used for technical line-up	1 degree surveyed	essential
NDB NAVAID magnetic variation	1 degree surveyed	routine

Table 4. Bearing

<i>Bearing</i>	<i>Accuracy Data type</i>	<i>Integrity Classification</i>
Airway segments	1/10 degree calculated	routine
Bearing used for the formation of an en-route and of a terminal fix	1/10 degree calculated	routine
Terminal arrival/departure route segments	1/10 degree calculated	routine
Bearing used for the formation of an instrument approach procedure fix	1/100 degree calculated	essential

Table 5. Length/distance/dimension

<i>Accuracy</i>	<i>Integrity</i>	<i>Data type</i>	<i>Classification</i>
<i>Length/distance/dimension</i>		1/10Km 1/10 km	
Airway segments length		calculated	routine
Distance used for the formation of an en-route fix ...		1/10 km calculated	routine routine
Terminal Arrival/departure route segments length ..		1/100 km calculated	Essential
Distance used for the formation of a terminal and instrument approach procedure fix		1/100 km calculated	essential

SIXTH SCHEDULE

**RESPONSIBILITIES BY THE AUTHORITY CONCERNING
AN INSTRUMENT FLIGHT PROCEDURE DESIGN SERVICE**

(Regulation 42)

1. The Air Traffic Service provider shall -
 - (a) provide an instrument flight procedure design service; and
 - (b) agree with one or more Air Traffic Service provider(s) to provide a joint service; and
 - (c) delegate the provision of the service to external agency.
2. In all cases in paragraph 1 above, the Authority concerned shall approve and remain responsible for all instrument flight procedures for aerodromes and airspace under its authority.
3. Instrument flight procedures shall be designed in accordance with design criteria approved by the Authority.
4. The Authority shall ensure that an instrument flight procedure design service provider intending to design an instrument flight procedure for aerodromes or airspace under its authority meets the requirements established by Authority's regulatory framework.
5. The Authority shall ensure that an instrument flight procedure design service provider utilizes a quality management system at each stage of the instrument flight procedure design process.
6. The Authority shall ensure that maintenance and periodic review of instrument flight procedures for aerodromes and airspace under its authority are conducted.
7. The Authority shall establish an interval for periodic review of instrument flight procedures not exceeding five years.

SEVENTH SCHEDULE

PRESCRIPTIVE FATIGUE MANAGEMENT REGULATIONS

(Regulation 35)

1. The Authority shall establish prescriptive limitation regulations that take into account acute and cumulative fatigue, circadian factors and the type of work being undertaken. These regulations shall identify -
 - a) the maximum -
 - (i) number of hours in any duty period;
 - (ii) number of consecutive work days;
 - (iii) number of hours worked in a defined period; and
 - iv) time-in-position;
 - b) the minimum -
 - (i) duration of non-duty periods;
 - (ii) number of non-duty days required in a defined period; and
 - (iii) duration of breaks between periods of time-in-position in a duty period.
2. The Authority shall require the air traffic services provider identifies a process for assigning unscheduled duties that allows air traffic controllers to avoid extended periods of being awake.
3. The processes established by the Authority in accordance with *Regulation 35(5) c) and d)* to allow variations from 1 a) and b) above shall include the provision of -
 - (a) the reason for the need to deviate;
 - (b) the extent of the deviation;
 - (c) the date and time of enactment of the deviation; and
 - (d) a safety case, outlining mitigations, to support the deviation.

EIGHTH SCHEDULE

FATIGUE RISK MANAGEMENT SYSTEM (FRMS) REQUIREMENTS

(Regulation 35)

The Authority shall require that an FRMS contain, at a minimum:

1. FRMS policy and documentation

1.1 FRMS policy

1.1.1 The air traffic services provider shall define its FRMS policy, with all elements of the FRMS clearly identified.

1.1.2 The policy shall -

- (a) define the scope of FRMS operations;
- (b) reflect the shared responsibility of management, air traffic controllers, and other involved personnel;
- (c) clearly state the safety objectives of the FRMS;
- (d) be signed by the accountable executive of the organization;
- (e) be communicated, with visible endorsement, to all the relevant areas and levels of the organization;
- (f) declare management commitment to effective safety reporting;
- (g) declare management commitment to the provision of adequate resources for the FRMS;
- (h) declare management commitment to continuous improvement of the FRMS;
- (i) require that clear lines of accountability for management, air traffic controllers, and all other involved personnel are identified; and
- (j) require periodic reviews to ensure it remains relevant and appropriate.

