



**Civil Aviation Authority  
of Fiji**

# **PERSONNEL LICENSING**

**FCL / LAME / AFTL / ATSPL**

Published by:

**Civil Aviation Authority of Fiji**

**Private Mail Bag, NAP 0354**

**Nadi International Airport**

**Fiji**

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# Standards Document

## PERSONNEL LICENSING

FCL / LAME / AFTL / ATSPL

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

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## AMENDMENT RECORD

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

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

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

Where appropriate, the SD also contains 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 – Personnel Licensing is issued by the Civil Aviation Authority of Fiji pursuant to Section 10 of the Civil Aviation (Reform) Act 1999. This Document is intended for use by CAAF, applicants for, all holders of an Air Operator Certificate, aviation training institute and aviation documents holders.

### Change Notice

This Standards Document has been developed pursuant to the Authority's obligation to provide oversight on certified operators and their personnel, as well as the operator'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**



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## SECTION 1 - STANDARDS & PRACTICES

### S1/ CHAPTER 1 - DEFINITIONS AND GENERAL RULES CONCERNING LICENCES

#### 1.1 DEFINITIONS

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

**Accredited medical conclusion.** The conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.

**Adapted competency model.** A group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organization uses to develop competency-based training and assessment for a given role.

**Aeroplane.** A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

**Air traffic service licence.** A licence specified under Air Navigation Regulations 53(2) (p), (q), (r), as amended by the CA Reform Act 1999

**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.

**Aircraft avionics.** A term designating any electronic device — including its electrical part — for use in an aircraft, including radio, automatic flight control and instrument systems.

**Aircraft — category.** Classification of aircraft according to specified basic characteristics, e.g. aeroplane, helicopter, glider, free balloon.

**Aircraft certificated for single-pilot operation.** A type of aircraft which the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of one pilot.

**Aircraft required to be operated with a co-pilot.** A type of aircraft that is required to be operated with a co-pilot, as specified in the flight manual or by the air operator certificate.

**Aircraft — type of.** All aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.

**Airmanship.** The consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.

**Airship.** A power-driven lighter-than-air aircraft.

**Appropriate airworthiness requirements.** The comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.

**Approved maintenance organization.** An organization approved by a Contracting State, in accordance with the requirements of ICAO Annex 6, Part I, Chapter 8 — Aeroplane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by that State.

**NOTE:** *Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.*



**Approved maintenance organization-** An organization approved by a Contracting State, in accordance with the requirements of ICAO Annex 8, Part II, Chapter 6 — Maintenance Organization Approval, to perform maintenance of aircraft, engine, propeller or parts thereof and operating under supervision approved by that State.

**NOTE:** *Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.*

**Approved Medical Authority (AMA).** A medical doctor appointed by the Civil Aviation Authority of Fiji under Air Navigation Regulation 56 for the purpose of conducting medical examinations or investigations for grant or renewal of licences and ratings issued under Regulation 53 (2).

**Approved training.** Training conducted under special curricula and supervision approved by a Contracting State. In Fiji, these organisations are also referred to as an Aviation Training Institute.

**Approved training organization.** An organization approved by and operating under the supervision of a Contracting State in accordance with the requirements of ICAO Annex 1 to perform approved training.

**ATS surveillance service.** A term used to indicate a service provided directly by means of an ATS surveillance system.

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

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

**Balloon.** A non-power-driven lighter-than-air aircraft.

**NOTE:** *For the purposes of this Standards Document, this definition applies to free balloons.*

**Certify as airworthy (to).** To certify that an aircraft or parts thereof comply with current airworthiness requirements after maintenance has been performed on the aircraft or parts thereof.

**Command and control (C2) link.** The data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight.

**Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.

**Competency.** A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.

**Competency element.** An action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.

**Competency unit.** A discrete function consisting of a number of competency elements.

**Co-pilot.** A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

**Credit.** Recognition of alternative means or prior qualifications.

**Cross-country.** A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.

**Detect and avoid.** The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.



**Direct Supervision.** In respect of the privileges of an air traffic service licence or rating, means the licence holder is supervising the situation as closely as if they were performing the task themselves, and is ready to correct or take over control at any time

**Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft.

**Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft, or from a properly authorized remote pilot using the remote pilot station during a remotely piloted aircraft flight.

**Error.** An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.

**NOTE:** See Chapter 1 of ICAO Annex 19 — Safety Management for a definition of operational personnel.

**Error management.** The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired states.

**NOTE:** See Attachment C to Chapter 1 of Part II of the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868) and Circular 314 — Threat and Error Management (TEM) in Air Traffic Control for a description of undesired states.

**Flight crew member.** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

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

*Note 1.— The term flight plan may be prefixed by the words “preliminary”, “filed”, “current” or “operational” to indicate the context and different stages of a flight.*

*Note 2.— When the word “message” is used as a suffix to this term, it denotes the content and format of the flight plan data as transmitted.*

**Flight procedures trainer.** See Flight simulation training device.

**Flight simulation training device (FSTD)** Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

- A flight simulator, which provides an accurate representation of the flight deck of a particular aircraft type or an accurate representation of the remotely piloted aircraft system (RPAS) to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;
- A flight procedures trainer, which provides a realistic flight deck environment or realistic RPAS environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;
- A basic instrument flight trainer, which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight or the RPAS environment in instrument flight conditions.

**Flight simulator.** See Flight simulation training device.

**Flight time — Aeroplanes.** The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

**NOTE:** *Flight time as here defined is synonymous with the term “block to block” time or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.*

**Flight time — helicopters.** The total time from the moment a helicopter’s rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.

**Flight time — remotely piloted aircraft systems.** The total time from the moment a command and control (C2) link is established between the remote pilot station (RPS) and the remotely piloted aircraft (RPA) for the purpose of taking off or from the moment the remote pilot receives control following a handover until the moment the remote pilot completes a handover or the C2 link between the RPS and the RPA is terminated at the end of the flight.

**Glider.** A non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

**Glider flight time.** The total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight.

**Handover.** The act of passing piloting control from one remote pilot station to another.

**Helicopter.** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

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

**Instrument flight time.** Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.

**Instrument flight time.** Time during which a pilot is piloting an aircraft, or a remote pilot is piloting a remotely piloted aircraft, solely by reference to instruments and without external reference points.

**Instrument ground time.** Time during which a pilot is practicing, on the ground, simulated instrument flight in a flight simulation training device approved by the Licensing Authority.

**Instrument time.** Instrument flight time or instrument ground time.

**Licensing Authority.** The Authority designated by a Contracting State as responsible for the licensing of personnel.

**NOTE:** *In Fiji and for the purpose of this Standards Document, CAAF is the Licensing Authority that by law has the following licensing responsibilities:*

- *Assessment of an applicant’s qualifications to hold a licence or rating;*
- *Issue and endorsement of licences and ratings;*
- *Designation and authorization of approved persons;*
- *Approval of training courses;*
- *approval of the use of flight simulation training devices and authorisation for their use in gaining the experience or in demonstrating the skill required for the issue of a licence or rating; and validation of licences issued by other ICAO Contracting States.*

**Likely.** In the context of the medical provisions in Chapter 6, **likely** means with a probability of occurring that is unacceptable to the medical assessor.

**Maintenance.** The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

**Medical Assessment.** The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness.

**Medical assessor.** A physician, appointed by CAAF, who conducts Quality Assurance inspections on medical examinations and assessments by the Medical Examiner. The Medical assessor is qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance,

**NOTE:** *Medical assessors are expected to maintain the currency of their professional knowledge.*

**Medical examiner.** A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the Licensing Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed.

**Night.** The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.

**NOTE:** *Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.*

**Performance criteria.** Simple, evaluative statements on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved.

**Pilot (to).** To manipulate the flight controls of an aircraft during flight time.

**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.

**Pilot-in-command under supervision.** Co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, in accordance with a method of supervision acceptable to the Licensing Authority.

**Powered-lift.** A heavier-than-air aircraft capable of vertical take-off, vertical landing, and low-speed flight, which depends principally on engine-driven lift devices or engine thrust for the lift during these flight regimes and on non-rotating aerofoil(s) for lift during horizontal flight.

**NOTE:** *Fiji does not issue licences for powered lift. Fiji issues permits under the provisions of section 78 of the Air Navigation Regulations.*

**Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in a way that:

- Constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or
- Causes or worsens an occupational, social, mental or physical problem or disorder.

**Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

**Quality system.** Documented organizational procedures and policies; internal audit of those policies and procedures; management review and recommendation for quality improvement.





**Rated air traffic controller.** An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.

**Rating.** An authorisation entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence.

**Remote co-pilot.** A licensed remote pilot serving in any piloting capacity other than as remote pilot-in-command but excluding a remote pilot who is in the remote pilot station for the sole purpose of receiving flight instruction.

**Remote flight crew member.** A licensed flight crew member charged with duties essential to the operation of a remotely piloted aircraft system during a flight duty period.

**Remote pilot.** A person charged by the operator with duties essential to the operation of a remotely piloted aircraft and who manipulates the flight controls, as appropriate, during flight time.

**Remote pilot-in-command.** The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

**Remote pilot station (RPS).** The component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft.

**Remotely piloted aircraft (RPA).** An unmanned aircraft which is piloted from a remote pilot station.

**Remotely piloted aircraft system (RPAS).** A remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design.

**Rendering (a licence) valid.** The action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence.

**Rotorcraft.** A power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

**NOTE:** *Fiji does not issue licences for rotorcraft. Fiji issues permits under the provisions of section 78 of the Air Navigation Regulations.*

**Sign a maintenance release (to).** To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in ICAO Annex 6.

**Sign a maintenance release (to).** To certify that maintenance work has been completed satisfactorily in accordance with appropriate airworthiness requirements, by issuing the maintenance release referred to in ICAO Annex 6 (in the case of a release not issued by an approved maintenance organization) or ICAO Annex 8 (in the case of a release issued by an approved maintenance organization).

**Significant.** In the context of the medical provisions in Chapter 6, **significant** means to a degree or of a nature that is likely to jeopardize flight safety.

**Solo flight time.** Flight time during which a student pilot is the sole occupant of an aircraft.

**Solo flight time — remotely piloted aircraft systems.** Flight time during which a student remote pilot is controlling the remotely piloted aircraft system, acting solo.

**State safety programme (SSP).** An integrated set of regulations and activities aimed at improving safety.



**Threat.** Events or errors that occur beyond the influence of an operational person, increase operational complexity and must be managed to maintain the margin of safety.

**NOTE:** See Chapter 1 of ICAO Annex 19 — Safety Management for a definition of operational personnel.

**Threat Management.** The process of detecting and responding to threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.

**NOTE:** See Attachment C to Chapter 1 of Part II of the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868) and Circular 314 — Threat and Error Management (TEM) in Air Traffic Control for a description of undesired states.

**Validation.** In respect of an air traffic service rating, means an authorisation to exercise the privileges of that rating at a specified location, and in a specified operating position

## 1.2 GENERAL RULES CONCERNING LICENCES

**NOTE** Although the Convention on International Civil Aviation allocates to the State of Registry certain functions which that State is entitled to discharge, or obligated to discharge, as the case may be, the Assembly recognized, in Resolution A23-13, that the State of Registry may be unable to fulfil its responsibilities adequately in instances where aircraft are leased, chartered or interchanged — in particular without crew — by an operator of another State and that the Convention may not adequately specify the rights and obligations of the State of an operator in such instances until such time as Article 83 bis of the Convention enters into force. Accordingly, the Council urged that if, in the above-mentioned instances, the State of Registry finds itself unable to discharge adequately the functions allocated to it by the Convention, it delegate to the State of the Operator, subject to acceptance by the latter State, those functions of the State of Registry that can more adequately be discharged by the State of the Operator. While Article 83 bis of the Convention entered into force on 20 June 1997 in respect of ICAO Contracting States which have ratified the related Protocol (ICAO Doc 9318), the foregoing action will remain particularly relevant for those ICAO Contracting States which do not have treaty relations under Article 83 bis. It was understood that pending entry into force of Article 83 bis of the Convention, the foregoing action would only be a matter of practical convenience and would not affect either the provisions of the Chicago Convention prescribing the duties of the State of Registry or any third State. However, as Article 83 bis of the Convention entered into force on 20 June 1997, such transfer agreements will have effect in respect of ICAO Contracting States which have ratified the related Protocol (ICAO Doc 9318) upon fulfilment of the conditions established in Article 83 bis.

**NOTE** Although International Standards and Recommended Practices are established for licensing the following personnel:

### Flight crew

- Private pilot — aeroplane, airship, helicopter or powered-lift;
- Commercial pilot — aeroplane, airship, helicopter or powered-lift;
- Multi-crew pilot — aeroplane;
- Airline transport pilot — aeroplane, helicopter or powered-lift;
- Glider pilot;
- Free balloon pilot;
- Flight navigator;
- Flight engineer; and
- As of 3 November 2022, remote pilot — aeroplane, airship, glider, rotorcraft, powered-lift or free balloon.

### Other personnel

- Aircraft maintenance (technician/engineer/mechanic);
- Air traffic controller;
- Flight operations officer/flight dispatcher;
- Aeronautical station operator.

*Fiji does not issue licences for Flight Navigators, Flight Engineers, Powered Lift, Airship, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of other licence categories. This information has been filed via ICAO EFOD.*

## 1.2.1 AUTHORITY TO ACT AS A FLIGHT CREW MEMBER

**NOTE** *Section 30 (1) of the Air Navigation Regulations states that “Every aircraft shall carry and be operated by the flight crew prescribed by, and such crew shall be licensed in accordance with the provisions of (the Air Navigation Regulations) provided that an aircraft not registered in Fiji shall carry the flight crew prescribed by the law of the country in which it is registered and such crew shall be licensed in accordance with the law of that country”. In addition, and:*

1.2.1.1 Until 2 November 2022, a person shall not act as a flight crew member of an aircraft unless a valid licence is held showing compliance with the specifications of this Standards Document and appropriate to the duties to be performed by that person. The licence shall have been issued by the State of Registry of that aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.

1.2.1.1 As of 3 November 2022, a person shall not act as a flight crew member of an aircraft or as a remote flight crew member of a RPAS unless a valid licence is held showing compliance with the specifications of this Standards Document and appropriate to the duties to be performed by that person.

1.2.1.2 As of 3 November 2022, the flight crew member licence shall have been issued by the State of Registry of that aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.

1.2.1.3 As of 3 November 2022, the remote pilot licence shall have been issued by the Licensing Authority of the State of the Operator of the RPAS or by any other Contracting State and rendered valid by the Licensing Authority of the State of the Operator of the RPAS.

1.2.1.4 As of 3 November 2022, remote pilots shall carry their appropriate licence while engaged in international air operations.

**NOTE.** *Section 33 of the Air Navigation Regulations and Article 29 of the Convention on International Civil Aviation requires that the flight crew members carry their appropriate licences on board every aircraft engaged in international air navigation.*

## 1.2.2 METHOD OF RENDERING A LICENCE VALID

**NOTE.** *Section 59 of the Air Navigation Regulations states “Where a licence to act as a member of the flight crew of aircraft has been granted under the law of a country other than Fiji and is for the time being in force, the Authority may, subject to such conditions and limitations and for such period as it thinks fit, issue a certificate of validation rendering such licence valid for the purpose of flying aircraft registered in Fiji as if it had been granted under the (Air Navigation Regulations)” In addition. The following outlines additional policy applicable in Fiji adopted from ICAO SARPs.*

1.2.2.1 Further to the provisions of Section 59 of the Air Navigation Regulations; when the Authority renders valid a licence issued by another Contracting State, as an alternative to the issuance of a Fiji licence, the authorisation (otherwise known as validation) shall be carried with the former licence accepting it as the equivalent of the latter. When a State limits the authorisation to specific privileges, the validation issued by the Authority shall specify the

privileges of the licence which are to be accepted as its equivalent. Its validity shall not extend beyond the period of validity of the licence. The validation ceases to be valid if the licence upon which it was issued is revoked or suspended.

**NOTE** *This provision is not intended to preclude the State that issued the licence from extending, by a suitable notification, the period of validity of the licence without necessarily requiring either the physical return of the licence or the appearance of the licence holder before the Authorities of that State.*

1.2.2.2 When a validation under 1.2.2.1 is issued for use in commercial air transport operations, the Authority shall confirm the validity of the other Contracting State's licence before issuing the validation rendering a licence valid pursuant to a formal agreement between ICAO Contracting States under common licensing regulations

1.2.2.3 Rendering a licence valid pursuant to a formal agreement between Contracting States under common licensing regulations

1.2.2.3.1 Notwithstanding the provisions in 1.2.2.1 and 1.2.2.2, ICAO Contracting States may automatically render valid each other's licences, provided that the States shall have:

- Adopted common licensing regulations that are compliant with this Standards Document;
- Entered into a formal agreement recognizing the automatic validation process;
- Established a surveillance system to ensure the continuing implementation of the common licensing regulations; and
- Registered the agreement with ICAO pursuant to Article 83 of the Convention on International Civil Aviation.

**NOTE** *The registry of agreements with their associated list of ICAO Contracting States can be found in ICAO's Database of Aeronautical Agreements and Arrangements.*

**NOTE** *Common licensing regulations refer to a common licensing regulatory framework that is legally binding and directly applicable to ICAO Contracting States party to the agreement, recognizing the automatic validation process. Common licensing regulations used by those States contain identical requirements for licence issuance, maintenance of competency and recent experience. A regional aviation safety body can develop and maintain these common regulations for its member States.*

1.2.2.3.2 An endorsement shall appear on licences rendered valid under the process of 1.2.2.3.1 indicating that the licence is automatically validated under the agreement described in 1.2.2.3.1 and referencing the ICAO registration number of the agreement. The endorsement shall further include a list of all States that are party to the agreement. 1.2.2.3.2.1 Provides a transition period for States that meet the requirements in 1.2.2.3.1 and have issued licences prior to the applicability of this Standard.

1.2.2.3.2.1 Until 31 December 2022, States that meet the requirements in 1.2.2.3.1 and have issued licences prior to 9 November 2017 may use other effective means, carried on board the aircraft or accessible, to indicate that the licences issued by the State are rendered valid in accordance with the agreement in 1.2.2.3.1.

**NOTE** *Guidance on the format for the endorsement is contained in Attachment C. The guidance also includes how to make use of an attachment to the licence, as part of the endorsement, for information that may change over time, i.e. the ICAO registration number of the agreement and the list of all States that are party to the agreement.*

1.2.2.4 It is recommended that a pilot licence issued by other ICAO Contracting State should be rendered valid by the Authority for use in private flights.

**NOTE** ICAO Contracting States which, without formality, render valid a licence issued by another Contracting State for use in private flights are encouraged to notify this facility in their Aeronautical Information Publications.

### 1.2.3 PRIVILEGES OF THE HOLDER OF A LICENCE

1.2.3.1 Further to the provisions of Section 54(2) of the Air Navigation Regulations, the holder of a licence shall not be permitted to exercise privileges other than those granted by that licence.

### 1.2.4 MEDICAL FITNESS

1.2.4.1 Further to the provisions of section 56 of the Air Navigation Regulations, an applicant for a licence shall, when applicable, hold a Medical Assessment and certificate issued in accordance with the provisions of chapter 6 of this standards document and the provisions of SD - Medical Standards, Test and Certification.

1.2.4.2 It is recommended that from 18 November 2010, states should apply, as part of their State safety programme, basic safety management principles to the medical assessment process of licence holders that as a minimum include:

- a) Routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
- b) Continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

**NOTE:** A framework for the implementation and maintenance of a State safety programme is contained in Attachment A to ICAO Annex 19. Guidance on State safety programmes and safety management principles is contained in the ICAO Safety Management Manual (SMM) (ICAO Doc 9859) and the ICAO Manual of Civil Aviation Medicine (ICAO Doc 8984).

1.2.4.3 Further to the provisions of section 56 of the Air Navigation Regulations, the Authority shall implement appropriate aviation-related health promotion for licence holders subject to a Medical Assessment to reduce future medical risks to flight safety.

1.2.4.3.1 Further to the provisions of section 56 of the Air Navigation Regulations refer to SD - Medical Standards, Test and Certification.

**NOTE 1** It is advisable to let the calendar day on which the Medical Assessment expires remain constant year after year by allowing the expiry date of the current Medical Assessment to be the beginning of the new validity period under the proviso that the medical examination takes place during the period of validity of the current Medical Assessment but no more than 45 days before it expires.

**NOTE 2** 1.2.4.2 indicates how appropriate topics for health promotion activities may be determined.

**NOTE 3** Guidance on the subject of health promotion activities is contained in the Manual of Civil Aviation Medicine (ICAO Doc 8984).

**NOTE 4** Guidance on the relationship between the Licensing Authority and the implementation of a Medical Assessment for licence holders is contained in the ICAO Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (ICAO Doc 9379).

1.2.4.4 Further to the provisions of section 56 of the Air Navigation Regulations, the period of validity of a Medical Certificate shall begin on the day the medical examination is performed. The duration of the period of validity shall be in accordance with the provisions of 1.2.5.2.

