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Civil Aviation Authority of Fiji

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Air Traffic Services

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AIR TRAFFIC SERVICES

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PREFACE

General

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

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

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

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

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

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

Purpose

This Standards Document – Air Traffic Service is issued by the Civil Aviation Authority of Fiji pursuant to Regulation 145A of the Air Navigation Regulations 1981 (as amended). The Document is intended for use CAAF, applicants for, and holders of, an Air Traffic Service Provider Certificate and for their staff.

Change Notice

This Standards Document has been developed pursuant to the Authority's obligation to provide safety oversight on air traffic service providers and their personnel, as well as the provider's obligation to comply with standards notified by the Authority and is the means by which such notification is given.

THERESA LEVESTAM
ACTING CHIEF EXECUTIVE

RECORD OF AMENDMENT

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

Amendment No.	Effective Date	Entered By	Date Entered
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From time to time the Authority will issue amendments to the requirements stipulated in this publication. This will be done in the form of a 'Notice of Amendments' including an attachment 'Notification of Approval/Disapproval' of all or part of the proposed amendment.

The Amendments will also be accessible through the CAAF website.

Contents

HISTORICAL SUMMARY OF AMENDMENTS

The Civil Aviation Reform Act (1999) requires the Authority to produce standards for the provision of air traffic services.

Air Navigation Regulation 145A to the Air Navigation Regulations 1981 enacted in December 2003 the requirement for the certification of the ATS Provider.

Amendment	*Source(s)*	*Subject(s)*	*Effective Date*
1st Edition	*CAAFI*	*Minimum Requirements Document- Air Traffic Services*	*03rd Dec 2001*
1st Edition	*CAAFI*	*Standards Document - Air Traffic Services (SDATS) (includes Certification of ATS Provider, name change from MRD, details the ATS standards and the ATS Provider certification requirements.)* *SDATS supersedes MRD23*	*1st July 2004*
A1	*CAAFI*	*Inclusion of definitions from ICAO Annex 11 – Air Traffic Services for uniformity of interpretation; Chapter 1 re-issued.*	*12th May 2005*
2nd Edition	*CAAFI*	*Reformatting of the SD*	*14th Dec. 2007*
3rd Edition	*CAAF*	*Incorporating Annex 11 amendments*	*16th Aug 2012*
4th Edition	*CAAF*	*Incorporating Annex 11 amendments from 2012*	*30 June 2019*

Chapter 1- General

1.1 Applicability

1.1.1 This Standards Document prescribes standards governing—

(a) the certification and operation of organisations providing an air traffic service within the territories over which Fiji has jurisdiction and those territories for which Fiji has accepted responsibility for the provision of air traffic services; hereinafter referred to as Fiji's Flight Information Region (NFFF) and Nadi's Oceanic Controlled Airspace (OCA), and

(b) the operating and technical standards for the provision of air traffic services by those organisations.

Note 1: - Fiji has determined, in accordance with the provisions of ICAO Annex 11, for the territories over which it has jurisdiction, those portions of the airspace and those aerodromes where air traffic services will be provided. These shall be published in the Aeronautical Information Publication – Fiji.

Note 2: - Fiji has accepted responsibility for the provision of air traffic services over the territory of Vanuatu, New Caledonia, Funafuti, Kiribati, Wallis and Futuna without derogation to these State's national sovereignty. In accepting this responsibility Fiji's role is limited to technical and operational considerations and does not extend beyond those pertaining to the safety and expedition of aircraft using the concerned airspace.

Note 3: - Furthermore, for those portions of airspace over the high seas where air traffic service is provided by Fiji on the basis of regional air navigation agreements, the organisation providing the service shall ensure that the services are established and provided in accordance with the provisions of this Standards Document and Annex 11.

1.1.2 The objectives of the air traffic services shall be to:

(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;

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

1.1.3 Divisions of the air traffic services: the air traffic services shall comprise three services identified as follows: -

(a) the air traffic control service, to accomplish objectives a), b) and c) of 1.1.2, this service being divided in three parts as follows:

(1) Area control service: the provision of air traffic control service for controlled flights, except for those parts of such flights described in b) and c), in order to accomplish objectives a) and c) of 1.1.2;

(2) Approach control service: the provision of air traffic control service for those parts of controlled flights associated with arrival or departure, in order to accomplish objectives a) and c) of 1.1.2;

(3) Aerodrome control service: the provision of air traffic control service for aerodrome traffic, except for those parts of flights described in b), in order to accomplish objectives a), b) and c) of 1.1.2.

(b) The flight information service, to accomplish objective d) of 1.1.2.

(c) The alerting service, to accomplish objective e) of 1.1.2.

1.2 Definitions

When the following terms are used in this Standards Document, they have the following meanings -

Accepting unit - an air traffic control unit next to take control of an aircraft.

Accident - 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, windscreens, 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.

Note 1:- For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2:- An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3:- The type of unmanned aircraft system to be investigated is addressed in Annex 13, 5.1.

Note 4:—-Guidance for the determination of aircraft damage can be found in Annex 13, Attachment E.

ADS-C agreement - A reporting plan which establishes the conditions of ADS-C data reporting (i.e. 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).

Note: -The terms of the agreement will be exchanged between the ground system and the aircraft by means of a contract, or a series of contracts.

Advisory airspace - An airspace of defined dimensions, or designated route, within which air traffic advisory service is available.

Advisory route - A designated route along which air traffic advisory service is available.

Aerodrome - A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aerodrome control service - an air traffic control service for aerodrome traffic.

Aerodrome control tower - a unit established to provide air traffic control service to aerodrome traffic.

Aerodrome traffic - all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.

Note: - An aircraft is in the vicinity of an aerodrome when it is in, entering or leaving an aerodrome traffic circuit.

Aeronautical fixed service (AFS) - A telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services.

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

(Note: Fiji AIP is issued by Fiji Airports Limited subject to CAAF approval)

Aeronautical mobile service - 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 station - A land station in the aeronautical mobile service. In certain instances, an aeronautical station may belocated, for example, on board ship or on a platform at sea.

Aeronautical telecommunication station - A station in the aeronautical telecommunication service.

Airborne collision avoidance system (ACAS) - An aircraft system based on secondary surveillance radar (SSR) transponder signals which operate independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

Aircraft - 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 - Two-way communication between aircraft and stations or locations on the surface of the earth.

AIRMET information - 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 thereof.

Air-taxiing - 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 kt).

Note:- The actual height may vary, and some helicopters may require air-taxiing above 8 m (25 ft) AGL to reduce ground effect turbulence or provide clearance for cargo slingloads.

Air traffic - All aircraft in flight or operating on the manoeuvring area of an aerodrome.

Air traffic advisory service - 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 - Authorisation for an aircraft to proceed under conditions specified by an air traffic control unit.

Note 1: - For convenience, the term "air traffic control clearance" is frequently abbreviated to "clearance" when used in appropriate contexts.

Note 2.: - The abbreviated term "clearance" may be prefixed by the words "taxi," "take-off," "departure," "en-route," "approach" or "landing" to indicate the particular portion of flight to which the air traffic control clearance relates.

Air traffic control service - a service provided for the purpose of:

(1) preventing collisions:

(i) between aircraft, and

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

(2) expediting and maintaining an orderly flow of air traffic;

Air traffic control unit - Is a generic term meaning variously, area control centre, approach control unit or aerodrome control tower.

Air traffic controller schedule - A plan for allocating air traffic controller duty periods and non-duty periods over a period of time, otherwise referred to as a roster. This term becomes applicable from 5th November 2020.

Air traffic flow management (ATFM) - 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 - 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 - 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.

Note: - ATS airspaces are classified as Class A to G as described in 1.11 of this documents.

Air traffic services reporting office - A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.

Note:- An air traffic services reporting office may be established as a separate unit or combined with an existing unit, such as another air traffic services unit, or a unit of the aeronautical information service

Air traffic services unit - A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

Airway - A control area or portion thereof established in the form of a corridor.

Automatic dependent surveillance (ADS) - A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position and additional data as appropriate.

ALERFA - The code word used to designate an alert phase.

Alerting service - A service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required.

Alert phase - A situation wherein apprehension exists as to the safety of an aircraft and its occupants.

Alternate aerodrome - 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. Alternate aerodromes include the following:

Take-off alternate - An alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.

En-route alternate - An aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route.

ETOPS en-route alternate - A suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shut-down or other abnormal or emergency condition while en route in an ETOPS operation.

Destination alternate - An alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing.

Note: - The aerodrome from which a flight departs may also be an en-route or a destination alternate aerodrome for that flight.

Altitude - The vertical distance of a level, a point or an object considered as a point, measured from mean sea level.

Approach control service - Air traffic control service for arriving or departing controlled flights.

Approach control unit - A unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.

Appropriate ATS authority - The relevant authority designated by the responsible for providing air traffic services in the airspace concerned.

Apron - 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 - A service provided to regulate the activities and the movement of aircraft and vehicles on an apron.

Area control centre - A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.

Area control service - Air traffic control service for controlled flights in control areas.

Area navigation (RNAV) - A method of navigation which permits aircraft operation on any desired flight path within the coverage of station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

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

Area navigation route - An ATS route established for the use of aircraft capable of employing area navigation.

Area of responsibility - The airspace, and in the case of an aerodrome, the manoeuvring area, within which a particular operating position is responsible for the provision of an air traffic service.

ATS Letter of Agreement - A document formalising matters of operational significance between ATS units.

ATS messages - Emergency messages, movement and control messages, and flight information messages as described in Part IX of Document 4444.

ATS route - A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.

Note 1: - The term "ATS route" is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure route, etc.

Note 2: - An ATS route is defined by route specifications which include an ATS route designator, the track to or from significant points (waypoints), distance between significant points, reporting requirements and, as determined by the appropriate ATS authority, the lowest safe altitude.

Automatic dependent surveillance - broadcast (ADS-B). A means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link.

Automatic dependent surveillance - contract (ADS-C). A means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports.

Note:- The abbreviated term "ADS contract" is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract or an emergency mode.

Automatic Terminal Information Service (ATIS) - The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof:

Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link.

Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts.

Base turn - 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

Note:- Base turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure.

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

Change-over point - The point at which an aircraft navigating on an ATS route segment defined by reference to very high frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.

Note.:-Change-over points are established to provide the optimum balance in respect of signal strength and quality between facilities at all levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.

Clearance limit - The point to which an aircraft is granted an air traffic control clearance.

Conference communications - Communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously.

Control area - A controlled airspace extending upwards from a specified limit above the earth.

Controlled aerodrome - An aerodrome at which air traffic control service is provided to aerodrome traffic.

Note:- The term "controlled aerodrome" indicates that air traffic control service is provided to aerodrome traffic but does not necessarily imply that a control zone exists.

Controlled airspace - An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

Note:- Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D and E as described in 1.11

Controlled flight - Any flight which is subject to an air traffic control clearance.

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

Control zone - A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Cruising level - A level maintained during a significant portion of a flight.

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

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

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

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

Data link communications - A form of communication intended for the exchange of messages via a data link.

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

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

Declared capacity - 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 - The code word used to designate a distress phase.

Distress phase - A situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.

Document 4444 - The ICAO document titled Procedures for Air Navigation Services – Air Traffic Management (PANS/ATM).

Document 7030 - The ICAO document titled *Regional Supplementary Procedures* as applicable to the Middle East/Asia and Pacific regions.

Document 9613 – The ICAO document titled Performance Based Navigation (PBN) Manual

Document 9432 - The ICAO document titled Manual of Radiotelephony.

Document 9713 - International Civil Aviation Vocabulary.

Downstream clearance - A clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft.

Duty - Any task that an air traffic controller is required by an air traffic services provider to perform. These tasks include those performed during time-in-position, administrative work and training. This term comes into effect after 5th November 2020.

Duty period - 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. This term comes into effect after 5th November 2020.

Emergency phase - A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.

Essential traffic - Any controlled traffic that is not separated by the prescribed minima in relation to other controlled flights where separation is required.

Fatigue - A physiological 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. This term comes into effect after 5th November 2020.

Fatigue risk management system (FRMS) - 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. This term comes into effect after 5th November 2020.

Filed flight plan - The flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes.

Final approach -. 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,

(1) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or

(2) 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 - A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

Flight information centre - A unit established to provide flight information service and alerting service.

Flight information region - An airspace of defined dimensions within which flight information service and alerting service are provided.

Flight information service - A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Flight level - 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.

Note 1:- A pressure type altimeter calibrated in accordance with the Standard Atmosphere:

a) when set to a QNH altimeter setting, will indicate altitude;

b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;

c) when set to a pressure of 1 013.2 hPa, may be used to indicate flight levels.

Note 2:- The terms "height" and "altitude" used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Flight plan - Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Note:- Specifications for flight plans are contained in Annex 2. When the expression "flight plan form" is used it denotes the model flight plan form at Appendix 2 to the PANS-ATM (Doc 4444).

Flow control - Measures designed to adjust the flow of traffic into a given airspace, along a given route, or bound for a given aerodrome, to ensure the most effective utilization of the airspace.

Forecast - A ment of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace.

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

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

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

Human Factors principles - Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Human performance -. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

IFR - The symbol used to designate the instrument flight rules.

IFR flight - A flight conducted in accordance with the instrument flight rules.

IMC - The symbol used to designate instrument meteorological conditions.

INCERFA - The code word used to designate an uncertainty phase.

Incident - An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note:- The types of incidents which are of main interest to the International Civil Aviation Organisation for accident prevention studies are listed in Annex 13, Attachment C.

Instrument flight procedure design service - 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) - Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

Note:- The specified minima for visual meteorological conditions are contained in Annex 2.

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

a) routine data: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

b) essential data: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and

c) critical data: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

International NOTAM office -. An office designated by a for the exchange of NOTAM internationally.

Level - A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.

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

Meteorological office - An office designated to provide meteorological service for international air navigation.

Movement area - That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

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

Required navigation performance (RNP) specification - A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.

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

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

Note 2:- The term RNP, previously defined as "a ment of the navigation performance necessary for operation within a defined airspace," has been removed from this Annex as the concept of RNP has been overtaken by the concept of PBN. The term RNP in this Annex is now solely used in the context of navigation specifications that require performance monitoring and alerting, e.g. RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting that are detailed in Doc 9613.

Non-duty period - 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 . This term comes into effect after 5th November 2020.

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

Obstacle - All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

a) are located on an area intended for the surface movement of aircraft; or b) extend above a defined surface intended to protect aircraft in flight; or

c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.

Operator - A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Operating position - The workstation from which one or more air traffic controllers or flight information service officers provide air traffic services within an allocated area or areas of responsibility.

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

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

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

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

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

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

Pilot-in-command - 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 - Communications which automati-cally provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit.

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

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

Radiotelephony - A form of radiocommunication primarily intended for the exchange of information in the form of speech.

Rated air traffic controller - An air traffic controller holding a current licence, and a rating, or ratings, validated for the particular location.

Rated flight information service officer - A holder of a flight information service officer licence, and a rating or ratings; validated for the particular location/position.

Reporting point - A specified geographical location in relation to which the position of an aircraft can be reported.

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

Required navigation performance (RNP) - A ment of the navigation performance necessary for operation within a defined airspace.

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

Rescue coordination centre - 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 - An airspace of defined dimensions, above the land areas or territorial waters of a Contracting State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

RNP type - A containment value expressed as a distance in nautical miles from the intended position within which flights would be for at least 95 per cent of the total flying time.

Example: - RNP 4 represents a navigation accuracy of plus or minus 7.4 km (4 NM) on a 95 per cent containment basis.

Runway - A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Runway visual range (RVR) - 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.

SD-ATSPL - Standards Document-Air Traffic Services Personnel Licensing.

Safety Management System (SMS) - A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

SIGMET information - Information issued by a meteorological watch office concerning the occurrence or expected occur-rence of specified en-route weather phenomena which may affect the safety of aircraft operations.

Significant point - A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes.

Note :-There are three categories of significant points: ground-based navigation aid, intersection and waypoint. In the context of this definition, intersection is a significant point expressed as radials, bearings and/or distances from ground- based navigation aids.

Situation display - An electronic display depicting the position and movement of aircraft and other information as required.

Special VFR flight - A VFR flight cleared by ATC to operate within a control zone in meteorological conditions below visual meteorological conditions.

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

Strayed aircraft - An aircraft that has deviated significantly from its intended track or reports that it is lost.

TACAN - UHF tactical air navigation aid.

Taxiing - Movement of an aircraft on the surface of an aero-drome under its own power, excluding take-off and landing.

Terminal control area - A control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes.

Time-in-position - The period of time when an air traffic controller is exercising the privileges of the air traffic controller's licence at an operational position. This term comes into effect after 5th November 2020.

Track - 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 - Advice provided by an ATS unit to assist a pilot to avoid a collision.

Traffic information - Information issued by an ATS 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 - 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 trans-ferred from one control unit or control position to the next.

Transferring unit - 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 - A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

VFR - The symbol used to designate the visual flight rules.

VFR flight - A flight conducted in accordance with the visual flight rules.

Visual approach - An approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed in visual reference to terrain.

Visual meteorological conditions (VMC) - Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

Note: - The specified minima are contained in Annex 2.

VMC - The symbol used to designate visual meteorological conditions.

VORSEC - VOR/DME minimum sector altitude chart.

VORTAC - VOR and TACAN combination.

Waypoint - 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:

Fly-by waypoint - A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or

Flyover waypoint - A waypoint at which a turn is initiated in order to join the next segment of a route or procedure.

c) Where terminology used herein is not defined, it shall be interpreted in accordance with ICAO Doc 9713 Part 1 & Part 2 or the Annexes.

1.3 Requirement for certificate (Regulation 145A)

No person shall exercise the functions of an air traffic services provider unless such person holds an Air Traffic Service Provider Certificate granted by the Authority after it is satisfied that such a person is-

(a) competent, having regard to any of the following, his previous conduct and experience, equipment, facility, organisation, staffing, training, quality assurance system, safety management system, maintenance and other arrangements to conduct services specified in the certificate and for the services so specified; and

(b) in compliance with air traffic service standards published by the Authority and where applicable, in accordance with the requirements of the International Civil Aviation Organisation (ICAO).

1.4 Application for certificate

Each applicant for the grant of an air traffic service provider certificate shall—

(1) complete the appropriate form which shall require as a minimum the following information—

(i) the applicant's name and address for service in Fiji; and

(ii) the specific air traffic service or services to be provided; and

(iii) the aerodrome location or airspace designation at, or within which, the service will be provided; and

(iv) such other particulars relating to the applicant and the intended service as may be required by the Authority as indicated on the form; and

(2) submit the completed form to the Authority with -

(i) the exposition required by 2.40; and

(ii) payment of the appropriate application fee prescribed by regulations made under the Act.

1.5 Issue of certificate

(a) Subject to paragraph (b), an applicant may be granted an air traffic service provider certificate if the Authority is satisfied that—

(1) the applicant meets the requirements of Chapter 2 and paragraph (c) below where applicable; and

(2) the applicant, and the applicant's senior person or persons required by 2.1, are fit and proper persons; and

(3) the granting of the certificate is not contrary to the interests of aviation safety.

(b) The Authority shall ensure, in the interests of aviation safety that only one certificate for the same air traffic service is current at any time.

(c) Where the ATS Provider as notified in the Fiji legislation provides ATS through contractual arrangement(s) either in total or in part-

(1) the primary ATS Provider by legislation must hold an ATS certificate issued under Regulation145A subject to any conditions as may be prescribed by the Authority and provide details of-

(i) the services and/or facilities it provides; and

(ii) any services and/or facilities supporting ATS that the primary ATS provider by legislation will provide and certified copies of contractual arrangements pertaining to services and facilities contracted to third parties (hereinafter referred to as "contracted ATS provider"); and

(2) the contracted ATS Provider(s) must hold an ATS Provider certificate issued under Regulation 145A specifying the ATS functions and any facilities it is contracted to provide and subject to any conditions as may be prescribed by the Authority.

1.6 Privileges of certificate

(a) An air traffic service provider certificate specifies which of the air traffic services as specified in 1.1.3, and which training and assessment for such services, the certificate holder is authorised to provide and any other service provided in accordance with Chapter 4.

(b) An air traffic service certificate—

(1) specify the aerodrome or airspace at, or within which, the service is to be provided; and

(2) may include such conditions as the Authority considers appropriate.

1.7 Duration of certificate

(a) An air traffic service provider certificate may be granted or renewed for a period of up to 5 years.

(b) An air traffic service provider certificate remains in force until it expires or is suspended or revoked.

(c) The holder of an air traffic service provider certificate that expires or is revoked shall forthwith surrender the certificate to the Authority.

(d) The holder of an air traffic service provider certificate that is suspended shall forthwith produce the certificate to the Authority for appropriate endorsement.

1.8 Renewal of certificate

(a) An application for the renewal of an air traffic service provider certificate shall be made on the appropriate form, and

(b) The application shall be submitted to the Authority not less than 90 days before the certificate is due to expire.

1.9 Determination of the need for air traffic services

1.9.1 The ATS Provider, as and when required or at the directive of the Authority, shall determine the need for the provision of air traffic services in consultation with the airspace users. Such determination shall take into consideration the following:

(1) the types of air traffic involved;

(2) the density of air traffic;

(3) the meteorological conditions;

(4) such other factors as may be relevant.

Note: - Due to the number of elements involved, it has not been possible to develop specific data to determine the need for air traffic services in a given area or at a given location. For example:

a) a mixture of different types of air traffic with aircraft of varying speeds (conventional jet, etc.) might necessitate the provision of air traffic services, whereas a relatively greater density of traffic where only one type of operation is involved would not;

b) meteorological conditions might have considerable effect in areas where there is a constant flow of air traffic (e.g. scheduled traffic), whereas similar or worse meteorological conditions might be relatively unimportant in an area where air traffic would be discontinued in such conditions (e.g. local VFR flights);

c) open stretches of water, mountainous, uninhabited or desert areas might necessitate the provision of air traffic services even though the frequency of operations is extremely low.

1.9.2 The carriage of airborne collision avoidance systems (ACAS) by aircraft in a given area shall not be a factor in determining the need for air traffic services in that area.

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

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

1.10.2 The designation of the particular portions of the airspace or the particular aerodromes shall be as follows:

(a) **Flight information regions;** those portions of the airspace where it is determined that flight information service and alerting service will be provided shall be designated as flight information regions.

(b) **Control areas and control zones**; those portions of the airspace where it is determined that air traffic control service will be provided to IFR flights shall be designated as control areas or control zones.

(1) Those portions of controlled airspace wherein it is determined that air traffic control service will also be provided to VFR flights shall be designated as Classes B, C, or D airspace.

(2) Where designated within a flight information region, control areas and control zones shall form part of that flight information region.

(c) **Controlled aerodromes**; those aerodromes where it is determined that air traffic control service will be provided to aerodrome traffic shall be designated as controlled aerodromes.

Note: - The distinction between control areas and control zones is made in 3.13

1.11 Classification of airspaces

1.11.1 ATS airspaces shall be classified and designated in accordance with the following:

Class A. IFR flights only are permitted, all flights are provided with air traffic control service and are separated from each other.

Class B. IFR and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other.

Class C. IFR and VFR flights are permitted, all flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

Class D. IFR and VFR flights are permitted and all flights are provided with air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights.

Class E. IFR and VFR flights are permitted; IFR flights are provided with air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as is practical. Class E shall not be used for control zones.

Class F. IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested.

Note: - Where air traffic advisory service is implemented, this is considered normally as a temporary measure only until such time as it can be replaced by air traffic control. (Refer ICAO PANS-ATM (Doc 4444), Chapter 9.).