1.2 FRMS documentation

An air traffic services provider shall develop and keep current FRMS documentation that describes and records -

- (a) FRMS policy and objectives;
- (b) FRMS processes and procedures;
- (c) accountabilities, responsibilities and authorities for these processes and procedures;
- (d) mechanisms for ongoing involvement of management, air traffic controllers, and all other involved personnel;
- (e) FRMS training programmes, training requirements and attendance records;
- (f) scheduled and actual duty and non-duty periods and break periods between times in position in a duty period with significant deviations and reasons for deviations noted; and
- (g) FRMS outputs including findings from collected data, recommendations, and actions taken.

2. Fatigue risk management processes

2.1 Identification of fatigue-related hazards, an air traffic services provider shall develop and maintain three fundamental and documented processes for fatigue hazard identification -

2.1.1 *Predictive.* The predictive process shall identify fatigue hazards by examining air traffic controller scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include but are not limited to -

- (a) air traffic services or industry operational experience and data collected on similar types of operations or from other industries with shift work or 24-hour operations;
- (b) evidence-based scheduling practices; and
- (c) bio-mathematical models.

2.1.2 Proactive. The proactive process shall identify fatigue hazards within current air traffic services operations. Methods of examination may include but are not limited to -

- (a) self-reporting of fatigue risks;
- (b) fatigue surveys;
- (c) relevant air traffic controller performance data;
- (d) available safety databases and scientific studies;
- (e) tracking and analysis of differences in planned and actual worked times; and
- f) observations during normal operations or special evaluations.

2.1.3 The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimized. At a minimum, the process may be triggered by any of the following -

- (a) fatigue reports;
- (b) confidential reports;
- (c) audit reports; and
- (d) incidents.

2.2 Fatigue-related risk assessment

2.2.1 An air traffic services provider shall develop and implement risk assessment procedures that determine when the associated risks require mitigation.

2.2.2 The risk assessment procedures shall review identified fatigue hazards and link them to -

- (a) operational processes;
- (b) their probability;
- (c) possible consequences; and

- (d) the effectiveness of existing preventive controls and recovery measures.

2.3 Risk mitigation

An air traffic services provider shall develop and implement fatigue risk mitigation procedures that-

- (a) select the appropriate mitigation strategies;
- (b) implement the mitigation strategies; and
- (c) monitor the strategies' implementation and effectiveness.

(ii) FRMS safety assurance processes

The air traffic services provider shall develop and maintain FRMS safety assurance processes to:

- (e) provide for continuous FRMS performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include, but are not limited to -
 - (i) hazard reporting and investigations;
 - (ii) audits and surveys; and
 - (iii) reviews and fatigue studies (both internal and external).
- f) provide a formal process for the management of change. This shall include but is not limited to
 - (i) identification of changes in the operational environment that may affect the FRMS;
 - (ii) identification of changes within the organization that may affect the FRMS; and
 - iii) consideration of available tools which could be used to maintain or improve FRMS performance prior to implementing changes; and
- (g) provide for the continuous improvement of the FRMS. This shall include but is not limited to -

(iii) FRMS promotion processes

improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the air traffic service provider as part of its FRMS-

- (a) training programmes to ensure competency commensurate with the roles and responsibilities of management, air traffic controllers, and all other involved personnel under the planned FRMS; and
- (b) an effective FRMS communication plan that -
 - (i) explains FRMS policies, procedures and responsibilities to all relevant stakeholders; and
 - (ii) describes communication channels used to gather and disseminate FRMS-related information.