- 1.2.4.4.1 Further to the provisions of section 56 of the Air Navigation Regulations, the period of validity of a Medical Assessment may be extended, at the discretion of the Licensing Authority, up to 45 days.
- 1.2.4.5 Further to the provisions of section 56 of the Air Navigation Regulations, and until 2 November 2022, except as provided in 1.2.5.2.6, flight crew members or air traffic controllers shall not exercise the privileges of their licence unless they hold a current Medical Assessment appropriate to the licence.
- 1.2.4.5 Further to the provisions of section 56 of the Air Navigation Regulations, and as of 3 November 2022, except as provided in 1.2.5.2.6, flight crew members, remote flight crew members or air traffic controllers shall not exercise the privileges of their licence unless they hold a current Medical Assessment appropriate to the licence.
- 1.2.4.6 Further to the provisions of section 56 of the Air Navigation Regulations, CAAF shall designate medical examiners, qualified and licensed in the practice of medicine, to conduct medical examinations of fitness of applicants for the issue or renewal of the licences or ratings specified in Chapters 2 and 3, and of the appropriate licences specified in Chapter 4.
- 1.2.4.6.1 Further to the provisions of section 56 of the Air Navigation Regulations, Medical examiners shall have received training in aviation medicine and shall receive refresher training at regular intervals. Before designation, medical examiners shall demonstrate adequate competency in aviation medicine.
- 1.2.4.6.2 Further to the provisions of section 56 of the Air Navigation Regulations, Medical examiners shall have practical knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.
- 1.2.4.6.3 It is recommended that the competence of a medical examiner should be evaluated periodically by the medical assessor.
- 1.2.4.7 Further to the provisions of section 56 of the Air Navigation Regulations, applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the medical examiner a declaration stating whether they have previously undergone such an examination and, if so, the date, place and result of the last examination. They shall indicate to the examiner whether a Medical Assessment has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension.
- 1.2.4.7.1 Further to the provisions of Section 56 and 128 of the Air Navigation Regulations, any false declaration to a medical examiner made by an applicant for a licence or rating shall be reported to the Authority for such action as may be considered appropriate.
- 1.2.4.8 Further to the provisions of section 56 of the Air Navigation Regulations, having completed the medical examination of the applicant in accordance with Chapter 6, the medical examiner shall coordinate the results of the examination and submit a signed report, or equivalent, to CAAF, in accordance with its requirements, detailing the results of the examination and evaluating the findings with regard to medical fitness.
- 1.2.4.8.1 Further to the provisions of section 56 of the Air Navigation Regulations, if the medical report is submitted to CAAF in electronic format, adequate identification of the examiner shall be established.
- 1.2.4.8.2 Further to the provisions of section 56 of the Air Navigation Regulations, if the medical examination is carried out by two or more medical examiners, CAAF shall appoint one of these to be responsible for coordinating the results of the examination, evaluating the findings with regard to medical fitness, and signing the report.



1.2.4.9 Further to the provisions of section 56 of the Air Navigation Regulations, CAAF shall use the services of medical assessors to evaluate reports submitted to CAAF by medical examiners.

1.2.4.9.1 Further to the provisions of section 56 of the Air Navigation Regulations, the medical examiner shall be required to submit sufficient information to the Licensing Authority to enable that Authority to undertake Medical Assessment audits.

**NOTE** *The purpose of such auditing is to ensure that medical examiners meet applicable standards for good medical practice and aeromedical risk assessment. Guidance on aeromedical risk assessment is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

1.2.4.10 Further to the provisions of section 56 of the Air Navigation Regulations, if the medical Standards prescribed in Chapter 6 for a particular licence are not met, the appropriate Medical Assessment shall not be issued or renewed unless the following conditions are fulfilled:

- a) accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;
- b) relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and
- c) the licence is endorsed with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.

1.2.4.11 Further to the provisions of section 56 of the Air Navigation Regulations, medical confidentiality shall be respected at all times.

1.2.4.11.1 Further to the provisions of section 56 of the Air Navigation Regulations, all medical reports and records shall be securely held with accessibility restricted to authorized personnel.

1.2.4.11.2 Further to the provisions of section 56 of the Air Navigation Regulations, when justified by operational considerations, the CAAF Medical Board shall determine to what extent pertinent medical information is presented to relevant officials of the Licensing Authority.

## 1.2.5 VALIDITY OF LICENCES

1.2.5.1 Further to the provisions of section 58 of the Air Navigation Regulations, the Authority, having issued a licence, shall ensure that the privileges granted by that licence, or by related ratings, are not exercised unless the holder maintains competency and meets the requirements for recent experience established by the Authority.

1.2.5.1.1 It is recommended that the Authority establish maintenance of competency and recent experience requirements for pilot licences and ratings based on a systematic approach to accident prevention and should include a risk assessment process and analysis of current operations, including accident and incident data appropriate to that State.

1.2.5.1.2 Further to the provisions of section 58 of the Air Navigation Regulations, the Authority, having issued a licence, shall ensure that other ICAO Contracting States are enabled to be satisfied as to the validity of the licence.

**NOTE** *Until 2 November 2022, the maintenance of competency of flight crew or remote flight crew members, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with ICAO Annex 6.*

**NOTE** *As of 3 November 2022, the maintenance of competency of flight crew members, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with ICAO Annex 6.*

**NOTE** *Until 2 November 2022, maintenance of competency may be satisfactorily recorded in the operator's records, or in the flight crew member's personal log book or licence.*

**NOTE** *As of 3 November 2022, maintenance of competency may be satisfactorily recorded in the operator's records, or in the flight crew or the remote flight crew member's personal log book or licence.*

**NOTE** *Until 2 November 2022, flight crew members may, to the extent deemed feasible by the Authority, demonstrate their continuing competency in FSTDs approved by the Authority.*

**NOTE** *As of 3 November 2022, flight crew and remote flight crew members may, to the extent deemed feasible by the Authority, respectively, demonstrate their continuing competency in FSTDs approved by the Authority.*

**NOTE** *For further guidance on FSTD, see the ICAO Manual of Criteria for the Qualification of Flight Simulation Training Devices (ICAO Doc 9625).*

**NOTE** *For guidance on risk assessment process, see the ICAO Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (ICAO Doc 9379)*

1.2.5.2 Except as provided in 1.2.5.2.1, 1.2.5.2.2, 1.2.5.2.3, 1.2.5.2.4, 1.2.5.2.5 and 1.2.5.2.6, a Medical Certificate issued in accordance with CAAF Standards Document - Medical Standards, Test and Certification shall be valid from the date of the medical examination for a period not greater than that stipulated in the said SD.

## **1.2.6 DECREASE IN MEDICAL FITNESS**

**NOTE** *Section 56 of the Air Navigation Regulations states "No licence or rating referred to in regulation 53 being a licence or rating which is granted or renewed subject to physical and mental fitness shall be issued or renewed unless the applicant undergoes medical examination with an approved medical authority and satisfies the medical standards notified by the Authority. The Standards Document - Medical Standards, Tests and Certification stipulates the provisions for Fiji aviation medical standards, tests and certification. Refer to the Standards Document - Medical Standards, Tests and Certification for information regarding decrease in medical fitness.*

1.2.6.1 Refer to Standards Document - Medical Standards, Tests and Certification.

1.2.6.1.1 It is recommended that the Authority should ensure that licence holders are provided with clear guidelines on medical conditions that may be relevant to flight safety and when to seek clarification or guidance from a medical examiner or Licensing Authority.

**NOTE** *Guidance on physical and mental conditions and treatments that are relevant to flight safety about which information may need to be forwarded to the Licensing Authority is contained in the ICAO Manual of Civil Aviation Medicine (ICAO Doc 8984).*

1.2.6.1.2 It is recommended that the Authority should, as far as practicable, ensure that licence holders do not exercise the privileges of their licences and related ratings during any period in which their medical fitness has, from any cause, decreased to an extent that would have prevented the issue or renewal of their Medical Assessment.

## **1.2.7 USE OF PSYCHOACTIVE SUBSTANCES**

1.2.7.1 Further to the provisions of Section 72 of the Air Navigation Regulations, holders of licences shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.

1.2.7.2 Further to the provisions of Section 72 of the Air Navigation Regulations, holders of licences shall not engage in any problematic use of substances.

1.2.7.3 It is recommended that the Authority ensure, as far as practicable, that all licence holders who engage in any kind of problematic use of substances are identified and removed from their safety-critical functions. Return to the safety-critical functions may be considered after successful treatment or, in cases where no treatment is necessary, after cessation of the problematic use of substances and upon determination that the person's continued performance of the function is unlikely to jeopardize safety.

**NOTE** *Guidance on suitable methods of identification (which may include biochemical testing on such occasions as pre-employment, upon reasonable suspicion, after accidents/incidents, at intervals, and at random) and on other prevention topics is contained in the ICAO Manual on Prevention of Problematic Use of Substances in the Aviation Workplace (ICAO Doc 9654).*

## 1.2.8 APPROVED TRAINING AND APPROVED TRAINING ORGANIZATION

**NOTE** *Fiji refers to these organisations as "Aviation Training Institutions"*

**NOTE** *The qualifications required for the issue of personnel licences can be more readily and speedily acquired by applicants who undergo closely supervised, systematic and continuous courses of training, conforming to a planned syllabus or curriculum. Provision has accordingly been made for some reduction in the experience requirements for the issue of certain licences and ratings prescribed in these Standards and Recommended Practices, in respect of an applicant who has satisfactorily completed a course of approved training.*

1.2.8.1 Further to the provisions of section 145B of the Air Navigation Regulations, approved training shall provide a level of competency commensurate with that defined in the Standards Document - Certification of Aviation Training Organisations and be at least equal to that provided by the minimum experience requirements for personnel not receiving such approved training.

1.2.8.2 Further to the provisions of section 145B of the Air Navigation Regulations, the approval of a training organization by the Authority shall be dependent upon the applicant demonstrating compliance with the CAAF SD - Certification of Aviation Training Organisations and the requirements of Appendix 2 to this Standards Document and the relevant provisions contained in ICAO Annex 19.

**NOTE** *ICAO Annex 19 includes safety management guidance and provisions for an approved training organization that is exposed to safety risks related to aircraft operations during the provision of its services. Further guidance is contained in the ICAO Safety Management Manual (SMM) (ICAO Doc 9859).*

**NOTE** *Guidance on approval of a training organization can be found in the ICAO Manual on the Approval of Training Organizations (ICAO Doc 9841).*

**NOTE** *Section 145B (1) of the Air Navigation Regulations states "No person shall exercise the functions of an aviation training institution, for the training of pilots, personnel for the provision of air traffic services, air navigation services, aircraft maintenance engineering services and associated aviation support services unless such person holds an Aviation Training Institution Certificate granted by the Authority under sub-regulation (2)". In addition;*

1.2.8.3 Further to the provisions of section 145B of the Air Navigation Regulations, **Until 25 November 2026**, approved training for flight crew and air traffic controllers shall be conducted within an approved training organization.



**NOTE** The approved training considered in 1.2.8.3 relates primarily to approve training for the issuance of an ICAO Annex 1 compliant Fiji licence or rating. It is not intended to include approved training for the maintenance of competence or for an operational qualification after the initial issuance of a licence or rating, as may be required for air traffic controllers or for flight crew, such as the approved training under ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, 9.3, or Part III — International Operations — Helicopters, Section II, 7.3.

1.2.8.3 Further to the provisions of section 145B of the Air Navigation Regulations, As of 26 November 2026, approved training for flight crew, remote flight crew and traffic controllers shall be conducted within an approved training organization.

**NOTE** The approved training considered in 1.2.8.3 relates primarily to approve training for the issuance of an ICAO Annex 1 compliant Fiji licence or rating. It is not intended to include approved training for the maintenance of competence or for an operational qualification after the initial issuance of a licence or rating, as may be required for air traffic controllers, or for flight crew or remote flight crew, such as the approved training under ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, 9.3, or Part III — International Operations — Helicopters, Section II, 7.3, or Part IV — International Operations – Remotely Piloted Aircraft Aircraft Systems.

1.2.8.4 Further to the provisions of section 145B of the Air Navigation Regulations, and until 2 November 2022, competency-based approved training for aircraft maintenance personnel shall be conducted within an approved training organization.

**NOTE** A comprehensive training scheme for the aircraft maintenance (technician /engineer / mechanic) licence, including the various levels of competency, is contained in this Standards Document and the ICAO Procedures for Air Navigation Services — Training (ICAO Doc 9868, PANS-TRG).

1.2.8.4 Further to the provisions of section 145B of the Air Navigation Regulations, and as of 3 November 2022, competency-based approved training for aircraft and RPAS maintenance personnel shall be conducted within an approved training organization.

**NOTE** A comprehensive training scheme for the aircraft maintenance (technician /engineer / mechanic) licence, including the various levels of competency, is contained in this Standards Document and the ICAO Procedures for Air Navigation Services — Training (ICAO Doc 9868, PANS-TRG).

1.2.8.5 Further to the provisions of section 145B of the Air Navigation Regulations, and as of 3 November 2022, competency-based approved training for remote flight crew shall be conducted within an approved training organization.

## 1.2.9 LANGUAGE PROFICIENCY

1.2.9.1 Further to the provisions of section 57 of the Air Navigation Regulations, and until 2 November 2022, aeroplane, airship, helicopter and powered-lift pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1.

1.2.9.1 Further to the provisions of section 57 of the Air Navigation Regulations, and as of 3 November 2022, aeroplane, glider, free balloon, remote pilots, air traffic controllers; and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1 of this Standards Document.

**NOTE** *Fiji does not issue licences for Flight Navigators, Flight Engineers, Airship, Powered Lift, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of the other licences. This information has been filed via ICAO EFOD.*

1.2.9.2 It is recommended that glider and balloon pilots should have the ability to speak and understand the language used for radiotelephony communications.

1.2.9.3 Fiji does not issue licences for Flight Navigator. This information has been filed via ICAO EFOD.

1.2.9.4 Fiji does not issue licences for Flight Navigator. This information has been filed via ICAO EFOD.

1.2.9.5 Further to the provisions of section 57 of the Air Navigation Regulations, and until 2 November 2022, the language proficiency of aeroplane, helicopter, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level.

**NOTE** *Fiji does not issue licences for Flight Navigators, Flight Engineers, Airship, Powered Lift, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of the other licences. This information has been filed via ICAO EFOD.*

1.2.9.5 Further to the provisions of section 57 of the Air Navigation Regulations, and until 2 November 2022, and as of 3 November 2022, the language proficiency of aeroplane, helicopter, glider, remote pilots; air traffic controllers; and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level.

**NOTE** *Fiji does not issue licences for Flight Navigators, Flight Engineers, Airship, Powered Lift, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of the other licences. This information has been filed via ICAO EFOD.*

1.2.9.6 It is recommended that until 2 November 2022, the language proficiency of aeroplane and helicopter pilots required to use the radiotelephone aboard an aircraft, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level, as follows:

- a) Those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and
- b) Those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.

**NOTE 1** *Formal evaluation is not required for applicants who demonstrate expert language proficiency, e.g. native and very proficient non-native speakers with a dialect or accent intelligible to the international aeronautical community.*

**NOTE 2** *The provisions of 1.2.9 refer to ICAO Annex 10, Volume II, Chapter 5, whereby the language used for radiotelephony communications may be the language normally used by the station on the ground or English. In practice, therefore, there will be situations whereby flight crew members will only need to speak the language normally used by the station on the ground.*

1.2.9.6 It is recommended that as of 3 November 2022, the language proficiency of aeroplane, airship, helicopter and powered-lift pilots; aeroplane, airship, gliders, rotorcraft, powered-lift or free balloon remote pilots; flight navigators required to use the radiotelephone aboard an aircraft; air traffic controllers; and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level, as follows:

- a) Those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and
- b) Those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.

**NOTE 1** *Formal evaluation is not required for applicants who demonstrate expert language proficiency, e.g. native and very proficient non-native speakers with a dialect or accent intelligible to the international aeronautical community.*

**NOTE 2** *The provisions of 1.2.9 refer to ICAO Annex 10, Volume II, Chapter 5, whereby the language used for radiotelephony communications may be the language normally used by the station on the ground or English. In practice, therefore, there will be situations whereby flight crew members will only need to speak the language normally used by the station on the ground.*

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## S1/ CHAPTER 2A - LICENCES AND RATINGS FOR PILOTS

### 2.1 GENERAL RULES CONCERNING PILOT LICENCES AND RATINGS

#### 2.1.1 GENERAL LICENSING SPECIFICATIONS

2.1.1.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, a person shall not act either as pilot-in-command or as co-pilot of an aircraft in any of the following categories unless that person is the holder of a pilot licence issued in accordance with the provisions of the Air Navigation Regulations and this Standards Document:

- Aeroplane
- Free balloon
- Glider
- Helicopter

**NOTE** *Fiji does not issue licences for Flight Navigators, Flight Engineers, Powered Lift, Airship, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of the other licence categories in 2.1.1.1. This information has been filed via ICAO EFOD.*

2.1.1.2 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the category of aircraft type shall be included in the title of the licence itself.

2.1.1.2.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, when the holder of a pilot licence seeks a licence for an additional category of aircraft, the Authority issues the licence holder with an additional pilot licence for that category of aircraft;

**NOTE** *The requirements for category ratings are given in terms of licensing specifications for pilots and at levels appropriate to the privileges to be granted to the licence holder.*

2.1.1.3 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, an applicant shall, before being issued with any pilot licence or rating, meet such requirements in respect of age, knowledge, experience, flight instruction, skill and medical fitness, as are specified for that licence or rating.

2.1.1.3.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, an applicant for any pilot licence or rating shall demonstrate, in a manner determined by the Authority, such requirements for knowledge and skill as are specified for that licence or rating. As of 3 November 2022, Chapter 2 will be titled Licences and Ratings for Pilots and Remote Pilots.

2.1.1.4 Transitional measures related to the powered-lift category

**NOTE** *Fiji does not issue licences for Powered Lift. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake powered lift related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit. Until 5 March 2022, the Authority will accept the Licensing Authority of any other ICAO Contracting State endorsing a type rating for aircraft of the powered-lift category on an aeroplane or helicopter pilot licence. The endorsement of the rating on the licence shall indicate that the aircraft is part of the powered-lift category. The training for the type rating in the powered-lift category shall be completed during a course of approved training, shall take into account the previous experience of the applicant in an aeroplane or a helicopter as appropriate and incorporate all relevant aspects of operating an aircraft of the powered-lift category. This information has been filed via ICAO EFOD.*

#### 2.1.2 CATEGORY RATINGS

**NOTE** *Fiji has slight variations to the titles of licence categories in 2.1.1.1.*

- 2.1.2.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, category ratings shall be for categories of aircraft listed in 2.1.1.1.
- 2.1.2.2 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, category ratings shall not be endorsed on a licence when the category is included in the title of the licence itself.
- 2.1.2.3 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, any additional category rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the category rating is granted.
- 2.1.2.4 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the holder of a pilot licence seeking additional category ratings shall meet the requirements of this Standards Document appropriate to the privileges for which the category rating is sought.

### **2.1.3 TYPE RATINGS**

- 2.1.3.1 Fiji does not issue Class Ratings. Fiji issues type ratings for all aircraft. This information has been filed via ICAO EFOD.
- 2.1.3.1.1 Fiji does not issue Class Ratings. Fiji issues type ratings for all aircraft. This information has been filed via ICAO EFOD.
- 2.1.3.2 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, type ratings shall be established for:
- a) Aircraft certificated for operation with a minimum crew of at least two pilots;
  - b) Helicopters certificated for single-pilot operation except where a class rating has been issued under 2.1.3.1.1; and
  - c) Any aircraft whenever considered necessary by the Authority.

**NOTE** *Refer to 2.1.1.4 for powered-lift provisions*

**NOTE** *Refer to 2.1.3.1 for Class Ratings.*

**NOTE** *Where a common type rating is established, it will be only for aircraft with similar characteristics in terms of operating procedures, systems and handling.*

**NOTE** *Requirements for type ratings for gliders and free balloons have not been determined.*

- 2.1.3.3 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, when an applicant demonstrates skill and knowledge for the initial issue of a pilot licence, the category and the ratings appropriate to the type of aircraft used in the demonstration shall be entered on the licence.

### **2.1.4 CIRCUMSTANCES IN WHICH TYPE RATINGS ARE REQUIRED**

**NOTE** *Fiji does not issue class ratings. Fiji issues type ratings for all aircraft. This information has been filed via ICAO EFOD.*

- 2.1.4.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the holder of a pilot licence shall not act either as pilot-in-command or as co-pilot of an aeroplane or a helicopter unless the holder has a type rating when required in accordance with the provisions of 2.1.3.2.

2.1.4.1.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, when a type rating is issued limiting the privileges to act as co-pilot, or limiting the privileges to act as pilot-in-command only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.1.4.2 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, for the purpose of training, testing, or specific special purpose non-revenue, non-passenger carrying flights, special authorisation may be provided in writing to the licence holder by the Authority in place of issuing the type rating in accordance with 2.1.4.1. This authorisation shall be limited in validity to the time needed to complete the specific flight.