Class G. IFR and VFR flights are permitted and receive flight information service if requested.

1.11.2 The Authority has determined the airspace classes appropriate to Fiji's needs. However, should the need arise, due to any of the considerations identified in 1.9.1, and the air traffic service provider proposes a change to the established airspace classes, this may be endorsed by the Authority after due consideration.

1.11.3 The requirements for flights within each class of airspace shall be as shown in Appendix 1.

Note: - Where the ATS airspaces adjoin vertically, i.e. one above the other, flights at a common level would comply with requirements of, and be given services applicable to, the less restrictive class of airspace. In applying these criteria, Class B airspace is therefore considered less restrictive than Class A airspace; Class C airspace less restrictive than Class B airspace, etc.

Chapter 2 — Certification Requirements

2.1 Personnel requirements

(a) Each applicant for the grant of an air traffic service certificate shall engage, employ, or contract—

(1) a senior person identified as the Chief Executive or Accountable Manager who has the authority within the applicant's organisation to ensure that each air traffic service listed in its exposition—

(i) can be financed; and

(ii) is provided in accordance with the requirements prescribed by this Standards Document; and

(2) a senior person or persons who are responsible for ensuring that the applicant's organisation complies with the requirements of this Standards Document. Such nominated person or persons shall be ultimately responsible to the Chief Executive/Accountable Manager; and

(3) sufficient personnel to manage, support, and provide the air traffic services and any associated training or assessment listed in the applicant's exposition.

(b) The applicant shall establish procedures to—

(1) ensure the competence of those personnel who are authorised by the applicant to provide the air traffic services, and training and assessment for those services, listed in the applicant's exposition; and

(2) provide those authorised personnel with written evidence of the scope of their authorisation; and

(3) ensure that those authorised personnel hold appropriate current licences and ratings issued under Regulation 53; and

(4) ensure, where practicable, that authorised personnel only exercise the privileges of their rating or ratings if they are familiar with all relevant and current information; and

(5) facilitate, for rated air traffic service licence holders, compliance with the recent experience requirements of SD-ATSPL; and

(6) ensure, where practicable, that an air traffic controller shall not exercise the privileges of their rating or ratings—

(i) unless they comply with any endorsements on their medical certificate; and

(ii) when any decrease in their medical fitness might render them unable to safely exercise these privileges; and

(7) ensure that for the provision ATS services, all ATS personnel whilst on operational duties meet the requirements of Regulations No. 72 (3)-*Use of intoxicating liquor, narcotics or drugs*.

(8) ensure adequate number of operational staffs required including the number of operational supervisory staff, listed in the applicant's exposition. (Refer Appendix 4 for guideline on ATS manpower planning)

2.2 ATS training

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures and programmes for the training and assessment of the following personnel:

(1) air traffic controllers:

(2) flight information service officers:

(3) personnel directly involved in the provision of HF aeronautical telecommunication service:

(4) personnel directly involved in activities supporting—

(i) rated air traffic controllers; and

(ii) rated flight information service officers.

(b) The applicant shall establish procedures to ensure that personnel giving instruction in an operational environment hold an appropriate current ATS instructor competency certificate issued under SD-ATSPL.

(c) The applicant shall establish procedures to ensure that personnel carrying out assessment for the issue of licences, or the issue or validation of ratings, hold an appropriate current ATS instructor or examiner competency certificate issued under SD-ATSPL.

2.3 Prevention of fatigue

(a) An applicant for the grant of an air traffic service certificate must establish a scheme, acceptable to the Authority, for the management of fatigue on those persons directly responsible for the provision of an air traffic service.

(b) The scheme established under paragraph (a) must take account of:

(1) the rest period available prior to commencing duty;

(2) typical traffic for the shifts to be worked;

(3) the availability of rest, refreshment and meal breaks;

(4) the availability of relief staff;

(5) circadian rhythms;

(6) short-term and accumulated sleep deficit;

(7) the shift rotation system in use.

(c) When considered appropriate by the Authority having regard to the ATS unit hours of service; the scheme established under paragraph (a) must include measures to avoid fatigue through:

(1) monitoring of workload on ATS staff while on duty;

(2) consideration of fatigue as a causative factor in incidents and accidents;

(3) education of operational staff on the avoidance of fatigue;

(4) management responsibility for the proactive avoidance of fatigue;

(5) specification of the following duty limitations:

(i) the maximum time or times for continuous operational duty;

(ii) the minimum time or times for breaks from operational duty;

(iii) the maximum time or times for a single period of duty;

(iv) the minimum off-duty time or times between consecutive periods of duty;

(v) the minimum off-duty time following a night shift;

(vi) the maximum number of consecutive periods of duty;

(vii) the maximum number of consecutive night shifts;

(viii) the maximum average period of duty within any shift cycle;

(ix) where the shift cycle is based on the calendar week, the minimum number of actual days off duty in any period of four calendar weeks;

(x) where the shift cycle is not based on the calendar week, the minimum number of actual off duty days in the multiple of full shift cycles (expressed as days) nearest to 28 days.

(d) The scheme established under paragraph (a) must detail the extent, if any, by which the standard provisions of the scheme may be varied for circumstances involving—

(1) a national or local emergency; or

(2) the safety of life and property; or

(3) unforeseen operational circumstances.

(e) Each applicant for the grant of an air traffic service certificate must establish a procedure to ensure that no air traffic controller or flight information service officer is required or permitted to work periods of duty or shift cycles that do not conform to the scheme required by paragraph (a).

(f) Each applicant for the grant of an air traffic service certificate must establish a procedure to ensure that no air traffic controller or flight information service officer provides an air traffic service if the ATS organisation knows or has reason to believe that the person is suffering from, or, having regard to the circumstances of the operational duty, is likely to suffer from, such fatigue as may endanger the safety of any aircraft.

2.3.1 Fatigue management (applicable 5 November 2020)

Note: - Guidance on the development and implementation of fatigue management regulations is contained in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).

2.3.1.1 Regulations for the purpose of managing fatigue in the provision of air traffic control services 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. Each applicant for the grant of air traffic service certificate shall establish:

(a) regulations that prescribe scheduling limits in accordance with Appendix 2; and
(b) where an air traffic services provider has been authorized to use a fatigue risk management system (FRMS) to manage fatigue, FRMS regulations in accordance with Appendix 3.

2.3.1.2 For the purposes of managing its fatigue-related safety risks, each applicant for the grant of an air traffic service certificate shall establish one of the following:

(1) air traffic controller schedules commensurate with the service(s) provided and in compliance with the prescriptive limitation regulations established by this SD in accordance with 2.3.1.1 a); or
(2) an FRMS, in compliance with regulations established by this SD in accordance with 2.3.1.1 b), for the provision of all air traffic control services; or
(3) an FRMS, in compliance with regulations established by this SD in accordance with **2**.3.1.1 b), for a defined part of its air traffic control services in conjunction with schedules in compliance with the prescriptive limitation regulations established by this SD in accordance with 2.3.1.1 a) for the remainder of its air traffic control services.

2.3.1.3 Where the air traffic services provider complies with prescriptive limitation regulations in the provision of part or all of its air traffic control services in accordance with 2.3.1.2 a), the Authority:

(a) shall require evidence that the limitations are not exceeded and that non-duty period requirements are met;
(b) shall require that the air traffic services provider familiarize its personnel with the principles of fatigue management and its policies with regard to fatigue management;
(c) shall establish a process to allow variations from the prescriptive limitation regulations to address any additional risks associated with sudden, unforeseen operational circumstances; and
(d) may approve variations to these regulations using an established process in order to address strategic operational needs in exceptional circumstances, based on the air traffic

services provider demonstrating that any associated risk is being managed to a level of safety equivalent to, or better than, that achieved through the prescriptive fatigue management regulations.

Note: - Complying with the prescriptive limitations regulations does not relieve the air traffic services provider of the responsibility to manage its risks, including fatigue-related risks, using its SMS in accordance with the provisions of Annex 19.

2.3.1.4 An air traffic services provider implementing an FRMS to manage fatigue-related safety risks in the provision of part or all of its air traffic control services in accordance with 2.3.1.2 b), it shall:

(a) be to have processes to integrate FRMS functions with its other safety management functions; and
(b) approve an FRMS, according to a documented process, that provides a level of safety acceptable to the.

Note: - Provisions on the protection of safety information, which support the continued availability of information required by an FRMS, are contained in Annex 19

2.4 Facility requirements

(a) Each applicant for the grant of an air traffic service certificate shall establish the following facilities that are appropriate to the air traffic services listed in the applicant's exposition:

(1) aerodrome control towers:

(2) approach control offices:

(3) area control centres:

(4) aerodrome flight information service offices:

(5) flight information centres:

(6) dedicated training and assessment facilities.

(b) An applicant for an aerodrome control service, or an aerodrome flight information service, shall establish procedures to ensure that any aerodrome control tower or aerodrome flight information service office, including any mobile tower or office, listed in the applicant's exposition, is—

(1) constructed and situated to provide—

(i) the maximum practicable visibility of aerodrome traffic; and

(ii) protection from glare and reflection; and

(iii) protection from noise; and

(2) safeguarded from any development that would affect the requirements of paragraph (b)(1); and

(3) at solo watch locations, provided with—

(i) toilet facilities that ensure the minimum possible interruption to, or degradation of, air traffic services; and

(ii) storage and preparation facilities for food and drink in the visual control room; and

(4) provided with equipment for two-way voice communication with—

(i) aircraft, in or adjacent to airspace for which the applicant has responsibility; and

(ii) aircraft, vehicles, and persons, on, or adjacent to, the

manoeuvring area; and

(5) provided with the following minimum equipment:

(i) a display system or systems designed to show the disposition of current and pending aerodrome traffic together with ancillary information for individual aircraft:

(ii) a power supply;

(iii) appropriate and current maps and charts;

(iv) binoculars;

(v) clocks;

(vi) logbook;

(vii) outside temperature indicator;

(viii) QNH display;

(ix) signal lamp with green, red, and white functions;

(x) telephone communications;

(xi) status monitors for approach and landing aids and any road signalling equipment affecting the use of a runway;

(xii) visibility and cloud height checkpoints;

(xiii) voice and, where applicable, data recording equipment;

(xiv) wind direction and speed display;

(xv) an audible alerting alarm;

(xvi) an AFTN terminal or, where provided for in an ATS letter of agreement, an alternative means of reception and transmission of information normally conveyed by AFTN;

(xvii) if applicable, airfield lighting controls panel; and

(6) provided with two independent sources of the current altimeter setting, at least one of which shall be an aneroid barometer or barometric altimeter situated in the visual control room.

(c) The applicant shall establish procedures to ensure that area control centres, flight information centres, and approach control offices are—

(1) provided with equipment enabling—

(i) to the fullest extent practical, two-way voice communication; and

(ii) where applicable, data communication with aircraft in, or adjacent to, airspace for which the applicant has responsibility; and

(2) provided with the following minimum equipment:

(i) a display system or systems designed to show the disposition of current and pending flights together with ancillary information for individual aircraft;

(ii) a power supply;

(iii) appropriate and current maps and charts;

(iv) clocks;

(v) logbook;

(vi) status monitors as appropriate for navigation, approach, and landing aids;

(vii) telephone communications;

(viii) voice recording equipment and, where applicable, data recording equipment;

(ix) an AFTN terminal;

(x) for approach control operating positions, an ILS/MLS status monitor at the approach control or approach control ADS operating position for the aerodrome concerned;

(xi) for approach control operating positions responsible for aircraft on final approach, or aircraft landing or taking-off, a wind direction and speed display fed from the same source as the corresponding equipment in the aerodrome control tower.

(d) The applicant shall establish procedures to ensure that the aeronautical telecommunications equipment required by paragraphs (b) and (c) are operated in accordance with the requirements of ICAO Annex 10 and Standards Document-Aeronautical Telecommunications.

(e) The applicant shall establish procedures to ensure that visual display units used by air traffic services are positioned with due regard to the relative importance of the information displayed and ease of use by the staff concerned.

(f) The equipment required by paragraphs (b)(4) and (5), and (c)(1) and

(2) shall have a level of reliability, availability, and redundancy, that minimises the possibility of failure, non-availability, or significant degradation of performance.

(g) The applicant shall establish procedures to ensure that the status monitors required by paragraph (b) (5)(xi) and paragraphs (c)(2)(vi) and (x)

are fitted with—

(1) an aural signal to indicate a change of status; and

(2) a visual indication of the current status.

2.5 Establishment and transfer of service

(a) Each applicant for the grant of an air traffic service certificate shall include with its application—

(1) for each aerodrome and airspace, a schedule of the proposed hours of service for the first 12 months of operation; and

(2) in respect of an aerodrome, or airspace, not currently provided with an air traffic service, a summary of safety factors considered before seeking certification.

(b) Each applicant for the grant of an air traffic service certificate intending to assume responsibility for providing any air traffic service from an existing certificate holder, shall include with its application, full details of transitional arrangements endorsed by the chief executives/accountable managers of both organisations.

2.6 Shift administration

Each applicant for the grant of an air traffic service certificate shall establish a procedure to ensure that—

(1) adequate time is provided at the beginning and end of each shift, for the performance of those duties required—

(i) before providing an air traffic service; and

(ii) after ceasing to provide an air traffic service; and

(2) a minimum of 5 minutes is provided for each transfer of watch at an ATS operational position.

2.7 Documentation

(a) Each applicant for the grant of an air traffic service provider certificate shall hold copies of the relevant technical manuals, and all other documents, necessary for the provision and operation of the services listed in its exposition.

(b) The applicant shall establish a procedure to control all the documentation required by paragraph (a) and those prescribed in Chapter 8. The procedure shall ensure that—

(1) all incoming documentation is reviewed, and actioned as required, by authorised personnel; and

(2) all documentation is reviewed and authorised before issue; and

(3) current issues of all relevant documentation are available to personnel at all locations where they need access to such documentation for the provision and operation of air traffic

services; and

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

(5) any obsolete documents retained as archives are suitably identified as obsolete; and

(6) changes to documentation are reviewed and approved by authorised personnel who shall have access to pertinent background information upon which to base their review and approval; and

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

2.8 Contingency plan

(a) Each applicant for the grant of an air traffic service provider certificate shall establish a contingency plan providing for the safe and orderly flow of traffic in the event of a disruption, interruption, or temporary withdrawal of an air traffic service or related supporting service.

(b) In addition to the requirement in paragraph (a), each applicant for the grant of an air traffic service provider certificate to provide services in the Nadi Oceanic FIR shall detail in its plan provisions for the continuation of the safe and orderly flow of international traffic not landing in Fiji.

Note: - Where contingency plans constitute a temporary deviation from the approved regional air navigation plans; such deviations are approved, as necessary, by the President of the ICAO Council on behalf of the Council.

2.9 Co-ordination requirements

(a) Each applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure, where applicable, co-ordination between each ATS unit listed in the applicant's exposition and the following agencies—

(1) aeronautical telecommunication service; and

(2) air navigation services; and

(3) Fiji aviation meteorological service organisation; and

(4) any holder of an aeronautical information service organisation certificate; and

(5) aircraft operators; and

(6) the Fiji Defence Force; and

(7) search and rescue authorities; and

(8) where the listed ATS unit is an aerodrome control or aerodrome flight information unit—

(i) the aerodrome operator; and

(ii) the apron management service, if that service is not provided by the aerodrome control unit.

(b) The applicant shall establish procedures to ensure an ATS letter of agreement is in place between each ATS unit listed in the applicant's exposition and—

(1) each ATS unit responsible for adjoining airspace, and

(2) any other ATS unit with which regular operational co-ordination is required.

(c) The applicant shall establish procedures to ensure each ATS letter of agreement—

(1) details such matters as are necessary for effective co-ordination between the unit's party to the agreement; and

(2) is kept current; and

(3) is signed by senior representatives of the participating units; and

(4) is part of the applicant's operations manual.

(d) The applicant shall provide systems and procedures to facilitate communications between those ATS units having an operational requirement to communicate with each other.

(e) The applicant shall provide systems and procedures to ensure that ATS units, aircraft operators, and aviation meteorological service providers, where they require the information, are provided, through the exchange of ATS messages, with details of —

(1) the intended movement of each aircraft for which a flight plan has been filed, and any amendments to that flight plan; and

(2) current information on the actual progress of the flight.

(f) The applicant shall establish procedures to ensure that ATS messages are prepared and transmitted in accordance with procedures detailed and cross-referenced in Document 4444 (Part XI – Air Traffic Services Messages), except that the term *CAVOK* shall not be used.

2.10 Notification of facility status

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures to notify users of its air traffic services of relevant operational information and of any changes in the operational status of each facility or service listed in the applicant's exposition.

(b) The procedures shall ensure that —

(1) operational information for each of the applicant's air traffic services is forwarded to the aeronautical information service for the Fiji AIP service; and

(2) the users of an air traffic service are notified without delay of any change in operational status of the facility or service that may affect the safety of air navigation, and, except where the change is temporary in nature, information concerning any change in operational status is forwarded to the holder of the aeronautical information service certificate for the NOTAM service.

2.11 General information requirements

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures for the receipt of information on the following activities when the activity could affect airspace used by flights within the applicant's area of responsibility—

(1) pre-eruption volcanic activity; and

(2) volcanic eruptions; and

(3) volcanic ash-cloud; and

(4) release into the atmosphere of radioactive materials or toxic chemicals; and

(5) launching of unmanned free balloons carrying radiosonde or ionosonde equipment.

(b) The applicant shall establish systems and procedures to ensure that each ATS unit, as appropriate to the applicant's intended area of responsibility, is kept informed of the operational status of—

(1) non-visual navigation aids; and

(2) visual aids essential for take-off, departure, approach, and landing procedures; and

(3) visual and non-visual aids essential for surface movement.

(c) Each applicant for the grant of an air traffic service certificate for an—

(1) aerodrome control unit; or

(2) approach control unit; or

(3) aerodrome flight information service unit—

shall establish procedures to ensure the unit is kept informed of operationally significant conditions on the movement area. The information shall include the existence of temporary hazards and the operational status of any associated facilities at the aerodrome.

2.12 Meteorological information and reporting

(a) Each applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure that all meteorological information provided as part of any flight information service is—

(1) supplied by Fiji aviation meteorological service; or

(2) issued as a *basic weather report* in accordance with observation made by a trained person.

(b) The applicant shall establish systems and procedures to ensure that ATS units are supplied with the meteorological information necessary for the performance of their respective functions, in a form that requires a minimum of interpretation by ATS personnel.

(c) The applicant shall establish procedures to ensure that equipment used in the compilation of *basic weather reports*—

(1) supplies data representative of the area for which the measurements are required; and

(2) where that equipment consists of multiple wind direction and speed indicators, identifies the runway, or section of the runway, monitored by each instrument.

(d) The applicant shall establish a procedure to ensure that the information contained in a meteorological bulletin remains unchanged through onward transmission.

2.13 Area and approach control services

(a) Each applicant for the grant of an air traffic service certificate in respect of an area or approach control service shall establish systems and procedures to—

(1) determine, from information received, the positions of known aircraft relative to each other; and

(2) provide for the issue of ATC clearances, instructions, and information, according to the airspace classification and type of flight, for the purpose of preventing collisions between aircraft under the control of the unit, and expediting and maintaining a safe and efficient flow of traffic; and

(3) co-ordinate clearances, as necessary, with other ATC units; and (4) display, in a manner that permits ready analysis, information on aircraft movements, together with a record of clearances issued.

(b) The procedures required by paragraph (a)(2) shall, except as provided in paragraph (d) and 2.21, ensure vertical or horizontal or composite separation is provided, in accordance with paragraph (c), between—

(1) all flights in classes A and B airspace; and

(2) IFR flights in classes C, D, and E airspace; and

(3) IFR flights and VFR flights in class C airspace; and

(4) IFR flights and VFR flights, at night, in class D and E airspace; and

(5) IFR flights and Special VFR flights; and

(6) Special VFR flights when the flight visibility is reported to be less than 5 km.

(c) The separation required by paragraph (b) shall be in accordance with criteria and minima prescribed by—

(1) Annex 11; or

(2) Document 4444; or

(3) Document 7030; or

(4) Chapter 5.

(d) In Class D or E airspace, the ATC separation required by paragraphs (b)(2) and (3) is not applicable to an IFR flight cleared to maintain its own separation from other controlled flights. Such a clearance shall not be issued unless—

(1) the clearance is in response to a specific request from the aircraft; and

(2) the flight is by day, and visual meteorological conditions exist; and

(3) *(Reserved)*; and

(4) the clearance is for a specific portion of the flight; and

(5) the pilots of all flights that will be essential traffic agree with the application of the procedure; and

(6) essential traffic information is passed to all affected flights; and

(7) the flights concerned are on the same ATC frequency.

(e) For all airspace where a reduced vertical separation minimum of 300 m (1 000ft) is applied between FL290 and FL410 inclusive, a procedure shall be established by the ATSP responsible for that airspace, for monitoring the height-keeping performance of aircraft operating at these levels, in order to ensure that the continued application of this vertical separation minimum meets the safety objectives. Furthermore, reporting to the Regional Monitoring Agency (PARMO), with a copy to the Authority, shall be conducted on a monthly basis for any large height deviations or coordination failures reported.

Note. Guidance material relating to vertical separation and monitoring of height-keeping performance is contained in the Manual on a 300 m (1 000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive (Doc 9574).

(f) Where RCP/RSP specifications are applied, a programme shall be established by the ATSP responsible for that airspace, 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. The scope of monitoring programmes shall be adequate to evaluate communication and/or surveillance performance, as applicable.

Note. Guidance material relating to RCP and RSP specifications and monitoring of communication and surveillance performance is contained in the Performance-based Communication and Surveillance (PBCS) Manual (Doc 9869).

2.14 Aerodrome control service

(a) Each applicant for the grant of an air traffic service certificate in respect of an aerodrome control service shall establish systems and procedures to—

(1) determine, from information received and visual observation, the relative positions of known aircraft to each other; and

(2) provide for the issue of ATC clearances, instructions, and information, for the purpose of preventing collisions between—

(i) aircraft flying in the vicinity of an aerodrome; and

(ii) aircraft landing and taking off; and

(iii) aircraft operating on the manoeuvring area; and

(iv) aircraft, vehicles, and persons, operating on the manoeuvring area; and

(v) aircraft on the manoeuvring area and obstructions on that area; and

(3) provide for the issue of ATC clearances, instructions, and information, for the purpose of expediting and maintaining a safe and efficient flow of traffic; and

(4) except as provided in 2.21 and 5.23, provide runway and wake turbulence separation in accordance with criteria and minima prescribed by—

(i) Annex 11; or

(ii) Document 4444; or

(iii) Document 7030; or

(iv) Chapter 5; and

(5) ensure that emergency vehicles responding to an aircraft emergency are given priority over all other surface movement traffic; and

(6) provide for the control of the movement of persons or signet, including towed aircraft, on the manoeuvring area, as necessary to avoid hazard to them or to aircraft landing, taxiing, or taking off; and

(7) co-ordinate as necessary with other ATS units; and

(8) display, at operating positions, continuously updated information on aircraft movements.

(b) The applicant shall establish a procedure to ensure that, when radio communication is not available, basic clearances, instructions, and information required by paragraph (a)(2) can be conveyed by the use of the light signals described in Regulations No. 100.

(c) The applicant shall establish procedures to ensure that when required by either the weather, or category of approach, or both—

(1) aircraft on an ILS approach are informed of ILS critical area incursions, or the imminent possibility of an incursion; or

(2) the applicable ILS critical areas are protected from incursion when an aircraft is on an ILS approach, or has reached a point on the approach from which protection from incursion is necessary.