**NINTH SCHEDULE
TRANSFER OF CONTROL**

(Regulation 48, 49)

1.1 DIVISION OF RESPONSIBILITY FOR CONTROL BETWEEN AIR TRAFFIC CONTROL UNITS

1.1.1 General.

The appropriate ATS authority shall designate the area of responsibility for each air traffic control (ATC) unit and, when applicable, for individual control sectors within an ATC unit. Where there is more than one ATC working position within a unit or sector, the duties and responsibilities of the individual working positions shall be defined.

1.1.2 Between a unit providing aerodrome control service and a unit providing approach control service.

1.1.2.1 Except for flights which are provided aerodrome control service only, the control of arriving and departing controlled flights shall be divided between units providing aerodrome control service and units providing approach control service as follows -

1.1.2.1.1 Arriving aircraft. Control of an arriving aircraft shall be transferred from the unit providing approach control service to the unit providing aerodrome control service when the aircraft -

- (a) is in the vicinity of the aerodrome, and
- (b) it is considered that approach and landing will be completed in visual reference to the ground, or
- (c) has reached uninterrupted visual meteorological conditions, or b) is at a prescribed point or level, or
- (d) has landed, as specified in letters of agreement or ATS unit instructions.

1.1.2.1.2 Transfer of communications to the aerodrome controller should be effected at such a point, level or time that clearance to land or alternative instructions, as well as information on essential local traffic, can be issued in a timely manner.

1.1.2.1.3 Departing aircraft. Control of a departing aircraft shall be transferred from the unit providing aerodrome control service to the unit providing approach control service -

a) when visual meteorological conditions prevail in the vicinity of the aerodrome -

- (i) prior to the time the aircraft leaves the vicinity of the aerodrome;
- (ii) prior to the aircraft entering instrument meteorological conditions; or

(iii) when the aircraft is at a prescribed point or level, as specified in letters of agreement or ATS unit instructions.

(b) when instrument meteorological conditions prevail at the aerodrome -

- (i) Immediately after the aircraft is airborne, or
- (ii) when the aircraft is at a prescribed point or level, as specified in letters of agreement or local instructions.

1.1.3 Between a unit providing approach control service and a unit providing area control service.

1.1.3.1 When area control service and approach control service are not provided by the same air traffic control unit, responsibility for controlled flights shall

rest with the unit providing area control service except that a unit providing approach control service shall be responsible for the control of -

- (a) arriving aircraft that have been released to it by the ACC;
- (b) departing aircraft until such aircraft are released to the ACC.

1.1.3.2 A unit providing approach control service shall assume control of arriving aircraft, provided such aircraft have been released to it, upon arrival of the aircraft at the point, level or time agreed for transfer of control, and shall maintain control during approach to the aerodrome.

1.1.4 Between two units providing area control service.

The responsibility for the control of an aircraft shall be transferred from a unit providing area control service in a control area to the unit providing area control service in an adjacent control area at the time of crossing the common control area boundary as estimated by the ACC having control of the aircraft or at such other point, level or time as has been agreed between the two units.

1.1.5 Between control sectors or positions within the same air traffic control unit.

The responsibility for the control of an aircraft shall be transferred from one control sector or position to another control sector or position within the same ATC unit at a point, level or time, as specified in local instructions.

1.1.6 Transfer of control Where an ATS surveillance service is being provided.

1.1.6.1 Where an ATS surveillance service is being provided, transfer of control should be effected, whenever practicable, so as to enable the uninterrupted provision of the ATS surveillance service.