## 2.1.5 REQUIREMENTS FOR THE ISSUE OF TYPE RATINGS

2.1.5.1 Fiji does not issue Class Ratings. Fiji issues type ratings for all aircraft. Refer to 2.1.5.2.

### 2.1.5.2 Type rating as required by 2.1.3.2

2.1.5.2 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the applicant shall have gained, under appropriate supervision, experience in the applicable type of aircraft and/or flight simulator in the following:

- a) Normal flight procedures and manoeuvres during all phases of flight;
- b) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, systems and airframe;
- c) Where applicable, instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure;
- d) For the issue of an aeroplane category type rating, upset prevention and recovery training; and

**NOTE** *Procedures for upset prevention and recovery training are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*

**NOTE** *Guidance on upset prevention and recovery training is contained in the Manual on Aeroplane Upset Prevention and Recovery Training (ICAO Doc 10011).*

**NOTE** *The Manual of Criteria for the Qualification of Flight Simulation Training Devices (ICAO Doc 9625) provides guidance on the approval of FSTDs for upset prevention and recovery training.*

**NOTE** *The aeroplane upset prevention and recovery training may be integrated in the type rating programme or be conducted immediately after, as an additional module.*

*— Procedures for crew incapacitation and crew coordination including allocation of pilot tasks; crew cooperation and use of checklists;*

**NOTE** *See 2.1.8.1 on the qualifications required for pilots giving flight training.*

*Demonstrated the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the duties of a pilot-in-command or a co-pilot as applicable; and*

*Demonstrated, at the airline transport pilot licence level, an extent of knowledge determined by the Licensing Authority on the basis of the requirements specified in 2.6.1.2.*



**NOTE** See the ICAO Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (ICAO Doc 9379) for guidance of a general nature on cross-crew qualification and cross-credit.

**2.1.5.3 Type rating as required by 2.1.3.2 b) and c)**

2.1.5.3.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the applicant shall have demonstrated the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the licensing requirements and piloting functions of the applicant.

**2.1.6 USE OF A FSTD FOR ACQUISITION OF EXPERIENCE AND DEMONSTRATION OF SKILL**

2.1.6.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the use of a FSTD for acquiring the experience or performing any manoeuvre required during the demonstration of skill for the issue of a licence or rating shall be approved by the Authority, which shall ensure that the FSTD used is appropriate to the task.

**2.1.7 CIRCUMSTANCES IN WHICH AN INSTRUMENT RATING IS REQUIRED**

2.1.7.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the holder of a pilot licence act either as pilot-in-command or as co-pilot of an aircraft under IFR unless such holder has received proper authorisation from the Authority. Proper authorisation shall comprise an instrument rating appropriate to the aircraft category.

**NOTE** The instrument rating is included in the airline transport pilot licence — aeroplane, multi-crew pilot licence, and commercial pilot licence — airship category. The provisions of 2.1.7 do not preclude the issue of a licence having the instrument rating as an integral part thereof.

**NOTE** Fiji does not issue licences for Powered Lift. This information has been filed via ICAO EFOD.

**2.1.8 CIRCUMSTANCES IN WHICH AUTHORISATION TO CONDUCT INSTRUCTION IS REQUIRED**

2.1.8.1 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, the holder of a pilot licence shall not carry out flight instruction required for the issue of a pilot licence or rating, unless such holder has received proper authorisation from the Authority. Proper authorisation shall comprise:

- a) A flight instructor rating on the holder's licence; or
- b) The authority to act as an agent of an approved organization authorized by the Authority to carry out flight instruction; or
- c) A specific authorisation granted by the Authority.

2.1.8.2 Further to the provisions of section 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Air Navigation Regulations, a person shall not carry out instruction on a FSTD required for the issue of a pilot licence or rating unless such person holds or has held an appropriate licence or has appropriate flight training and flight experience and has received proper authorisation from the Authority.

## **2.1.9 CREDITING OF FLIGHT TIME**

- 2.1.9.1 Further to the provisions of section 124 of the Air Navigation Regulations, a student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction and pilot-in-command flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.
- 2.1.9.2 Further to the provisions of section 124 of the Air Navigation Regulations, the holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by the Authority to be operated with a co-pilot, shall be entitled to be credited with not more than 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot licence. Flight time may be credited in full towards the total flight time required if the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in a multi-crew operation.
- 2.1.9.3 Further to the provisions of section 124 of the Air Navigation Regulations, the holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated to be operated with a co-pilot, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- 2.1.9.4 Further to the provisions of section 124 of the Air Navigation Regulations, the holder of a pilot licence, when acting as pilot-in-command under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

## **2.1.10 LIMITATION OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 65TH BIRTHDAY**

- 2.1.10.1 Refer to Standards Document - Medical Standards, Tests and Certification.

## **2.2 STUDENT PILOT**

- 2.2.1 Further to the provisions of section 66 of the Air Navigation Regulations, a student pilot shall meet requirements prescribed by the Authority for the issue of a Flying Training Permit. The student pilot shall not exercise the privileges granted in the Flying Training Permit, in a manner, so as to constitute a hazard to air navigation.
- 2.2.2 Further to the provisions of section 66 of the Air Navigation Regulations, a student pilot shall not fly solo unless under the supervision of, or with the authority of, an authorized flight instructor.
- 2.2.2.1 Further to the provisions of section 66 of the Air Navigation Regulations, the holder of a flying training permit shall not fly as pilot in an aircraft on an international flight.

## **2.2.3 MEDICAL FITNESS**

Further to the provisions of section 66 of the Air Navigation Regulations, a student pilot shall not fly solo unless that student pilot holds a current Class 2 Medical Assessment.

## **2.3 PRIVATE PILOT LICENCE**

- 2.3.1 Refer to section 3 chapter 3 of this standards document for general requirements for the issue of the licence appropriate to the aeroplane, and helicopter categories



- NOTE** *Fiji does not issue licences for Powered Lift or Airship. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake powered lift or air ship related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit.*
- 2.3.2 Refer to section 3 chapter 3 of this standards document for privileges of the holder of the licence and the conditions to be observed in exercising such privileges
- 2.3.3 Refer to section 3 chapter 3 of this standards document for specific requirements for the issue of the aeroplane category rating
- 2.3.4 Refer to section 3 chapter 3 of this standards document for specific requirements for the issue of the helicopter category rating
- 2.3.5 Fiji does not issue category ratings for Powered Lift. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake powered lift related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit.
- 2.3.6 Fiji does not issue category ratings for Airship. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake airship related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit.

## 2.4 COMMERCIAL PILOT LICENCE

- 2.4.1 Refer to section 2 chapter 3 and section 2 chapter 6 of this standards document for general requirements for the issue of the licence appropriate to the aeroplane and helicopter categories respectively.

**NOTE** *Fiji does not issue licences for Powered Lift or Airship. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake powered lift or air ship related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit.*

- 2.4.2 Refer to section 2 chapter 3 and section 2 chapter 6 of this standards document for privileges of the holder of the licence and the conditions to be observed in exercising such privileges
- 2.4.3 Refer to section 2 chapter 3 of this standards document for specific requirements for the issue of the aeroplane category rating
- 2.4.4 Refer to section 2 chapter 6 of this standards document for specific requirements for the issue of the helicopter category rating.
- 2.4.5 Fiji does not issue category ratings for Powered Lift. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake powered lift related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit.
- 2.4.6 Fiji does not issue category ratings for Airship. The Authority issues permits under the provisions of section 78 of the Air Navigation Regulations. Any person applying to undertake airship related activity in Fiji must be appropriately licensed in another ICAO Contracting State prior to applying for a Fiji permit.

## 2.5 MULTI-CREW PILOT LICENCE APPROPRIATE TO THE AEROPLANE CATEGORY

**NOTE:** *Further to the provisions of section 61 of the Air Navigation regulations, Fiji does not issue original issue of any multi-crew pilot licences. It will only validate or issue an equivalent licence as a conversion of a licence issued by another ICAO Contracting State acceptable to the Authority. The applicant will need to demonstrate that the licence issued by another ICAO Contracting State meets the requirements defined below:*

- 2.5.1 Refer to section 2 chapter 16 of this standards document for general requirements for the issue of the licence
- 2.5.2 Refer to section 2 chapter 16 of this standards document for privileges of the holder of the licence and the conditions to be observed in exercising such privileges
- 2.5.3 Refer to section 2 chapter 16 of this standards document for MPL experience requirements
- 2.5.4 Refer to section 2 chapter 16 of this standards document for MPL flight instruction requirements

## **2.6 AIRLINE TRANSPORT PILOT LICENCE**

- 2.6.1 Refer to section 2 chapter 5 of this standards document for general requirements for the issue of the licence appropriate to the aeroplane, helicopter and powered-lift categories
- 2.6.2 Refer to section 2 chapter 5 of this standards document for privileges of the holder of the licence and the conditions to be observed in exercising such privileges
- 2.6.3 Refer to section 2 chapter 5 of this standards document for specific requirements for the issue of the aeroplane category rating
- 2.6.4 Refer to section 2 chapter 5 of this standards document for specific requirements for the issue of the helicopter category rating
- 2.6.5 Refer to section 2 chapter 5 of this standards document for specific requirements for the issue of the powered-lift category rating

## **2.7 INSTRUMENT RATING**

- 2.7.1 Refer to section 2 chapter 12 and section 3 chapter 8 of this standards document for requirements for the issue of the rating for aeroplanes.
- 2.7.2 Refer to section 2 chapter 12 and section 3 chapter 8 of this standards document for privileges of the holder of the rating and the conditions to be observed in exercising such privileges
- 2.7.3 Refer to section 2 chapter 12 and section 3 chapter 8 of this standards document for instrument rating experience requirements.
- 2.7.4 Refer to section 2 chapter 12 and section 3 chapter 8 of this standards document for instrument light instruction requirements.

## **2.8 FLIGHT INSTRUCTOR RATING APPROPRIATE TO AEROPLANES**

- 2.8.1 Refer to section 2 chapter 14 of this standards document for requirements for the issue of flight instructor rating



2.8.2 Refer to section 2 chapter 14 of this standards document for privileges of the holder of the rating and the conditions to be observed in exercising such privileges

## **2.9 GLIDER PILOT LICENCE**

2.9.1 Refer to section 3 chapter 4 of this standards document for requirements for the issue of Glider pilot licence

2.9.2 Refer to section 3 chapter 4 of this standards document for privileges of the holder of the licence and the conditions to be observed in exercising such privileges

## **2.10 BALLOON PILOT LICENCE**

2.10.1 Refer to section 2 chapter 9 of this standards document for requirements for the issue of the licence

2.10.2 Refer to section 2 chapter 9 of this standards document for privileges of the holder of the licence and the conditions to be observed in exercising such privileges.

## S1/ CHAPTER 2B - LICENCES AND RATINGS FOR REMOTE PILOTS

Applicable as of 3 November 2022.

### 2.11 GENERAL RULES CONCERNING REMOTE PILOT LICENCES AND RATINGS

**NOTE** *The provisions of Chapter 2, Subsection B are for international IFR operations of RPAS.*

#### 2.11.1 GENERAL LICENSING SPECIFICATIONS

2.11.1.1 A person shall not act either as remote pilot-in-command or as remote co-pilot of an RPA in any of the following RPA categories unless that person is the holder of a remote pilot licence issued in accordance with the provisions of this chapter:

- Aeroplane
- Airship
- Glider
- Rotorcraft
- Powered-lift
- Free balloon.

2.11.1.2 The category of RPA shall be endorsed as a category rating on the remote pilot licence.

2.11.1.3 An applicant shall, before being issued with any remote pilot licence or rating, meet such requirements in respect of age, experience, flight instruction, competencies and medical fitness, as are specified for that remote pilot licence or rating.

2.11.1.4 An applicant for any remote pilot licence or rating shall demonstrate, in a manner determined by the Licensing Authority, such requirements for knowledge and skill as are specified for that remote pilot licence or rating.

#### 2.11.2 CATEGORY RATINGS

2.11.2.1 When established, category ratings shall be for categories of RPA listed in 2.11.1.1.

2.11.2.2 The holder of a remote pilot licence seeking additional category ratings to be added to the existing licence shall meet the requirements of this Standards Document regarding RPAS appropriate to the privileges for which the category rating is sought.

#### 2.11.3 CLASS AND TYPE RATINGS

2.11.3.1 A class rating shall be established for RPA and associated RPS certificated for single remote pilot operations which have comparable handling, performance and characteristics unless a type rating is considered necessary by the Licensing Authority.

2.11.3.2 A type rating shall be established for RPA and associated RPS certificated for operation with a minimum crew of at least two remote pilots or when considered necessary by the Licensing Authority.

**NOTE** *Where a common type rating is established, it will be only for RPA with similar characteristics in terms of operating procedures, systems and handling.*

2.11.3.3 When an applicant demonstrates competencies for the initial issue of a remote pilot licence, the category and the ratings appropriate to the class or type of RPA and associated RPS used in the demonstration shall be entered on that remote pilot licence.

2.11.3.4 It is recommended that — The levels of performance to be achieved to operate the class or type of RPA for which the ratings are issued should be publicly available.

## 2.11.4 CIRCUMSTANCES IN WHICH CLASS AND TYPE RATINGS ARE REQUIRED

2.11.4.1 A Contracting State having issued a remote pilot licence shall not permit the holder of such remote pilot licence to act either as remote pilot-in-command or as remote co-pilot of an RPA and associated RPS unless the holder has received authorisation as follows:

- The appropriate class rating specified in 2.11.3.1; or
- A type rating when required in accordance with 2.11.3.2.

2.11.4.1.1 When a type rating is issued limiting the privileges to act as remote co-pilot, or limiting the privileges to act as remote pilot only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.11.4.1.2 When a class rating is issued limiting the privileges to act as remote pilot only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.11.4.2 For the purpose of training, testing, or specific special purpose non-revenue flights, special authorisation may be provided in writing to the remote pilot licence holder by the Licensing Authority in place of issuing the class or type rating in accordance with 2.11.4.1. This authorisation shall be limited in validity to the time needed to complete the specific flight.

## 2.11.5 REQUIREMENTS FOR THE ISSUE OF CLASS AND TYPE RATINGS

### 2.11.5.1 Class rating

The applicant shall have demonstrated the competencies required for the safe operations of an RPA of the class for which the rating is sought.

2.11.5.2 Type rating as required by 2.11.3.2

The applicant shall have:

Gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or FSTD in the following:

- Normal flight procedures and manoeuvres during all phases of flight;
- Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 link, systems and airframe;
- Instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure; and
- For the issue of an aeroplane category type rating, upset prevention and recovery training.

**NOTE** *Procedures for upset prevention and recovery training are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*

**NOTE** *Guidance on upset prevention and recovery training is contained in the Manual on Aeroplane Upset Prevention and Recovery Training (ICAO Doc 10011).*

**NOTE** *Guidance on the approval of FSTDs for upset prevention and recovery training is contained in The Manual of Criteria for the Qualification of Flight Simulation Training Devices (ICAO Doc 9625).*

**NOTE** *The aeroplane upset prevention and recovery training may be integrated in the type rating programme or be conducted immediately after, as an additional module.*

*— Procedures for crew incapacitation and crew coordination including allocation of remote pilot tasks; crew cooperation and use of checklists;*

**NOTE** *See 2.11.7.1 on the qualifications required for remote pilots giving RPAS training. Demonstrated the competencies required for the safe operation of the applicable type of RPA and associated RPS and demonstrated C2 link management skills, relevant to the duties of a remote pilot-in-command or a remote co-pilot as applicable.*

**NOTE** *Guidance of a general nature on cross-crew qualification and cross credit is found in the Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (ICAO Doc 9379).*

## **2.11.6 USE OF A FSTD FOR ACQUISITION OF EXPERIENCE AND DEMONSTRATION OF COMPETENCIES**

The use of a FSTD for acquiring the experience or performing any manoeuvre required during the demonstration of competencies for the issue of a remote pilot licence or rating shall be approved by the Licensing Authority, which shall ensure that the FSTD used is appropriate to the task.

## **2.11.7 CIRCUMSTANCES IN WHICH AUTHORISATION TO CONDUCT REMOTE PILOT LICENCE TRAINING IS REQUIRED**

2.11.7.1 A Contracting State, having issued a remote pilot licence, shall not permit the holder thereof to carry out remote pilot licence training required for the issue of a remote pilot licence or rating, unless such holder has received proper authorisation from such Contracting State. Proper authorisation shall comprise:  
An RPAS instructor rating on the holder's remote pilot licence; or  
the authority to act as an agent of an approved training organization authorized by the Licensing Authority to carry out remote pilot licence training; or  
A specific authorisation granted by the Contracting State which issued the remote pilot licence.

2.11.7.2 A Contracting State shall not permit a person to carry out remote pilot licence training on a FSTD required for the issue of a remote pilot licence or rating unless such person holds or has held an appropriate remote pilot licence or has appropriate RPAS training and flight experience and has received proper authorisation from such Contracting State.

## **2.11.8 CREDITING OF RPAS FLIGHT TIME**

2.11.8.1 A student remote pilot shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for the initial issue of a remote pilot licence.

2.11.8.2 The holder of a remote pilot licence shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.11.8.3 The holder of a remote pilot licence shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

2.11.8.4 The holder of a remote pilot licence, when acting as remote co-pilot of an RPA certificated for operation by a single remote pilot but required by a Contracting State to be operated with a remote co-pilot, shall be entitled to be credited with not more than 50 per cent of the remote co-pilot RPAS flight time towards the total RPAS flight

time required for a remote pilot-in-command upgrade. The Contracting State may authorize that RPAS flight time be credited in full towards the total RPAS flight time required if the RPAS is equipped to be operated by a remote co-pilot and is operated in a multi-crew operation.

- 2.11.8.5 The holder of a remote pilot licence, when acting as remote co-pilot of an RPA certificated to be operated with a remote co-pilot, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.
- 2.11.8.6 The holder of a remote pilot licence, when acting as remote pilot-in-command under supervision, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.
- 2.11.8.7 It is recommended that — When applying for a new rating, the holder of a remote pilot licence should be entitled to be credited with RPAS flight time experience as a remote pilot of RPA. The Licensing Authority should determine whether such experience is acceptable and, if so, the extent to which the experience requirements for the issue of a rating can be reduced accordingly.

**NOTE** *The total RPAS flight time required is derived from the approved competency-based training programme.*

## 2.11.9 LIMITATION OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 65TH BIRTHDAY

A Contracting State, having issued remote pilot licences, shall not permit the holders thereof to act as pilot of an RPAS engaged in international commercial air transport operations if the licence holders have attained their 60th birthday or, in the case of operations with more than one pilot, their 65th birthday.

## 2.12 STUDENT REMOTE PILOT

- 2.12.1 A student remote pilot shall meet requirements prescribed by the Contracting State concerned. In prescribing such requirements, ICAO Contracting States shall ensure that the privileges granted would not permit student remote pilots to constitute a hazard to air navigation.
- 2.12.2 A student remote pilot shall not fly an RPA solo unless under the supervision of, or with the authority of, an authorized RPAS instructor.
- 2.12.2.1 A student remote pilot shall not fly an RPA solo on international RPAS operations unless by special or general arrangement between the ICAO Contracting States concerned.
- 2.12.3 **Medical fitness**

A Contracting State shall not permit a student remote pilot to fly an RPA solo unless he/she holds a current Class 3 or a current Class 1 Medical Assessment.

**NOTE** *A Class 1 medical assessment may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.*

## 2.13 REMOTE PILOT LICENCE

**NOTE** *The provisions of Chapter 2, subsections B are for international IFR operations of RPAS.*



2.13.1 General requirements for the issue of the remote pilot licence

2.13.1.1 **Age**

The applicant shall not be less than 18 years of age.

2.13.1.2 **Knowledge**

The applicant shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of a remote pilot licence and appropriate to the category of RPA and associated RPS intended to be included in the remote pilot licence, in at least the following subjects:

**Air law**

Rules and regulations relevant to the holder of a remote pilot licence; rules of the air; appropriate air traffic services practices and procedures;

Rules and regulations relevant to flight under IFR; related air traffic services practices and procedures;

**General RPAS knowledge**

- Principles of operation and the functioning of engines, systems and instruments;
- Operating limitations of the relevant category of RPA and engines; relevant operational information from the flight manual or other appropriate document;
- Use and serviceability checks of equipment and systems of appropriate RPA;
- Maintenance procedures for airframes, systems and engines of appropriate RPA;
- For rotorcraft and powered-lifts, transmission (power trains) where applicable;
- Use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of an RPA under IFR and in instrument meteorological conditions;
- Flight instruments; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;
- For airships, physical properties and practical application of gases;
- RPS general knowledge:
  - Principles of operation and function of systems and instruments;
  - Use and serviceability checks of equipment and systems of appropriate RPS;
  - Procedures in the event of malfunctions;
- C2 link general knowledge:
  - Different types of C2 links and their operating characteristics and limitations;
  - Use and serviceability checks of C2 link systems;
  - Procedures in the event of C2 link malfunction;
- Detect and avoid capabilities for RPAS;
- Flight performance, planning and loading
  - Effects of loading and mass distribution on RPA handling, flight characteristics and performance; mass and balance calculations;
  - Use and practical application of take-off, landing and other performance data;
- pre-flight and en-route flight planning appropriate to RPAS operations under IFR; preparation and submission of air traffic services flight plans under IFR; appropriate air traffic services procedures; altimeter setting procedures;
- In the case of airships, rotorcraft and powered-lifts, effects of external loading on handling;
- Human performance
  - Human performance relevant to RPAS and instrument flight, including principles of TEM;

**NOTE** *Guidance material to design training programmes on human performance, including TEM, can be found in the Human Factors Training Manual (ICAO Doc 9683).*

### **Meteorology**

- Interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect on aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
- In the case of rotorcraft and powered-lifts, effects of rotor icing;
- In the case of high-altitude operations, practical high-altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jetstreams;

### **Navigation**

- Air navigation, including the use of aeronautical charts, instruments and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of RPAS equipment;
- Use, limitation and serviceability of avionics and instruments necessary for control and navigation;
- Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;
- Principles and characteristics of self-contained and external-referenced navigation systems; operation of RPAS equipment;
- Operational procedures
- Application of TEM to operational performance;

**NOTE** *Guidance material on the application of TEM is found in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868) and in the Human Factors Training Manual (ICAO Doc 9683).*

- Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations and instrument procedure charts for departure, en-route, descent and approach;
- Altimeter setting procedures;
- Appropriate precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;
- Operational procedures for carriage of freight; potential hazards associated with dangerous goods and their management;
- Requirements and practices for safety briefings to remote flight crew members
- in the case of rotorcraft, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;
- Operational procedures for handovers and coordination;
- Operational procedures for normal and abnormal C2 link operations;
- Principles of flight
- Principles of flight; and
- Radiotelephony
- Communication procedures and phraseology; action to be taken in case of communication failure.