(d) The applicant shall establish a procedure to ensure that, except as provided in 2.21, and subject to authorisation by the applicable approach control unit, aerodrome control units provide separation between—

(1) IFR flights and Special VFR flights; and

(2) Special VFR flights when the flight visibility is reported to be less than 5 km.

(e) The applicant shall establish a procedure to ensure that, when authority has been delegated by, and accepted from, the applicable area or approach control unit, aerodrome control units provide separation between controlled flights in accordance with the delegation.

(f) The separation required by paragraphs (d) and (e) shall be obtained by the use of vertical or horizontal or composite separation, in accordance with criteria and minima prescribed by—

(1) Annex 11; or

(2) Document 4444; or

(3) Document 7030; or

(4) Chapter 5.

2.15 Special use airspace

Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish systems and procedures to ensure that separation in accordance with 5.22 is provided between controlled flights and active special use airspace, except when—

(1) the pilot has approval from the controlling authority to operate in the airspace; or

(2) in the case of a danger area or a volcanic hazard area, the pilot has notified an express intention to operate in the area; or

(3) it is known, or reasonably believed, that the pilot of a VFR flight, or an IFR flight navigating by visual reference, is aware that the airspace is active; or

(4) upon a request by the pilot, the flight is cleared to maintain its own separation from the airspace.

2.16 Responsibility for control

(a) Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that any controlled flight is under the control of only one ATC operating position at any given time.

(b) The applicant shall establish procedures to ensure that responsibility for the control of all aircraft operating within a given block of airspace is vested in a single operating position. Control of an aircraft or groups of aircraft may be delegated to other operating positions provided that co-ordination between all affected operating positions is assured.

(c) The applicant shall establish procedures for the transfer of responsibility for the control of an aircraft.

(d) The procedures required by paragraph (c) shall ensure that—

(1) transfer arrangements are—

(i) agreed between ATC units responsible for adjacent airspaces and published in ATS letters of agreement; and

(ii) in place for separate operating positions within an ATC unit and promulgated in the holder's operations manual; and

(2) responsibility for control of an aircraft is not transferred from one ATC unit to another without—

(i) communication of appropriate parts of the current flight plan; and

(ii) any relevant control information; and

(iii) the consent of the accepting unit.

(e) Where transfer of control is to be effected using radar or ADS-B data, each applicant shall have procedures in place to ensure that 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.

(f) Where transfer of control is to be affected using ADS-C data, each applicant shall have procedures in place to ensure that the control information pertinent to the transfer shall include the four-dimensional position and other information as necessary.

(g) Each applicant for the grant of air traffic service provider certificate shall ensure that the accepting control unit shall:

i. 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
ii. 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.

2.17 Priorities

(a) Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that, providing safety is not jeopardised, ATC units apply the following priorities—

(1) an aircraft known or believed to be in a of emergency or impaired operation has priority over all other aircraft; and

(2) an aircraft landing, or in the final stages of an approach to land, has priority over a departing aircraft; and

(3) an aircraft landing or taking off has priority over taxiing aircraft.

(b) The applicant shall establish procedures to ensure that, where practical, following a request from the pilot, an aircraft involved in, or positioning for, the following activities is granted priority—

(1) ambulance or mercy missions; and

(2) search and rescue; and

(3) civil defence or police emergencies; and

(4) carriage of heads-of-, heads-of-government, or equivalent dignitaries.

(c) The applicant shall establish procedures to ensure that an aircraft at a cruising level shall normally have priority over other aircraft requesting that level, except that, within the Nadi Oceanic FIR—

(1) an aircraft may be given priority for a cruising level in accordance with procedures published in Document 7030, or an ATS letter of agreement; and

(2) an aircraft occupying a cruising level may be reassigned another level to maintain separation.

(d) An applicant for an air traffic service certificate in respect of an area control service may establish procedures regarding priorities to be applied in airspace designated as RNP airspace.

(e) Subject to the requirements of paragraphs (a) and (b), an applicant may put in place schemes for the determination of priorities for arriving and departing flights, provided that consultation with interested parties is undertaken prior to implementing the scheme.

(f) The applicant shall establish procedures to ensure that, where priorities are established under paragraphs (d) or (e), relevant information, including details regarding the handling of complaints, is published in the Fiji AIP.

(g) The applicant shall establish procedures to ensure that, providing safety is not jeopardised, due regard is given to those priorities determined in conjunction with the aerodrome operator for—

(1) aircraft arriving and departing that aerodrome; and

(2) other operations in any control zone associated with that aerodrome.

(h) The applicant shall establish procedures to ensure that, except when applying priority in accordance with other provisions of this rule, priority for arriving and departing flights is allocated on a first-come first-served basis.

(i) The applicant shall establish procedures to ensure that the provision of an ATC service takes precedence—

(1) over the provision of a flight information service whenever the situation so requires; and

(2) over the performance of any other non-ATS tasks.

2.18 Flow control

(a) Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish flow control procedures where, due to limitations in ATS system capacity or aerodrome capacity, the applicant considers the procedures necessary.

(b) The procedures shall take account of—

(1) the requirements of affected aerodrome operators including their traffic handling priorities; and

(2) the needs of aircraft operators, and other ATS providers, who will be affected by the procedures; and

(3) the requirements of the aeronautical information service, including advance notice, and information on the method of activation and de-activation.

2.19 ATC clearances

(a) Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures for the provision of ATC clearances.

(b) The procedures shall ensure that—

(1) no person knowingly issues an ATC clearance or instruction that requires or invites a pilot to violate the provisions of any other regulation; and

(2) clearances and instructions contain positive and concise data and are, where practicable, phrased in a standard manner; and

(3) if a pilot advises that a clearance or instruction is unsuitable, an amended clearance or instruction is, if practicable, issued; and

(4) an ATC clearance for an en-route flight consists of—

(i) the aircraft identification as shown in the flight plan or, where similarity with another flight might cause confusion, an alternative identification provided by ATC; and

(ii) the clearance limit; and

(iii) the route of flight; and

(iv) the level(s) of flight for the entire route, or part thereof, and changes of level if required; and

(v) any necessary instructions or information on other matters, such as approach or departure manoeuvres, communications, and the time of validity or expiry of the clearance; and

(5) an ATC clearance for a local flight, a flight operating in defined areas, or a flight operating in a random manner, includes those elements detailed in paragraph (4) that are appropriate; and

(6) an ATC clearance for a transonic flight—

(i) extends at least to the end of the transonic acceleration phase; and

(ii) provides for uninterrupted descent during deceleration from supersonic cruise to subsonic flight.

2.20 Cruising levels

(a) Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that cruising levels allocated within the Fiji FIR are selected in accordance with paragraph (c) below for IFR and VFR flights, except that, within controlled airspace—

(1) for both IFR and VFR flights, correlation of cruising level with track need not apply; and

(2) VFR flights may be allocated IFR levels.

(b) Each applicant for an air traffic service certificate for the provision of an area control service in the Nadi Oceanic FIR shall establish procedures to ensure that cruising levels are allocated in accordance with paragraph (c) below, except that correlation of cruising level with track need not apply.

(c) The cruising levels to be observed by aircraft operating in the Fiji and Nadi FIR and the RVSM airspace shall be as follows*:*

(1) Table of Cruising Levels

MAGNETIC TRACK							
From 000º to 179º				From 180º to 359º			
IFR Flights		VFR Flights		IFR Flights		VFR Flights	
FL	Level in feet	FL	Level in feet	FL	Level in feet	FL	Level in feet
-	1000	-	-	-	2000	-	-
-	3000	-	3500	-	4000	-	4500
-	5000	-	5500	-	6000	-	6500
-	7000	-	7500	-	8000	-	8500
-	9000	-	9500	-	10000	-	10500
-	11000	-	11500	-	12000	-	12500
130	13000	135	13500	140	14000	145	14500
150	15000	155	15500	160	16000	165	16500
170	17000	175	17500	180	18000	185	18500
190	19000	195	19500	200	20000	-	-
210	21000	-	-	220	22000	-	-
230	23000	-	-	240	24000	-	-
250	25000	-	-	260	26000	-	-
270	27000	-	-	280	28000	-	-
290	29000	-	-	300	30000	-	-
310	31000	-	-	320	32000	-	-
330	33000	-	-	340	34000	-	-
350	35000	-	-	360	36000	-	-
370	37000	-	-	380	38000	-	-
390	39000	-	-	400	40000	-	-
410	41000	-	-	430	43000	-	-
450	45000	-	-	470	47000	-	-

(2) For the purpose of the above Table of Cruising Levels, Vertical Separation Minimum (VSM) of—

(i) 1000 ft shall be applied below FL290; and

(ii) 1000 ft shall be applied between FL 290 and FL 410 inclusive only to approved RVSM aircraft; non-RVSM aircraft may be permitted to operate between FL290 and FL410 subject to Air Traffic Control approval and a VSM of 2000 ft; and

(iii) 2000 ft shall be applied above FL410.

(3) Air Navigation Regulations No. 106 (3) stipulates that no VFR flight to be conducted above FL200 unless approved by the Authority and subject to such other conditions it may prescribe.

2.21 Deviation from an ATC clearance

(a) Subject to paragraph (b), each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that instructions issued to restore any loss of separation do not hinder the responses of a pilot to—

(1) TCAS or GPWS alerts; or

(2) weather, or other emergency situations, necessitating a deviation from an ATC clearance.

(b) The procedures required by paragraph (a) shall ensure that, once the emergency situation has been resolved, if any separation has been lost it is restored.

2.22 Flight information service

General

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure that a flight information service is provided to any aircraft that is likely to be affected by the information, if—

(1) the aircraft is being provided with an ATC service; or

(2) the aircraft is being provided with an aerodrome flight information service; or

(3) the aircraft is operating IFR; or

(4) the aircraft is operating VFR.

(b) The applicant shall establish procedures to ensure that the flight information service includes the provision of available and relevant—

(1) SIGMET information; and

(2) information on weather conditions reported or forecast, at departure, destination, and alternate aerodromes; and

(3) information concerning pre-eruption volcanic activity, volcanic eruptions, and volcanic ash clouds; and

(4) information concerning the release into the atmosphere of radioactive materials or toxic chemicals; and

(5) information on changes in the serviceability of navigation aids; and

(6) information on changes in the condition of aerodromes and associated facilities, including information on the of the aerodrome movement areas when they are affected by snow, ice, or water; and

(7) information on unmanned free balloons; and

(8) other information likely to affect safety.

(c) The applicant shall establish procedures to ensure that flight information provided to aircraft operating on a VFR flight plan, and aircraft specifically requesting the information, includes available details concerning weather conditions along the route of flight that are likely to make operation under VFR impracticable.

(d) The applicant shall establish procedures to ensure that, when requested by a pilot, flight information for a long-distance flight over water includes any available information on surface vessels in the area.

(e) The applicant shall establish procedures to ensure that, whenever water is present on a runway, a description of the runway surface conditions on the centre half of the width of the runway is made available using one of the following terms—

(1) DAMP – the surface shows a change of colour due to moisture; or

(2) WET – the surface is soaked but there is no standing water; or

(3) WATER PATCHES – significant patches of standing water are visible; or

(4) FLOODED – extensive standing water is visible.

(f) The applicant shall establish procedures to ensure that, where practical, local aircraft operators likely to be affected by the information are advised of short-notice changes to published hours of service where they are unlikely to have the information from any other source.

Traffic Information

(g) Each applicant for the grant of an air traffic service certificate for an air traffic control service, shall establish procedures to ensure that essential traffic information is passed to all affected traffic.

(h) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure that traffic information is provided to flights likely to be affected by the information as follows:

(1) in class C airspace, between VFR flights, together with traffic avoidance advice on request:

(2) in class D airspace, between IFR and VFR flights by day, and between VFR flights, together with traffic avoidance advice on request:

(3) in class E airspace, between IFR and VFR flights by day, and where practical between VFR flights on request:

(4) in class G airspace, between IFR flights, and where practical between other flights on request.

2.23 Aerodrome flight information service

(a) Each applicant for the grant of an air traffic service certificate in respect of an aerodrome flight information service shall establish systems and procedures to—

(1) determine, from information received and visual observation, the relative positions of known aircraft to each other; and

(2) provide for the issue of advice and information, including the designation of a preferred runway, for the purpose of the safe and efficient operation of—

(i) aircraft flying in the vicinity of an aerodrome; and

(ii) aircraft operating on the manoeuvring area; and

(iii) aircraft landing and taking off; and

(iv) aircraft, vehicles, and persons, on the manoeuvring area; and

(v) aircraft on the manoeuvring area and obstructions on that area.

(b) The applicant shall establish procedures to ensure that the designated preferred runway is that most suitable for the particular operation.

2.24 Alerting service

(a) In this Rule—

ALERFA means the code used to define an alert phase.

Alert phase means a situation wherein apprehension exists as to the safety of an aircraft and its occupants

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

INCERFA means the code word used to designate an uncertainty phase.

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

RCC means the code word used to designate a rescue co-ordination centre.

Rescue Co-ordination 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

(b) Each applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure the provision of an alerting service within its areas of responsibility—

(1) when aerodrome control or aerodrome flight information service is in attendance, for all aerodrome traffic; and

(2) for all aircraft—

(i) having filed a flight plan; or

(ii) having notified a SARTIME; or

(iii) otherwise known by any air traffic service to be in need of assistance; and

(3) for any aircraft known or believed to be the subject of unlawful interference.

(c) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure that, in the event of a state of emergency described in paragraph (f)—

(1) immediate declaration of an INCERFA, ALERFA, or DETRESFA is made, in accordance with paragraph (f); and

(2) the declaration is notified to the ACC or FIC responsible, except where the emergency can be dealt with by local emergency organisations.

(d) Each applicant for the grant of an air traffic services certificate in respect of an area control service or flight information service shall establish procedures to ensure that, in the event of a of emergency, an ACC or FIC—

(1) serves as the central point within the FIR concerned for collecting all information relevant to the of emergency; and

(2) except as prescribed in paragraph (l)(1), forwards such information without delay to the RCC.

(e) Notwithstanding paragraph (c), each applicant for an air traffic service certificate for an aerodrome control, approach control, or aerodrome flight information service, shall establish procedures to ensure that whenever the urgency of the situation so requires, those services shall first alert appropriate local emergency organisations.

(f) The declaration required by paragraph (c) shall be made in the following circumstances, and in any other circumstances that warrant such a declaration—

(1) *INCERFA* when—

(i) no communication has been received from an IFR or controlled VFR aircraft within a period of 15 minutes after the time a communication should have been received, or from the time an

unsuccessful attempt to establish communication with the aircraft was first made, whichever is the earlier; or

(ii) a VFR aircraft on a flight plan fails to arrive at an aerodrome where an ATS unit is on watch within 30 minutes of the estimated time of arrival last notified to, or estimated by, ATS, whichever is the later; or

(iii) a VFR aircraft on a flight plan fails to arrive at a destination within a control zone, within 30 minutes of the estimated time of arrival last notified to, or estimated by, ATS, whichever is the later; or

(iv) a VFR aircraft on a flight plan fails to arrive at its final destination within 30 minutes of the estimated time of arrival last notified to ATS, or estimated by ATS, whichever is the later; or

(v) a pilot fails to report at the nominated SARTIME and immediate checks have failed to locate the aircraft—

except when no doubt exists as to the safety of the aircraft and its occupants; or

(2) *ALERFA* when—

(i) an aircraft is known or believed to be subject to unlawful interference; or

(ii) 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

(iii) 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

(iv) information has been received that indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely—

except, in the case of subparagraphs (ii), (iii), and (iv), when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants; or

(3) *DETRESFA* 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

(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 that indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely; or

(iv) information has been received that, 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.

(g) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure the notification of an emergency situation required by paragraph (c)(2) includes such of the following information as is available, in the order listed:

(1) INCERFA, ALERFA, or DETRESFA as appropriate to the phase of the emergency:

(2) agency and person calling:

(3) nature of the emergency:

(4) significant information from the flight plan:

(5) unit that made last contact, time, and method used:

(6) last position report and how determined:

(7) colour and distinctive marks of aircraft:

(8) dangerous goods carried as cargo

(9) any action taken by the reporting office.

(10) other pertinent remarks

(h) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure that, following the notification of an emergency situation, the RCC is provided, without delay, with—

(1) any useful additional information; and

(2) notification when the emergency situation no longer exists.

(i) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure, as necessary, the use of all available means to establish and maintain communication with, and surveillance of, an aircraft in a of emergency.

(j) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure that, when a state of emergency is considered to exist, the last known position of any aircraft involved is established and recorded.

(k) Each applicant for the grant of an air traffic service certificate for the provision of an area control service or flight information service within the Nadi Oceanic FIR shall establish procedures to ensure that, when a state of emergency is considered to exist, the position and track of other aircraft known to be operating in the vicinity are established to determine those most suitable to provide assistance.

(l) Each applicant for the grant of an air traffic service certificate in respect of an area control service or flight information service shall establish procedures to ensure that —

(1) when an ACC or FIC declares an INCERFA or ALERFA it shall, where practical, advise the aircraft operator prior to notifying the RCC; and

(2) all information notified to the RCC by an ACC or FIC shall, where practical, also be communicated without delay to the aircraft operator.

(m) Each applicant shall ensure that other aircraft known to be in the vicinity of an aircraft in a state of emergency shall be advised of the nature of the emergency as soon as practicable., except as provided in (n) below

(n) Each applicant for an air traffic services certificate shall ensure that no reference shall be made in ATS air-ground communications to the nature of the emergency for an aircraft known or believed to be subjected to unlawful interference, unless it has first been referred to in communications from the aircraft involved and it is certain that such reference will not aggravate the situation.

2.25 Flight plans

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures for the acceptance and actioning of flight plans.

(b) Each applicant shall ensure that the acceptance procedures required by paragraph (a) include, for the first ATS unit receiving a filed flight plan—

(1) a check for compliance with any prescribed flight plan format and data conventions; and

(2) a check for completeness, and to the extent practical, for accuracy; and

(3) provision for any action necessary to make the plan acceptable to ATS.

(c) Any applicant intending to provide air traffic services from more than one location may nominate a single ATS unit within the applicant's organisation to accept filed flight plans on behalf of any or every unit.

(d) Each applicant for the grant of an air traffic service certificate intending to operate a centralised flight planning office shall ensure the office is equipped with—

(1) AFTN, facsimile, and computer data-link connection facilities, for the acceptance of flight plans from aircraft operators and any other ATS unit; and

(2) facilities for the advance filing, retention, and activation of standard or repetitive elements of flight plan information.

2.26 Time

(a) Each applicant for the grant of an air traffic service certificate shall establish a procedure to ensure that ATS unit clocks and other time recording devices—

(1) use Coordinated Universal Time and express that time in hours, minute and second of the 24-hour day beginning at 0000 UTC; and

(2) are correct to within 5 seconds of UTC as determined by reference to a standard time station or GPS time standard.

(b) The applicant shall establish a procedure to ensure that the correct time, to the nearest half-minute, is provided—

(1) in respect of any aerodrome control service or aerodrome flight information service, to IFR aircraft prior to taxiing for take-off unless arrangements have been made for the pilot to obtain it from other sources; and

(2) to any aircraft on request.

2.27 Altimeter setting procedures

Each applicant for the grant of an air traffic service certificate shall establish a procedure to ensure that—

(1) QNH altimeter settings are in hectopascals rounded down to the nearest whole hectopascal; and

(2) the appropriate aerodrome or area QNH setting is provided to all aircraft on initial radio contact, including aircraft that advise having received the current applicable ATIS broadcast; and

(3) ATS units provide to an aircraft, on request, the current applicable aerodrome or area QNH altimeter setting; and

(4) aircraft required to maintain vertical position by reference to a QNH setting use the appropriate area QNH for flight at or below the transition altitude except that the appropriate aerodrome QNH is used:

(i) for take-off, landing and flight within an aerodrome circuit; and

(ii) intermediate and final approach of an instrument approach procedure; and

(iii) flight in a control zone; and

notwithstanding paragraph (4) above, where vertical separation is being applied by ATC, a common QNH shall be applied to aircraft concerned.

2.28 Radio and telephone procedures

(a) Each applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure that—

(1) the standard telephony and radiotelephony phraseology prescribed in paragraph (b) is used; and

(2) in all radiotelephony communications discipline is observed, by transmitting only those messages that are necessary for the provision of an air traffic service, or that otherwise contribute to safety; and

(3) communications procedures are in accordance with the applicable communication procedures prescribed in Annex 10 Volume II, except that—

(i) procedures relating to callsigns for domestic use by Fiji registered aircraft may be abbreviated to the last 3 letters of the aircraft registration; and

(ii) an aerodrome flight information service shall use the radiotelephony callsign suffix ***flight service***.

(b) The applicant shall establish procedures to ensure that, for the purposes of paragraph (a), the standard phraseology, and the circumstances in which it is used, is that published in—

(1) Annex 10 (Volume II);

(2) Document 4444;

(3) Document 9432, and

(4) Chapter 6 of this SD.

(c) For the purposes of paragraph (b), where differences occur between the documents, the particular phraseology shall be selected according to the order of precedence of the documents as listed.

2.29 Automatic Dependent Surveillance (ADS) services

(a) Each applicant for the grant of an air traffic service certificate in respect of an ADS service shall ensure ADS equipment and facility meet the requirements prescribed in ICAO Doc 9705.

(b) Each applicant for the grant of an air traffic service certificate in respect of an ADS service shall establish procedures to—

(1) support the provision of ATS prescribed by—

(i) Document 4444; or

(ii) Document 7030; or

(iii) South Pacific Operations Manual (SPOM).

(2) ensure full information is made available to pilots and aircraft operators on—

(i) the nature and extent of the ADS services provided; and

(ii) any significant limitations regarding such ADS services; and

(3) ensure the information displayed at individual ADS operating positions is that required for the air traffic services to be provided; and

(4) where applicable, ensure CPDLC and ATS inter-facility data communication (AIDC) protocols are established through mutual agreements between the ATS units; and

(5) ensure the contingency plan provides for non-availability of the ADS system.

(6) within oceanic area control airspace of the Nadi FIR, ensure that the required horizontal separation has been established by procedural means prior to the use of ADS for continual monitoring of the horizontal separation between aircraft.

2.30 Aircraft emergencies and irregular operation

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure maximum assistance and priority is given to an aircraft known, or believed to be, in a of emergency.

(b) Each applicant shall, where appropriate, establish procedures to assist strayed aircraft, unidentified aircraft, and aircraft subject to military interception.

2.31 Action after serious incident or accident

Each applicant for the grant of an air traffic service certificate shall establish procedures regarding a serious incident or accident to—

(1) determine if any air navigation facilities have contributed to the event; and

(2) ensure immediate action is taken to—

(i) warn other aircraft that may be using or intending to use the facilities; and

(ii) advise the operator of the facility of the occurrence, and that the facility may be implicated; and

(3) assist the operator of the facility with the prompt promulgation of any decision to withdraw the equipment from service; and

(4) ensure that any facility identified in paragraph (1) is not used in the provision of separation to IFR aircraft until cleared for use by the relevant holder of an aeronautical facility technician's licence issued under the Air Navigation Regulations No. 53; and

(5) activate a "stand-down" of ATS personnel as prescribed by SD-ATSPL, where applicable.

2.32 Incidents

Each applicant for the grant of an air traffic service certificate shall establish procedures for—

(1) the notification, investigation, and reporting of incidents in accordance with Air Navigation Regulations No. 71; and

(2) the forwarding of facility malfunction reports to the applicable aeronautical telecommunication service certificate holder.