1.1.6.2 Where SSR or ADS-B or MLAT is used and the display of position indications with associated labels is provided for, transfer of control of aircraft between adjacent control positions or between adjacent ATC units may be effected without prior coordination, provided that -

- (a) updated flight plan information on the aircraft about to be transferred, including the discrete assigned SSR code or, with respect to Mode S and ADS-B, the aircraft identification, is provided to the accepting controller prior to transfer;
- (b) the ATS surveillance system coverage provided to the accepting controller is such that the aircraft concerned is presented on the situation display before the

transfer is effected and is identified on, but preferably before, receipt of the initial call;

- (c) when the controllers are not physically adjacent, two-way direct speech facilities, which permit communications to be established instantaneously, are available between them at all times;
- (d) the transfer point or points and all other conditions of application, such as direction of flight, specified levels, transfer of communication points, and especially an agreed minimum separation between aircraft, including that applicable to succeeding aircraft on the same route, about to be transferred as observed on the situation display, have been made the subject of specific instructions (for intra-unit transfer) or of a specific letter of agreement between two adjacent ATC units;
- (e) the instructions or letter of agreement specify explicitly that the application of this type of transfer of control may be terminated at any time by the accepting controller, normally with an agreed advance notice;
- (f) the accepting controller is informed of any level, speed or vectoring instructions given to the aircraft prior to its transfer and which modify its anticipated flight progress at the point of transfer.

1.1.6.3 The minimum agreed separation between aircraft about to be transferred (1.1.6.2 d) refers) and the advance notice (1.1.6.2 e) refers) shall be determined taking into account all relevant technical, operational and other circumstances.

If circumstances arise in which these agreed conditions can no longer be satisfied, controllers shall revert to the procedure in 1.1.6.4 until the situation is resolved.

1.1.6.4 Where primary radar is being used, and where another type of ATS surveillance system is employed but the provisions of 1.1.6.2 are not applied, the transfer of control of aircraft between adjacent control positions or between two adjacent ATS units may be effected, provided that -

- (a) identification has been transferred to or has been established directly by the accepting controller;
- (b) when the controllers are not physically adjacent, two-way direct-speech facilities between them are at all times available which permit communications to be established instantaneously;
- (c) separation from other controlled flights conforms to the minima authorized for use during transfer of control between the sectors or units concerned;

- (d) the accepting controller is informed of any level, speed or vectoring instructions applicable to the aircraft at the point of transfer;
- (e) radio communication with the aircraft is retained by the transferring controller until the accepting controller has agreed to assume responsibility for providing the ATS surveillance service to the aircraft. Thereafter, the aircraft should be instructed to change over to the appropriate channel and from that point is the responsibility of the accepting controller.

1.2 Coordination of transfer -

- 1.2.1 Responsibility for control of an aircraft shall not be transferred from one air traffic control unit to another without the consent of the accepting control unit, which shall be obtained in accordance with 1.2.2, 1.2.2.1, 1.2.2.2 and 1.2.3.
- 1.2.2 The transferring control unit shall communicate to the accepting control unit the appropriate parts of the current flight plan and any control information pertinent to the transfer requested.
 - 1.2.2.1 Where transfer of control is to be effected using radar or ADS-B data, the control information pertinent to the transfer shall include information regarding the position and, if required, the track and speed of the aircraft, as observed by radar or ADS-B immediately prior to the transfer.
 - 1.2.2.2 Where transfer of control is to be effected using ADS-C data, the control information pertinent to the transfer shall include the four-dimensional position and other information as necessary.
- 1.2.3 The accepting control unit shall-
 - (a) indicate its ability to accept control of the aircraft on the terms specified by the transferring control unit, unless by prior agreement between the two units concerned, the absence of any such indication is understood to signify acceptance of the terms specified, or indicate any necessary changes thereto; and
 - (b) specify any other information or clearance for a subsequent portion of the flight, which it requires the aircraft to have at the time of transfer.
- 1.2.4 The accepting control unit shall notify the transferring control unit when it has established two-way voice and/or data link communications with and assumed control of the aircraft concerned, unless otherwise specified by agreement between the two control units concerned.

- 1.2.5 Applicable coordination procedures, including transfer of control points, shall be specified in letters of agreement and ATS unit instructions as appropriate.

CHIEF NDLALUHLAZA NDWANDWE
MINISTER FOR PUBLIC WORKS AND TRANSPORT