2.13.1.3 **Skill**

- 2.13.1.3.1 The applicant shall have demonstrated all the competencies of the adapted competency model approved by the Licensing Authority at the level required, to act as remote pilot in command of an RPAS operation within the appropriate category of RPA and associated RPS.

**NOTE** *Guidance material on the ICAO competency framework and on the methodology to adapt the ICAO competency framework for remote pilots and develop the related competency-based training programme is found in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*

- 2.13.1.3.2 If the privileges of the remote pilot are to be exercised on a multi-engined RPA, the applicant shall have demonstrated the ability to operate under IFR with degraded propulsion capabilities.

2.13.1.4 **Medical fitness**

The applicant shall hold a current Class 3 Medical Assessment or a current Class 1 Medical Assessment.

**NOTE** *A Class 1 Medical Assessment may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.*

**2.13.2 PRIVILEGES OF THE HOLDER OF THE REMOTE PILOT LICENCE AND THE CONDITIONS TO BE OBSERVED IN EXERCISING SUCH PRIVILEGES**

- 2.13.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.11, the privileges of the holder of a remote pilot licence shall be:  
To act as remote pilot-in-command of an RPA and associated RPS, certificated for remote single-pilot operation;  
To act as remote co-pilot of an RPA and associated RPS, required to be operated with a remote co-pilot;  
To act as a remote pilot-in-command of an RPA and the associated RPS, required to be operated with a remote co-pilot; and  
To act either as remote pilot-in-command or as remote co-pilot of an RPAS under IFR.

- 2.13.2.2 Before exercising the privileges at night, the remote pilot licence holder shall have received dual instruction in an RPA and associated RPS in night flying, including take-off, landing and navigation.

**NOTE** *Certain privileges of the remote pilot licence are curtailed by 2.11.9 for remote pilot licence holders when they attain their 60th and 65th birthdays.*

**2.13.3 SPECIFIC REQUIREMENTS FOR THE ISSUE OF REMOTE PILOT LICENCE**

2.13.3.1 **Experience**

The applicant shall have gained experience during training in operating the RPA and associated RPS to successfully demonstrate the competencies required in 2.13.1.3.

2.13.3.2 **Remote pilot licence training**

- 2.13.3.2.1 In order to meet the requirements of the remote pilot licence, the applicant shall have completed an approved training course. The training shall be competency-based and, if applicable, conducted in a multi-crew operational environment.

- 2.13.3.2.2 During the training, the applicant shall have acquired the competencies and underpinning skills required for performing as a remote pilot of an RPA certificated for operation under IFR.
- 2.13.3.2.3 The applicant shall have received dual remote pilot licence training in an RPA and associated RPS, sought from an authorized RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in all phases of flight and the entire operating envelope of an RPAS, including abnormal and emergency conditions, upset prevention and recovery training for the categories concerned, as well as IFR operations.
- 2.13.3.2.4 If the privileges of the remote pilot are to be exercised on a multi-engined RPA, the applicant shall have received dual instrument remote pilot licence training in a multi-engined RPA within the appropriate category from an authorized RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in the operation of the RPA within the appropriate category with engines inoperative or simulated inoperative.

## **2.14 RPAS INSTRUCTOR RATING**

### **2.14.1 REQUIREMENTS FOR THE ISSUE OF THE RATING**

#### **2.14.1.1 Knowledge**

- 2.14.1.1.1 The applicant shall demonstrate the ability to effectively assess trainees against the adapted competency model used in the approved training programme.
- 2.14.1.1.2 The applicant shall successfully complete the training and meet the qualifications of an approved training organization appropriate to the delivery of competency-based training programmes.
- 2.14.1.1.3 The RPAS instructor training programme shall focus on the development of competence in the following specific areas:
- the adapted competency model of the remote pilot training programme according to the defined grading system used by the RPAS operator or approved training organization;
  - in accordance with the assessment and grading system of the RPAS operator or approved training organization, making assessments by observing behaviours; gathering objective evidence regarding the observable behaviours of the adapted competency model used;
  - Recognizing and highlighting performance that meets competency standards;
  - Determining root causes for deviations below the expected standards of performance; and
  - Identifying situations that could result in unacceptable reductions in safety margins.
- 2.14.1.1.4 The applicant shall have met the competency requirements for the issue of a remote pilot licence as appropriate to the category of RPA and associated RPS.
- 2.14.1.1.5 In addition, the applicant shall have demonstrated a level of competency appropriate to the privileges granted to the holder of an RPAS instructor rating, in at least the following areas:
- Techniques of applied instruction;
  - Assessment of student performance in those subjects in which ground instruction is given;
  - The learning process;

- Elements of effective teaching;
- Competency-based training principles, including student assessments;
- Evaluation of the training programme effectiveness;
- Lesson planning;
- Classroom instructional techniques;
- Use of training aids, including FSTDs as appropriate;
- Analysis and correction of student errors;
- Human performance relevant to RPAS, instrument flight and remote pilot licence training, including principles of TEM.

**NOTE** *Guidance material to design training programmes on human performance, including TEM, can be found in the Human Factors Training Manual (ICAO Doc 9683). Hazards involved in simulating system failures and malfunctions in the aircraft.*

#### 2.14.1.2 **Skill**

2.14.1.2.1 The applicant shall have successfully performed a formal competency assessment, prior to conducting instruction and assessment within a competency-based training programme.

2.14.1.2.2 The competency assessment shall be conducted during a practical training session in the category of RPA and associated RPS for which RPAS instructor privileges are sought, including pre-flight, post-flight and ground instruction as appropriate.

2.14.1.2.3 The competency assessment shall be conducted by a person authorized by the Licensing Authority.

#### 2.14.1.3 **Experience**

2.14.1.3.1 The applicant shall have met the requirements for the issue of a remote pilot licence, shall maintain competencies and meet the recent experience requirements for the licence.

2.14.1.3.2 The applicant shall have sufficient training and experience to attain the required level of proficiency in all of the required tasks, manoeuvres, operations and principles, and methods of instruction relevant to 2.13.3.2.

#### 2.14.1.4 **Remote pilot licence training.**

The applicant shall, under the supervision of an RPAS instructor authorized by the Licensing Authority for that purpose:

Have received training in RPAS instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

Have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide remote pilot licence training.

2.14.2 Privileges of the holder of the rating and the conditions to be observed in exercising such privileges

2.14.2.1 Subject to compliance with the requirements specified in 1.2.5 and 2.11, the privileges of the holder of an RPAS instructor rating shall be:

- To supervise solo flights by student remote pilots; and
- To carry out remote pilot licence training for the issue of a remote pilot licence and an RPAS instructor rating provided that the RPAS instructor:
- Holds at least the remote pilot licence and rating for which instruction is being given, in the appropriate RPA category and associated RPS;



- Holds the remote pilot licence and rating necessary to act as the remote pilot-in-command of the RPA category and associated RPS on which the instruction is given; and
- Has the RPAS instructor privileges granted endorsed on the remote pilot licence.

2.14.2.2

The applicant, in order to carry out remote pilot licence training in a multi crew operational environment, shall have also met all the instructor qualification requirements.

## S1/ CHAPTER 3 - LICENCES FOR FLIGHT CREW MEMBERS OTHER THAN LICENCES FOR PILOTS

### 3.1 GENERAL RULES CONCERNING FLIGHT NAVIGATOR AND FLIGHT ENGINEER LICENCES

**NOTE** *Fiji does not issue licences for Flight Navigators, Flight Engineers, Powered Lift, Airship, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of the other licence categories in 2.1.1.1. This information has been filed via ICAO EFOD.*

**NOTE** *This information has however been included in this Standards Document for purpose of compliance with ICAO Standards and Practices.*

**NOTE** *There is currently no aircraft in the Fiji register that requires the use of Flight Engineer or Flight Navigator. Should the need arise, due to the registration of an aircraft that carries either a flight engineer or flight navigator or both; the provisions of 1.2.2 will be utilized for issue a validation rendering such a licence valid. Applicants with Flight Engineer or Flight Navigator licences will need to demonstrate that the requirements listed hereunder have been complied with for the issue of their licence*

3.1.1 An applicant shall, before being issued with a flight navigator licence or a flight engineer licence, meet such requirements in respect of age, knowledge, experience, skill and medical fitness as are specified for those licences.

3.1.1.1 An applicant for a flight navigator licence or a flight engineer licence shall demonstrate such requirements for knowledge and skill as are specified for those licences, in a manner determined by the Licensing Authority.

### 3.2 FLIGHT NAVIGATOR LICENCE

3.2.1 Requirements for the issue of the licence

#### 3.2.1.1 Age

The applicant shall be not less than 18 years of age.

#### 3.2.1.2 Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight navigator licence, in at least the following subjects:

##### Air law

- Rules and regulations relevant to the holder of a flight navigator licence; appropriate air traffic services practices and procedures;
- Flight performance, planning and loading
- Effects of loading and mass distribution on aircraft performance;
- Use of take-off, landing and other performance data including procedures for cruise control;
- Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;
- Human performance
- Human performance relevant to the flight navigator including principles of TEM;



**NOTE**

*Guidance material to design training programmes on human performance, including TEM, can be found in the Human Factors Training Manual (ICAO Doc 9683).*

**Meteorology**

- Interpretation and practical application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry; aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;

**Navigation**

- Dead-reckoning, pressure-pattern and celestial navigation procedures; the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
- Use, limitation and serviceability of avionics and instruments necessary for the navigation of the aircraft;
- Use, accuracy and reliability of navigation systems used in departure, en-route and approach phases of flight; identification of radio navigation aids;
- Principles, characteristics and use of self-contained and external-referenced navigation systems; operation of airborne equipment;
- The celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights; calibration of sextants; the completion of navigation documentation;
- Definitions, units and formulae used in air navigation;

**Operational procedures**

- Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach;

**Principles of flight**

- Principles of flight;

**Radiotelephony**

- Communication procedures and phraseology.

**3.2.1.3 Experience**

3.2.1.3.1 The applicant shall have completed in the performance of the duties of a flight navigator, not less than

200 hours of flight time acceptable to the Licensing Authority, in aircraft engaged in cross-country flights, including not less than 30 hours by night.

3.2.1.3.1.1 When the applicant has flight time as a pilot, the Licensing Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 3.2.1.3.1 can be reduced accordingly.

3.2.1.3.2 The applicant shall produce evidence of having satisfactorily determined the aircraft's position in flight, and used that information to navigate the aircraft, as follows:

By night — not less than 25 times by celestial observations; and

By day — not less than 25 times by celestial observations in conjunction with self-contained or external-referenced navigation systems.

**3.2.1.4 Skill**

The applicant shall have demonstrated the ability to perform as flight navigator of an aircraft with a degree of competency appropriate to the privileges granted to the holder of a flight navigator licence, and to:

- Recognize and manage threats and errors;

**NOTE**

*Guidance material on the application of TEM is found in the Procedures for Air Navigation Services — Training (PANS- TRG, ICAO Doc 9868), Part II, Chapter 1, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (ICAO Doc 9683).*

- Exercise good judgment and airmanship;
- Apply aeronautical knowledge;
- Perform all duties as part of an integrated crew; and
- Communicate effectively with the other flight crew members.

**3.2.1.5 Medical fitness**

The applicant shall hold a current Class 2 Medical Assessment.

**3.2.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges**

Subject to compliance with the requirements specified in 1.2.5, 1.2.6 and 1.2.7.1, the privileges of the holder of a flight navigator licence shall be to act as flight navigator of any aircraft. If the privileges include radiotelephony communication, the licence holder shall comply with the requirements specified in 1.2.9.2.

**3.3 FLIGHT ENGINEER LICENCE**

**3.3.1 Requirements for the issue of the licence**

**3.3.1.1 Age**

The applicant shall be not less than 18 years of age.

**3.3.1.2 Knowledge**

**3.3.1.2.1** The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight engineer licence, in at least the following subjects:

**Air law**

- Rules and regulations relevant to the holder of a flight engineer licence; rules and regulations governing the operation of civil aircraft pertinent to the duties of a flight engineer;

**Aircraft general knowledge**

- Basic principles of engines, gas turbines and/or piston engines; characteristics of fuels, fuel systems including fuel control; lubricants and lubrication systems; afterburners and injection systems, function and operation of engine ignition and starter systems;
- Principles of operation, handling procedures and operating limitations of aircraft engines; effects of atmospheric conditions on engine performance;
- Airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue life; identification of structural damage and defects;

- Ice and rain protection systems;
- Pressurization and air-conditioning systems, oxygen systems;
- Hydraulic and pneumatic systems;
- Basic electrical theory, electric systems (AC and DC), aircraft wiring systems, bonding and screening;
- principles of operation of instruments, compasses, autopilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics;
- Limitations of appropriate aircraft;
- Fire protection, detection, suppression and extinguishing systems;
- Use and serviceability checks of equipment and systems of appropriate aircraft.

#### **Flight performance, planning and loading**

- Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
- Use and practical application of performance data including procedures for cruise control;

#### **Human performance**

- Human performance relevant to the flight engineer including principles of TEM;

#### **NOTE**

*Guidance material to design training programmes on human performance, including TEM, can be found in the Human Factors Training Manual (ICAO Doc 9683).*

#### **Operational procedures**

- principles of maintenance, procedures for the maintenance of airworthiness, defect reporting, pre-flight inspections, precautionary procedures for fueling and use of external power; installed equipment and cabin systems;
- Normal, abnormal and emergency procedures;
- Operational procedures for carriage of freight and dangerous goods.

#### **Principles of flight**

- Fundamentals of aerodynamics.

#### **Radiotelephony**

- Communication procedures and phraseology.

3.3.1.2.2 It is recommended that the applicant should have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight engineer licence in at least the following subjects:

Fundamentals of navigation; principles and operation of self-contained systems; and Operational aspects of meteorology.

#### 3.3.1.3 **Experience**

3.3.1.3.1 The applicant shall have completed, under the supervision of a person accepted by the Licensing Authority for that purpose, not less than 100 hours of flight time in the performance of the duties of a flight engineer. The Licensing Authority shall determine whether experience as a flight engineer in a flight simulator, which it has approved, is acceptable as part of the total flight time of 100 hours. Credit for such experience shall be limited to a maximum of 50 hours.



3.3.1.3.1.1 When the applicant has flight time as a pilot, the Licensing Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 3.3.1.3.1 can be reduced accordingly.

3.3.1.3.2 The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the Licensing Authority for that purpose, in at least the following areas:

**Normal procedures**

- Pre-flight inspections
- Fueling procedures, fuel management
- Inspection of maintenance documents
- Normal flight deck procedures during all phases of flight
- Crew coordination and procedures in case of crew incapacitation
- Defect reporting

**Abnormal and alternate (standby) procedures**

- Recognition of abnormal functioning of aircraft systems
- use of abnormal and alternate (standby) procedures

**Emergency procedures**

- Recognition of emergency conditions
- use of appropriate emergency procedures.

3.3.1.4 **Skill**

3.3.1.4.1 The applicant shall have demonstrated the ability to perform as flight engineer of an aircraft, the duties and procedures described in 3.3.1.3.2 with a degree of competency appropriate to the privileges granted to the holder of a flight engineer licence, and to:  
Recognize and manage threats and errors;

**NOTE** *Guidance material on the application of TEM is found in the Procedures for Air Navigation Services — Training (PANS- TRG, ICAO Doc 9868), Part II, Chapter 1, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (ICAO Doc 9683).*

3.3.1.4.2 The use of a FSTD for performing any of the procedures required during the demonstration of skill described in

3.3.1.4.1 Shall be approved by the Licensing Authority, which shall ensure that the FSTD is appropriate to the task.

3.3.1.5 **Medical fitness**

The applicant shall hold a current Class 2 Medical Assessment.

3.3.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

3.3.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6 and 1.2.7.1, the privileges of the holder of a flight engineer licence shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill, as determined by the Licensing Authority on the basis of those requirements specified in 3.3.1.2 and 3.3.1.4 which are applicable to the safe operation of that type of aircraft.



- 3.3.2.2 The types of aircraft on which the holder of a flight engineer licence is authorized to exercise the privileges of that licence, shall be either entered on the licence or recorded elsewhere in a manner acceptable to the Licensing Authority.

### 3.4 FLIGHT RADIOTELEPHONE OPERATOR

**NOTE** *Where the knowledge and skill of an applicant have been established as satisfactory in respect of the certification requirements for the radiotelephone operator's restricted certificate specified in the general radio regulations ICAO Annexed to the International Telecommunication Convention and the applicant has met the requirements that are pertinent to the operation of the radiotelephone on board an aircraft, the Authority may endorse a licence already held by the applicant (as provided for in 5.1.1.2 XIII) or issue a separate licence as appropriate.*

**NOTE** *Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all aeroplane, airship, helicopter and powered-lift pilot licences.*

## S1/ CHAPTER 4 - LICENCES AND RATINGS FOR PERSONNEL OTHER THAN FLIGHT CREW MEMBERS

### 4.1 **General rules concerning licences and ratings for personnel other than flight crew members**

4.1.1 An applicant shall, before being issued with any licence or rating for personnel other than flight crew members, meet such requirements in respect of age, knowledge, experience and where appropriate, medical fitness and skill, as are specified for that licence or rating.

4.1.2 An applicant, for any licence or rating for personnel other than flight crew members, shall demonstrate, in a manner determined by the Licensing Authority, such requirements in respect of knowledge and skill as are specified for that licence or rating.

### 4.2 **AIRCRAFT MAINTENANCE** (technician/engineer/mechanic)

**NOTE** *Except for 4.2.3, the requirements for the issue of an Aircraft Maintenance Engineer Licence in Fiji is outlined in Section 4 of this Standards Document and takes precedence over requirements listed under 4.2.*

**NOTE** *The terms in brackets are given as acceptable additions to the title of the licence. Each Contracting State is expected to use in its own regulations the one it prefers.*

4.2.1 Requirements for the issue of the licence

#### 4.2.1.1 **Age**

Refer to Section 4 of this Standards Document

#### 4.2.1.2 **Knowledge**

Refer to Section 4 of this Standards Document

#### 4.2.1.3 **Experience**

Refer to Section 4 of this Standards Document

#### 4.2.1.4 **Training**

Refer to Section 4 of this Standards Document

#### 4.2.1.5 **Skill**

Refer to Section 4 of this Standards Document

4.2.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

4.2.2.1-4.2.2.4 Refer to Section 4 of this Standards Document

4.2.3 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges for RPAS *Applicable as of 3 November 2022.*

4.2.3.1 The privileges of the holder of an aircraft maintenance licence specified in 4.2.2.1 shall be exercised only in respect of such:

- RPA or RPS as are entered on the licence either specifically or under broad categories; or
- RPAS and associated C2 link as are entered on the licence either specifically or under broad categories after appropriate knowledge and practical training on maintenance of the RPAS and associated C2 link system.

4.2.3.2 When a Contracting State authorizes an approved maintenance organization to appoint non-licensed personnel to exercise the privileges of 4.2.3, the person appointed shall meet the requirements specified in 4.2.1.