2.33 Records

(a) Each applicant for the grant of an air traffic service certificate shall establish systems and procedures to identify, collect, index, file, store, secure, maintain, access, and dispose of, records necessary for—

(1) the operational provision of air traffic services; and

(2) the purpose of assisting with any accident or incident investigation.

(b) The records shall include—

(1) telephone communications; and

(2) radio broadcasts and communications; and

(3) air-ground digital data exchanges; and

(4) ADS information; and

(5) filed flight plans including standard and repetitive plans; and

(6) flight progress strips; and

(7) staff duty rosters; and

(8) appropriate meteorological and aeronautical information, except where the information is retained for an equivalent period by a meteorological or AIS organisation; and

(9) a record of each internal quality assurance review carried out under the procedures required by 2.37; the record shall detail the activities reviewed and any necessary follow-up corrective and preventive actions; and

(10) a record of each safety management assessments carried out under the safety management programmes required by 2.38; the record shall detail the activities reviewed and any necessary follow-up corrective and preventive actions.

(c) The applicant shall establish systems and procedures to ensure the electronic recording of—

(1) all air-ground communication channels utilised for direct pilot-controller two-way radiotelephony or data link communications used for the provision of air traffic services; and

(2) all air traffic service radiotelephony and telephone communications; and

(3) all relevant data obtained through automatic dependent surveillance (ADS), used in providing or supporting an ATC service; and

(4) for any equipment coming into service after the date this Standards Document comes into force, any transfer and acceptance of control process not conducted by telephone.

(d) The applicant shall establish systems and procedures to ensure that electronic records required by paragraph (c)—

(1) include time recording, correct to within 5 seconds of UTC, as determined by reference to a standard time station or GPS time standard; and

(2) either—

(i) replicate the voice communications, and, if applicable, the, an air situation display presentation applying at the particular operating position; or

(ii) are accompanied by a statement fully describing the differences between the recording supplied and a recording under paragraph (i).

(e) The option provided by paragraph (d)(2)(ii) shall apply only to equipment that was in service at the time the 1st Edition of this SD came into force.

(g) The applicant shall establish systems and procedures to ensure that all records, except where replication is required by paragraph (d)(2)(i), are of sufficient clarity to convey the required information.

(h) The applicant shall establish procedures to ensure that the records referred to in paragraph (b) are retained for a period of at least 31 days, except for—

(1) staff duty rosters which shall be retained for 2 years; and

(2) written records associated with the requirements of 2.36 (a)(2) and (3) which shall be retained for 2 years; and

(3) training records which shall be retained for a period of 3 years from the date the affected person ceases to work or be associated with the air traffic service organisation, and

(4) any records impounded for incident or accident investigations shall be retained for a period of at least 5 years from the date of the incident/accident unless otherwise advised by the incident/accident investigator.

2.34 Logbooks and position logs

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures to ensure that a logbook, with sequentially numbered pages, is kept at each ATS unit, and, where a unit has physically separate operations areas, at each such location within the unit.

(b) The procedure shall ensure that—

(1) the logbook is maintained by the senior person on duty, or the person on watch at a nominated operating position; and

(2) the logbook is maintained throughout the hours of watch of the unit or operations room; and

(3) all entries include the time of entry; and

(4) the person responsible for maintaining a logbook signs *On Watch,* and effects transfer of responsibility by successive *On Watch* entries; and

(5) logbook entries are—

(i) in chronological sequence and in ink; and

(ii) without erasure, defacement, or obliteration; and

(iii) corrected by drawing a single line through the erroneous information and initialling the correction; and

(6) actual times of opening and closing watch are recorded in the logbook, together with the reason for every variation from published hours of service; and

(7) logbooks are retained for a period of 7 years from the date of final entry.

(c) Each applicant shall establish a procedure to ensure the keeping of an operating position log, when such information is not available in the logbook required by paragraph (a). The procedure shall ensure that the operating position log—

(1) contains sufficient information to identify—

(i) when that position was in operation; and

(ii) the services being provided from that position; and

(iii) the identity of the individual providing the service; and

(2) is retained for a period of 31 days from the date of filing.

(d) Each applicant shall establish a procedure certifying the correctness of information recorded in the personal log books required by Regulations No. 124 (2).

2.35 Security

(a) Each applicant for the grant of an air traffic service certificate shall prepare an ATS security programme.

(b) Each ATS security programme shall specify the physical security requirements, practices, and procedures to be followed for the purposes of minimising the risk of destruction of, damage to, or interference with the operation of, any ATS unit operated by the applicant where such destruction, damage, or interference is likely to endanger the safety of aircraft.

(c) Without limiting the generality of paragraph (b), the security programme shall specify such physical security requirements, practices, and procedures as may be necessary—

(1) to ensure that entrances to permanent ATS facilities operated by the applicant are subject to positive access control at all times, so as to prevent unauthorised entry; and

(2) to protect personnel on duty; and

(3) to be followed in the event of a bomb threat or other threat of violence against an ATS unit; and

(4) to monitor unattended ATS unit buildings to ensure that any intrusion or interference is detected; and

(5) to ensure that reportable security occurrences and incidents required by the security legislation are notified to the Authority.

2.36 Service disruptions

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures to—

(1) advise the Authority of any planned disruption to the provision of air traffic services that could have an impact on safety; and

(2) investigate any unplanned disruption to the provision air traffic services; and

(3) report to the Authority, within 48 hours of the occurrence, the circumstances surrounding any unplanned disruption to air traffic services when the disruption affected, or could have affected, the safety of air traffic.

(b) Disruptions reportable under paragraph (a) shall include, but are not limited to, any—

(1) failure to open watch within 15 minutes of the promulgated opening time; and

(2) any interruption, of greater than 10 minutes, to the normal provision of an air traffic service; and

(3) curtailment of watch, by greater than 30 minutes, from the promulgated off watch time.

2.37 Internal quality assurance

(a) Each applicant for the grant of an air traffic service certificate shall establish an internal quality assurance system to ensure compliance with, and the adequacy of, the procedures required by this Standards Document.

(b) The internal quality assurance system shall include—

(1) a safety policy and safety policy procedures; and

(2) a procedure to ensure quality indicators, including samples of radio and telephone records, defect and incident reports, and personnel and customer feedback, are monitored to identify existing problems or potential causes of problems within the system; and

(3) a procedure for corrective action to ensure existing problems that have been identified within the system are corrected; and

(4) a procedure for preventive action to ensure that potential causes of problems that have been identified within the system are remedied; and

(5) an internal audit programme to audit the applicant's organisation for conformity with its safety policy; and

(6) management review procedures to ensure the continuing suitability and effectiveness of the internal quality assurance system in satisfying the requirements of this Standards Document.

(c) The safety policy procedures shall ensure that the safety policy is understood, implemented, and maintained at all levels of the organisation.

(d) The procedure for corrective action shall specify how—

(1) to correct an existing problem; and

(2) to follow up a corrective action to ensure the action is effective; and

(3) to amend any procedure required by this Standards Document as a result of a corrective action; and

(4) management will measure the effectiveness of any corrective action taken.

(e) The procedure for preventive action shall specify how—

(1) to correct a potential problem; and

(2) to follow-up a preventive action to ensure the action is effective; and

(3) to amend any procedure required by this Standards Document as a result of a preventive action; and

(4) management will measure the effectiveness of any preventive action taken.

(f) The internal quality audit programme shall—

(1) specify the frequency and location of the audits taking into account the nature of the activity to be audited; and

(2) ensure audits are performed by trained auditing personnel who are independent of those having direct responsibility for the activity being audited; and

(3) ensure the results of audits are reported to the personnel responsible for the activity being audited and the manager responsible for internal audits; and

(4) require preventive or corrective action to be taken by the personnel responsible for the activity being audited if problems are found by the audit; and

(5) ensure follow up audits to review the effectiveness of any preventive or corrective action taken.

(g) The procedure for management review shall—

(1) specify the frequency of management reviews of the quality assurance system taking into account the need for the continuing effectiveness of the system; and

(2) identify the responsible manager who shall review the quality assurance system; and

(3) ensure the results of the review are evaluated and recorded.

(h) The senior person who has the responsibility for internal quality assurance shall have direct access to the Chief Executive on matters affecting the safe provision of any air traffic service listed in the exposition.

2.38 Safety management

(a) Each applicant for the grant of an air traffic service certificate shall establish ATS safety management programmes prescribed in paragraph (b) below to ensure that safety is maintained in the provision of ATS within airspaces and at aerodromes.

(b) The ATS safety management programmes shall-:

(1) provides for an internal system of oversight to ensure the safe provision of air navigation services and the manager of the program shall-

(a) have direct access to the Chief Executive on operational system safety matters;

(b) conduct risk assessments of current and proposed operational policies, plans and procedures; and

(c) coordinate the collection and analysis of operational risk-related data; and

(2) comprise of safety policies, principles and requirements prescribed in Chapter 7; and

(3) provide for an acceptable level of safety and safety objectives prescribed in paragraph (c) below applicable to the provision pf air traffic services (ATS) within airspaces and at aerodromes; and

(4) ensure any significant safety-related change or safety-related enhancements to the ATC system, including the implementation of 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, and adequate provision is made for post-implementation monitoring to verify the defined level of safety continues to be met; and

(5) ensure that remedial action necessary to maintain an acceptable level of safety is implemented; and

(6) provide for continuous monitoring and regular assessment of the safety level achieved.

(c) An acceptable level of safety and safety objectives applicable to the provision of ATS within airspaces and at aerodromes shall be established on the basis of regional air navigation agreements where applicable. The following measures have been determined as the acceptable level of safety where none being established through regional air navigation agreements.

(1) Maximum aircraft accident attributable to ATS = $1x10^{-6}$ (1 per 1million movements)

(2) Maximum air traffic service incidents for each classification -

(3) Classification A1 = $1x10^{-5}$ (1 per 100000 movements)

(4) Classification A2 = $3x10^{-5}$ (3 per 100000 movements)

(5) ClassiffficationA3 = $5x10^{-5}$ (5 per 100000 movements)

(6) Maximum valid short-term conflict alerts* (STCA) = $1x10^{-5}$ (1 per 100000 movements).

*[*This refers to **actual alerts** independently generated by the ATS*

(d). Each applicant for the grant of an air traffic service certificate shall-

(1) establish and maintain a database of statistical information prescribed in the above paragraph (c); and

(2) submit to the Authority a half-year and an annual summary of the ATS safety management statistical information prescribed by paragraph (c) above no later than 15 days following the end of the periods respectively.

2.39 Controller Pilot Data Link Communication (CPDLC)

(a) Each applicant for the grant of an air traffic service certificate shall ensure CPDLC equipment and facility meet the requirements prescribed in ICAO Doc 9705.

(b) Each applicant for the grant of an air traffic service certificate in respect of a CPDLC service shall establish procedures to—

(1) support the provision of ATS prescribed by—

(i) Document 4444; or

(ii) Document 7030; or

(iii) South Pacific Operations Manual (SPOM); or

(3) ensures full information is made available to pilots and aircraft operators on—

(i) the nature and extent of the CPDLC services provided; and

(ii) any significant limitations regarding such CPDLC services; and

(4) ensure the information displayed at individual CPDLC operating positions is that required for the air traffic services to be provided; and

(5) where applicable, ensure CPDLC and ATS inter-facility data communication (AIDC) protocols are established through mutual agreements between the ATS units; and

(6) ensure the contingency plan provides for non-availability of the CPDLC system.

2.40 Read-back of clearances and safety-related information

2.40.1 The flight crew shall read back to the air traffic controller safety-related parts of ATC clearances and instructions which are transmitted by voice. The following items shall always be read back:

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.

2.40.1.1 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.

2.40.1.2 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.

2.40.1.3 Unless specified by the appropriate ATS authority, voice read-back of CPDLC messages shall not be required.

Note: - The procedures and provisions relating to the exchange and acknowledgement of CPDLC messages are contained in Annex 10, Volume II, and the PANS-ATM (Doc 4444), Chapter 14.

2.41 Provision of Air Traffic Control Service

2.41.1 Each applicant for the grant of Air traffic service certificate shall put in place procedures to ensure separation shall be provided:

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

2.41.2 Each applicant for the grant of Air traffic service certificate shall ensure that that parts of air traffic control service described in 1.1.3 shall be provided by the various units as follows:

a) Area control service:

(1) by an area control centre; or
(2) by the unit providing approach control service in a control zone or in a control area of
(3) limited extent which is designated primarily for the provision of approach control service and
(4) where no area control centre is established.

b) Approach control service:

1) by 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;

2) by an approach control unit when it is necessary or desirable to establish a separate unit.

c) Aerodrome control service: by an aerodrome control tower.

Note: - The task of providing specified services on the apron, e.g. apron management service, may be assigned to an aerodrome control tower or to a separate unit.

2.42 Organisation exposition

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

(1) a mint signed by the Chief Executive/Accountable on behalf of the applicant's organisation confirming that the exposition and any included manuals—

(i) define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this and any other applicable Standards Document; and

(ii) are required to be complied with by its personnel at all times; and

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

(3) the duties and responsibilities of the senior person or persons specified in paragraph (a)(2), including matters for which they have responsibility to deal directly with the Authority on behalf of the organisation; and

(4) an organisation chart showing lines of responsibility of the senior persons specified in paragraph (a)(2), and extending to each location listed under paragraph (a)(5)(i); and

(5) in the case of an organisation providing air traffic services from more than one ATS unit, a table listing—

(i) locations of ATS units; and

(ii) the aerodrome or airspace being serviced; and

(iii) the services provided; and

(6) details of the applicant's staffing structure for each ATS unit; and

(7) details of procedures required by 2.1 (b) regarding the, competency, qualifications, maintenance of current operating practice, and fitness of personnel; and how the provider

determines the number of operational staffs required, including the number of operational supervisory staff, listed in the applicant's exposition. (Refer Appendix 4 for guideline on ATS manpower planning); and

(8) details of procedures required by 2.2 regarding the training and assessment of ATS personnel, and regarding the qualifications of ATS training personnel; and

(9) details of prevention of fatigue required by 2.3; and

(10) a description of the display systems to be used in meeting the requirements of 2.4 (b)(5)(i) and 2.5 (c)(2)(i); and

(11) the information required by 2.5 regarding hours of service, the establishment of an air traffic service, and any transitional arrangements; and

(12) procedures regarding shift administration required by 2.6; and

(13) details of the procedures required by 2.7 regarding the control of documentation; and

(14) the contingency plans required by 2.8; and

(15) details of the systems and procedures required by 2.9 regarding co-ordination requirements; and

(16) details of the procedures required by 2.10 regarding the notification of facility status; and

(17) details of the systems and procedures required by 2.11 regarding general information requirements; and

(18) details of the systems and procedures required by 2.12 regarding meteorological information and reporting; and

(19) details of systems and procedures required by 2.13 regarding the provision of area control and approach control services; and

(20) details of systems and procedures required by 2.14 regarding the provision of aerodrome control service; and

(21) *[Reserved]*

(22) details of the procedures required by 2.16 regarding responsibility for control; and

(23) details of the procedures required by 2.17 regarding the application of priorities; and

(24) details of the procedures required by 2.18 regarding flow control; and

(25) details of the procedures required by 2.19 regarding ATC clearances; and

(26) details of the procedures required by 2.20 regarding the allocation of cruising levels; and

(27) details of the procedures required by 2.21 regarding deviations from an ATC clearance; and

(28) details of systems and procedures required by 2.22 regarding the provision of flight information service; and

(29) details of systems and procedures required by 2.23 regarding the provision of aerodrome flight information service; and

(30) details of systems and procedures required by 2.24 regarding the provision of alerting service; and

(31) details of the procedures required by 2.25 regarding the processing of flight plans; and

(32) details of the procedures required by 2.26 regarding time; and

(33) details of altimeter setting procedures required by 2.27; and

(34) details of the radio and telephone procedures required by 2.28; and

(35) details of the procedures required by 2.29 regarding the provision of ADS services; and

(36) details of the procedures required by 2.30 regarding aircraft emergencies and irregular operation; and

(37) details required by 2.31 regarding procedures following a serious incident or accident; and

(38) details of the procedures regarding incidents required by 2.32; and

(39) details of systems and procedures required by 2.33 regarding the gathering and management of records; and

(40) details of the procedures required by 2.34 regarding the keeping of logbooks and position logs; and

(41) details of the programme required by 2.35 regarding security arrangements; and

(42) details of the procedures required by 2.36 regarding disruptions to service; and

(43) details of the systems, procedures, and programmes required by 2.37 regarding internal quality assurance; and

(44) details of safety management required by 2.38; and

(45) details of CPDLC required by 2.39; and

(46) details of procedures on specific operational requirements at Nausori airport required by 3.6; and

(47) procedures to control, amend and distribute the exposition.

(b) The applicant's exposition to the Authority may be prescribed in operations manuals required by 3.2.

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

Chapter 3 — Operating Requirements

3.1 Continued compliance

Each holder of an air traffic service certificate shall—

(1) hold at least one complete and current copy of its exposition at each ATS unit listed in its exposition, except that manuals relating solely to a particular location need only be held at principal locations and the unit concerned; and

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

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

(4) continue to meet the standards and comply with the requirements of Chapter 2 prescribed for certification under this Standards Document; and

(5) comply with any recommendations imposed by the Authority as a result of an examination or inspection carried out *(Regulation No.145A (6)*; and

(6) promptly notify the Authority of any change of address for service, telephone number, or facsimile number, required by form prescribed by 9.1.

3.2 Operations manuals

(a) Each holder of an air traffic service certificate shall provide, for compliance by its personnel, an operation manual or system of manuals for the services listed in its exposition including the objectives of ATS prescribed in 1.1.2 of this documents.

(b) A holder, certified to provide more than one air traffic service, or an air traffic service or services from more than one location, may publish a core manual together with manual supplements specific to each service or location.

(c) The contents and format of an operations manual for air traffic management is prescribed in Chapter 8 para 8.4.

3.3 Trials

(a) The Authority may, upon application in writing from the holder of an air traffic service certificate, approve, subject to such conditions on that approval as the Authority considers necessary in the interests of aviation safety, the conduct of trials regarding—

(1) separation minima; or

(2) standard phraseology; or

(3) ADS procedures.

(b) A trial may be approved by the Authority for a single period of no longer than 3 months, and upon further application in writing by the certificate holder, be extended by the Authority for a single period of no longer than 3 months.

(c) A trial approved under this rule may be terminated by the Authority at any time.

3.4 Denial of ATC clearance

(a) The holder of an air traffic service certificate in respect of an aerodrome control service shall not deny the pilot of an aircraft an ATC clearance on the basis of non-payment of charges owed to the certificate holder unless—

(1) the aircraft is on the ground; and

(2) that clearance is for entry onto the manoeuvring area.

(b) The certificate holder shall continue to provide normal ATC service for any aircraft entering the manoeuvring area without an ATC clearance.

3.5 Suspension of VFR operations

Each holder of an air traffic service certificate for an approach control service or aerodrome control service may, when appropriate for safety reasons, suspend any or all controlled VFR operations within a control zone.

3.6 Specific Operational Requirements – Nausori Airport.

(a) Each applicant for the grant of an air traffic service certificate in respect of narrow width runway operations by B737 aircraft operating into Nausori International Airport, shall establish procedures to-

(1) notify the pilot when the crosswind component equals or exceeds the limitations prescribed in paragraph (b) below-

(i) at initial radio contact; and

(ii) include with the landing clearance issued; and

(2) ensure that the duty controller completes a report of the occurrence (use form CA338) and submit to the Authority when an unsuccessful approach to land is flown, or a landing is made in crosswind conditions exceeding the prescribed limits.

(b) Crosswind Limitations of B737 aircraft operations at Nausori airport:

Aircraft Type	**Runway Surface Dry Maximum Crosswind**	**Runway Surface Wet Maximum Crosswind**
B737 - 700	24 knots	13 knots
B737 - 800	27 knots	16 knots

3.7 Changes to certificate holder's organisation

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

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

(1) meet the applicable requirements of this Standards Document; and

(2) comply with the amendment procedures contained in the holder's exposition.

(c) The certificate holder shall provide the Authority with a copy of each amendment to the holder's exposition as soon as practicable after its incorporation into the exposition, except that, for the holder's operational manual or manuals, the certificate holder shall forward to the Authority—

(1) printed amendments, at least 15 working days in advance of their effective date; and

(2) amendments of an urgent or immediate nature, without delay, and no later than the date on which they are effective.

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

(1) the Chief Executive/Accountable Manager; or

(2) the listed senior persons; or

(3) any aspect of air traffic management that may have an adverse impact on air traffic services provided by the ATSP responsible for adjacent airspace.

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

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

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

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

3.8 Withdrawal or transfer of service

(a) Each holder of an air traffic service certificate who wishes to permanently withdraw an air traffic service shall give the Authority at least 90 days' notice of the proposal and include in that notice a summary of factors considered in arriving at the decision to withdraw the service.
(b) Each holder of an air traffic service certificate who intends to permanently reduce the hours of operation of an air traffic service shall provide to the Authority advance notice of, and the reasons for, the proposed reduction.
(c) Each holder of an air traffic service certificate who is the outgoing provider of an air traffic service shall not hinder the preparation and execution of the transitional arrangements required by 2.5 (b).

3.9 Performance-based navigation (PBN) operations

3.9.1 When applying performance-based navigation, navigation specifications shall be prescribed by the Authority. When applicable, the navigation specification(s) for designated areas, tracks or ATS routes shall be prescribed on the basis of regional air navigation agreements. In designating a navigation specification, limitations may apply as a result of navigation infrastructure constraints or specific navigation functionality requirements.

3.9.2 Performance-based navigation operations should be implemented as appropriate by the air traffic service provider.

3.9.3 The prescribed navigation specification shall be appropriate to the level of communications, navigation and air traffic services provided in the airspace concerned.

Note: - Applicable guidance on performance-based navigation and implementation is published in the Performance- based Navigation (PBN) Manual (Doc 9613).

3.10 Performance-based communication (PBC) operations

3.10.1 In applying performance-based communication (PBC), RCP specifications shall be prescribed by the Authority. When applicable, the RCP specification(s) shall be prescribed on the basis of regional air navigation agreements.

Note: - In prescribing an RCP specification limitation may apply as a result of communication infrastructure constraints or specific communication functionality requirements.

3.10.2 The prescribed RCP specification shall be appropriate to the air traffic services provided.

Note: - Information on the performance-based communication and surveillance (PBCS) concept and guidance material on its implementation are contained in the Performance-based Communication and Surveillance (PBCS) Manual (Doc 9869).

3.11 Performance-based surveillance (PBS) operations

3.11.1 In applying performance-based surveillance (PBS), RSP specifications shall be prescribed by the Authority. When applicable, the RSP specification(s) shall be prescribed on the basis of regional air navigation agreements.

Note. - In prescribing an RSP specification, limitations may apply as a result of surveillance infrastructure constraints or specific surveillance functionality requirements.

3.11.2 The prescribed RSP specification shall be appropriate to the air traffic services provided.

3.11.3 Where an RSP specification has been prescribed by the Authority for performance-based surveillance, ATS units shall be provided with equipment capable of performance consistent with the prescribed RSP specification(s).

Note: - Information on the PBCS concept and guidance material on its implementation are contained in the Performance-based Communication and Surveillance (PBCS) Manual (Doc 9869)

3.12 Establishment and designation of the units providing air traffic services

The air traffic services shall be provided by units established and designated as follows:

3.12.1 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.

Note: - This does not preclude delegating to other units the function of providing certain elements of the flight information service.

3.12.2 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.

Note: - The services to be provided by various air traffic control units are indicated in 2.41.2

3.13 Specifications for flight information regions, control areas and control zones

3.13.1 The delineation of airspace, wherein air traffic services are to be provided, should be related to the nature of the route structure and the need for efficient service rather than to national boundaries.

Note 1: - Agreements to permit the delineation of airspace lying across national boundaries are advisable when such action will facilitate the provision of air traffic services. Agreements which permit delineation of airspace boundaries by straight lines will, for example, be most convenient where data processing techniques are used by air traffic services units.

Note 2: - Where delineation of airspace is made by reference to national boundaries there is a need for suitably sited transfer points to be mutually agreed upon.

3.13.2 Flight information regions

3.13.2.1Flight information regions shall be delineated to cover the whole of the air route structure to be served by such regions.

3.13.2.2 A flight information region shall include all airspace within its lateral limits, except as limited by an upper flight information region.

3.13.2.3 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 in Appendix 3 to Annex 2.

Note: - In cases where an upper flight information region is established the procedures applicable therein need not be identical with those applicable in the underlying flight information region.

3.13.3 Control areas

3.13.3.1 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.

Note: - In a control area other than one formed by a system of airways, a system of routes may be established to facilitate the provision of air traffic control.

3.13.3.2 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).

Note: - This does not imply that the lower limit has to be established uniformly in a given control area (see Figure A-5 of the Air Traffic Services Planning Manual (Doc 9426), Part I, Section 2, Chapter 3).

3.13.3.3 The lower limit of a control area should, when practicable and desirable in order to allow freedom of action for VFR flights below the control area, be established at a greater height than the minimum specified in 2.11.3.2.

3.13.3.4 When the lower limit of a control area is above 900 m (3 000 ft) MSL it should coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.

Note. — This implies that the selected VFR cruising level be such that expected local atmospheric pressure variations do not result in a lowering of this limit to a height of less than 200 m (700 ft) above ground or water.

3.13.3.5 An upper limit of a control area shall be established when either:

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.

When established, such upper limit shall coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.

3.13.4 Flight information regions or control areas in the upper airspace

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,

should be delineated to include the upper airspace within the lateral limits of a number of lower flight information regions or control areas.

3.13.5 Control zones

3.13.5.1 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.

Note: - Aircraft holding in the vicinity of aerodromes are considered as arriving aircraft.

3.13.5.2 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.

Note: - A control zone may include two or more aerodromes situated close together.

3.13.5.3 If 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.

Note: - An upper limit higher than the lower limit of the overlying control area may be established when desired.

3.13.5.4 If a control zone is located outside of the lateral limits of a control area, an upper limit should be established.

3.13.5.5 If it is desired to establish the upper limit of a control zone at a level higher than the lower limit of the control area established above it, or if the control zone is located outside of the lateral limits of a control area, its upper limit should be established at a level which can easily be identified by pilots. When this limit is above 900 m (3 000 ft) MSL it should coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.

Note: - This implies that, if used, the selected VFR cruising level be such that expected local atmospheric pressure variations do not result in a lowering of this limit to a height of less than 200 m (700 ft) above ground or water.

3.14 Identification of air traffic services units and airspaces

3.14.1 An area control centre or flight information centre should be identified by the name of a nearby town or city or geographic feature.

3.14.2 An aerodrome control tower or approach control unit should be identified by the name of the aerodrome at which it is located.

3.14.3 A control zone, control area or flight information region should be identified by the name of the unit having jurisdiction over such airspace.

3.15 Establishment and identification of ATS routes

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

3.15.2 When warranted by density, complexity or nature of the traffic, special routes should be established for use by low-level traffic, including helicopters operating to and from helidecks on the high seas. When determining the lateral spacing between such routes, account should be taken of the navigational means available and the navigation equipment carried on board helicopters.

3.15.3 ATS routes shall be identified by designators.

3.15.4 Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles set forth in Appendix 1.

3.15.5 Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles set forth in Appendix 3.

Note 1: Guidance material relating to the establishment of ATS routes is contained in the Air Traffic Services Planning Manual (Doc 9426).

Note 2: - Guidance material relating to the establishment of ATS routes defined by VOR is contained in Attachment A.

Note 3. — The spacing between parallel tracks or between parallel ATS route centre lines based on performance-based navigation will be dependent upon the relevant navigation specification required.

3.16 Establishment of change-over points

3.16.1 Change-over points should be established on ATS route segments defined by reference to very high frequency omnidirectional radio ranges where this will assist accurate navigation along the route segments. The establishment of change-over points should 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.

3.16.2 Unless otherwise established in relation to the performance of the navigation aids or frequency protection criteria, the change-over point on a route segment should 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.

Note: - Guidance on the establishment of change-over points is contained in Attachment A.

3.17 Establishment and identification of significant points

3.17.1 Significant points shall be established for the purpose of defining an ATS route or instrument approach procedure and/or in relation to the requirements of air traffic services for information regarding the progress of aircraft in flight.

3.17.2 Significant points shall be identified by designators.

3.17.3 Significant points shall be established and identified in accordance with the principles set forth in Appendix 2.

3.18 Establishment and identification of standard routes for taxiing aircraft

3.18.1 Where necessary, standard routes for taxiing aircraft should be established on an aerodrome between runways, aprons and maintenance areas. Such routes should be direct, simple and where practicable, designed to avoid traffic conflicts.

3.18.2 Standard routes for taxiing aircraft should be identified by designators distinctively different from those of the runways and ATS routes.

3.19 Coordination between the operator and air traffic services

3.19.1 Air traffic services units, in carrying out their objectives, shall have due regard for the requirements of the operators consequent on their obligations as specified in Annex 6, and, if so required by the operators, shall make available to them or their designated representatives such information as may be available to enable them or their designated representatives to carry out their responsibilities.

3.19.2 When so requested by an operator, messages (including position reports) received by air traffic services units and relating to the operation of the aircraft for which operational control service is provided by that operator shall, so far as practicable, be made available immediately to the operator or a designated representative in accordance with locally agreed procedures.

Note: - For aircraft subjected to unlawful interference, see 3.26.3

3.20 Coordination between military authorities and air traffic services

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

3.20.2 Coordination of activities potentially hazardous to civil aircraft shall be affected in accordance with 2.19.

3.20.3 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.

3.20.3.1 Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft. In order to eliminate or reduce the need for interceptions, air traffic services authorities shall designate any areas or routes where the requirements of Annex 2 concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft.

Note: - For aircraft subjected to unlawful interference, see 3.26.3 and 3.27.1.3

3.20.3.2 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;

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.

3.21 Coordination of activities potentially hazardous to civil aircraft

3.21.1 The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of Fiji or over the high seas, shall be coordinated with the appropriate air traffic services authorities. The coordination shall be affected early enough to permit timely promulgation of information regarding the activities in accordance with the provisions of SD-AIS and Annex 15.

3.21.1.1 If the appropriate ATS authority is not the ATS authority responsible for the airspace where the organization planning the activities is located, initial coordination should be affected through the ATS authority responsible for the airspace over the where the organization is located.

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

3.21.2.1 In determining these arrangements the following should be applied:

a) the locations or areas, times and durations for the activities should be selected 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 should be kept as small as possible;

c) direct communication between the appropriate ATS authority or air traffic services unit and the organization or unit conducting the activities should be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.

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

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

3.21.5 Adequate steps shall be taken to prevent emission of laser beams from adversely affecting flight operations.

Note 1: - Guidance material regarding the hazardous effects of laser emitters on flight operations is contained in the Manual on Laser Emitters and Flight Safety (Doc 9815).

Note 2: - Refer SD-Aerodromes Appendix 5 (section 4.2) and Annex 14 Vol. I, Chapter 5.

3.21.6 In order to provide added airspace capacity and to improve efficiency and flexibility of aircraft operations, the ATSP should establish procedures providing for a flexible use of airspace reserved for military or other special activities. The procedures should permit all airspace users to have safe access to such reserved airspace.

3.22 Aeronautical data

3.22.1 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 of the end-user of aeronautical data.

Note: -Specifications concerning the accuracy and integrity classification of air traffic services-related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

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

Note: - Detailed specifications concerning digital data error detection techniques are contained in PANS-AIM (Doc 10066).

3.23 Coordination between meteorological and air traffic services authorities

3.23.1 To ensure that aircraft receive the most up-to-date meteorological information for aircraft operations, arrangements shall be made, where necessary, between meteorological and air traffic services authorities for air traffic services personnel:

a) in addition to using indicating instruments, to report, if observed by air traffic services personnel or communicated by aircraft, such other meteorological elements as may be agreed upon;

b) to 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;

c) to 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. In addition, area control centres and flight information centres shall report the information to the associated meteorological watch office and volcanic ash advisory centres (VAACs).

Note 1: - VAACs are designated by regional air navigation agreements in accordance with Annex 3, Chapter 3, and 3.5.1.

Note 2: -See 4.2.3 regarding transmission of special air-reports.

3.23.2 Close coordination shall be maintained between area control centres, flight information centres and associated meteorological watch offices to ensure that information on volcanic ash included in NOTAM and SIGMET messages is consistent.

3.24 Coordination between aeronautical information services and air traffic services authorities

3.24.1 To ensure that aeronautical information services units obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, arrangements shall be made between aeronautical information services and air traffic services authorities responsible for air traffic services to report to the responsible aeronautical information services unit, with a minimum of 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.

3.24.2 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. To ensure timely provision of the information to the aeronautical information service, close coordination between those services concerned is therefore required.

3.24.3 Of particular importance are changes to aeronautical information that affect charts and/or computer-based navigation systems which qualify to be notified by the Aeronautical Information Regulation and Control (AIRAC) system, as specified in Annex 15, Chapter 6. The predetermined, internationally agreed AIRAC effective dates shall be observed by the responsible air traffic services when submitting the raw information/data to aeronautical information services.

Note: - Detailed specifications concerning the AIRAC system are contained in PANS-AIM (Doc 10066), Chapter 6.

3.24.4 The air traffic services responsible for the provision of raw aeronautical information/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.

Note 1: - Specifications concerning the accuracy and integrity classification of air traffic services-related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

Note 2: - Specifications for the issue of a NOTAM, SNOWTAM and ASHTAM are contained in Annex 15, Chapter 6.

Note 3: - Reports of volcanic activity comprise the information detailed in Annex 3, Chapter 4.

Note 4: - AIRAC information is distributed by the aeronautical information service at least 42 days in advance of the AIRAC effective dates with the objective of reaching recipients at least 28 days in advance of the effective date.

Note 5: - The schedule of the predetermined, internationally agreed AIRAC common effective dates at intervals of 28 days and guidance for the AIRAC use are contained in the Aeronautical Information Services Manual (Doc 8126, Chapter 2, 2.6).

3.25 Minimum flight altitudes

Minimum flight altitudes shall be determined and promulgated for each ATS route and control area over its territory. The minimum flight altitudes determined shall provide a minimum clearance above the controlling obstacle located within the areas concerned.

Note: - The requirements for publication of minimum flight altitudes and of the criteria used to determine them are contained in PANS-AIM (Doc 10066), Appendix 2. Detailed obstacle clearance criteria are contained in PANS-OPS (Doc 8168), Volume II.

3.26 Service to aircraft in the event of an emergency

3.26.1 An aircraft known or believed to be in a 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.

Note: - To indicate that it is in a state of emergency, an aircraft equipped with an appropriate data link capability and/or an SSR transponder might operate the equipment as follows:

a) on Mode A, Code 7700; or

b) on Mode A, Code 7500, to indicate specifically that it is being subjected to unlawful interference; and/or c) activate the appropriate emergency and/or urgency capability of ADS-B or ADS-C; and/or

d) transmit the appropriate emergency message via CPDLC.

3.26.1.1 In communications between ATS units and aircraft in the event of an emergency, Human Factors principles should be observed.

Note.: - Guidance material on Human Factors principles can be found in the Human Factors Training Manual (Doc 9683).

3.26.2 When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall attend promptly to requests by the aircraft. Information pertinent to the safe conduct of the flight shall continue to be transmitted and necessary action shall be taken to expedite the conduct of all phases of the flight, especially the safe landing of the aircraft.

3.26.3 When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall, in accordance with locally agreed procedures, immediately inform the appropriate authority designated by the and exchange necessary information with the operator or its designated representative.

Note 1: - A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference. See 2.25.1.3.

Note 2: - Procedures relating to the handling of strayed or unidentified aircraft are contained in 2.25.1.

Note 3: - The PANS-ATM (Doc 4444), Chapter 15, 15.1.3 contains more specific procedures related to unlawful interference.

3.27 In-flight contingencies

3.27.1 Strayed or unidentified aircraft

Note 1. The terms "strayed aircraft" and "unidentified aircraft" in this paragraph have the following meanings:

***Strayed aircraft**. An aircraft which has deviated significantly from its intended track or which reports that it is lost.*

***Unidentified aircraft.** An aircraft which has been observed or reported to be operating in a given area but whose identity has not been established.*

Note 2. An aircraft may be considered, at the same time, as a "strayed aircraft" by one unit and as an "unidentified aircraft" by another unit.

Note 3. A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference.

3.27.2 As soon as an air traffic services unit becomes aware of a strayed aircraft it shall take all necessary steps as outlined in 2.25.1.1.1 and 2.25.1.1.2 to assist the aircraft and to safeguard its flight.

Note. Navigational assistance by an air traffic services unit is particularly important if the unit becomes aware of an aircraft straying, or about to stray, into an area where there is a risk of interception or other hazard to its safety.

3.27.3 If 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;
(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.

Note. The requirements in d) and e) apply also to ATS units informed in accordance with c).

3.27.4 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.

3.27.5 As soon as an air traffic services unit becomes aware of an unidentified aircraft in its area, it 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. To this end, the air traffic services unit shall take such of the following steps as are appropriate in the circumstances:

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

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

3.27.7 Should the ATS unit consider that a strayed or unidentified aircraft may be the subject of unlawful interference, the appropriate authority shall immediately be informed, in accordance with locally agreed procedures.

3.27.2 Interception of civil aircraft

3.27.2.1 As soon as an air traffic services unit learns that an aircraft is being intercepted in its area of responsibility, it shall take such of 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;

f) inform ATS units serving adjacent flight information regions if it appears that the aircraft has strayed from such adjacent flight information regions.

3.27.2.2 As soon as an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, it shall take such of 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 2.25.2.1;

b) relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.

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

The ATSP shall ensure that requirements established by the Authority for the carriage and operation of pressure-altitude reporting transponders within defined portions of airspace are implemented.

Note: - This provision is intended to improve the effectiveness of air traffic services as well as airborne collision avoidance systems.

3.29 Common reference systems

3.29.1 Horizontal reference system

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

Note: - Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System — 1984 (WGS-84) Manual (Doc 9674).

3.29.2 Vertical reference system

Mean sea level (MSL) datum, which gives the relationship of gravity-related height (elevation) to a surface known as the geoid, shall be used as the vertical reference system for air navigation.

Note: - The geoid globally most closely approximates MSL. It is defined as the equipotential surface in the gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents.

3.29.3 Temporal reference system

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

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

3.30 Language proficiency

3.30.1 An air traffic services provider shall ensure that air traffic controllers speak and understand the language(s) used for radiotelephony communications as specified in the SD-ATSPL which has been adapted from Annex 1.

3.30.2 Except when communications between air traffic control units are conducted in a mutually agreed language, the English language shall be used for such communications.

3.31 Identification and delineation of prohibited, restricted and danger areas

3.31.1 Each prohibited area, restricted area, or danger area established by the Authority shall, upon initial establishment, be given an identification and full details shall be promulgated.

Note: - See PANS-AIM (Doc 10066), Appendix 2, ENR 5.1.

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

3.31.3 The identification shall be composed of a group of letters and figures as follows:

a) nationality letters for location indicators assigned to the 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 or territory concerned.

Note: -Nationality letters are those contained in Location Indicators (Doc 7910).

3.31.4 To avoid confusion, identification numbers shall not be reused for a period of at least one year after cancellation of the area to which they refer.

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

3.32 Instrument flight procedure design service

An instrument flight procedure design service shall be in place in accordance with the SD-Instrument Flight Procedure Design and ICAO Annex 11 Appendix 7.

Chapter 4 — Other Air Traffic Services

4.1 General

(a) A person may request the Authority to determine whether an aviation related service is an air traffic service by Air Navigation Regulations Part 1A-Preliminary Regulation No. 2-Interpretation of the term by application in writing, including a definition, and details of, the proposed service.

(b) The Authority may, in consultation with such persons as the Authority considers necessary, determine whether any aviation related service is an air traffic service under the interpretation of the term.

4.2 Requirement

No person shall provide a service that the Authority determines to be an air traffic service in accordance with 4.1 except under the authority of, and in accordance with, the provisions of an air traffic service certificate issued under this Chapter.

4.3 Application

(a) Each applicant for an air traffic service certificate for an air traffic service shall complete the appropriate for and submit this to the Authority together with—

(1) such other details regarding the applicant's organisation and the air traffic service as the Authority may require; and

(2) a payment of the appropriate application fee prescribed by regulations made under the Act.

4.4 Issue of certificate

(a) An applicant is entitled to an air traffic service certificate for an air traffic service under Regulation 2-Interpretation of the term if the Authority is satisfied that the—

(1) applicant is a fit and proper person; and

(2) granting of the certificate is not contrary to the interests of aviation safety.

(b) The Authority may attach such conditions to the certificate as the Authority thinks necessary in the interests of safety.

4.5 Operating conditions

Each holder of a certificate issued under this Chapter shall provide the air traffic service in accordance with the conditions attached to the certificate.

Chapter 5 — Separation criteria and minima

5.1 Vertical separation

Within controlled airspace, vertical separation may be reduced to 500 feet when—

(1) both aircraft are either medium or light wake turbulence category; and

(2) the lower aircraft is a VFR or Special VFR flight, and operating at an altitude of 4500 feet or below.

5.2 Composite visual separation

An aerodrome controller may apply a composite of geographical and visual separation, provided instructions are issued as necessary to maintain adequate separation, between—

(1) an aircraft continuously in sight of the controller, and within 10 nm of the aerodrome; and

(2) an aircraft not in sight of the controller, but whose current position has been determined by ADS or a pilot position report.

5.3 Visual separation beyond the vicinity of an aerodrome

Separation minima may be reduced by approving visual separation when, by day—

(1) a specific request is made by a pilot; and

(2) each aircraft is under the control of—

(i) the same operating position; or

(ii) physically adjacent operating positions, provided both controllers agree; and

(3) each aircraft remains in VMC; and

(4) either—

(i) each aircraft is continuously visible to the pilot of the other aircraft and both pilots concur with the application of visual separation; or

(ii) the pilot of a following aircraft reports the preceding aircraft is in sight and that pilot can maintain visual separation from the preceding aircraft.

(Note: Aerodrome control separation may be applied where the aerodrome controller has both aircraft in sight and accepted the transfer of control.)

5.4 Longitudinal separation by time

When separating aircraft that are on the same track, and on the opposite sides of an NDB, VOR, or VORTAC, at which both aircraft are required to report, 5 minutes minimum separation may be applied, provided—

(1) one aircraft is in level flight and the other aircraft is climbing or descending to achieve vertical separation; and

(2) the preceding aircraft has passed the NDB, VOR, or VORTAC by at least 5 minutes; and

(3) confirmation is obtained from the following aircraft that it has not yet reached the NDB, VOR, or VORTAC.

5.5 Longitudinal separation by distance

(a) A minimum separation of 20 nm may be applied, between aircraft climbing or descending on the same track, provided separation is assured by obtaining frequent, and immediately consecutive, DME readings from both aircraft.

(b) A minimum separation of 10 nm may be applied—

(1) between aircraft climbing or descending on the same track provided—

(i) the preceding aircraft maintains a true airspeed speed of 20 knots or more faster than the following aircraft; and

(ii) the effect of slant-range is taken into consideration; and

(iii) separation is assured, by obtaining frequent, and immediately consecutive, DME readings from both aircraft; or

(2) when changing from longitudinal to vertical separation, where the following aircraft is instructed to reach a vertical separation level 10 nm prior to the last DME report of the preceding aircraft; or

(3) when separating an aircraft beyond, and flying away from, a DME or TACAN arc, from an aircraft on the arc, using the same DME.

5.6 Lateral separation

(a) GPS distance may be used, in lieu of DME distance, in the provision of lateral separation when—

(1) both aircraft are flying tracks based on same navigation aid; and

(2) the GPS distance reported is from the same navigation aid on which the lateral separation is based; and

(3) in accordance with GPS separation applicable in Fiji domestic airspace prescribed by 5.8.

(b) Lateral separation based on the lateral separation table prescribed in paragraph (c) below may be applied-

(1) during climb/descend to achieve vertical separation; and

(2) for VOR/DME navigation aids, the aircraft are-

(i) “locked-on” to the same VOR/DME station; and

(ii) DME distances are limited to the coverage of the VOR and shall not be applied where navigation aid is known to be or promulgated as unreliable (e.g. scalloping); and

(c) Lateral Separation Table:

VOR Angular Difference	DME Distance	
	0 to 10000 feet	0 to FL250
13	60	60
14	30	30
15	21	23
16	18	22
17	15	20
18	14	19
19	13	18
20	12	17
21	11	17
22	10	16
23	9	16
24	8	15
25~29	8	14
30~34	8	12
35~39	8	11
40~44	8	10
45~49	8	9
50~135	8	8

(d) Lateral separation charts approved for application in Fiji domestic airspace are on the following pages:

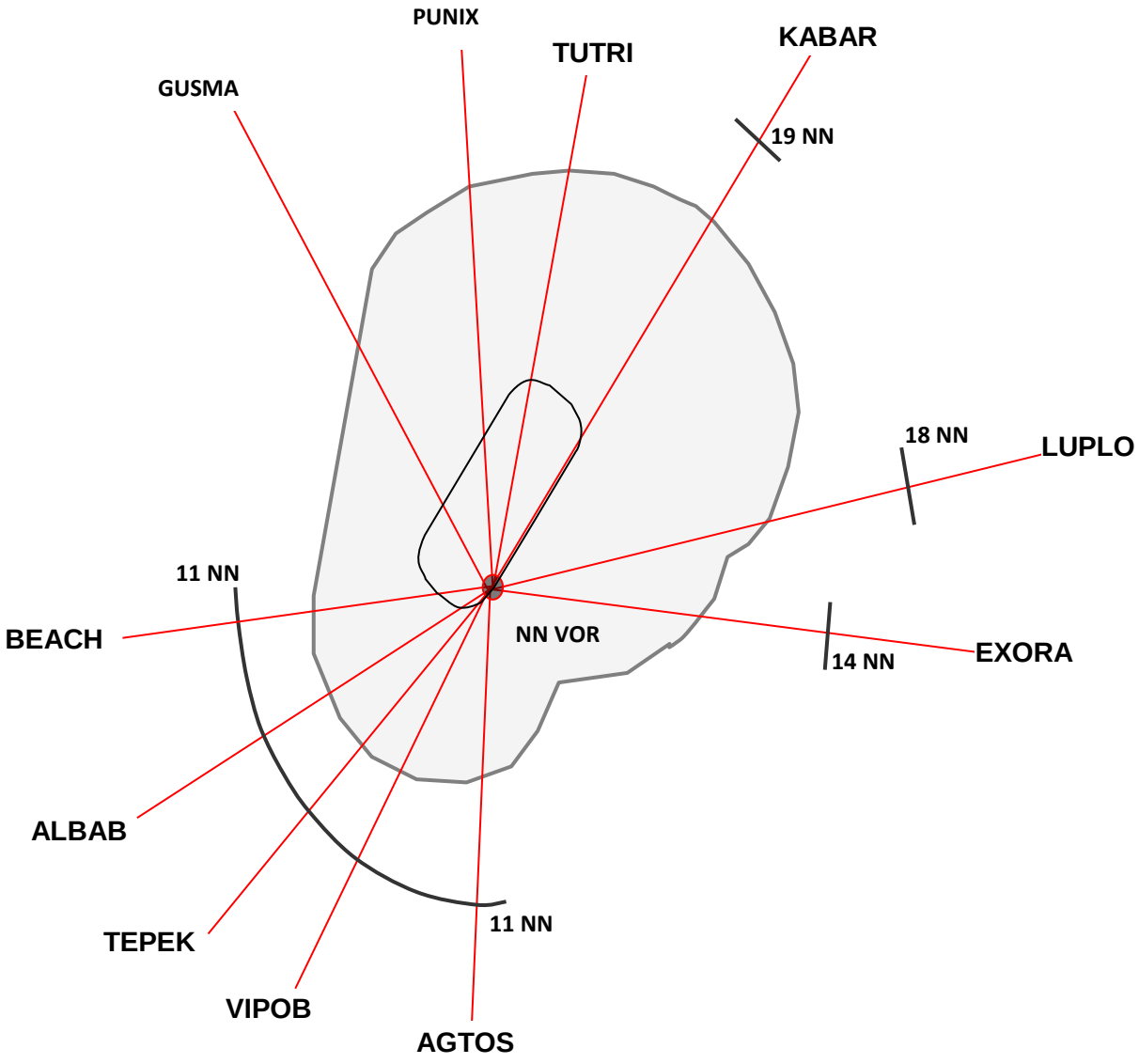
[*Note: Lateral separation points between routes are depicted as an arc joining the routes. Lateral separation exists outside the arc.*]

(1) LATERAL SEPARATION POINTS – NADI VOR HOLDING PATTERN AND VOR ROUTES

(i) Lateral Separation valid to FL140.