### 4.3 STUDENT AIR TRAFFIC CONTROLLER

4.3.1 Refer to Section 6 of this Standards Document

#### 4.3.2 Medical fitness

Refer to Section 6 of this Standards Document

### 4.4 AIR TRAFFIC CONTROLLER LICENCE

**NOTE** *Except for below, the requirements for the issue of an Aircraft Maintenance Engineer Licence in Fiji is outlined in Section 6 of this Standards Document and takes precedence over requirements listed under 4.2.*

#### 4.4.1 Requirements for the issue of the licence

Refer to Section 6 of this Standards Document

##### 4.4.1.1 Age

Refer to Section 6 of this Standards Document

##### 4.4.1.2 Knowledge

Refer to Section 6 of this Standards Document

##### **General knowledge**

Refer to Section 6 of this Standards Document

Until 2 November 2022, principles of flight; principles of operation and functioning of aircraft, engines and systems; aircraft performance relevant to air traffic control operations;

As of 3 November 2022, principles of flight; principles of operation and functioning of aircraft and RPAS, engines and systems; aircraft performance relevant to air traffic control operations;

##### **Human performance**

Refer to Section 6 of this Standards Document

##### **Meteorology**

Refer to Section 6 of this Standards Document

##### **Navigation**



Refer to Section 6 of this Standards Document

#### **Operational procedures**

Refer to Section 6 of this Standards Document

#### **4.4.1.3 Experience**

Refer to Section 6 of this Standards Document

#### **4.4.1.4 Medical fitness**

Refer to Section 6 of this Standards Document

### **4.5 AIR TRAFFIC CONTROLLER RATINGS**

#### **4.5.1 Categories of air traffic controller ratings**

Refer to Section 6 of this Standards Document

#### **4.5.2 REQUIREMENTS FOR AIR TRAFFIC CONTROLLER RATINGS**

##### **4.5.2.1 Knowledge**

Refer to Section 6 of this Standards Document

##### **4.5.2.2 Experience**

4.5.2.2.1 Refer to Section 6 of this Standards Document.

4.5.2.2.2 Refer to Section 6 of this Standards Document

4.5.2.2.3 Refer to Section 6 of this Standards Document.

##### **4.5.2.3 Skill**

Refer to Section 6 of this Standards Document.

##### **4.5.2.4 Concurrent issuance of two air traffic controller ratings**

Refer to Section 6 of this Standards Document.

#### **4.5.3 PRIVILEGES OF THE HOLDER OF THE AIR TRAFFIC CONTROLLER RATING(S) AND THE CONDITIONS TO BE OBSERVED IN EXERCISING SUCH PRIVILEGES**

4.5.3.1-4.5.3.4 Refer to Section 6 of this Standards Document.

##### **4.5.3.4 Validity of ratings**

Refer to Section 6 of this Standards Document.

### **4.6 FLIGHT OPERATIONS OFFICER / FLIGHT DISPATCHER LICENCE**

**NOTE** *Fiji does not issue licences for Flight Navigators, Flight Engineers, Powered Lift, Airship, Flight operations officer or flight dispatcher; Fiji also has slight variations to the titles of the other licence categories in 2.1.1.1. This information has been filed via ICAO EFOD.*

**NOTE** *This information has however been included in this Standards Document for purpose of compliance with ICAO Standards and Practices.*

**NOTE** *Airline Operators who utilize flight dispatch services and employ flight dispatch officer shall ensure that the flight dispatch officers are trained and are knowledgeable in the areas listed below.*

4.6.1 Requirements for the issue of the licence

4.6.1.1 **Age**

Refer to Section 6 of this Standards Document

4.6.1.2 **Knowledge**

Refer to Section 6 of this Standards Document

4.6.1.3 **Experience**

4.6.1.3.1 Refer to Section 6 of this Standards Document

4.6.1.3.2 Refer to Section 6 of this Standards Document

4.6.1.4 **Skill**

Refer to Section 6 of this Standards Document

4.6.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

Refer to Section 6 of this Standards Document

## 4.7 AERONAUTICAL STATION OPERATOR LICENCE

**NOTE** *This licence is not intended for personnel providing AFIS. Guidance on the qualifications to be met by these personnel can be found in Circular 211, Aerodrome Flight Information Service (AFIS).*

4.7.1 **Requirements for the issue of the licence**

4.7.1.1 Refer to Section 6 of this Standards Document

4.7.1.2 **Age**

Refer to Section 6 of this Standards Document

4.7.1.3 **Knowledge**

Refer to Section 6 of this Standards Document

4.7.1.4 **Experience**

Refer to Section 6 of this Standards Document

4.7.1.5 **Skill**

Refer to Section 6 of this Standards Document

4.7.2 **Privileges of the aeronautical station operator and the conditions to be observed in exercising such privileges**

Refer to Section 6 of this Standards Document



4.8            **Aeronautical meteorological personnel**

Refer to Section 6 of this Standards Document

## S1/ CHAPTER 5 - SPECIFICATIONS FOR PERSONNEL LICENCES

5.1 Personnel licences issued by CAAF in accordance with the relevant provisions of this Standards Document shall conform to the following specifications:

### 5.1.1 Detail

5.1.1.1 CAAF having issued a licence shall ensure that other States are able to easily determine the licence privileges and validity of ratings.

**NOTE** *Operator records or a flight crew member's personal log book, in which maintenance of competency and recent experience may be satisfactorily recorded, are not normally carried on international flights.*

5.1.1.2 The following details shall appear on the CAAF licence:

- Name of State (in bold type);
- Title of licence (in very bold type);
- Serial number of the licence, in Arabic numerals, given by CAAF;
- Name of holder in full (in Roman alphabet);
- Date of birth;
- Address of holder;
- Nationality of holder;
- Signature of holder;
- Authority and, where necessary, conditions under which the licence is issued;
- Certification concerning validity and authorisation for holder to exercise privileges appropriate to licence;
- Signature of officer issuing the licence and the date of such issue;
- CAAF Seal / Stamp of authority issuing the licence;
- Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control, etc.;
- Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention; and
- Any other details desired by CAAF.

### 5.1.2 Material

First quality paper or other suitable material, including plastic cards, shall be used and the items mentioned in 5.1.1.2 shown clearly thereon.

### 5.1.3 Language

All Fiji licence are issued in English however ICAO requires that when licences are issued in a language other than English, the licence shall include an English translation of at least items I), II), VI), IX), XII), XIII) and XIV). When provided in a language other than English, authorization's issued in accordance with 1.2.2.1 shall include an English translation of the name of the State issuing the authorisation, the limit of validity of the authorisation and any restriction or limitation that may be established.

### 5.1.4 Arrangement of items

Item headings on the licence shall be uniformly numbered in roman numerals as indicated in 5.1.1, so that on any licence the number will, under any arrangement, refer to the same item heading.

## S1/ CHAPTER 6 - MEDICAL PROVISIONS FOR LICENSING

**NOTE** *The requirements established for medicals cannot, on their own, be sufficiently detailed to cover all possible individual situations. Of necessity, many decisions relating to the evaluation of medical fitness must be left to the judgement of the individual medical examiner. The evaluation must, therefore, be based on a medical examination conducted throughout in accordance with the highest standards of medical practice.*

**NOTE** *Predisposing factors for disease, such as obesity and smoking, may be important for determining whether further evaluation or investigation is necessary in an individual case.*

**NOTE** *In cases where the applicant does not fully meet the medical requirements and in complicated and unusual cases, the evaluation may have to be deferred and the case submitted to the Authority for final evaluation. In such cases due regard must be given to the privileges granted by the licence applied for or held by the applicant for the Medical Assessment, and the conditions under which the licence holder is going to exercise those privileges in carrying out assigned duties.*

**NOTE** *See the administrative clause in 1.2.4.10 dealing with accredited medical conclusion.*

**NOTE** *Further guidance material to assist the Authority and medical examiners is published separately in the Manual of Civil Aviation Medicine (ICAO Doc 8984). This guidance material also contains a discussion of the terms “likely” and “significant” as used in the context of the medical provisions in Chapter 6.*

**NOTE** *Basic safety management principles, when applied to the medical assessment process, can help ensure that aeromedical resources are utilized effectively.*

### 6.1 MEDICAL ASSESSMENTS — GENERAL

#### 6.1.1–6.1.4 Classes of Medical Assessment

Refer to the CAAF SD – Medical Standards, Test and Certification

### 6.2 REQUIREMENTS FOR MEDICAL ASSESSMENTS

#### 6.2.1 General

Refer to the CAAF SD – Medical Standards, Test and Certification

#### 6.2.2 Physical and mental requirements

Refer to the CAAF SD – Medical Standards, Test and Certification

#### 6.2.3 Visual acuity test requirements

6.2.3.1–6.2.3.2 Refer to the CAAF SD – Medical Standards, Test and Certification

#### 6.2.4 Colour perception requirements

6.2.4.1–6.2.4.4 Refer to the CAAF SD – Medical Standards, Test and Certification

#### 6.2.5 Hearing test requirements

6.2.5.1–6.2.5.6 Refer to the CAAF SD – Medical Standards, Test and Certification



## **6.3 CLASS 1 MEDICAL ASSESSMENT**

### **6.3.1 ASSESSMENT ISSUE AND RENEWAL**

6.3.1.1-6.3.1.3 Refer to the CAAF SD – Medical Standards, Test and Certification

### **6.3.2 PHYSICAL AND MENTAL REQUIREMENTS**

6.3.2.1-6.3.2.27 Refer to the CAAF SD – Medical Standards, Test and Certification

### **6.3.3 VISUAL REQUIREMENTS**

6.3.3.1-6.3.3.6 Refer to the CAAF SD – Medical Standards, Test and Certification

### **6.3.4 HEARING REQUIREMENTS**

6.3.4.1 Refer to the CAAF SD – Medical Standards, Test and Certification

## **6.4 CLASS 2 MEDICAL ASSESSMENT**

### **6.4.1 ASSESSMENT ISSUE AND RENEWAL**

6.4.1.1-6.4.1.3 Refer to the CAAF SD – Medical Standards, Test and Certification

### **6.4.2 PHYSICAL AND MENTAL REQUIREMENTS**

6.4.2.1-6.4.2.27 Refer to the CAAF SD – Medical Standards, Test and Certification

### **6.4.3 VISUAL REQUIREMENTS**

6.4.3.1-6.4.3.6 Refer to the CAAF SD – Medical Standards, Test and Certification

### **6.4.4 HEARING REQUIREMENTS**

6.4.4.1-6.4.4.3 Refer to the CAAF SD – Medical Standards, Test and Certification

## **6.5 CLASS 3 MEDICAL ASSESSMENT**

### **6.5.1 ASSESSMENT ISSUE AND RENEWAL**

6.5.1.1 Further to the provisions of CAAF SD – Medical Standards, Test and Certification until 2 November 2022, an applicant for an air traffic controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.

6.5.1.1 Further to the provisions of CAAF SD – Medical Standards, Test and Certification, as of 3 November 2022, an applicant for an air traffic controller licence or remote pilot licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.

6.5.1.2 Further to the provisions of CAAF SD – Medical Standards, Test and Certification until 2 November 2022, except where otherwise stated in this section, holders of air traffic controller licences shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.

6.5.1.2 As of 3 November 2022, except where otherwise stated in this section, holders of air traffic controller licences or remote pilot licences shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.



6.5.1.3 Refer to the CAAF SD – Medical Standards, Test and Certification

## **6.5.2 PHYSICAL AND MENTAL REQUIREMENTS**

6.5.2.1-6.5.2.26 Refer to the CAAF SD – Medical Standards, Test and Certification

## **6.5.3 VISUAL REQUIREMENTS**

6.5.3.1-6.5.3.6 Refer to the CAAF SD – Medical Standards, Test and Certification

## **6.5.4 HEARING REQUIREMENTS**

6.5.4.1 Refer to the CAAF SD – Medical Standards, Test and Certification

6.5.4.1.1 Further to the provisions of CAAF SD – Medical Standards, Test and Certification, until 2 November 2022, an applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.

6.5.4.1.1 Further to the provisions of CAAF SD – Medical Standards, Test and Certification, as of 3 November 2022, an applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control or remote pilot working environment.

6.5.4.1.2 Refer to the CAAF SD – Medical Standards, Test and Certification



## S1/ APPENDIX 1 - REQUIREMENTS FOR PROFICIENCY IN LANGUAGES USED FOR RADIOTELEPHONY COMMUNICATIONS

(Section 1 Chapter 1, Section 1.2.9, refers)

### 1.0 GENERAL

**NOTE** *The ICAO language proficiency requirements include the holistic descriptors at Section 2 and the ICAO Operational Level (Level 4) of the ICAO Language Proficiency Rating Scale in Attachment A. The language proficiency requirements are applicable to the use of both phraseologies and plain language.*

To meet the language proficiency requirements contained in Chapter 1, Section 1.2.9, and an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the Authority, compliance with the holistic descriptors at Section 2 and with the ICAO Operational Level (Level 4) of the ICAO Language Proficiency Rating Scale in Attachment A.

### 2.0 HOLISTIC DESCRIPTORS

Proficient speakers shall:

- Communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations;
- Communicate on common, concrete and work-related topics with accuracy and clarity;
- Use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm or clarify information) in a general or work-related context;
- Handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and
- Use a dialect or accent which is intelligible to the aeronautical community.

## S1/ APPENDIX 2 - APPROVED TRAINING ORGANIZATION

(Section 1 Chapter 1, 1.2.8.2 refers)

**NOTE** ICAO Annex 19 includes safety management provisions for an approved training organization that is exposed to safety risks related to aircraft operations during the provision of its services. Further guidance is contained in the Safety Management Manual (SMM) (ICAO Doc 9859).

**NOTE** Fiji refers to Approved Training Organizations as Aviation Training Institutions

Further to the provisions of section 145B of the Air Navigation Regulations and CAAF SD – Certification of Aviation Training Institutions;

### 1.0 ISSUE OF APPROVAL

1.1 The issuance of an approval for a training organization and the continued validity of the approval shall depend upon the training organization being in compliance with the requirements of section 145B of the Air Navigation Regulations and CAAF SD – Certification of Aviation Training Institutions.

1.2 The approval document shall contain at least the following:

- Organization's name and location;
- Date of issue and period of validity (where appropriate);
- Terms of approval.

### 2.0 TRAINING AND PROCEDURES MANUAL

2.1 The training organization shall provide training and procedures manual for the use and guidance of personnel concerned. This manual may be issued in separate parts and shall contain at least the following information:

- A general description of the scope of training authorized under the organization's terms of approval;
- The content of the training programmes offered including the courseware and equipment to be used;
- A description of the organization's quality assurance system in accordance with 4;
- A description of the organization's facilities;
- The name, duties and qualification of the person designated as responsible for compliance with the requirements of the approval in 6.1;
- A description of the duties and qualification of the personnel designated as responsible for planning, performing and supervising the training in 6.2;
- A description of the procedures used to establish and maintain the competence of instructional personnel as required by 6.3;
- A description of the method used for the completion and retention of the training records required by 7;
- A description, when applicable, of additional training needed to comply with an operator's procedures and requirements; and
- When a State has authorized an approved training organization to conduct the testing required for the issuance of a licence or rating in accordance with 9, a description of the selection, role and duties of the authorized personnel, as well as the applicable requirements established by the Licensing Authority.

2.2 The training organization shall ensure that the training and procedures manual is amended as necessary to keep the information contained therein up to date.

- 2.3 Copies of all amendments to the training and procedures manual shall be furnished promptly to all organizations or persons to whom the manual has been issued.

### 3.0 TRAINING PROGRAMMES

- 3.1 The Authority may approve a training programme for a private pilot licence, commercial pilot licence, an instrument rating or an aircraft maintenance (technician/engineer/mechanic) licence that allows an alternative means of compliance with the experience requirements established by ICAO Annex 1, provided that the approved training organization demonstrates to the satisfaction of the Licensing Authority that the training provides a level of competency at least equivalent to that provided by the minimum experience requirements for personnel not receiving such approved training.

**NOTE** *A comprehensive training scheme for the aircraft maintenance (technician / engineer / mechanic) licence, including the various levels of competency, is contained in the Procedures for Air Navigation Services — Training (ICAO Doc 9868, PANS-TRG).*

- 3.2 When the Authority approves a training programme for a multi-crew pilot licence, the approved training organization shall demonstrate to the satisfaction of the Licensing Authority that the training provides a level of competency in multi-crew operations at least equal to that met by holders of a commercial pilot licence, instrument rating and type rating for an aeroplane certificated for operation with a minimum crew of at least two pilots.

**NOTE** *Guidance on the approval of training programmes can be found in the Manual on the Approval of Training Organizations (ICAO Doc 9841).*

### 4.0 QUALITY ASSURANCE SYSTEM

The training organization shall establish a quality assurance system, acceptable to the Licensing Authority granting the approval, which ensures that training and instructional practices comply with all relevant requirements.

### 5.0 FACILITIES

- 5.1 The facilities and working environment shall be appropriate for the task to be performed and be acceptable to the Licensing Authority.
- 5.2 The training organization shall have, or have access to, the necessary information, equipment, training devices and material to conduct the courses for which it is approved.
- 5.3 Synthetic training devices shall be qualified according to requirements established by the State and their use shall be approved by the Licensing Authority to ensure that they are appropriate to the task.

**NOTE** *The Manual of Criteria for the Qualification of Flight Simulation Training Devices (ICAO Doc 9625) provides guidance on the approval of FSTDs.*

### 6.0 PERSONNEL

- 6.1 The training organization shall nominate a person responsible for ensuring that it is in compliance with the requirements for an approved organization.
- 6.2 The organization shall employ the necessary personnel to plan, perform and supervise the training to be conducted.
- 6.3 The competence of instructional personnel shall be in accordance with procedures and to a level acceptable to the Licensing Authority.

- 6.4 The training organization shall ensure that all instructional personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities. The training programme established by the training organization shall include training in knowledge and skills related to human performance.

**NOTE** *Guidance material to design training programmes to develop knowledge and skills in human performance can be found in the Human Factors Training Manual (ICAO Doc 9683).*

## **7.0 RECORDS**

- 7.1 The training organization shall retain detailed student records to show that all requirements of the training course have been met as agreed by the Licensing Authority.
- 7.2 The training organization shall maintain a system for recording the qualifications and training of instructional and examining staff, where appropriate.
- 7.3 The records required by 7.1 shall be kept for a minimum period of two years after completion of the training. The records required by 7.2 shall be retained for a minimum period of two years after the instructor or examiner ceases to perform a function for the training organization.

## **8.0 OVERSIGHT**

ICAO Contracting States shall maintain an effective oversight programme of the approved training organization to ensure continuing compliance with the approval requirements.

### **8.1 Evaluation and checking**

When a State has authorized an approved training organization to conduct the testing required for the issuance of a licence or rating, the testing shall be conducted by personnel authorized by the Licensing Authority or designated by the training organization in accordance with criteria approved by the Licensing Authority.

## S1/ APPENDIX 3 - REQUIREMENTS FOR THE ISSUE OF THE MULTI-CREW PILOT LICENCE — AEROPLANE

(Section 1 Chapter 2, Section 2.5, refers)

### 1.0 TRAINING

- 1.1 In order to meet the requirements of the multi-crew pilot licence in the aeroplane category, the applicant shall have completed an approved training course. The training shall be competency-based and conducted in a multi-crew operational environment.
- 1.2 During the training, the applicant shall have acquired the knowledge, skills and attitudes required as the underpinning attributes for performing as a co-pilot of a turbine-powered air transport aeroplane certificated for operation with a minimum crew of at least two pilots.

### 2.0 ASSESSMENT LEVEL

The applicant for the multi-crew pilot licence in the aeroplane category shall have satisfactorily demonstrated performance in all the nine competency units specified in 3, at the advanced level of competency as defined in Attachment B.

**NOTE** *The training scheme for the multi-crew pilot licence in the aeroplane category, including the various levels of competency are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*

### 3.0 COMPETENCY UNITS

The nine competency units that an applicant has to demonstrate in accordance with Chapter 2, 2.5.1.3, are as follows:

- Apply TEM principles;
- Perform aeroplane ground operations;
- Perform take-off;
- Perform climb;
- Perform cruise;
- Perform descent;
- Perform approach;
- Perform landing; and
- Perform after-landing and aeroplane post-flight operations.

**NOTE** *Competency units are broken down into their constituent elements, for which specific performance criteria have been defined. Competency elements and performance criteria are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*

**NOTE** *The application of TEM principles is a specific competency unit that is to be integrated with each of the other competency units for training and testing purposes.*

### 4.0 SIMULATED FLIGHT

**NOTE** *The Manual of Criteria for the Qualification of Flight Simulation Training Devices (ICAO Doc 9625), Volume I — Aeroplanes, provides guidance on the qualification of FSTDs used in training programmes. The manual defines seven examples of FSTDs based on the specific training being conducted, including four examples for the four phases of multi-crew pilot licence training defined in Attachment B of ICAO Annex 1.*

*The numbering system used in ICAO Doc 9625 is different from the numbering used in 4.2.*

4.1 The FSTDs used to gain the experience specified in Chapter 2, 2.5.3.3, shall have been approved by the Licensing Authority.

4.2 FSTDs shall be categorized as follows:

Type I. E-training and part tasking devices approved by the Licensing Authority that have the following characteristics:

- Involve accessories beyond those normally associated with desktop computers, such as functional replicas of a throttle quadrant, a sidestick controller, or an FMS keypad; and
- Involve psychomotor activity with appropriate application of force and timing of responses.

Type II. A FSTD that represents a generic turbine-powered aeroplane.