(ii) Nadi VOR Holding Pattern conflicts with-

- VK NDB Holding Pattern; and
- MI NDB Holding Pattern above 10,000 ft.

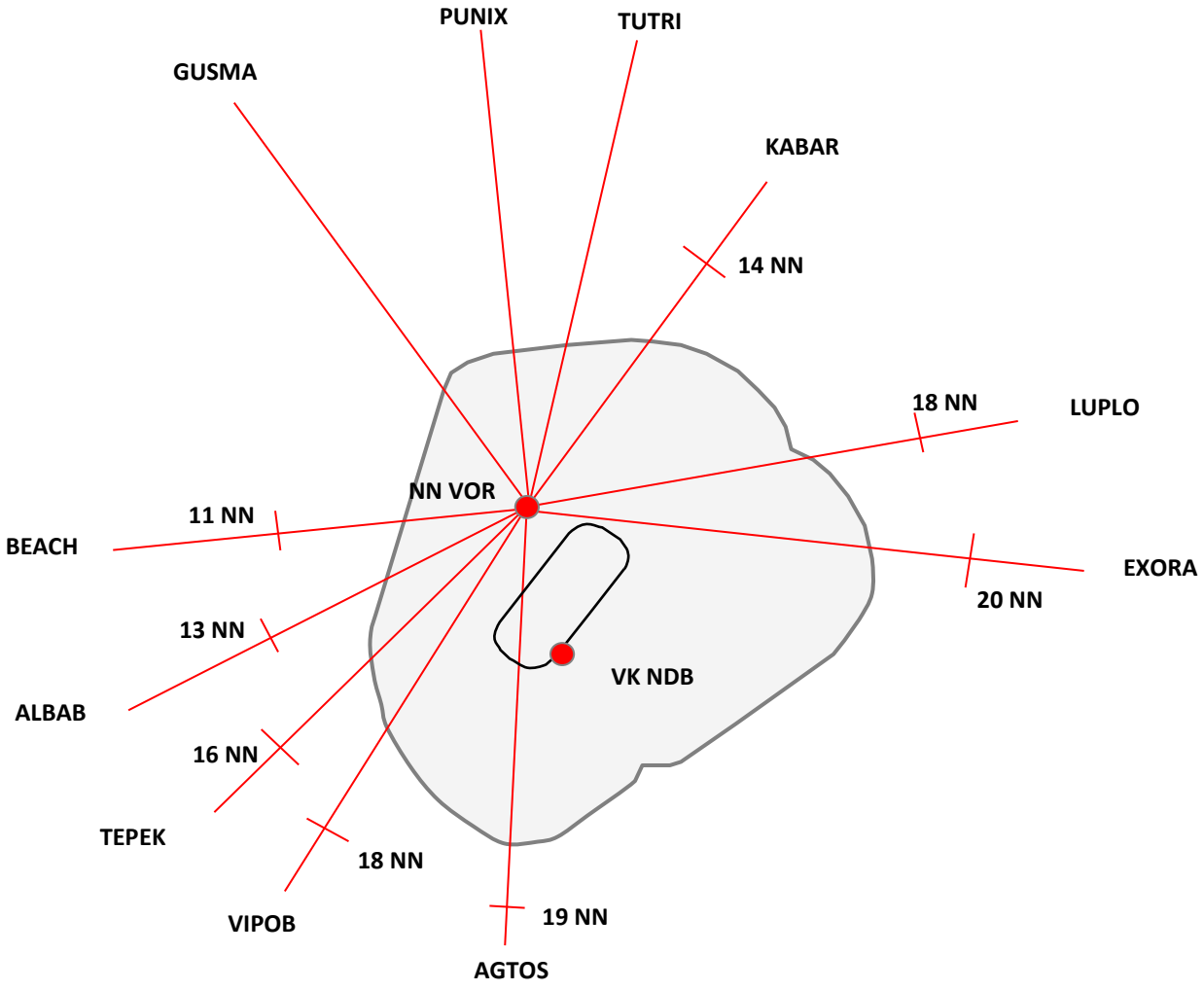


(2) LATERAL SEPARATION POINTS - Navara NDB (VK NDB) and NN VOR Routes:

(i) Lateral Separation valid to FL140.

(ii) VKNDB Holding Pattern conflicts with-

- MI NDB Holding Pattern
- NN VOR Holding Pattern

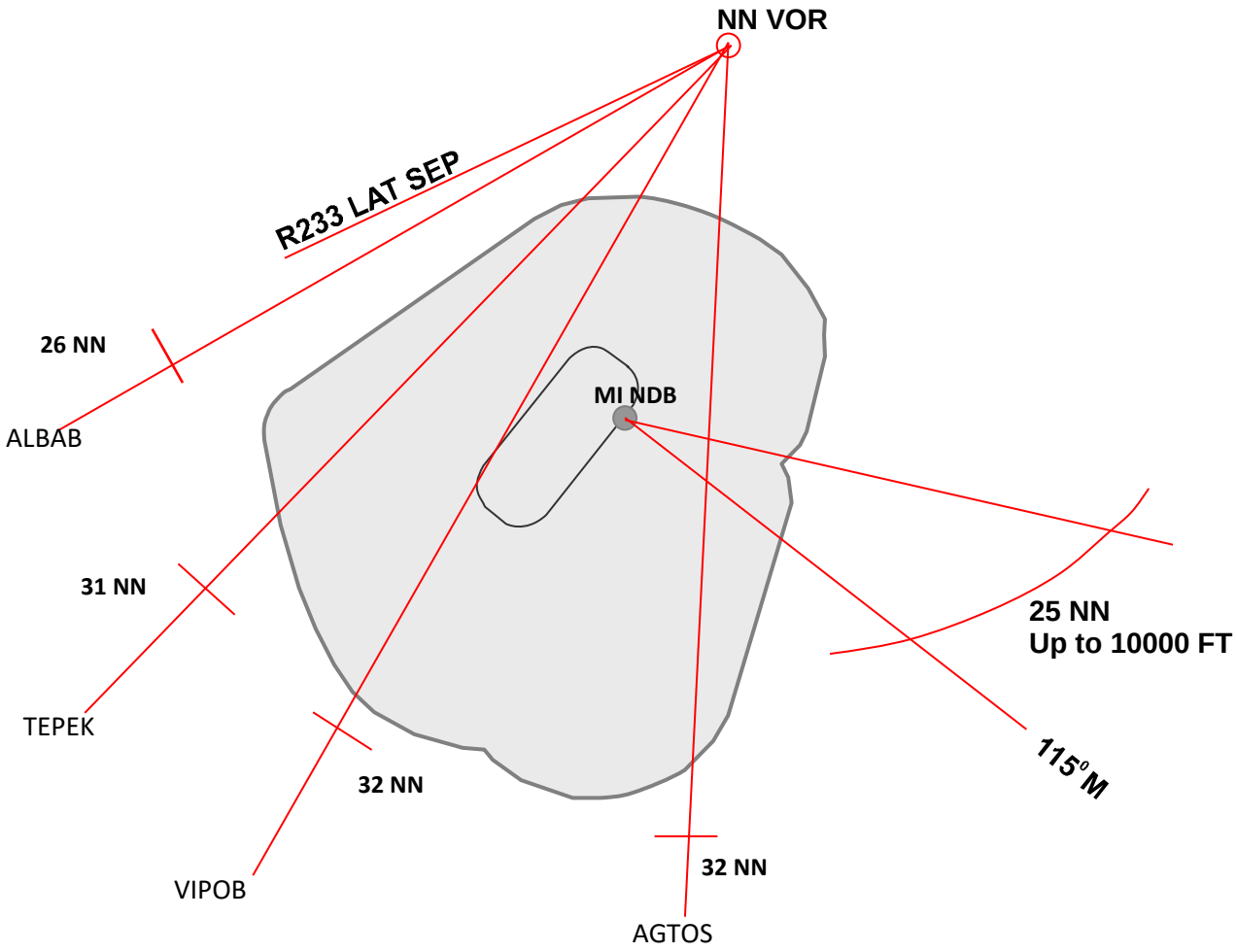


(3) LATERAL SEPARATION POINTS - MI NDB Holding Pattern and NN VOR Routes

(i) Lateral Separation valid to FL140.

(ii) MI NDB Holding Pattern conflicts with-

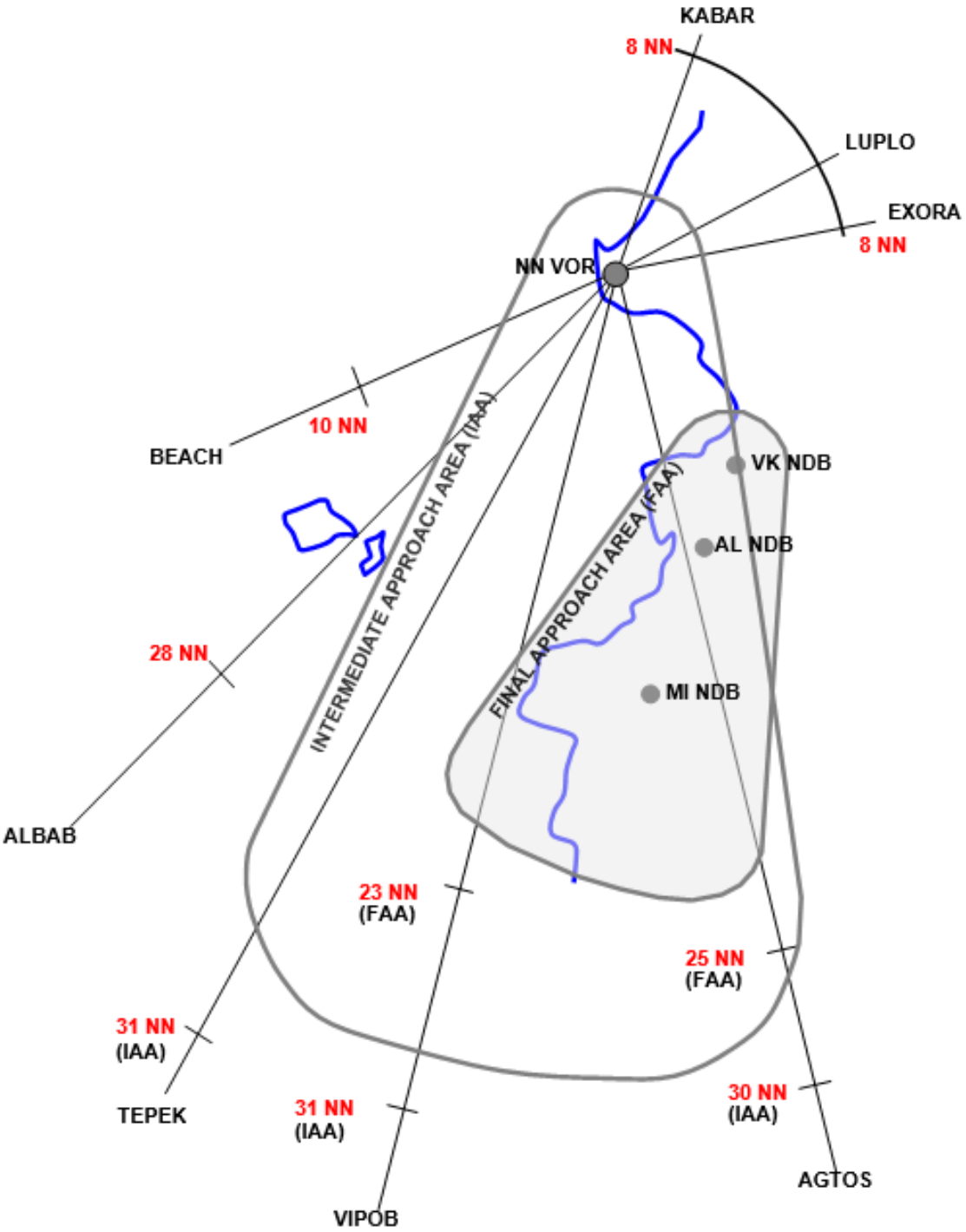
- VK NDB Holding Pattern; and
- NN VOR Holding Pattern above 10,000 ft.



(4) LATERAL SEPARATION POINTS - NADI VOR AND INSTRUMENT APPROACH AREAS

(IAA-Intermediate Approach Area; FAA-Final Approach Area)

Lateral Separation valid to FL200



5.7 Separation between aircraft on an instrument approach

Successive aircraft may be cleared for an instrument approach when the leading aircraft—

(1) has crossed the middle marker of an ILS or LLZ approach or the final NDB of a twin NDB or VOR/NDB approach, provided separation can be maintained in the event of a missed approach; or

(2) is on final approach and has crossed the radio navigation aid from which the initial approach of the following aircraft commences, and the missed approach procedure is separated from the initial, intermediate, and final approach.

5.8 Global Positioning System (GPS) separation

(a) The separation criteria and minima prescribed for the purpose of GPS separation applicable in Fiji domestic airspace between those aircraft equipped with TSO-C129 or later model certified GPS receivers and where wake turbulence is not a factor, are as follows:

(1) Between aircraft on converging or diverging tracks-

At least 15 degrees angular difference between tracks and a distance of 20 nm or more from the common convergent/divergent waypoint based on bearing and distance information derived from GPS receivers*;*

(2) Between aircraft at the same level and track-

(i) **20nm** between aircraft provided that-

- the succeeding aircraft maintains a TAS equal to or less than the leading aircraft;
- GPS readings are based on a common GPS waypoint; and
- separation is established by obtaining simultaneous GPS distance readings from the aircraft and checked at 15-minute intervals* to ensure that the minima is maintained.

(ii) **10nm** between aircraft provided that-

- the leading aircraft maintains a TAS of 20kts or faster than the following aircraft;
- GPS readings are based on a common GPS “on-track” waypoint; and
- separation is established by obtaining simultaneous GPS distance readings from the aircraft and checked at 15-minute intervals* to ensure that the minima is maintained.

[* *On ADS may be used to monitor GPS distance – refer to* 5.8 (b)]

(3) Between aircraft climbing and descending on the same track -

15nm at the time the levels are crossed and provided that-

- the vertical difference involved in achieving vertical separation is not more than 2000 feet
- one aircraft maintains a level while vertical separation does not exist
- separation is established by obtaining simultaneous GPS distance readings from the aircraft based on a common waypoint.
- in the case where a leading aircraft is climbing/descending through the level of a following aircraft, the likelihood of closing speed incurred by the following aircraft shall be taken into consideration.

(4) Between aircraft climbing and descending on reciprocal tracks-

(i) Prior to Passing: – Vertical separation shall be applied.

(ii) After passing: – Confirmation received from both aircraft that they have passed each other by not less than **10nm** GPS distance based on the same "on-track" GPS waypoint.

(b) GPS distance readings at frequent intervals may also be satisfied through monitoring of the aircraft by means of the ADS where approved. Where GPS distance information is not available, alternative separation must be applied.

(c) RTF procedures and phraseology pertaining to the application of GPS for the provision of air traffic services shall be similar to those prescribed in Doc 4444 and Chapter 7 noting the use of GPS waypoint and GPS distance in nautical mile (nm) in-lieu of DME distance.

(d) Where GPS is used for the provision of an air traffic control service, contingency procedures shall be established in the event of -

(1) failure or non-availability of the GPS constellation

(2) failure of GPS equipment; and

(3) failure of communication systems.

5.9 ADS separation (Reserved)

5.10 ADS separation (Reserved)

5.11 Formation flights

Separation need not be applied between individual aircraft in formation flight when—

(1) prior notice of the flight has been given to ATC by the formation leader; or

(2) the flight consists of an aircraft in distress and its escort.

5.12 Reduced runway separation – general

The reduced runway separation prescribed in 5.13 to 5.15 inclusive may be applied when—

(1) visibility is at least 5 km and the pilot are in a position to make an early assessment of conditions on the runway; and

(2) braking action is unlikely to be adversely affected by runway contaminants; and

(3) specified longitudinal distances are able to be readily determined by the aerodrome controller by reference to prominent markers or features; and

(4) pertinent traffic information is issued; and

(5) except in the case of 5.13 (1), the separation is applied by day.

5.13 Reduced runway separation – departure versus departure

Provided the conditions in 5.12 apply, a following aircraft may be cleared for take-off when —

(1) the runway is longer than 1800 metres, and the preceding aircraft is airborne and has reached a point at least 1800 metres ahead of the following aircraft; or

(2) both aircraft have an MCTOW of 7000 kg or less, and the preceding aircraft is airborne and has reached a point at least 1000 metres ahead of the following aircraft; or

(3) both aircraft have an MCTOW of 2300 kg or less, and the preceding aircraft is airborne and has reached a point at least 600 metres ahead of the following aircraft; or

(4) the aircraft is a micro light, and the preceding aircraft is airborne.

5.14 Reduced runway separation – arrival versus departure

Provided the conditions in 5.12 apply, an arriving aircraft may be permitted to cross the runway threshold to land when—

(1) the departing aircraft is airborne, and has reached a point beyond the expected landing roll of the arriving aircraft; or

(2) both aircraft have an MCTOW of 2300 kg or less, and the departing aircraft is accelerating and has reached a point at least 600 metre ahead of the arriving aircraft.

5.15 Reduced runway separation – arrival versus arrival

Provided the conditions in 5.12 apply, the following aircraft may be permitted to cross the runway threshold to land when both aircraft have an MCTOW of—

(1) 7000 kg or less, and the preceding aircraft —

(i) has landed; and

(ii) has commenced a turn to vacate the runway without stopping or backtracking; or

(2) 2300 kg or less, and the preceding aircraft —

(i) has landed; and

(ii) can vacate the runway without backtracking; and

(iii) has reached a point ahead of the following aircraft where, in the opinion of the aerodrome controller, there is no risk of collision.

5.16 Operations on parallel runways

5.16.1 Same direction parallel runway operations may be permitted by day when—

(1) the aerodrome control provider and the aerodrome operator are the same, or there is written agreement between them regarding the operation; and

(2) the visibility is at least 5 km; and

(3) neither runway is adversely affected by contaminants; and

(4) both aircraft are in two-way communication with aerodrome control; and

(5) pertinent traffic information is issued; and

(6) the adjacent runway edges are coincident early defined; and

(7) one of the following applies—

(i) the adjacent edges of the two runways are not less than 165 metres apart; or

(ii) both aircraft have an MCTOW of 5700 kg or less, and the adjacent edges of the two runways are not less than 90 metres apart; or

(iii) both aircraft have an MCTOW of 2300 kg or less, and the adjacent edges of the two runways are parallel.

re not less than 60 metres apart.

5.17 Separation from an aircraft dumping fuel

(a) In the event of a need for fuel dumping by an aircraft in flight within controlled airspace, ATC shall coordinate with the flight crew-

(1) the route to be flown, which, if possible, shall be clear of cities and towns, preferably over water and away from areas of where thunderstorms have been reported or are expected; and

(2) the level to be used shall not be less than 6000 ft; and

(3) the duration of the fuel dumping.

(b) Other known traffic shall be separated from an aircraft dumping fuel by—

(1) at least 10 nm horizontally but not behind the aircraft dumping fuel; or

(2) vertical separation if behind the aircraft dumping fuel within 15 minutes flying time or a distance of 50 nm by:

(i) at least 1000 ft if above the aircraft dumping fuel; and

(ii) at least 3000 ft if below the aircraft dumping fuel.

5.18 Separation involving military aircraft

The separation criteria and minima prescribed in these Standards Document shall be applied to military aircraft unless there is written agreement between the ATS provider and the Fiji Defence Force, or a military agency of a foreign, authorising the use of reduced military separation when it is—

(1) between military aircraft; and

(2) agreed to by the pilots of the aircraft involved; and

(3) in accordance with the written agreement.

5.19 Separation of successive IFR departures

A following IFR aircraft may be cleared for take-off when—

(1) the initial departure track differs by at least 30 degrees from the departure track of the leading aircraft, and visual observation by the aerodrome controller confirms that the leading aircraft—

(i) has turned to clear the departure track of the following aircraft; or

(ii) has reached a point where adequate separation will exist from the following aircraft.

5.20 Helicopters and unpowered aircraft

The runway separation required by 5.14 (a)(4) may be varied to take account of the particular operating characteristics of helicopters and unpowered aircraft, provided safety is not jeopardised.

5.21 Wake turbulence separation

The wake turbulence separation specified in ICAO Doc 4444; Chapter 5 is applicable. Additionally, aircraft below MCTOW of 2300kg in flight shall be cautioned of the likelihood of turbulence from trailing vortices off a preceding heavy or medium aircraft in situation where this may be a factor.

5.22 Separation from active special use airspace

(a) Except as provided in paragraph (b), when applying the separation required by 2.15, the minimum separation shall be—

(1) when aircraft within the active special use airspace may be operating in IMC—

(i) 1000 feet vertical separation up to FL290; or

(ii) 2000 feet vertical separation above FL 290; or

(2) when aircraft within the active special use airspace are operating in VMC—

(i) 500 feet vertical separation up to FL290; or

(ii) 1000 feet vertical separation above FL290; or

(3) achieved by the use of minima or procedures approved by the Authority; or

(b) When no separation minimum or procedure is specified under subparagraphs (a)(1), (2), or (3), separation shall be achieved by keeping controlled flights clear of active special use airspace.

Chapter 6 — Standard phraseology

6.1 Applicability

(a) This Chapter prescribes standard phraseology to be used in the particular circumstances d, in accordance with the requirements of 2.28.

(b) In this Chapter, words in brackets indicate an appropriate insertion is required and an oblique stroke indicates a choice is required to be made from the alternatives separated by the stroke.

6.2 Controller/pilot phraseology

(a) Unavailability of route or cruising level

(1) When it is not possible to clear a flight via the preferred route or cruising level:

"(route and/or level) NOT AVAILABLE DUE (reason)"

(b) Block levels

(1) When approving a requested block level:

"MAINTAIN BLOCK (level) TO (level)"

(2) When cancelling a block level:

"CANCEL BLOCK CLEARANCE AND MAINTAIN … (level)"

(c) DME descents

(1) When authorising a DME step descent procedure:

"DESCEND DME STEPS TO (level)" or

"DESCEND VORSEC DME STEPS TO (level)"

(d) Visual departures

When authorising a visual departure:

"VISUAL DEPARTURE"

(e) Holding

(1) When issuing a holding instruction where more than one holding pattern is published for a specified geographical location:

"HOLD AT (designator)"; or

"ENTER THE (descriptor) HOLDING PATTERN"

(f) Precautionary holding

When issuing a holding instruction and that instruction is likely to be cancelled before the aircraft reaches the designated holding point:

"PRECAUTIONARY HOLD"

(g) Runway operations

(1) When approving a request for a stop and go landing:

"CLEARED STOP AND GO"

(2) When emphasising the runway to be used for landing:

"RUNWAY (designator) CLEARED TO LAND"

(3) When an expeditious take-off is required:

"CLEARED IMMEDIATE TAKE-OFF"

(4) When requiring an aircraft to terminate its landing run in less than the available runway length:

"LAND AND HOLD SHORT BY (taxiway or other specified point)"

(h) Visual separation

(1) When requiring a pilot to maintain visual separation from another aircraft:

"MAINTAIN VISUAL SEPARATION FROM (traffic) TO/UNTIL (clearance limit)"

(i) Terrain clearance

When requiring pilots to arrange their own terrain clearance:

"MAINTAIN TERRAIN CLEARANCE VISUALLY"

(j) Confirmation of unlawful interference

When seeking verification that the SSR transponder Mode A code 7500 has been set intentionally:

"CONFIRM SQUAWKING 7500"

(k) Helicopter operations

When approving helicopter operations at a controlled aerodrome, but outside the manoeuvring area:

"LAND/TAKEOFF/AIR TAXI AT YOUR DISCRETION"

(l) Traffic avoidance advice

When initiating, or responding to a request for, traffic avoidance advice:

"SUGGEST ...."

(m) Traffic information

When indicating there is no pertinent IFR traffic information:

"NO REPORTED IFR TRAFFIC"

(n) Joining the circuit

(1) When instructing an aircraft to make the standard overhead joining procedure:

"MAKE STANDARD OVERHEAD JOIN"

(2) When instructing an aircraft to cross over the aerodrome, then follow specific joining instructions:

"CROSS OVERHEAD, JOIN (specific instructions)"

6.3 ATS co-ordination phraseology

(a) Release instructions to aerodrome control when there are no restrictions:

"RELEASED"

(b) When the aircraft is to be held on the ground:

"HOLD"

(c) When a release is based on clock time:

"CLEARANCE VALID/EXPIRES AT (time)"

(d) When a release is based on time interval:

"RELEASED (number of minutes) MINUTES BEHIND (leading aircraft)"

(e) When a release is based on the application of vertical separation:

"RELEASED AFTER (leading aircraft call sign) HAS PASSED (level)"

(f) When a release is subject to aerodrome control providing separation from specified traffic, where RYS means "Released, your separation":

"RYS (call sign of conflicting traffic) (details of conflicting traffic, if not already passed)"

(g) Clarification of responsibility for providing separation

(1) When assigning or clarifying who is providing separation, and to acknowledge the arrangement:

"MY SEPARATION/YOUR SEPARATION (call sign of conflicting traffic)"

(h) Negotiation of revised estimate messages

(1) Invitation by transferring controller:

"WILL YOU ACCEPT (details)"

(2) Refusal by accepting controller:

"NEGATIVE, WILL ACCEPT (alternative details)"

Chapter 7 - ATS Safety Management

7.1 General

7.1.1 Any significant safety-related change to the ATS system, including the implementation of a reduced separation minimum or a new procedure, shall only be affected after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted. When appropriate, the responsible authority shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.

Note 1. When, due to the nature of the change, the acceptable level of safety cannot be expressed in quantitative terms, the safety assessment may rely on operational judgement.

Note 2. Annex 19 includes the safety management provisions applicable to ATS providers. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859) and associated procedures are contained in the PANS-ATM (Doc 4444).

(a) The level of air traffic services (ATS) and communications, navigation and surveillance as well as the ATS procedures applicable to the airspace or aerodrome concerned, are appropriate and adequate for maintaining an acceptable level of safety in the provisions of ATS. Where air traffic services are provided by contractual arrangements, the contractor is accountable for the safety functions. However, the responsibility for safety rests with the organisation specified in the Fiji legislation.

(b) The requirements in respect of services, systems and procedures applicable to airspaces and aerodromes should be established on the basis of regional air navigation agreement in order to facilitate the harmonisation of ATS in adjacent airspaces.

(c) To ensure that safety in the provision of ATS is maintained, formal and systematic safety management programmes for the air traffic services under its jurisdiction are to be implemented. Where appropriate, ATS safety management programmes should be established on the basis of regional air navigation agreement.

(d) Guidelines on ATS management policies and principles are provided in Chapter 7-Appendix.

7.2 Objectives

(a) The objectives of ATS safety management are to ensure:

(1) the established level of safety applicable to the provision of ATS within an airspace or at an aerodrome is met; and

(2) safety-related enhancements are implemented whenever necessary.

(b) An acceptable level of safety and safety objectives applicable to the provision of ATS within airspaces and at aerodromes should be established on the basis of regional air navigation agreements where applicable. The following measures have been determined as the acceptable level of safety where none being established through regional air navigation agreements.

(1) Maximum aircraft accident attributable to ATS = $1x10^{-6}$ (1 per 1million movements)

(2) Maximum air traffic service incidents for each classification -

(3) Classification A1 = $1x10^{-5}$ (1 per 100000 movements)

(4) Classification A2 = $3x10^{-5}$ (3 per 100000 movements)

(5) ClassiffficationA3 = $5x10^{-5}$ (5 per 100000 movements)

(6) Maximum valid short-term conflict alerts* (STCA) = $1x10^{-5}$ (1 per 100000 movements).

*[*This refers to **actual alerts** independently generated by the ATS FDP system or aircraft TCAS and not those resulting from activation of conflict probe tool by the controller]*

7.3 Safety management activities

(a) A safety management programme that include, amongst other things, the following with respect to the provision of air traffic services shall be in place:

(1) Safety assessments in respect of the planned implementation of airspace re-organisations, the introduction of new equipment systems or facilities, and new or changed ATS procedures

(2) A mechanism for identifying actual and/or potential hazards and to determine the need for remedial action including enhancing measures;

(3) Ensure that remedial action necessary to maintain an acceptable level of safety is implemented; and

(4) Provide for continuous monitoring and regular assessment of the safety level achieved.

(b) All activities undertaken in an ATS safety management programme shall be fully document. All documentation shall be retained for such period of time as specified by the Authority.

7.4 Monitoring of safety levels

(a) Collection and evaluation of safety-related data shall-

(1) collect and evaluate data from as wide a range of sources as possible for use in safety monitoring programmes, as the safety-related consequences of particular procedures or systems may not be realized until after an incident occurred.

(2) establish a formal incident reporting system for ATS personnel to facilitate the collection of information on actual or potential safety hazards or deficiencies related to the provision of ATS, including route structures, procedures, communications, navigation and surveillance systems and other safety significant systems and equipment as well as controller workload.

(3) ensure that any information from its safety reporting system falling within the definition of mandatory occurrence report as per Air Navigation Regulations 71 shall be notified to the Authority as soon as possible but no later than 48 hours upon the information being received. Details required on the form CA338 are to be forwarded to the Authority.

(b) Review of incident and other safety-related reports shall comprise of-

(1) safety-related reports concerning the operation of air traffic services, including air traffic incident reports, in order to detect any adverse trend in the number and types of incidents which occur;

(2) reports concerning the serviceability of ATS facilities and systems, such as failures and degradations of communications, surveillance and other safety significant systems and equipment, in order to detect any trend in the operation of such systems which may have an adverse effect on safety.

7.5 Safety reviews

(a) General requirements shall be to-

(1) conduct safety reviews of ATS units on a regular and systematic basis;

(2) ensure personnel conducting safety reviews are qualified through training, experience and expertise, and having a full understanding of relevant SARPS, PANS, safe operating practices and Human Factors principles

(b) Scope

The scope of the ATS Provider's safety review shall include at least the following issues:

(1) Regulatory issues to ensure that:

(i) ATS operations manuals, ATS unit instructions and ATC coordination procedures are complete, concise, and up-to-date;

(ii) ATS route structure, where applicable, provides for:

- adequate route spacing; and
- crossing points for ATS routes located so as to reduce the need for controller intervention and for inter- and intra-unit coordination;

(iii) separation minima used in the airspace or at the aerodrome are appropriate and all the provisions applicable to those minima are being complied with;

(iv) where applicable, provision is made for adequate visual or ADS observation of the manoeuvring area, and procedures and measures aimed at minimising the potential for inadvertent runway incursions are in place;

(v) appropriate procedures for low visibility aerodrome operations are in place;

(vi) traffic volumes and associated controller workload do not exceed defined, safe levels and that procedures are in place for regulating traffic volumes whenever necessary;

(vii) procedures to be applied in the event of failures or degradations of ATS systems, including communications, navigation and surveillance systems, are practicable and will provide for an acceptable level of safety; and

(viii) procedures for the reporting of incidents and other safety-related occurrences are implemented, that the reporting of incidents is encouraged and that such reports are reviewed to identify the need for any remedial action.

(2) Operational and technical issues to ensure that:

(i) the environmental working conditions meet established levels for temperature, humidity, ventilation, noise and ambient lighting, and do not adversely affect controller performance;

(ii) automation systems generate and display flight plan, control and coordination data in a timely, accurate and easily recognisable manner and in accordance with Human Factors principles;

(iii) equipment, including input/output devices for automation systems, are designed and positioned in the working position in accordance with ergonomic principles;

(iv) communications, navigation, surveillance and other safety significant systems and equipment -

- are tested for normal operations on a routine basis;
- meet the required level of reliability and availability as defined by the appropriate authority;
- provide for the timely and appropriate detection and warning of system failures and degradations;
- include documentation on the consequences of system, sub-system and equipment failures and degradations;
- include measures to control the probability of failures and degradations; and
- include adequate back-up facilities and/or procedures in the event of a system failure or degradation; and
- detailed records of systems and equipment serviceability are kept and periodically reviewed.

Note- In the context above, the terms reliability and availability have the following meanings:

Reliability: *The probability that a device or system will function without failure over a specified time period or amount of usage; and*

Availability: *The ratio of percentage of the time that a system is operating correctly to the total time in that period.*

(3) Licensing and training issues to ensure that:

(1) controllers are adequately trained and properly licensed with valid ratings;

(2) controller competency is maintained by adequate and appropriate refresher training, including the handling of aircraft emergencies and operations under conditions with failed and degraded facilities and systems;

(3) controllers, where the ATC unit/control sector is staffed by teams, are provided relevant and adequate training in order to ensure efficient teamwork;

(4) the implementation of new or amended procedures, and new or updated communications, surveillance and other safety significant systems and equipment is preceded by appropriate training and instruction;

(5) controller competency in the English language is satisfactory in relation to providing ATS to international air traffic; and

(6) standard phraseology is used.

7.6 Safety assessments

(a) Need for safety assessments-

A safety assessment shall be carried out in respect of proposals for significant airspace re-organisations, for significant changes in the provision of ATS procedures applicable to an airspace or an aerodrome, and for the introduction of new equipment, systems or facilities, such as:

(i) a reduced separation minimum to be applied within an airspace or at an aerodrome;

(ii) a new operating procedure, including departure and arrival procedures, to be applied within an airspace or at an aerodrome;

(iii) a re-organisation of the ATS route structure;

(iv) a re-sectorisation of an airspace;

(v) physical changes to the lay-out of runways and/or taxiways at an aerodrome; and

(vi) implementation of new communications, surveillance or other safety-significant systems and equipment, including those providing new functionality and/or capabilities.

Note 1- A reduced separation minimum may refer to the reduction of a horizontal separation minimum, including a minimum based on required navigation performance (RNP), a reduced vertical separation minimum of 300 m (1000ft) between FL 290 and FL 410 inclusive (RVSM), the reduction of a radar/ADS based separation or a wake turbulence separation minimum or reduction of minima between landing and/or departing aircraft.

Note 2- When, due to the nature of the change, the acceptable level of safety cannot be expressed in quantitative terms, the safety assessments may rely on operational judgement.

(b) Any significant safety-related change to the ATC system, including the implementation of a reduced separation minimum or a new procedure, are affected only after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted. When appropriate, the responsible authority shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.

7.7 Safety-significant factors

(a) Safety assessment takes into account all factors determined to be safety-significant, including any of the below as relevant:

(1) types of aircraft and their performance characteristics, including aircraft navigation capabilities and navigation performance;

(2) traffic density and distribution;

(3) airspace complexity, ATS route structure and classification of the airspace;

(4) aerodrome lay-out, including runway configurations, runway lengths and taxiways configuration;

(5) the type of air-ground communications and time parameters for communication dialogues, including controller intervention capability;

(6) type and capabilities of surveillance system, and the availability of systems providing controller support and alert functions; and

(7) any significant local or regional weather phenomena.

Note 1- See also Doc 4444 Part V, 5.11 concerning reductions in separation minima

Note 2- Guidance material on methods of expressing and assessing a safety level and on safety monitoring programmes is contained in Annex 11, Attachment B, the Air Traffic Services Planning Manual *(Doc 9426), the* Manual on Implementation of a 300 m (1000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive *(Doc 9574), the* Manual on Required Navigation Performance (RNP) *(Doc 9613) and the* Manual on Airspace Planning Methodology for the Determination of Separation Minima *(Doc 9689).*

7.8 Safety-enhancing measures

(a) Any actual or potential hazard related to the provision of ATS within airspace or at an aerodrome, whether identified through an ATS safety management activity or by any other means, is assessed and classified for its risk acceptability.

(b) Except when the risk can be classified as acceptable, a matter of priority and as far as practicable, implement appropriate measures to eliminate the risk or reduce the risk to a level that is acceptable.

(c) If it becomes apparent that the level of safety applicable to airspace or an aerodrome is not, or may not be achieved, a matter of priority and as far as practicable, implement appropriate remedial measures.

(d) An evaluation of any remedial measure implemented and assessing its effectiveness in eliminating or mitigating a risk shall be conducted.

Additional guidance - Safety Management Policies and Principles

Introduction

Safety Management System is a coherent and comprehensive organisation strategy for the management of safety. Safety is a condition where risks are managed to acceptable levels.

Safety Management Policies and Principles should be promulgated in a controlled document.

A safety function should be established within the organisation. Whether this takes the form of a single person or committee will depend to a large degree upon the nature and scale of the operation. In cases where air traffic services are provided on contract, the contractor is accountable for the safety functions whilst the responsibility for safety remains with the organisation as prescribed by the Fiji legislation.

An organisation should have systematic procedures for encouraging and processing reports on matters having potential effect on the safety of operations.

This appendix provides a standard set of generic Safety Management Policies and Principles which may be used as guidance material to develop one applicable for Air Traffic Services.

Safety Management Approach

Safety Management is that parts of the overall management function which determines and implements an organisation's safety policy.

The implementation of a safety management system by an organisation should follow a practice which ensures that:

- Safety policy statements are defined: these statements should define the organisation's fundamental approach to the management of safety and should commit the organisation at the highest level to the fulfilment of its safety policy.

- From the policy statements the organisation should define its safety management principles: the principles should specify the safety objectives with which the organisation intends to comply to implement its policy statements.
- Having defined the policy statements and principles, the organisation should produce procedures that document the processes required to meet the safety objectives contained in the policy and principles and those accountable for their achievement.

Safety Management Policy statements
The Policy statements of an organisation should define the fundamental approach to be adopted for managing safety and the organisation's commitment to safety.

NOTE: The following statements may be produced separately or as a single all-embracing statement.

Safety Objective
An organisation should have a top-level commitment to a business objective for safety that minimises its contribution to aviation accident risk to as low as reasonably practicable.

Rationale: This should be the key policy statement defining what the organisation is striving to achieve through its safety management system.

NOTE: Where risk is concerned there is no such thing as absolute safety. 'As low as reasonably practicable' means that risk in a particular activity can be balanced against the time, cost and difficulty of taking measures to avoid the risk. The greater the risk to safety, the more likely it is that it is reasonable to go to substantial effort to reduce it. It is implicit; therefore, those hazards have to be identified and the risk assessed before a judgment can be made upon their tolerability.

Safety Management
An organisation should have a commitment to the adoption of an explicit, pro-active approach to systematic safety management.

Rationale: An intuitive or ad hoc approach to safety is not acceptable.

Safety Responsibility
An organisation should have a safety policy statement that confirms that everyone has an individual responsibility for the safety of their own actions, and managers are accountable for the safety performance of the activities, products, services etc. in their charge. Additionally, the organisation should identify who is ultimately accountable for safety and how that accountability is delegated.

Rationale: The safety management system depends upon individuals understanding and accepting their delegated responsibility within the organisation. Accountability for safety belongs to all levels of management and the attainment of satisfactory safety performance requires the commitment and participation of all members of the organisation. Everybody within an organisation should be aware of the consequences of mistakes and strive to avoid them. Management should foster this basic motivation within members of an organisation so that everybody accepts their responsibility for safety.

Safety Priority
An organisation should have a safety policy statement committing it to ensuring that safety is given the highest priority when considering commercial, operational, environmental or social pressures.

Rationale: The safety management system should clearly address and resist misguided business pressures. Conversely, the safety management system should ensure that safety is not used to support commercial, financial, environmental etc. decisions inappropriately, which have little real safety significance. If the term 'safety' is abused in this way the safety management system cannot be focused on controlling the real risks.

Safety Standards and Compliance

An organisation should have a safety policy statement committing it to complying with all appropriate safety standards and requirements.

Rationale: Compliance with safety standards and requirements can form part of a robust safety argument and facilitates the safety assessment process.

Externally Supplied Products and Services

An organisation should have a safety policy statement committing it to ensuring that the safety assurance processes used by its external suppliers satisfy its own safety management standards and safety requirements.

Rationale: A safety assessment requires input from all phases of a product or service development. For externally supplied products or services the external supplier must understand and comply with the organisation's safety and safety management system requirements.

Safety Management Principles

The following safety management principles reflect Industry best practices. They define the scope of a safety management system. They provide a framework for the establishment of processes to identify safety shortcomings, so that remedial action can be taken, and provide assurance that safety levels are being met or improved. The Principles address three main issues:

Safety Achievement: specifying the means by which the required safety performance is achieved.
Safety Assurance: specifying the means for providing assurance that risks are being managed properly and effectively.

Safety Promotion: specifying the means by which safety issues are communicated within an organisation to eliminate unnecessary risks and avoid repeat errors or risks.

Safety Achievement

Safety Levels

Whenever practicable, quantitative safety levels should be derived, maintained, and improved for all aviation products and services.

Rationale: If the safety performance of a service or product is to be assessed and monitored it is necessary to define the safety objectives that need to be met

System Safety Assessment

An organisation should assess all existing operations, and proposed changes, additions or replacements, for their safety significance. If this assessment shows that the new or changed system has safety significance, safety assurance is required. Formal Safety assessment should then be conducted on the safety significant changes and the results documented to ensure that full consideration is given to all aspects of aviation risk prior to introduction into use.

Rationale: The analysis process is conducted during development of the system, service or product to establish safety requirements. The safety assessment process is used to demonstrate that these requirements are met.

System Safety Assessment Records

An organisation should identify and record the safety requirements for a service or product, the results of the safety assessment process and evidence that the safety requirements have been met. These records need to be maintained throughout the life of the service or product.

Rationale: The safety assessment documentation should provide the evidence to the organisation upon which it will base its decision whether it is safe to use the service, or product Maintenance of these records throughout the life of the service or product provides ongoing assurance that it continues to meet its original safety requirements and that any remaining risks are adequately controlled.

Competency

An organisation should ensure that staff remains adequately trained, competent and qualified for the job they are required to do.

Rationale: Staff competence is fundamental to safety.

Safety Assurance

Safety Audits

Organisations should routinely carry out safety audits to identify opportunities for improvement, to provide management with assurance of the safety of activities and to confirm conformance with the safety management system.

Rationale: This should be a routine part of business activity. This is the pro-active safety management mechanism by which any potential risks associated with an existing service or product can be identified and controlled.

Safety Monitoring

An organisation should have in place suitable monitoring arrangements so those unacceptable trends in service or product performance can be recognised and be subject to remedial action.

Rationale: Service and product performance can deteriorate, or the environment within which they operate can change. Such changes need to be detected, assessed and managed.

Safety Significant Events

Occurrences experienced during the operation of a service or product that are considered to have safety significant implications, should be investigated immediately and any necessary corrective action taken.

Rationale: If lessons are to be learnt and remedial action is to be taken promptly, safety occurrences need to be investigated in a timely manner by the organisation. Some events may require reporting to the safety regulator by law.

Safety Promotion

Lesson Dissemination

An organisation should ensure that lessons learnt from its safety occurrence investigations, and the case histories or experience from other organisations, are distributed widely and actioned to minimise the risk of recurrence.

Rationale: It is essential that lessons should be beamed and then remembered, so that the chance of recurrence is reduced. Including the results of such lessons in training programmes will raise staff awareness levels.

Safety Improvement

An organisation should have in place arrangements that actively encourage staff to identify potential hazards and propose solutions. It should make appropriate changes, in respect of identified hazards, where safety can be improved.

Rationale: This requires an effective means of communicating safety issues and the development of an internal safety culture that encourages every member of staff to focus on the achievement of safety, and to report errors and deficiencies without fear of punitive actions against them

Chapter 8 –Documentation and Control

8.1 Documents

Apart from ATS management having available the relevant legislation and documents, an ATS Provider shall ensure ATS personnel have easy access to those documents needed for operational applications and references.

8.2 Document Control

The ATS Provider shall have in place a documentation control system that will ensure the documents as listed in 8.3 below are timely amended and that there are procedures to ensure that operational personnel will be notified and that they have read/understood the amendments.