**NOTE** *This requirement can be met by a FSTD equipped with a daylight visual system and otherwise meeting, at a minimum, the specifications equivalent to FAA FTD Level 5, or JAA FNPT II, MCC.*

Type III. A FSTD that represents a multi-engined turbine-powered aeroplane certificated for a crew of two pilots with enhanced daylight visual system and equipped with an autopilot.

**NOTE** *This requirement can be met by a FSTD equipped with a daylight visual system and otherwise meeting, at a minimum, the specifications equivalent to a Level B simulator as defined in JAR STD 1A, as amended; and in FAA AC 120-40B, as amended, including AMOC, as permitted in AC 120-40B. (Some previously evaluated Level A full flight simulators that have been approved for training and checking required manoeuvres may be used.)*

Type IV. Fully equivalent to a Level D flight simulator or to a Level C flight simulator with an enhanced daylight visual system.

**NOTE** *This requirement can be met by a FSTD meeting, at a minimum, the specifications equivalent to a Level C and Level D simulator as defined in JAR STD 1A, as amended; and in FAA AC 120-40B, as amended, including AMOC, as permitted in AC 120-40B.*



## S1/ ATTACHMENT A - ICAO LANGUAGE PROFICIENCY RATING SCALE

### 1.1 Expert, extended and operational levels

LEVEL	PRONUNCIATION Assumes a dialect and/or accent intelligible to the aeronautical community.	STRUCTURE Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
<b>Expert 6</b>	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.
<b>Extended 5</b>	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.
<b>Operational 4</b>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.
Levels 1, 2 and 3 are on subsequent page						





## 1.2 Pre-operational, elementary and pre-elementary levels

LEVEL	PRONUNCIATION Assumes a dialect and/or accent intelligible to the aeronautical community.	STRUCTURE Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Levels 4, 5 and 6 are on preceding page.						
<b>Preoperational 3</b>	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
<b>Elementary 2</b>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
<b>Pre-elementary 1</b>	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

**NOTE**

*The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication. Levels 1 through 3 describe Pre-elementary, Elementary, and Preoperational levels of language proficiency, respectively, all of which describe a level of proficiency below the ICAO language proficiency requirement. Levels 5 and 6 describe Extended and Expert levels, at levels of proficiency more advanced than the minimum required Standard. As a whole, the scale will serve as benchmarks for training and testing, and in assisting candidates to attain the ICAO Operational Level (Level 4).*

# S1/ ATTACHMENT B - MULTI-CREW PILOT LICENCE — AEROPLANE

## LEVELS OF COMPETENCY

### 1.0 CORE FLYING SKILLS

The level of competency at which the applicant shall have complied with the requirements for the private pilot licence specified in Section 3, including night flight requirements, and, in addition, have completed, smoothly and with accuracy, all procedures and manoeuvres related to upset training and flight with reference solely to instruments. From the outset, all training is conducted in an integrated multi-crew, competency-based and TEM environment. Initial training and instructional input levels are high as core skills are being embedded in the ab initio application. Assessment at this level confirms that control of the aeroplane is maintained at all times in a manner such that the successful outcome of a procedure or a manoeuvre is assured.

### 2.0 LEVEL 1 (BASIC)

The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such a manner that if the successful outcome of a procedure or manoeuvre is in doubt, corrective action is taken. Performance in the generic cockpit environment does not yet consistently meet the Standards of knowledge, operational skills and level of achievement required in the core competencies. Continual training input is required to meet an acceptable initial operating standard. Specific performance improvement/personal development plans will be agreed and the details recorded. Applicants will be continuously assessed as to their suitability to progress to further training and assessment in successive phases.

### 3.0 LEVEL 2 (INTERMEDIATE)

The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such a manner that the successful outcome of a procedure or manoeuvre is assured. The training received at Level 2 shall be conducted under IFR, but need not be specific to any one type of aeroplane. On completion of Level 2, the applicant shall demonstrate levels of knowledge and operational skills that are adequate in the environment and achieves the basic standard in the core capability. Training support may be required with a specific development plan to maintain or improve aircraft handling, behavioral performance in leadership or team management. Improvement and development to attain the Standard is the key performance objective. Any core competency assessed as less than satisfactory should include supporting evidence and a remedial plan.

### 4.0 LEVEL 3 (ADVANCED)

The level of competency required to operate and interact as a co-pilot in a turbine-powered aeroplane certificated for operation with a minimum crew of at least two pilots, under visual and instrument conditions. Assessment confirms that control of the aeroplane or situation is maintained at all times in such a manner that the successful outcome of a procedure or manoeuvre is assured. The applicant shall consistently demonstrate the knowledge, skills and attitudes required for the safe operation of an applicable aeroplane type as specified in the performance criteria.

**NOTE** *Material on the development of performance criteria can be found in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*

## S1/ ATTACHMENT C - ENDORSEMENT FOR AUTOMATICALLY VALIDATED LICENCES

**NOTE** *Fiji currently does not have any Licensing Agreements with other ICAO Contracting states that facilitates automatically validated licences. Fiji has a validation process that verifies foreign licences to facilitate the issue of a foreign licence validation certificate, however the ICAO example is shown below.*

This attachment contains an example of the licence endorsement required for those licences automatically validated as per 1.2.2.3. It also provides an example for an attachment XXX to the licence that includes the necessary details required by 1.2.2.3 where XXX would be a number or a mark.

### 1.0 LICENCE ENDORSEMENT EXAMPLE

- 1.1 The following endorsement should be on those licences automatically validated under a formal agreement between States: "Rendered valid as per Attachment XXX".
- 1.2 Attachment XXX to the licence must be accessible (in any format, such as electronic or hard copy) when using the privileges and the automatic validation of the licence.
- 1.3 Attachment XXX is published by the State issuing the licence or by the Regional Safety Oversight Organization that manages the common set of licensing regulations on behalf of the States party to the formal agreement, and may be identical for all issued licences.
- 1.4 When the Regional Safety Oversight Organization publishes Attachment XXX, it should list the member States of the Regional Safety Oversight Organization in Attachment XXX.
- 1.5 When Attachment XXX is issued in a language other than English, 5.1.3 is applicable as Attachment XXX is part of the endorsement on the licence.

State or Regional Safety Oversight Organization Attachment XXX to automatically validated licences		
1. The licence is automatically validated by all the States listed in 2 under an agreement registered with ICAO. The ICAO Registration Number is: _ _ _ _ .		
2. The ICAO Contracting States that automatically validate this licence are: ..... ..... .....		
(Signature or stamp) .....		

For use by the State of issuance of the licence or the Regional Safety Oversight Organization.



When Attachment XXX is issued by a Regional Safety Oversight Organization, this box should contain the following: “The Regional Safety Oversight Organization member States are: [list of States members of the Regional Safety Oversight Organization].”

## SECTION 2 - PROFESSIONAL PILOT LICENCE & RATING

### S2 CHAPTER 1 - GENERAL INFORMATION AND APPLICATION PROCEDURES

#### 1.1 INTRODUCTION

- 1.1.1 The Air Navigation Regulations, empowers the Civil Aviation Authority of Fiji to issue Fiji flight crew licences, permits and associated ratings, subject to the Authority being satisfied that the applicant is a fit and proper person to hold the licence, permit or rating concerned, and is appropriately qualified to act in the capacity to which the licence, permit or rating relates. Such licences, permits and ratings entitle the holders to act as members of flight crew in aircraft registered in Fiji within the privileges of the licence, permit or rating concerned. The Authority may issue licences and ratings subject to such conditions, as it deems fit.
- 1.1.2 Section 1 of this publication sets out the requirements, which have to be met for the Issue of Fiji professional pilot licences for aeroplanes and helicopters and associated ratings, and the procedures to be followed to obtain, renew or revalidate such licences and ratings. It also sets out the requirements upon which concessions may be given.
- 1.1.3 Similar information in respect of ab-initio flying training and private pilot licences and permits is contained in Section 2.
- 1.1.4 Information on the examination syllabus and technical examinations is contained in Section 1 Chapter 8.
- 1.1.5 Nothing in this publication is intended to conflict with the Air Navigation Regulations, or other legislation which, in case of doubt, must be regarded as over-riding.

#### 1.2 MINIMUM AGE

- 1.2.1 The minimum age for the Issuing of a Commercial Pilot Licence is 18 years. The minimum age for the Issuing of an Airline Transport Pilot Licence is 21 years.
- 1.2.2 The qualifying requirements for the Issue of a licence may be met before the applicant reaches the minimum required age. The licence will not be issued until the applicant reaches his 18th or 21st birthday, as the case may be.
- 1.2.3 Where the qualifying requirements are met before the applicant reaches the minimum required age, he should ensure that they will be valid at the time he reaches that age. The periods over which the results of examinations and tests remain valid are given in the chapters dealing with the examinations and tests concerned.

#### 1.3 APPLICATION PROCEDURES

- 1.3.1 The requirements which have to be met for the Issuing of a licence or rating, and the details upon which a concession may be given from having to comply with certain requirements are detailed in the chapters dealing with the licences and ratings concerned.
- 1.3.2 The normal method of recording flight time and the way in which it will be credited toward satisfying the flying experience requirements are explained in Appendix A.

- 1.3.3 Application forms for assessment of qualifying flying experience for a licence or rating may be obtained from the Authority. On completion, the form should be returned to the Authority, together with the applicant's logbooks and licences, if necessary, where a concession is being sought from any particular requirement, such other supporting documentation as may be called for. The Authority will then advise the applicant whether he satisfies the flying experience requirements for the licence or rating in question.
- 1.3.4 Except as provided for below, the requirements for the Issuing of a licence or rating do not have to be in any particular order. Prospective applicants should ensure that the results of an examination or test will still be valid by the time all requirements have been met, and the application made. An applicant for an Aircraft Type Rating shall have passed the written examination before undertaking any necessary flight test.
- 1.3.5 When all the requirements for a licence or rating have been met, the applicant should obtain the appropriate application form from the Authority, the completed application form with supporting documentation, and fee, should be forwarded to the Authority.

### **1.3.6 PROOF OF NATIONALITY AND DATE OF BIRTH**

The Authority may require an applicant for the initial issue of a professional pilot licence to provide proof of nationality and date of birth. He will be required to provide supporting evidence by including with the licence application form a passport, or a birth certificate.

### **1.3.7 LICENCE PHOTOGRAPH**

Applications for issue of a professional pilot licence must be accompanied by two copies of a recent passport style photograph. These should be in colour and should be 2cm by 3cm in size showing full face only. Both photographs must show the same image.

## **1.4 MAXIMUM PERIOD OF VALIDITY OF PROFESSIONAL PILOT LICENCES**

The period of validity of Fiji professional pilots' licences is specified on the certificate of validity as part of the licence. A completely new licence including photographs will be issued on request or on a change of licence class, as appropriate.

## **1.5 REQUIREMENTS FOR VALIDATION**

- 1.5.1 Subject to the provisions of paragraphs 1.5.1.1, 1.5.2 and 1.5.3, a professional pilot's licence will be revalidated on application provided that the applicant has a valid medical assessment (See Chapter 2) and the application form, duly completed, is accompanied by payment of the appropriate fee.

### **1.5.1.1 PILOT LICENCE RENEWAL REQUIREMENTS**

- (1) The minimum flying requirements for the renewal of a Professional Pilots licence Period of Validity are: -
- a) within each 90-day period in the 6 months of validity, the person has carried out (as pilot-in-command of an aircraft or an approved flight simulator of the type included in the licence) not less than 3 take-offs and 3 landings; or
  - b) the person has satisfactorily demonstrated to a CAAF approved check and training captain, continued competency in an aircraft of the type included

in the licence (Base Check); or

- c) the person has satisfactorily demonstrated to a CAAF Flight Operations Inspector, continued competency in an aircraft of the type included in the licence (Flight Test);
- d) For 1(a), if conducted within the circuit, a pilot must fly a circuit between each take-off and landing.
- e) For 1(a), if a balloon, a pilot must ascend to at least 500 feet between the required lift offs and landings.
- f) For 1(a), ICUS may be accepted in lieu of pic. Conditions for the logging of ICUS must be complied with.

1.5.2 If the privileges of an Aircraft Type Rating contained in a Private or Commercial and Airline Transport Pilot licence have not been exercised for a period of more than 24 months, the applicant is required to satisfy the provision of 1.5.1.1 (1) before exercising the privileges of the type rating unless the applicant has continued in flying practice on a similar or more complex licence endorsed aircraft type during that period.

1.5.3 If the period of validity of a licence has expired by a period of more than 5 years, the applicant is required to pass the examination in Aviation Law and satisfactorily demonstrate to a CAAF Flight Operations Inspector, continued competency in an aircraft of the type included in the licence (Flight Test);

1.5.4 If the validity of a licence has expired by a period more than 10 years, the applicant may, before the licence is renewed or reissued be required to pass all the appropriate theory examinations for the licence and ratings, as well as the flight tests for issue of licence and ratings. This may be modified, however, if the applicant has continued in flying practice, for example, on an equivalent foreign licence. The Authority will judge each case on its merits.

## **1.6 CHARGES FOR LICENCES AND RATINGS**

Charges to be paid to the Authority in connection with the performance of its flight crew licensing functions are as notified in current legislation. Information on the charges currently applicable may be obtained from the Authority.

## **1.7 REVIEW OF LICENSING DECISIONS BY THE AUTHORITY**

1.7.1 Where an application for a licence or a rating is refused, or is Issued in terms other than those requested, the applicant may request that the case be reviewed by the Chief Executive of the Authority.

1.7.2 Similarly, an applicant who has failed a test or examination which he is required to pass before he is Issued or may exercise the privileges of a licence or rating, may request that the Chief Executive determine whether the test or examination was properly conducted.

1.7.3 Any request under these provisions should be made to the Authority within 14 days of receipt by the applicant of the notice of refusal to Issue a licence or rating, or notice to Issue it in terms other than those requested, or receipt of notice of failure of an examination or test.

## **1.8 LANGUAGE PROFICIENCY**



An Applicant for a Fiji pilot licence shall satisfy the requirements of this standard document, ICAO Annex 1 Personnel Licensing Chapter 1, Paragraph 1.2.9 and, as of 5 March 2008, the associated Appendix.

## 1.9 VALIDATION (AUTHORISATION) OF FOREIGN FLIGHT CREW LICENCE FOR COMMERCIAL TRANSPORT PURPOSES

### 1.9.1 GENERAL INFORMATION – FOREIGN VALIDATION

1.9.1.1 Section 30(1) of the Air Navigation Regulations states that *“Every aircraft shall carry and be operated by the flight crew prescribed by, and such crew shall be licensed in accordance with the provisions of these Regulations (Fiji Air Navigation Regulations)”*

1.9.1.2 Section 59 of the Air Navigation Regulations states that *“Where a licence to act as a member of the flight crew of aircraft has been granted under the law of a country other than Fiji and is for the time being in force, the Authority may, subject to such conditions and limitations and for such period as it thinks fit, issue a certificate of validation rendering such licence valid for the purpose of flying aircraft registered in Fiji as if it had been granted under these Regulations”*

*Note: Furthermore 1.2.2.1 of this Standards Document and ICAO Annex 1 states that when the Authority renders valid a licence issued by another Contracting State, as an alternative to the issuance of a Fiji licence, the authorisation (otherwise known as validation) shall be carried with the former licence accepting it as the equivalent of the latter. When a State limits the authorisation to specific privileges, the validation issued by the Authority shall specify the privileges of the licence which are to be accepted as its equivalent. Its validity shall not extend beyond the period of validity of the licence. The validation ceases to be valid if the licence upon which it was issued is revoked or suspended.*

1.9.1.3 A Certificate of Validation or validation is a short-term authorisation issued under the provision of Air Navigation Regulation 59, and valid for a period of up to (3) three months. It is tailored to the specific operation(s) and needs.

1.9.1.4 An Applicant for foreign professional flight crew licence validation shall satisfy the requirements of this standard document.

- Complete and lodge the CAAF Validation Form PL101
- Attach proof of ID, (e.g. Passport, Birth Certificate, Citizenship Certificate), if required
- Email or scan required documents
- Pay the appropriate fee.
- Undertake and pass any examinations and/or flight tests deemed necessary by CAAF, if required.
- Pilot must always carry with them while flying, their original licence(s), medical certificate, log book(s), plus any other documents that support their application for recognition of your qualifications.

### 1.9.2 PRIVILEGES OF A FOREIGN VALIDATION

1.9.2.1 The validation will permit a Pilot to fly aircraft on which he or she is type rated on for a specific operation and for a period of up to (3) three months at a time. The Validation has the effect of a Fiji flight crew licence, aircraft endorsement and/or rating, with the proviso that the privileges transferred to the Validation do not exceed the foreign qualifications.

*Note: Pilots who want to operate Fijian-registered aircraft for a period longer than (6) six months tenure, will be encouraged to apply for a Fiji flight crew licence, rather than apply for the reissue of a Validation.*

### 1.9.3 CURRENCY OF A FOREIGN VALIDATION

1.9.3.1 Unless otherwise approved by the Authority, a Validation expires on whichever of the following occurs first:

- Completion of the intended operation(s)
- Expiry of the overseas licence
- Expiry of the overseas medical certificate
- (3) Three months from the date on which the Validation was issued

*Example*

*A Validation issued on 13/07/19 expires on 12/10/19; (if the Validation expired on 13/10/19, it would be the equivalent to 3 months and 1 day). The Validation can be granted for a period of up to three months. If, for example, the Validation is required for three weeks, because that is the expected duration of the pilot's visit or the intended operation, the Validation will be limited to that period or, to allow for unforeseen circumstances that may delay an operation; the Validation can be extended to four weeks.*

*Note: An expired Validation may be renewed on receiving a new application and payment of the applicable fee. However, it is expected that for operations of greater frequency and longer than 6 months, the Pilot should convert his/her foreign licence to the Fiji equivalent.*

### 1.9.4 REQUIREMENTS – FOREIGN VALIDATION

- a) Holds a valid and current flight crew licence and medical certificate issued by an ICAO Contracting State and appropriate to the operations the Pilot intends to conduct in Fiji
- b) Endorsed with the aircraft type to be flown
- c) Passes any other examination or tests the Authority considers necessary in the interests of the safety of air navigation.
- d) Possesses a knowledge of the English language that is sufficient to enable him or her to safely exercise the authority given by the certificate of validation, that is, must be competent in English writing, speaking and understanding. The overseas licence must be endorsed with English Language Proficiency (ELP) to at least level 4 standard.
- e) Is deemed to be a fit and proper person to hold the validation (Police Clearance)
- f) Pays the relevant fee.

*Note: The flight crew licences will be verified with the issuing State for initial issue of Validations. Pilots must ensure they have given permission for the Licence Issuing State to release information to the Authority.*

*Note: Any operational or medical restrictions endorsed on the overseas licence and/or medical certificate may prevent the issue of validation.*

*Note: Any operational or medical restrictions endorsed on the overseas licence and/or medical certificate, after having been assessed by CAAF as being acceptable, will be transferred to the Validation.*

### 1.9.5 REASONS FOR REQUIRING A FOREIGN VALIDATION

1.9.5.1 As the Validation is a short-term authorisation, it is imperative that as much detail as possible, is provided to the Authority stating the intentions of the Pilot's stay in Fiji and the reasons for requiring a validation.

1.9.5.2 This will allow the Authority to tailor the validation to the specific needs of the Pilot. The reasons why the validation is required must include relevant details, as applicable, such as:

- the aircraft type to be flown and the registration mark (e.g. DQ-XXX)
- details of commercial operations (line operations, charter, name of employer)
- details of Fiji training to be completed (ANR 45).

## **1.9.6 AERONAUTICAL EXPERIENCE – FOREIGN VALIDATION**

1.9.6.1 The Pilot is not required to satisfy the Fijian aeronautical experience requirements if he or she holds the equivalent or higher class of licence overseas.

## **1.9.7 ENDORSEMENTS AND RATINGS – FOREIGN VALIDATION**

1.9.7.1 The Validation permits the holder to fly Fijian-registered aircraft which he or she must already be endorsed on. Evidence must be provided that he or she holds the endorsements, such as logbooks.

## **1.9.8 INSTRUMENT RATING – FOREIGN VALIDATION**

1.9.8.1 Where the application includes a Command Instrument Rating, the applicant shall provide proof of selected Nav Aids, such as, proficiency check, logbook entries, licence details.

## **1.9.9 CERTIFICATION OF DOCUMENTS – FOREIGN VALIDATION**

1.9.9.1 Original documents must be submitted to and sighted by the Authority prior to release.

- Foreign licence – both sides if applicable
- Current medical certificate – all pages
- Last three months or last three full page openings of logbook entries (whichever is the lesser). Evidence (logbook or licence) of aircraft types/endorsements for recognition of prior qualifications should also be included.

Validation will not be released without the original documents.

*Note: Pilot endorsements and ratings will have to be verified with Issuing State before a validation may be issued in accordance with Section 1 Chapter 1 1.2.2.2*

*Note: Scanned copies of the documents may be emailed or faxed to the Authority to commence process however original is required for issue.*

## **S2/ CHAPTER 2 - MEDICAL REQUIREMENTS**

### **2.1 INTRODUCTION**

A professional Pilot Licence will not be issued or revalidated unless the applicant holds a current class one medical assessment issued by the Authority. Prospective applicants for professional licences are strongly advised to ensure that they meet the Medical Standards for the issue of a class one assessment, prior to committing themselves to any substantial expenditure required to satisfy other flight crew licensing requirements.