8.3 List of Publications and Documents

The minimum scale of fully amended publications and documents to be held at each ATS unit and available for ATS personnel to consult is as follows: —

Minimum Scale of Publications & Documents – Air Traffic Services Provider

√ Indicates a requirement

TWR= Control Tower; APP= Approach Control; ACC =Area Control Centre; FSU =Flight Service Unit; ATM =Air Traffic Management

Title	*TWR*	*APP*	*ACC*	*FSU*	*ATM*
All Current Fiji Civil Aviation Legislation					√
Air Navigation Regulations Cap 174	√	√	√	√	√
Civil Aviation (Security) Regulations	√	√	√	√	√
Operations Manual of Air Traffic Services	√	√	√	√	√
Local Unit Instructions (for respective unit as applicable)	√	√	√	√	√
Temporary ATS Instructions	√	√	√	√	√
NOTAMS (as relevant to flights operations)	√	√	√	√	√
Fiji Aeronautical Information Circulars (Fiji AIC)	√	√	√	√	√
Pacific-Aeronautical Information Publication & AIP Supplement (PAC-AIP)	√	√	√	√	√
Airport Manual (for respective airport as applicable)	√	√	√	√	√
Fiji Domestic Aerodrome Data Information	√	√	√	√	√
Airport Emergency Plan (for respective aerodrome as applicable)	√	√	√	√	√
Doc 4444 – PANS/ATM					√
Doc 7030 – Regional Supplementary Document					√
Doc 7101 – Aeronautical Chart Catalogue					√
Doc 7383 – Aeronautical Information Services Provided by s					√
Doc 7910 – Location Indicators	√	√	√	√	√

Title	***TWR***	***APP***	***ACC***	***FSU***	***ATM***
Doc 8168 – Aircraft Operations					√
Doc 8126 – Aeronautical Information Service Manual					√
Doc 8400 – ICAO Abbreviations and Codes	√	√	√	√	√
Doc 8585 – Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services	√	√	√	√	√
Doc 8643 – Aircraft Type Designators	√	√	√	√	√
Doc 9137 – Part 2 Airport Services – Bird Control and Reduction					√
Doc 9137 – Part 3 Airport Services – Removal of Disabled Aircraft					√
Doc 9332 – Manual on the ICAO Bird Strike Information System (IBIS)					√
Doc 9377 – Manual on Co-ordination between Air Traffic Services and Aeronautical Meteorological Practice					√
Doc 9401 – Manual on Establishment and Operation of Aviation Training Centers					√
Doc 9426 – Air Traffic Service Planning Manual					√
Doc 9432 – Manual of Radiotelephony					√
Doc 9433 – Manual Concerning Interception of Civil Aircraft					√
Doc 9481 – Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods					√
Doc 9554 – Manual Concerning Safety Measures relating to Military Activities Potentially Hazardous Civil Aircraft Operations					√
Doc 9574 – Manual on Implementation of a 300 m (1000 ft) Vertical Separation Minimum Between FL290 and FL410 Inclusive					√
Doc 9613 – Manual of Required Navigation Performance (RNP)					√
Doc 9683 – Human Factors Training Manual					√
Doc 9689 – Manual of Airspace Planning Methodology for the Determination of Separation Minima					√
Doc 9694 – Manual of Air Traffic Services Data Link Applications					√
Doc 9740 - Convention					√
Annex 1 - Personnel Licensing					√
Annex 2 - Rules of the Air	√	√	√	√	√
Annex 3 – Meteorological Service for International Air Navigation					√
Annex 4 – Aeronautical Charts					√
Annex 5 - Units of Measurement to be used in Air and Ground Operations	√	√	√	√	√
Annex 6 – Operations of Aircraft					√
Annex 7 – Aircraft Nationality & Registration Marks					√
Annex 8 – Airworthiness of Aircraft					
Annex 9 – Facilitation					√
Annex 10 – Aeronautical Telecommunications					√
Title	***TWR***	***APP***	***ACC***	***FSU***	***ATM***
Annex 11 – Air Traffic Services	√	√	√	√	√
Annex 12 – Search and Rescue					√
Annex 13 – Aircraft Accident and Incident Investigation					√

Annex 14 – Aerodromes					√
Annex 15 – Aeronautical Information Service					√
Annex 16 – Environment					√
Annex 17 - Security					√
Annex 18 – The Safe Transport of Dangerous Goods					√
ICAO Circular 185 – The COSPAS-SARSAT System					√
ICAO Circular 207 – Simultaneous Operations on Parallel or Near-parallel Instrument Runways					√
ICAO Circular 211 – Aerodrome Flight Information Service			√	√	√
ICAO Circular 213 – Pilot Skills to make "Look-out" more effective in Visual Collision Avoidance					√
ICAO Circular 240 – Human Factors Digest No. 7 Human Factors in Accidents and Incidents					√
ICAO Circular 241 – Human Factors Digest No. 8 Human Factors in Air Traffic Control					√
ICAO Circular 247 – Human Factors Digest No. 10 Human Factors Management and Organisation					√
ICAO Circular 249 – Human Factors Digest No. 11 Human Factors in CNS/ATM Systems					√
ICAO Circular 256 – Automatic Dependent Surveillance (ADS) and Air Traffic Services (ATS) Data Link Applications					√
ICAO Circular 267 – Guidelines for the Introduction and Operational Use of the Global Navigation Satellite System (GNSS)					√
ICAO Regional Plan for CNS/ATM Systems					√
Air Navigation Plan - Asia and Pacific Region					√
South Pacific Operational Manual (SPOM)					√
SD-Air Traffic Service Personnel Licensing					√
SD-Aeronautical Facility Technician's Licence					√
SD-Aeronautical Telecommunications					√
SD-Air Traffic Services					√
MRD-Licensing of Airports					√
Fiji Search & Rescue Manual					√
RCC/SAR Standard Operating Procedures Manual					√
International Aeronautical & Maritime Search & Rescue – 3 Volumes					√

8.4 Operations Manual of Air Traffic Management (OPS-MATM)

(a) The Operations MATS is an ATS Provider's document detailing the applicable separations, procedures, instructions and information essential for the provision of air traffic services. The MATS show how, when and where an ATS Provider provides, or proposes to provide air traffic services.

(b) The ATS Provider shall ensure that any air traffic service it provides is in accordance with the standards in

(1) Relevant Annexes to the International Convention on Civil Aviation;

(2) ICAO DOC 4444 — Rules of the Air and Air Traffic Services,

(3) ICAO DOC 7030 Regional Supplementary Procedures;

(4) International Aeronautical and Maritime Search and Rescue Manual (IAMSAR); and

(4) SDATS.

(c) It is impracticable for the OPS-MATM to cater for all combinations of air traffic situations and that the use of any procedural standards is subject to the evaluation as to whether the required separation will be achieved in the circumstances at that time.

(d) The production and maintenance of the MATS is the responsibility of the ATS Provider. Amendments to the OPS-MATM shall be provided to the Authority preferably 14 days prior to the effective date.

(e) The contents of the OPS-MATM should including the following:

(1) Table of contents based on items in the manual, indicating the page number on which each item begins;

(2) Description of the applicant's organisation structure and a statement setting out the functions that the applicant performs, or proposes to perform under the Civil Aviation Reform ACT 1999;

(3) Description of the chain of command established, or proposed to be established, by the applicant and a statement of the duties and responsibilities of any supervisory positions within the organizational structure;

(4) A list of the air traffic services that the applicant provides, or proposes to provide;

(5)A statement, for each air traffic service, showing the hours of operation of the service;

(6) A statement, for each air traffic service, that identifies the particular airspace within which the service is provided, or proposed to be provided;

(7) A statement, for each air traffic service, that identifies the location from where the service is provided;

(8) If the applicant provides, or proposes to provide, an air traffic service for controlled airspace:

(i) A description of the manoeuvring area of the aerodrome;

(ii) Parts of the airport emergency plan that are relevant to the provision of the service;

(iii) Procedures for preventing the unauthorised entry of persons, vehicles and things onto the movement area of the aerodrome;

(iv) Procedures for the control of surface vehicles operating on or in the vicinity of the manoeuvring area;

(v) ATC procedures and separation standards for the airspace; and

(9) A statement of the responsibilities, functions and hours of operation for each operating position;

(10) A description of the arrangements made or proposed to be made by the applicant to ensure that it has, and will continue to receive, on a daily basis, the information necessary for providing the service;

(11) A description of the arrangements made or proposed to be made by the applicant to ensure that it has, and will continue to provide, information in connection with its air traffic services (including SAR alerting) to another person whose functions reasonably require that information;

(12) A description of the applicant's record keeping system;

(13) Any agreement entered into by the applicant in relation to the provision of any of the air traffic services;

(14) Document on the applicant's Safety Management System and Quality Assurance System;

(15) The ATS Provider's Contingency Plan for the provision of air traffic services;

(16) The applicant's security program;

(17) Procedures to be followed for revising the operations manual and other relevant aeronautical documents;

(18) Procedures to be followed to ensure that all operational staff are familiar with any operational changes that have been issued since the last performed operational duties;

(19) Description of the applicant's training and checking program; and

(20) Description of the procedures to be used in commissioning new facilities and equipment.

(f) The OPS-MATM should include the following issued as supplementary instructions–

(1) Local air traffic service instructions detailing procedures and information that are peculiar to the ATS functions at that unit or location; and

(2) Temporary air traffic service instructions detailing procedures and information of a temporary nature and not exceeding 180 days in duration.

(g) The OPS-MATM and the supplementary instructions will be subject to updating resulting from, procedural changes or associated technological advances to the ATS systems. The ATS provider has the responsibility for having in place a document control system to ensure the documents are timely amended and read by staff.

(h) Format of the OPS-MATM

(1) The printed copy of the OPS-MATM should be -

(i) A4 size white paper: minimum font size 11-point; or

(ii) B5 size white papers, minimum font size 10 point; and

(iii) Easy to read font (e.g. Arial, Times Roman).

(2) Reproduction of the OPS-MATM via photocopying process, the font size specified in paragraph A-3.1 should be retained.

(3) The OP-MATS should comprise of the following-

PART 1

RAC 1 Definitions and Data
RAC 2 Air Traffic Services, Organization and Safety Management
RAC 3 Coordination and Control of Flights
RAC 4 Aerodrome Control
RAC 5 Separations
RAC 6 Flight Information Service
RAC 7 Emergency Procedures
RAC 8 Air Traffic Service Messages and Flight Plan Handling
RAC 9 Flight Progress Strip System
RAC 10 Global Positioning System
RAC 11 Controller Pilot Data Link Communication
RAC 12 Automated Dependent Surveillance

PART 2

COM Communications
AIS Aeronautical Information Services
MET Meteorology
PEL Personnel Licensing
ADM Administration
EQP Equipment
GEN General

(4) The Local Unit Orders should be prepared in the same general format as the OPS-MATM with applicable subject matter arranged in sections as follows:

EMG Emergency
RAC Rules of the Air and Air Traffic Services
COM Communications
AIS Aeronautical Information Services
MET Meteorology
PEL Personnel Licensing
ADM Administration

EQP Equipment
GEN General

(5) The Temporary ATS Instructions should be consecutively numbered commencing from the first day of each calendar year (e.g. No. 001/00).

Chapter 9 - Forms

9.1 Application and Renewal forms

APPLICATION FOR ISSUE OR RENEWAL OF AN AIR TRAFFIC SERVICE CERTIFICATE
(Pursuant to ANR No. 145A)

Organisation Details					
Name of organisation *(Certificate will be issued in this name)*					
Address for service				Postal address	
Tel:		Fax:		Email:	
ATS organisation structure diagram *(provide on separate sheet and attached with this application)*					

Reason for Application – Mark appropriate box

Initial issue ☐ Renewal ☐

Questionnaire - ***Delete as applicable. If answering "Yes", please provide details on separate sheet**

The following questions must be answered: -	
(a) Has the organisation been convicted for any transport safety offence in the last five years or is the organisation presently facing charges for a transport safety offence?	Yes/No*
(b) Has the organisation previously had an application for an aviation document rejected or has an aviation document held by the organisation been suspended or revoked?	Yes/No*
(c) Has the organisation contracted out services?	Yes/No*
(d) Has the organisation been contracted to provide services?	Yes/No*

Air Traffic Service to be provided

Aerodrome Control Service (TWR)	☐	Approach Control Service (APP)	☐
Area Control Service (ACC)	☐	Aerodrome Flight Information Service (AFIS)	☐
Flight Information Service (FIS)	☐	Air Traffic Service provided under Chapter	☐

Note: The provision of a flight information service and alerting service is an integral part of all of the above services and does not require a specific application

Location

For each service applied for indicate as applicable the name of the aerodrome/airspace being serviced. Where new airspace or a change in classification of existing airspace is proposed include full details.

Service	*Aerodrome/Airspace*

Use an additional sheet if necessary and submit a separate application for each separate ATS unit

Senior Personnel

List of Senior Persons and their areas of responsibility.

Name	*Job Title*	*Areas of responsibility*

Personnel

Indicate number of persons to be employed in the organisation.

Air traffic services personnel:

1-5 ☐ 6-10 ☐ 11-50 ☐ 51-100 ☐ >100 ☐

Telecommunication Personnel	Electrical & Mechanical Personnel
1-5 ☐ 6-10 ☐ 11-50 ☐ >51 ☐	1-5 ☐ 6-10 ☐ 11-50 ☐ >51 ☐

Training

Indicate type of training to be undertaken within the organisation for personnel.

Air Traffic Trainee Licence	☐	Air Traffic Controller Licence	☐
Flight service Trainee Licence	☐	Flight Service Operator Licence	☐
Flight Radiotelephone Operator Rating	☐	Air Traffic Controller Ratings	☐
Flight Service Operator Rating	☐	Air Traffic Service Instructor Competency	☐
Air Traffic Service Examiner Competency	☐		

Exposition / Operations Manual of ATS

This must be provided with initial application and updated as required by SD-ATS.

Declaration

This application is made for and on behalf of the organisation identified above. I certify that I am empowered by the organisation to ensure that all activities undertaken by the organisation can be financed and carried out to the standard required by the Authority.

I certify that the above information provided is true and correct and the enclosed copies of the attached documents submitted with this application are authentic. I authorise the Authority to use the information on this form or attached hereto for any purpose as required or authorised by law. I further authorise such information to be disclosed by the Authority to any person who requires such information to carry out as lawfully directed by the Authority

I consent to the disclosure by the Fiji Police of any details of any convictions I may have pursuant to application, to the Civil Aviation Authority of the Fiji Islands.

Full name of (nominated) Chief Executive / Accountable Manager:	
Signature of (nominated) Chief Executive / Accountable Manager and Company Stamp:	
Date of application:	

Notes:

(a). The provision of false information or failure to disclose information relevant to the grant or holding of an aviation document constitutes an offence of Air Navigation Regulations No. 128.

(b) Name of organisation: A certificate will be issued only to a registered company, a partnership, a sole trader or an incorporated society. For a registered company, submit a copy of the company's office Certificate of Registration.

(c) For initial issue or for a change of Senior Persons, a declaration form prescribed by 9.2 will need to accompany this application for each of the senior persons nominated in the form.

(d)The completed application and supporting documentation, should be submitted to:

Chief Executive

Civil Aviation Authority of the Fiji Islands

Private Bag, Nadi Airport, Republic of the Fiji Islands

9.2 Responsible Management Declaration

ACCOUNTABLE MANAGER DECLARATION FORM (To be completed by all key ATS managerial personnel)		
Name of the Officer:		
Name of Employer:		
Post title:		
Principal Responsibilities:		
Report to:		
Academic Qualifications		
Work Qualification & Experience		
Years in Current Position		
Last position held		
Sub-ordinate staffing structure *(Provide on separate sheet)*		
Declaration of Undertaking (1) I, _____, an employee of _____ and holding the position of _____, having understood my principal responsibilities, is prepared to uphold them ensuring that the operation of the said air traffic services is for the safety of aircraft operations. (2) I am fully aware that any failure on my part on the area of responsibility so assigned to me to ensure: (i) compliance to the applicable standards published by the Authority; and (ii) conformance to the procedures promulgated by my employer; will be in breach of 3.1 of SDATS; and may invalidate the ATS Provider Certificate issued to my employer. (3) I understand that each post holder is accountable for the responsibilities/functions so prescribed for the said position and that accountability entails competency on the part of the post holder in his/her performance. Signature: _____ Date: _____		
For CAAFI Use Only		
Exposition / Ops MATM		
Acceptability of the applicant:	Yes / No*	
Remarks: *(*Areas of non-compliance, reasons, etc)*		
Name:	Signature	Date

9.3 ATS Provider Certificate Specimen

A specimen copies of an ATS Provider Certificate given below is for official usage only.

AIR TRAFFIC SERVICES PROVIDER CERTIFICATE

Certificate No. *xxx*

NNNNN

(Name of the certificate holder)

This air traffic services provider certificate is issued by the Civil Aviation Authority of the Fiji Islands pursuant to Air Navigation Regulations Part VIII A – Institutions and Organisation No. 145A Certification of Air Traffic Services Providers and certified that the said holder is contracted for the provision of manpower to

Xxxx

and may exercise the following functions -

(a) Aerodrome Control (non-radar) ce at Nadi and Nausori Airport;

(b) Approach Control (non-radar) Service at Nadi and Nausori Airport;

light Information Service within Nadi FIR and Fiji Domestic Airspace; and

(c) Aerodrome Flight Service at Labasa, Matei, Savusavu and Rotuma Airport;

within the Nadi Flight Information Region and the Fiji Domestic Airspace in accordance with the standards and requirements prescribed by Standards Documents–Air Traffic Services and the air traffic service procedures specified in certificate holder's approved Operations Manual of Air Traffic Services (ATS).

The said certificate holder, in respect of its air traffic service functions, shall-

(Conditions of certificate)

The Authority may suspend or cancel this air traffic services provider certificate where the holder fails to comply with the requirements and conditions set forth in the Civil Aviation Act, Air Navigation Regulations, Standards Document–Air Traffic Services and the approved Operations Manual of Air Traffic Services.

Unless suspended or cancelled, this certificate is not transferable and is effective for the period from

d/m/y to d/m/y

_____

(Name)

Stamp

Chief Executive

Civil Aviation Authority of the Fiji Islands

Date: *d/m/y***)**

APPENDIX 1. ATS AIRSPACE CLASSES — SERVICES PROVIDED AND FLIGHT REQUIREMENTS

(Chapter 1, 1.11 refers)

Class	Type of flight	Separation provided	Service provided	Speed limitation*	Radio requirement	Subject to 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.

APPENDIX 2. PRESCRIPTIVE FATIGUE MANAGEMENT REGULATIONS

(Applicable 5 November 2020)

Note: - Guidance on the development and implementation of prescriptive fatigue management regulations is contained in the Manual for the Oversight of Fatigue Management Approaches *(Doc 9966).*

1. The ATSP 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 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 ATSP shall require that the air traffic services provider identify a process for assigning unscheduled duties that allows air traffic controllers to avoid extended periods of being awake.

3. The processes established by the ATSP in accordance with 2.28.3 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.

APPENDIX 3. FATIGUE RISK MANAGEMENT SYSTEM (FRMS) REQUIREMENTS

(Applicable 5 November 2020)

Note: - Guidance on the development and implementation of FRMS regulations is contained in the Manual for the Oversight of Fatigue Management Approaches *(Doc 9966).*

An FRMS shall be required to 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 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.

Note; - Effective safety reporting is described in the Safety Management Manual (SMM) *(Doc 9859).*

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 periods of time-in- position in a duty period with significant deviations and reasons for deviations noted; and

Note: - Significant deviations are described in the Manual for the Oversight of Fatigue Management Approaches *(Doc 9966).*

g) FRMS outputs including findings from collected data, recommendations, and actions taken.

2. Fatigue risk management processes

2.1 Identification of fatigue-related hazards

Note: - Provisions on the protection of safety information are contained in Annex 19.

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 practice, and
c) bio-mathematical methods

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 *Reactive*. 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.

3. FRMS safety assurance processes

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

a) 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:

1) hazard reporting and investigations;

2) audits and surveys; and

3) reviews and fatigue studies (both internal and external);

b) provide a formal process for the management of change. This shall include, but is not limited to:

1) identification of changes in the operational environment that may affect the FRMS;

2) identification of changes within the organization that may affect the FRMS; and

3) consideration of available tools which could be used to maintain or improve FRMS performance prior to implementing changes; and

c) provide for the continuous improvement of the FRMS. This shall include, but is not limited to:

1) the elimination and/or modification of preventive controls and recovery measures that have had unintended consequences or that are no longer needed due to changes in the operational or organizational environment;

2) routine evaluations of facilities, equipment, documentation and procedures; and

3) the determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

4. FRMS promotion processes

FRMS promotion processes support the ongoing development of the FRMS, the continuous 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:

1) explains FRMS policies, procedures and responsibilities to all relevant stakeholders; and

2) describes communication channels used to gather and disseminate FRMS-related information

APPENDIX 4. ATS Manpower Planning

(Guidance on manpower planning)

DETERMINATION OF PERSONNEL REQUIREMENTS

1 Manpower planning is essential to ensure that there is always sufficient trained staff available to meet the demands of the service. Such planning should forecast future manpower requirements for at least five years. In planning for manpower requirements acquisition of reliable data plays as important a role as does determining the methods of handling the traffic. Personnel requirements are usually determined by a study based on a comprehensive assessment of the duties to be performed.

2 A properly balanced workload scheme not only justifies the number of persons employed but it also protects against the overloading of any particular work position. In the latter capacity, it acts as a safeguard because employees who are frequently overloaded cannot be expected to be as efficient as those working under normal conditions.

3 A significant feature of air traffic services (ATS) work is the necessity for speedy and prompt action in all fields of operation. Such action may be required to be performed at high pressure during peak hours while action may slacken off during other times of the day or night. Such variations in the activity patterns have shown the need for the definition of a “peak man-hour” as the amount of work which can be performed by one person in an average peak hour: ATS workload schemes should be based on these peak man-hours. The purpose of the workload system should provide a basis, but not necessarily a rigid yardstick, for the assessment of the number of staffs required at each unit, to identify periods of significant activities at units and to ensure that adequate safety margins are maintained. Should it be found that over-loading becomes a frequency occurrence, a review should be conducted to determine which modifications of working arrangements or facilities are needed to provide relief, or whether additional staff is required. In some cases, such a review may also indicate that, by appropriate modifications of the working arrangements, savings in manpower are possible. Seasonal variations in traffic may have significant effects upon the workload, but these should normally be anticipated and provided for by manpower scheduling or other management action.

4 To convert the abstract requirement for the provision of specific services into the number of days of operation from which the number of controllers required to provide that service can be calculated, the following method may be used:

a) determine the number of days of facility operation based on a general calculation of expected controller utilization or availability. This calculation should be based on statistical mean and will give only an average figure;

b) determine the average number of days during which the average controller is away from the facility. Days away from the facility should include days off duty, leave, sick leave, absence for advanced training and any other cause;

c) the information on the number of days of facility operation and average number of days a controller is away from the facility should then be inserted into a formula in order to obtain the number of controllers required to provide the service in question in the courses of a year. A typical example of such a formula is:

Personnel needed =

$$\frac{\text{Number of days a position is in operation per year}}{\text{Number of days of operation of the facility per year}} \times \frac{\text{Number of function hours * per year}}{\text{Average number of hours worked per year by a controller **}}$$

* "Functional hours "means the hours when the position is occupied plus time for hand over.

** The "average number of hours" worked per year by a controller is obtained by subtracting from the days of the year the number of days the average controller is away from the facility. This figure is then multiplied by the average number of working hours per day of a controller.

5. The alternative method to determine the number of staffs required for ATS operation is given below:

5.1 Calculate the total productive days in a year for *one staff* at a working position (e.g. Aerodrome Controller)

a) Add the total days of leave entitlement (annual leave, sick leave, public holiday, training, weekends, contingency, bereavement etc) to give the total unproductive days, per year.

b) Subtract these (step 5.1a) from the total number of days in a year (365) to give the total available days, per year.

5.2 Determine the productive hours, per work day e.g. 8 hrs (for an 8hr shift)

5.3 Calculate the available hours, per year by multiplying "productive hours, per work day" (step 5.2) *by* "the total available days, per year". (step 5.1b).

5.4 Determine the hours of operation coverage, per day, for the work position e.g. 14hrs for the Aerodrome Control position for the hours of operation from 6am to 8pm.

5.5 Determine the number of staffs needed at the work position, per year

a) Multiply the "hours of operation coverage, per day" (step 5.4) by 365 days; *and* divide the product by the "avail hours, per year" (step 5.3), to give the total number of staffs needed at the work position, per year. (Note: Answer is rounded up to the nearest integer.)

Repeat step 5.1 to step 5.5 for each work position, at each unit and tally to give the total number of staffs required for the department.