### **2.2 INITIAL ISSUE OF A MEDICAL ASSESSMENT**

For the initial Issue of a Class 1 medical assessment the applicant must undergo a medical examination conducted by a Designated Medical Examiner (DME) and such other tests that the Authority may require. Designated Medical Examiners are appointed by the Authority. Upon completion of the examination the examiner will hand to the applicant a medical report, which should be submitted to the Authority with the licence application.

A copy of the report of the medical examination and any other tests required is then sent to the Licensing Officer.

Provided the applicant meets the requirements of the appropriate medical standards, a medical assessment will be included in the licence issued by the Authority.

### **2.3 PERIOD OF VALIDITY OF THE MEDICAL ASSESSMENT**

The medical assessment that forms part of the pilot licence is valid for a period of 6 months or 12 months as appropriate, from the date of the initial examination or, for a renewal, from the anniversary date or for such other period as the Authority may determine.

### **2.4 HOLDERS OF FOREIGN PROFESSIONAL PILOT LICENCES**

Holders of professional pilot licences issued by an ICAO Contracting States wishing to obtain a Fiji licence should present evidence relating to their licence authenticity and currency. The Authority will, with the approval of the applicant, check with the issuing Authority. If it proves acceptable a Fiji Certificate of Validity will be issued with a validity period normally not exceeding 28 days. A period of longer than 28 days may be authorised should the facilities not exist in Fiji to enable the licence holder to convert an ICAO licence to a Fiji Licence or for any other valid reason.

### **2.5 ISSUE OF SUBSEQUENT MEDICAL ASSESSMENTS**

A licence holder may not exercise the privileges of their licence beyond the relevant period of validity of the medical assessment or licence validity whichever expires first. A licence holder may arrange to undertake a renewal medical examination up to 45 days before the expiry date of their current medical assessment without penalty. Renewal medical examinations can only be conducted by Designated Medical Examiners appointed by the Authority. The administration process detailed in paragraph 2.2 should then be followed. Upon completion of the relevant process, and provided the licence holder meets the requirements of the appropriate medical standards, a medical assessment will be endorsed in the licence.

## **S2/ CHAPTER 3 - REQUIREMENTS FOR THE ISSUE OF A COMMERCIAL PILOT LICENCE (AEROPLANES: CPL (A))**

### **3.1 LICENCE PRIVILEGE**

- 3.1.1 The privileges of a CPL (A) are detailed at Regulation 61 of the Air Navigation Regulations. In general terms, the holder of such a licence may fly as pilot-in-command (PIC) or as co-pilot in aircraft when the licence contains an appropriate and valid Aircraft Type Rating, for any purpose, except that he may not fly as pilot-in-command of any aeroplane exceeding 5700kg maximum certificated take-off mass when it is engaged on a flight for the purposes of public transport.
- 3.1.2 A CPL may be issued without it including an Instrument Rating (Aeroplanes) but the circumstances under which its privileges may be exercised are restricted accordingly.

### **3.2 MINIMUM AGE**

The minimum age for Issue of a CPL (A) is 18 years.

### **3.3 MEDICAL REQUIREMENTS**

- 3.3.1 An applicant for a professional pilot licence must hold a valid Fiji Class 1 medical assessment.
- 3.3.2 Details concerning the medical requirements are given in Chapter 2.

### **3.4 NORMAL AND INTEGRATED TRAINING**

- 3.4.1 Unless qualifying for the concession available by completing an integrated course, persons wishing to obtain a CPL (A) will be required to undertake flight and technical training to a syllabus accepted by the Authority.
- 3.4.2 An Integrated Course for a Commercial Pilot Licence without an Instrument Rating must comprise not less than 150 hours flight training and 600 hours technical training.

#### **3.4.3. EDUCATIONAL STANDARD**

Reserved

#### **3.4.4 CONCESSIONS AND ABRIDGED COURSES**

Pilots who do not fully meet the requirements for an exemption from an integrated course may, depending on their experience, be permitted to undertake an abridged course of training.

Application should be made to the Authority who will determine what flight and technical training must be completed.

### **3.5 FLYING EXPERIENCE REQUIREMENTS**

- 3.5.1 Appendix A sets out the way in which flight time will be counted toward meeting the flying experience requirements.

- 3.5.2 The minimum flying experience required for Issuing of a CPL(A) is 200 hours as pilot-in-command or pilot-under-instruction of aeroplanes that must include not less than: -
- (a) 70 hours as pilot-in-command (PIC) at an integrated school, or 100 hours as pilot in command at a non-integrated school. 20 hours must be cross-country or over water flying, including one flight of at least 300 nautical miles in the course of which the aeroplane landed and came to rest at not less than two intermediate aerodromes.
  - (b) Minimum 5 hours night flying as PIC or pilot-under-instruction, including 5 take-offs and 5 landings as PIC experience at night may be counted toward the PIC requirement specified in paragraph 3.5.2 (a); and
  - (c) Minimum 10 hours instruction in instrument flying, of which not more than 5 hours may be instruction in a CAAF approved synthetic flight training device.
- 3.5.3 Maximum of 25 hours flight time in microlight aeroplanes may be credited to the requirement for the issue of the licence. See AIC 05 / 05

### 3.6 TECHNICAL EXAMINATION REQUIREMENTS

- 3.6.1 Unless qualifying for a concession as detailed in paragraph 3.6.2, applicants for a CPL (A) will be required to pass examinations in: -
- (a) CPL Air Law;
  - (b) CPL Flight Navigation;
  - (c) CPL Meteorology;
  - (d) CPL Aerodynamics;
  - (e) CPL Performance and Flight Planning;
  - (f) CPL General Aircraft Technical Knowledge;
  - (g) CPL Human Factors;
  - (h) Radiotelephony; or
  - (i) The appropriate CASA cyber examinations.

Details of examinations and the periods over which the results will remain valid are given in Chapter 8.

#### 3.6.2 CONCESSION FROM TECHNICAL EXAMINATIONS

Concessions from having to take certain parts of the technical examinations may be given subject to the applicant having undergone a formal course of training to the CPL(A) standard, to: -

- (a) **Holders of a Fiji PPL**

Holders of a Fiji Private Pilot's Licence will normally be issued a concession from having to take the examinations in Radiotelephony.
- (b) **Fiji Professional Helicopter Pilots**

Holders of a valid Fiji CPL (H) or ATPL (H) will normally be issued a concession from having to take the technical examinations for a CPL (A), other than the Performance examination.
- (c) **Holders of a Foreign CPL (A)**

Holders of a CPL (A) issued by an ICAO Contracting State may, at the discretion of the Authority, be issued a concession from having to take the technical examinations for the Issue of a Fiji licence, other than in CPL Air Law.

(d) **Holders of a Foreign ATPL (A)**

Persons who hold a valid ATPL (A) issued by an ICAO Contracting State may, at the discretion of the Authority, be issued a concession from having to take the technical examinations for the Issue of a Fiji ATPL (A), other than in: CPL Air Law.

(e) **Foreign Professional Helicopter Pilots**

Holders of the CPL (H) or ATPL (H) issued by an ICAO Contracting State will normally be required to pass all the technical examinations for the Issue of a Fiji CPL (A). Where, however, the holder of a foreign CPL (A) or ATPL (H) can show that in gaining the licence he was examined to the same standard as for the equivalent aeroplane licence, he may qualify for a concession.

### **3.7 COMMERCIAL FLIGHT TEST (CFT)**

3.7.1 Unless qualifying for exemption as detailed in paragraph 3.7.5, applicants for a CPL (A) will be required to pass a Commercial Flight Test (CFT) conducted by an Authority Flight Operations Inspector or a CAAF Approved Person. The test will be conducted to a specification as detailed in the approved CAAF Form.

3.7.2 The test is conducted by day.

3.7.3 The periods over which the results will remain valid are given in Chapter 11.

3.7.4 Concession from the Commercial Flight Test –Reserved

### **3.7.5 FOREIGN PROFESSIONAL AEROPLANE PILOT LICENCE FLIGHT TEST**

Holders of a valid CPL (A), or ATPL (A) issued by an ICAO Contracting State, who meet the flying experience requirements specified in paragraph 3.5, will be required to pass a foreign licence conversion check flight with an Authority Flight Operations Inspector.

### **3.8 AIRCRAFT TYPE RATING REQUIREMENTS**

3.8.1 The privileges of a pilot licence may only be exercised in aircraft specified in the Aircraft Rating page included in the licence. Full details concerning the Aircraft Type Rating requirements are given in Chapter 11.

3.8.2 A CPL (A) will not be issued unless the applicant has qualified for the inclusion of an Aircraft Type Rating. This normally requires that he pass the technical examination relevant to that type of aeroplane. (See paragraph 3.6.3 concerning possible exemptions) and that he passes an Aircraft Rating flight test on that type.

3.8.3 Information concerning the periods of validity of the technical examination and flight test results are given in Chapter 8 and Chapter 11 respectively.

### **3.8.4 CREDIT FOR FOREIGN AIRCRAFT TYPE RATING**

3.8.4.1 The holder of a professional pilot's licence (Aeroplanes) issued by another ICAO Contracting State that includes a specific aeroplane type may be credited with that Aircraft Type Rating provided that aircraft type is registered in Fiji. If an aircraft type not registered in Fiji is requested for inclusion, then the applicant will have to demonstrate





a need to have the aircraft type credited on the Fiji licence. The decision for that accreditation will be made by the Chief Executive of the Authority.

3.8.4.2 The applicant is entitled under the privileges of his foreign licence to fly the aeroplane type as endorsed in the licence.

3.8.4.3 The technical examination requirements have been satisfied or the applicant qualified for concessions as provided for in paragraph 3.6.2.

### **3.9 INSTRUMENT RATING REQUIREMENTS**

3.9.1 Full details concerning the Instrument Rating are given in Chapter 12.

3.9.2 The holder of a professional pilot licence (Aeroplanes) may not fly as pilot-in-command or as co-pilot in circumstances requiring compliance with Instrument Flight Rules, nor as pilot-in-command under the other circumstances referred to in paragraph 12.1.1 unless the licence contains a valid Instrument Rating.

3.9.3 A CPL (A) may be issued without it containing an Instrument rating, but the privileges of the licence are restricted.



**S2/ CHAPTER 4 - REQUIREMENTS FOR ISSUE OF A “FROZEN”  
AIRLINE TRANSPORT PILOT’S LICENCE (AEROPLANES) AND CPL  
/ IR**

**RESERVED**

## **S2/ CHAPTER 5 - REQUIREMENTS FOR THE ISSUE OF AN AIRLINE TRANSPORT PILOT LICENCE (AEROPLANES): ATPL (A)**

### **5.1 LICENCE PRIVILEGES**

The privileges of an ATPL (A) are detailed at Regulation 61 of the Air Navigation Regulations. In general terms, the holder of such a licence may fly as pilot-in-command or as co-pilot of any aeroplane, for which the licence contains an appropriate and valid aircraft type rating, for any purpose.

- 5.1.2 An ATPL (A) will not be issued unless the applicant has qualified for inclusion in the licence of an Instrument Rating (Aeroplanes); see paragraph 5.8 and Chapter 12.

### **5.2 MINIMUM AGE**

The minimum age for Issue of an ATPL (A) is 21 years.

### **5.3 MEDICAL REQUIREMENTS**

- 5.3.1 An applicant for a professional pilot licence must hold a valid Fiji Class I medical assessment.

- 5.3.2 Details concerning the medical requirements are given in Chapter 2. The periods over which a medical assessment will remain valid are given in paragraph 2.3.

### **5.4 FLYING EXPERIENCE REQUIREMENTS**

- 5.4.1 Appendix A sets out the way in which flight time will be counted toward meeting the flying experience requirements.

- 5.4.2 The minimum flying experience required for Issue of an ATPL (A) is 1500 hours as pilot of aeroplanes. This must include the particular requirements, which must be met in full, except where stated otherwise, hours may be credited, where appropriate, towards more than one requirement. The requirements are: -

- (a) 250 hours either as pilot-in-command, or made up by not less than 100 hours as pilot-in-command and the necessary additional flight time as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is agreed beforehand with the Authority;
- (b) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is agreed beforehand with the Authority;
- (c) 75 hours instrument time of which not more than 30 hours may be instrument ground time;
- (d) 100 hours night. (Pilot in command or co-pilot);
- (e) As pilot-under-instruction in aeroplanes counted in full;
- (f) As pilot in command under supervision (ICUS) in aeroplanes counted in full up to maximum of 550 hours, including the 100 hours permitted under paragraph

- (g). Time in this capacity above 550 hours may only be counted at half rate (that is, two hours as pilot ICUS will count as one hour toward the requirement);
- (h) As co-pilot in aeroplanes counted as 1 hour for every 2 hours flown up to a maximum of 400 hours counted as 200 hours; and
- (i) As a pilot in command in helicopters counted as 1 hour for every 2 hours flown up to a maximum of 500 hours counted as 250 hours.

## **5.5 TECHNICAL EXAMINATION REQUIREMENTS**

5.5.1 Unless qualifying for a concession as detailed in paragraph 6.5.3, applicants for an ATPL(A) will be required to pass examinations in: -

- (a) ATPL Air Law
- (b) ATPL Flight Navigation (General)
- (c) ATPL Flight Planning
- (d) ATPL Meteorology
- (e) ATPL Aerodynamics, Performance and Systems Knowledge (Aeroplane)
- (f) ATPL Human Factors; or
- (g) The appropriate CASA cyber examination.

5.5.2 Information concerning the technical examination requirements and the periods that the results will remain valid are given in Chapter 8.

## **5.6 AIRLINE TRANSPORT PILOT LICENCE (A) FLIGHT TEST**

An applicant for an ATPL (A) will be required to pass an ATPL licence flight test conducted by an Authority Flight Operations Inspector.

## **5.7 AIRCRAFT TYPE RATING REQUIREMENTS**

5.7.1 The privileges of a pilot's licence may only be exercised in aircraft specified in the Aircraft Rating included in the licence. Full details concerning the Aircraft Rating Requirements are given in Chapter 11.

5.7.2 An ATPL (A) will not be issued unless the applicant has qualified for the inclusion of a multi-engine aircraft required, as part of the certification process, to be operated with a co-pilot. The Chief Executive may accept other aeroplanes with sufficiently complex systems as meeting the above requirement.

5.7.3 Where the applicant already holds a Fiji CPL (A), any aeroplane type included in those licences and in which he is current, may, subject to the requirements of paragraph 11.5.1, be included in the ATPL (A) without him having to take the technical examinations or the Aircraft Rating flight test for that type again. Where the applicant's CPL (A) does not include a rating for an aeroplane of the type specified in paragraph 5.7.2, or he wishes to include any other type not included in his previous licence, it will be necessary for him to satisfy the requirements for an additional type as specified in paragraph 11.5.

## **5.8 INSTRUMENT RATING REQUIREMENTS**

5.8.1 Full details concerning the Instrument Rating (Aeroplanes) are given in Chapter 12.

5.8.2 The holder of a professional pilot licence (aeroplanes) may not fly as pilot-in-command or as co-pilot in circumstances requiring compliance with the Instrument Flight Rules, nor as pilot-in-command under the other circumstances referred to in paragraph 12.1.1, unless the licence contains a valid Instrument Rating.



5.8.3 An ATPL (A) will not be issued unless the applicant has qualified for inclusion in the licence of an Instrument Rating (Aeroplanes).

An ATPL (A) privileges revert to those of a CPL (A) should the Instrument Rating Certificate of Test expire.

#### **5.8.4 CONCESSIONS FROM THE INSTRUMENT RATING FLIGHT TEST**

Where the applicant already holds a Fiji CPL (A) containing an Instrument Rating (Aeroplanes) for that type of aeroplane, he will not be required to take the Instrument Rating flight test again for inclusion of the rating in the ATPL (A). The rating will be transferred from the previous licence, on issue of the ATPL (A). Where the previous licence does not contain a current Instrument Rating, the licence holder will be required to pass the required flight test conducted by an Authority.

## **S2/ CHAPTER 6 - REQUIREMENTS FOR THE ISSUE OF A COMMERCIAL PILOT LICENCE (HELICOPTERS): CPL (H)**

### **6.1 LICENCE PRIVILEGES**

6.1.1 The privileges of a CPL (H) are detailed at Regulation 61 of the Air Navigation Regulations. The holder of such a licence may fly as pilot-in-command or as co-pilot of any helicopter, for which the licence contains an appropriate and valid Aircraft Rating, for any purpose, except that he may not fly as pilot-in-command of any such aircraft which exceeds 5700 kg maximum certificated mass when it is engaged on a flight for the purposes of public transport.

6.1.2 A CPL (H) will be issued without an Instrument Rating but the circumstances under which its privileges may be exercised will be restricted as no provision exists in Fiji for the issue of an Instrument Rating (H).

#### **6.1.3 PRIVILEGES IN GYROPLANES**

Where an applicant wishes to fly gyroplanes, he should contact the Authority for advice on the detailed requirements that will have to be met. A licence issued under these circumstances will be plainly marked as being restricted to gyroplanes.

### **6.2 MINIMUM AGE**

The minimum age for Issue of a CPL (H) is 18 years.

### **6.3 MEDICAL REQUIREMENTS**

6.3.1 An applicant for a professional pilot licence must hold a valid Fiji Class I medical assessment.

Details concerning the medical requirements are given in CAAF SD Medical Standards, Test and Certification

### **6.4 FLYING EXPERIENCE REQUIREMENTS**

6.4.1 Appendix A set out the way in which flight time will be counted toward meeting the flying experience requirements.

6.4.2 The minimum flying experience required for Issue of a CPL (H) in the case of a graduate from an integrated course of training is 150 hours as pilot-in-command or pilot-under-instruction of aeroplanes or helicopters, of which not less than 100 hours must be pilot of helicopters. The helicopter flying must include not less than: -

- (a) 35 hours as pilot-in-command, which may include any of the PIC time specified below;
- (b) 10 hours cross-country or over water flying as PIC, which must include a flight by day with a landing at a place not less than 50 nautical miles from the point of departure and a flight by night of not less than 50 nautical miles. Cross-country or over water flying time at night may be counted toward the next requirement; and
- (c) 10 hours instruction in instrument flying of which not more than 5 hours may be instruction in an Authority approved synthetic flight training device.

6.4.3 Flight time in microlight aeroplanes and in self-launching motor gliders may not be counted toward satisfying the 150 hours flying experience required.

## 6.5 TECHNICAL EXAMINATION REQUIREMENTS

6.5.1 Unless qualifying for a concession as detailed in paragraph 6.5.3, applicants will be required to pass technical examinations in: -

- (a) CPL Air Law;
- (b) CPL Flight Navigation;
- (c) CPL Meteorology;
- (d) CPL Principles of Flight & Aircraft Performance (Helicopters);
- (e) CPL General Aircraft Technical Knowledge (Helicopters); and
- (f) CPL Human Factors.

Details of the examination and the periods over which the results will remain valid are given in Chapter 8.

### 6.5.2 TECHNICAL EXAMINATION ENTRY CONDITIONS RESERVED

### 6.5.3 CREDITS FOR TECHNICAL EXAMINATIONS

Concessions from having to take certain of the examinations may be given as follows to: -

(a)  **Holders of a Fiji PPL (A)**

Holders of a Fiji Private Pilot's Licence will normally be exempt from having to take the examinations in Radiotelephony.

(b)  **Fiji Professional Aeroplane Pilots**

Holders of a valid Fiji CPL (A) or ATPL (A) will normally be required to take the Technical Examination - CPL Aerodynamics (H), Aircraft Performance (Helicopters), and CPL General Aircraft Technical Knowledge (Helicopters).

(c)  **Foreign Licensed Professional Helicopter Pilots**

(i) Persons who hold a CPL(H), ATPL(H) issued by an ICAO Contracting State will normally be issued a concession from having to take the technical examinations for the Issue of a Fiji professional helicopter pilot licence, other than in CPL Air Law.

(ii) The holder of a foreign CPL (H) or ATPL (H) will be required to show that, in gaining the licence, he was examined to the same standard as for the equivalent Fiji licence in order to qualify for exemption from the technical examinations.

(d)  **Holders of a Foreign CPL (A)**

The holders of a CPL (A) issued by an ICAO Contracting State will normally be required to pass all the theoretical examinations for the Issue of a Fiji CPL (H). The Authority will consider each application on merit.

## 6.6 HELICOPTER FLIGHT TEST (HFT)



6.6.1 Unless qualifying for a concession as detailed in paragraph 6.7.4, applicants for a CPL (H) will be required to pass a Helicopter Flight Test (HFT) conducted by an Approved Examiner. The test will be conducted to a specification as detailed in the approved form COMMERCIAL FLIGHT TEST HELICOPTER (CFTH)

6.6.2 The flight test may be conducted in either single-engine or multi-engine helicopters.

6.6.3 Full details concerning the CFTH are given in Chapter 10.

#### **6.6.4 FOREIGN LICENSED PROFESSIONAL HELICOPTER PILOTS**

Holders of a valid CPL (H), ATPL (H) issued by an ICAO Contracting State who meets the experience requirements specified in paragraph 6.4 will be required to pass a foreign licence conversion check with an Authority Approved Person.

### **6.7 AIRCRAFT TYPE RATING REQUIREMENTS**

6.7.1 The privileges of a pilot's licence may only be exercised in aircraft specified in the Aircraft Rating included in the licence. Full details concerning the Aircraft Rating requirements are given in Chapter 11.

6.7.2 A CPL (H) will not be issued unless the applicant has qualified for inclusion of an Aircraft Type Rating either as pilot in command, or as co-pilot of at least one helicopter type. This normally requires that he pass the Technical examination - Aircraft, relevant to the type of helicopter to be entered in the rating, and that he passes an Aircraft Rating flight test on that type.

6.7.3 Information concerning the periods of validity of the results of technical examinations and flight tests are given in paragraphs 8.3 and 11.3 respectively.

#### **6.7.4 EXEMPTION FROM THE AIRCRAFT TYPE RATING FLIGHT TEST**

6.7.4.1 Where the Helicopter Flight Test is conducted on a helicopter not already included in the licence, he may request that the HFT be regarded also as the Aircraft Type Rating flight test.

6.7.4.2 The holder of a professional pilot licence (helicopters) issued by an ICAO Contracting State, which includes a specific helicopter type, may have that type entered in the Aircraft Type Rating of the Fiji licence without having to take the Aircraft Rating flight test, provided that: -

- (a) The applicant has a minimum of 100 hours experience as PIC on the helicopter and exercised the privileges of the rating within 12 months preceding the date of application;
- (b) The applicant is entitled under the privileges of his foreign licence to fly the helicopter type as endorsed and;
- (c) The technical examination requirements have been satisfied or the applicant qualifies for exemption. (6.5.3)

### **6.8 INSTRUMENT RATING REQUIREMENTS**

6.8.1 The Instrument Rating (Helicopters) is not available in Fiji.

6.8.2 The holder of a professional pilot licence (helicopters) may not fly as pilot-in-command or as co-pilot in circumstances requiring compliance with Instrument Flight Rules.

## **S2/ CHAPTER 7 - REQUIREMENTS FOR THE ISSUE OF AN AIRLINE TRANSPORT PILOT LICENCE (HELICOPTERS): ATPL (H)**

### **7.1 LICENCE PRIVILEGES**

7.1.1 The privileges of an ATPL (H) are detailed at Regulation 61 of the Air Navigation Regulations. In general terms, the holder of such a licence may fly as pilot-in-command or as co-pilot of any helicopter for which the licence contains an appropriate and valid Aircraft Type Rating, for any purpose.

7.1.2 An ATPL (H) will be issued without it having to include an Instrument Rating (Helicopters) and the circumstances under which its privileges may be exercised will be restricted according to Fiji Law.

### **7.2 MINIMUM AGE**

The minimum age for Issue of an ATPL (H) is 21 years.

### **7.3 MEDICAL REQUIREMENTS**

7.3.1 An applicant for a professional pilot licence must hold a valid Fiji Class I medical assessment.

7.3.2 Details concerning the medical requirements are given in Chapter 2. The periods over which a medical assessment will remain valid are given in paragraph 2.3.

### **7.4 FLYING EXPERIENCE REQUIREMENTS**

7.4.1 Appendix A sets out the way in which flight time will be counted toward meeting the flying experience requirements.

7.4.2 The applicant shall have completed not less than 1000 hours of flight time as a pilot of helicopters.

7.4.3 The applicant shall have completed in helicopters not less than: -

(a) 250 hours, either as pilot-in-command, or made up by not less than 100 hours as pilot in command and the necessary additional flight time as co-pilot performing under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is agreed in advance by the Authority;

(b) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is agreed beforehand by the Authority;

(c) 30 hours of instrument time, of which not more than 10 hours may be instrument simulator time; and

(d) 50 hours of night flight as pilot-in-command or as co-pilot.

7.4.4 The remainder of the experience required may comprise flight time in aeroplanes or helicopters in any of the following capacities: -

- (a) As PIC of helicopters counted in full;
- (b) As pilot-under-instruction in a helicopter counted in full;
- (c) As PIC U/S in a helicopter counted in full up to a maximum of 365 hours, including the 150 hours permitted under paragraph (a). Time in this capacity above 365 hours may only be counted at half rate; that is, one-hour credit for every two hours flown;
- (d) As co-pilot on a helicopter certified for two pilots, counted at half rate; that is, one-hour credit for every two hours flown up to a maximum of 400 hours counted as 200 hours; and
- (e) As a pilot-in-command in aeroplanes counted as one hour for every two hours flown up to a maximum of 400 hours counted as 200 hours.

## **7.5 TECHNICAL EXAMINATION REQUIREMENTS**

Unless qualifying for a concession applicant will be required to pass examinations in: -

- (a) ATPL Air Law;
- (b) ATPL Flight Planning;
- (c) ATPL Flight Navigation (General);
- (d) ATPL Meteorology;
- (e) ATPL Instrument & Navigation Aids;
- (f) Advanced Aerodynamics, Performance and Systems Knowledge (Helicopters);
- (g) ATPL Human Factors; or
- (h) The appropriate CASA cyber examinations.

Full information concerning the technical examinations and the periods over which the results will remain valid are given in Chapter 8.

## **7.6 HELICOPTER ATPL FLIGHT TEST ATPL (H) FT**

The applicant will be required to pass the ATPL (H) FT as pilot-in-command of a helicopter required to be operated with a co-pilot.

## **7.7 AIRCRAFT TYPE RATING REQUIREMENTS**

- 7.7.1 The privileges of a pilot licence may only be exercised in aircraft specified in the Aircraft Rating page included in the licence. Full details concerning the Aircraft Type Rating requirements are given in Chapter 11.
- 7.7.2 An ATPL (H) will not be issued unless the applicant has qualified for inclusion of at least one multi-engine helicopter Type Rating having a maximum certificated mass of more than 5700 kg.
- 7.7.3 Where the applicant already holds a Fiji CPL(H), any other helicopter type included in that licence and on which he is current, may, subject to the requirements of paragraph 11.5.1, be included in the ATPL(H) without having to take the technical examinations or the Aircraft Type Rating flight test for that type again.
- 7.7.4 Where the applicant does not hold a Fiji CPL (H) he will normally be required to: -
  - (a) Pass the Technical Examination - Aircraft relevant to the type of helicopter to be entered in the licence; and
  - (b) Pass an Aircraft Type Rating flight test in the type. Concession may be given from this requirement under the same terms as those detailed for the CPL (H) in paragraph 6.7.



7.7.5 Information concerning the periods of validity of the examinations and flight test results, where these have to be taken, are given in paragraphs 8.3 and 11.3 respectively.

## **7.8 INSTRUMENT RATING REQUIREMENTS**

7.8.1 Refer to Section 3 chapter 13

## **S2/ CHAPTER 8 - TECHNICAL EXAMINATIONS: PPL (A) AND (H), CPL (A) AND (H), ATPL (A) AND (H) AND INSTRUMENT RATING THEORY**

### **8.1 EXAMINATION SUBJECTS**

- 8.1.1 Unless qualifying for a concession an applicant for a PPL(A), PPL(H), CPL(A), CPL(H), ATPL(A), ATPL(H), and Instrument Rating Theory will be required to pass examinations as required by the Authority.
- 8.1.2 Some of these examinations are CASA cyber examinations.
- 8.1.3 The syllabus is available on the CASA web site.

### **8.2 EXAMINATION PASS CONDITIONS**

- 8.2.1 Details of the examination pass conditions and other matters relating to flight crew examinations and tests are detailed in CASA documentation.
- 8.2.2 Passes in CASA cyber examinations held in Fiji by the Authority do not qualify for the issue of an Australian licence.

### **8.3 EXAMINATION RESULTS: PERIODS OF VALIDITY**

- 8.3.1 Individual CPL and ATPL examinations passes are only valid for 5 years after the first subject pass. Accordingly, passes in all subjects for either CPL or ATPL licence must be held at the end of 5-year period. Individual subject passes exceeding a validity period of 5 years will not be accepted for a licence issue.  
However, notwithstanding the limitations above, once a person has obtained passes in all subjects for a CPL or ATPL within a 5-year period, then the passes are valid indefinitely.

### **8.4 EXAMINATION ARRANGEMENT**

- 8.4.1 The Authority holds regular CASA Cyber Examinations at CAAF Headquarters Nadi Airport.
- 8.4.2 Details of examination dates and application closing dates, application forms and details concerning the examination charges may be obtained from the Authority.

## S2/ CHAPTER 9 - PRIVATE PILOT'S LICENCE (BALLOONS)

### 9.1 BALLOON

**NOTE** *The provisions of the free balloon pilot licence apply to free balloons using hot air or gas.*

2.10.1 Requirements for the issue of the licence

#### 2.10.1.1 Age

The applicant shall be not less than 16 years of age.

#### 2.10.1.2 Knowledge

2.10.1.2.1 The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a free balloon pilot licence, in at least the following subjects:

##### **Air law**

- Rules and regulations relevant to the holder of a free balloon pilot licence; rules of the air; appropriate air traffic services practices and procedures;
- Aircraft general knowledge
- Principles of operation of free balloon systems and instruments;
- Operating limitations of free balloons; relevant operational information from the flight manual or other appropriate document;
- Physical properties and practical application of gases used in free balloons;
- Flight performance, planning and loading
- Effects of loading on flight characteristics; mass calculations;
- Use and practical application of launching, landing and other performance data, including the effect of temperature;
- pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;
- Human performance
- Human performance relevant to the free balloon pilot including principles of TEM.

**NOTE** *Guidance material to design training programmes on human performance, including TEM, can be found in the Human Factors Training Manual (ICAO Doc 9683).*

##### **Meteorology**

Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

##### **Navigation**

Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

##### **Operational procedures**

Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

Principles of flight

Principles of flight relating to free balloons.

- 2.10.1.2.2 It is recommended that— The applicant should have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of a free balloon pilot licence, in communication procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.
- 2.10.1.3 **Experience**
- 2.10.1.3.1 The applicant shall have completed not less than 16 hours of flight time as a pilot of free balloons including at least eight launches and ascents of which one must be solo.
- 2.10.1.3.2 The applicant shall have gained, under appropriate supervision, operational experience in free balloons in at least the following areas:
- Pre-flight operations, including balloon assembly, rigging, inflation, mooring and inspection;
- Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;  
Collision avoidance precautions;  
Control of the free balloon by external visual reference;  
Recognition of, and recovery from, rapid descents;  
Cross-country flying using visual reference and dead reckoning;  
Approaches and landings, including ground handling;  
Emergency procedures.
- 2.10.1.3.3 If the privileges of the licence are to be exercised at night, the applicant shall have gained, under appropriate supervision, operational experience in free balloons in night flying.
- 2.10.1.3.4 It is recommended that — if passengers are to be carried for remuneration or hire, the licence holder should have completed not less than 35 hours of flight time including 20 hours as a pilot of a free balloon.
- 2.10.1.4 **Skill**
- The applicant shall have demonstrated the ability to perform as pilot-in-command of a free balloon, the procedures and manoeuvres described in 2.10.1.3.2 with a degree of competency appropriate to the privileges granted to the holder of a free balloon pilot licence, and to:
- Recognize and manage threats and errors;
- NOTE** *Guidance material on the application of TEM is found in the Procedures for Air Navigation Services — Training (PANS- TRG, ICAO Doc 9868), Part II, Chapter 1, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (ICAO Doc 9683).*
- Operate the free balloon within its limitations;  
Complete all manoeuvres with smoothness and accuracy;  
Exercise good judgment and airmanship;  
Apply aeronautical knowledge; and  
Maintain control of the free balloon at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.
- 2.10.1.5 **Medical fitness**
- The applicant shall hold a current Class 2 Medical Assessment.
- 2.10.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges.





- 2.10.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 2.1 and 2.10.1.3.4, the privileges of the holder of a free balloon pilot licence shall be to act as pilot-in-command of any free balloon provided that the licence holder has operational experience in hot air or gas balloons as appropriate.
  
- 2.10.2.2 Before exercising the privileges at night, the licence holder shall have complied with the requirements specified in 2.10.1.3.3.

## **S2/ CHAPTER 10 - COMMERCIAL FLIGHT TEST (AEROPLANE AND HELICOPTER)**

### **10.1 CONDUCT OF THE TEST**

Unless qualifying for a concession, applicants for a professional pilot licence will be required to pass a Commercial Flight Test (CFT) conducted by an Authority FOI or an Approved examiner. The test will comprise an assessment of the applicant's preparation for flight and pre take-off procedures and will be conducted to a specification as detailed in the approved Form COMMERCIAL FLIGHT TEST AEROPLANES (CFTA) or (CFTH).

### **10.2 FLIGHT TEST PASS CONDITIONS**

The conditions applicable to flight tests are available from the Authority.

### **10.3 COMMERCIAL FLIGHT TEST RESULTS: PERIOD OF VALIDITY**

Except where the applicant has been issued a concession, a valid pass in the CFT must be obtained within the six months immediately preceding the date of receipt by the Authority of the licence application.

### **10.4 FLIGHT TEST ARRANGEMENTS**

- 10.4.1 Commercial Flight Tests may be conducted at either Nadi or Nausori airports and the applicant will be liable for any charges to cover the costs involved.
- 10.4.2 Applicants undergoing an integrated course of training may have the arrangements for the CFT with the Authority made by the Flying Training Organisation conducting the course. The Flying Training Organisation concerned will also normally be responsible for providing an aircraft, to a standard agreed with the Authority in which to conduct the test.
- 10.4.3 Other applicants will be required to make their own arrangements for the test with the Authority and to provide a suitable aircraft for the test. Such aircraft must be maintained and equipped to the Authority's requirements and be approved by the Authority for the conduct of the test. Details of these requirements may be obtained from the Authority.
- 10.4.4 Payment of the statutory charge for the test or tests must be made before they can be undertaken.

## **S2/ CHAPTER 11 - AIRCRAFT TYPE RATING REQUIREMENTS**

### **11.1 INTRODUCTION**

- 11.1.1 For Air Transport operations the privileges of a professional pilot licence may only be exercised in the aircraft and in the capacity specified in the Aircraft Rating page of the licence. The holder may also act as co-pilot in aircraft if specified. The holder may also exercise private pilot privileges on type rated aircraft.
- 11.1.2 A professional pilot licence will not be issued unless the applicant has qualified for inclusion in the Aircraft Rating page of the licence of at least one aircraft type.
- 11.1.3 The applicant for an ATPL (H) or ATPL (A) must qualify for inclusion of a multi engine aeroplane Aircraft Type Rating required to be operated with a co-pilot. The Chief Executive may accept other aeroplanes with sufficiently complex systems as meeting the above requirement.
- 11.1.4 When a type rating is issued to a pilot operating a multi-engine aircraft, which requires more than one pilot each pilot will take the rating check in the appropriate seat. The type rating then issued will limit the privileges of the rating to act as Captain, Co-Pilot or 2<sup>nd</sup>. Officer. Such limitations shall be endorsed on the rating. In the case of the Captains rating the rating will be endorsed by the word "Pilot", for 1<sup>st</sup> officers rating the endorsement will be "Co-Pilot" and for 2<sup>nd</sup> officer ratings "In-flight cruise relief only.
- 11.1.5 The privileges, training and checking for the three categories of rating shall be specified in the Operator's Operations/Training Manual and shall be acceptable to the Authority.
- 11.1.6 To qualify for inclusion of the aircraft type rating in the Licence, the applicant will normally be required to: -
- (a) Pass the Technical Examination;
  - (b) Have gained, under appropriate supervision, experience in the applicable type of aircraft and/or flight simulator in the following: -
    - (i) Normal flight procedures and manoeuvres during all phases of flight;
    - (ii) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as powerplant, systems and airframe;
    - (iii) where applicable, instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure(s);
    - (iv) Procedures for crew incapacitation and crew coordination including allocation of pilot tasks; crew cooperation and use of checklists; and
    - (v) Pass an Aircraft Type Rating flight test on the type that includes demonstration of the skill and knowledge required for the safe operation of the aircraft, relevant to the duties of a pilot-in-command or a co-pilot as applicable.
- 11.1.6. The qualifying requirements for the inclusion of further types in the Licence subsequent to the first are given in paragraph 11.5.

### **11.2 AIRCRAFT TYPE RATING FLIGHT TEST**

- 11.2.1 Aircraft rating flight tests will be conducted by Authority FOIs or, in special circumstances, persons approved by the Authority to conduct such tests on its behalf.

Information concerning FOIs or persons approved to conduct tests on particular types of aircraft currently flown in Fiji may be obtained from the Authority. When an operator acquires a new aircraft type the operator shall consult the Authority regarding arrangements for type rating flight tests.

- 11.2.2 The arrangements and payment for an Aircraft Type Rating flight test will be a matter between the applicant and the Authority.
- 11.2.3 The test requires that the applicant demonstrate to the FOI or approved person his competence in carrying out normal and emergency manoeuvres and drills appropriate to the aircraft type in question. An example of the form that will be used and the manoeuvres to be undertaken are available from the Authority.
- 11.2.4 An application for Issue of a professional pilot licence or a change to the aircraft type rating should be accompanied by a test result from showing the manoeuvres undertaken and the results. Provided that it is satisfactory, and that other licensing requirements have been met, including the technical examination requirements in respect of the Aircraft Type Rating, the Authority will issue the licence with the type of aircraft upon which the flight test and associated technical examinations were passed, entered in the appropriate part of the licence.
- 11.2.5 The procedure for inclusion of a further type in the Licence subsequent to the first is explained in paragraph 11.5.

### **11.3 PERIOD FOR COMPLETION OF THE AIRCRAFT TYPE RATING**

- 11.3.1 Each of the applicable items in the test form must be satisfactorily completed within the six months immediately preceding the date of receipt by the Authority of the licence application.
- 11.3.2 Exceptions to the period referred to above may be made in the case of potential applicants for a licence who are undergoing an integrated course of training where, in accordance with prior arrangements made with the Authority by the flying training organisation conducting the training, certain items in the flight test and technical examinations may be completed at an appropriate stage in the course.

### **11.4 UPGRADING CO-PILOT AND IN-FLIGHT CRUISE RELIEF RATINGS TO COMMAND RATING**

- 11.4.1 Where the holder of a licence, which includes an aircraft type for which the holder is restricted to Co-Pilot type rating privileges and wishes to obtain Command type rating privileges, he will be required to pass the flight test covering the appropriate manoeuvres and drills.
- 11.4.2 On successful completion of the test he should forward the results and the appropriate application form duly completed and signed by the FOI or approved person who conducted the test, together with his licence, to the Authority for upgrade to a command type rating. All the test items must have been satisfactorily completed within the three months preceding the date of receipt by the Authority of the application for the endorsement.

### **11.5 RATING FOR FURTHER AIRCRAFT TYPES IN AN EXISTING LICENCE**

- 11.5.1 With the exception of some aircraft types or groups of types of which more than one aircraft may be included in the Aircraft Type Rating, a licence will normally permit the privileges to be exercised on only one aircraft type where a licence holder wishes to have another aircraft type included in his licence, he must:-

- (a) Pass the Technical Examination applicable to the Aircraft type concerned;
- (b) Where the type is fitted with systems or equipment which were not included in any aircraft type previously entered in the rating, and upon which he has not previously been examined, pass the relevant sections of the appropriate Technical Examination;
- (c) In the case of an aeroplane type for which he has not passed the Performance examination at the appropriate level pass the examination at that level; and
- (d) Pass the Aircraft Type Rating flight test for the type concerned.

11.5.2 The technical examination for the inclusion of some aircraft types may be taken at the Authority as indicated in the preceding Chapters. Application to take the examinations, together with payment of the relevant examination charges, must reach the Licensing Office before the required examination date. Where an application cannot be accepted because available examination space has already been taken up, the applicant will be offered an alternative date.

11.5.3 The arrangements and payment for the Aircraft Type Rating flight test are a matter between the applicant and his employer.

11.5.4 The technical examinations should be undertaken first, followed by the flight test (any flight training necessary may, however, be undertaken earlier) - all items in the flight test must be satisfactorily completed within the three months immediately preceding the date of receipt by the Authority of the application for the inclusion of an aircraft type.

11.5.5 Prospective applicants for inclusion of a multi-engine aircraft type rating, where no such type has been included before, should **NOTE** that instruction on the type for the purpose of its inclusion may only be given by a person who holds a Flight Instructor's or Assistant Flight Instructor's rating or who is qualified to give instruction on the type.

## 11.6 CREDIT FOR FOREIGN AIRCRAFT TYPE RATING

11.6.1 The holder of a professional pilot's licence (Aeroplanes) issued by another ICAO Contracting State that includes a specific aeroplane type may be credited with that Aircraft Type Rating provided that aircraft type is registered in Fiji. If an aircraft type not registered in Fiji is requested for inclusion, then the applicant will have to demonstrate a need to have the aircraft type credited on the Fiji licence. The decision for that accreditation will be made by the Chief Executive of the Authority.

11.6.2 The applicant is entitled under the privileges of his foreign licence to fly the aeroplane type as endorsed in the licence.

## S2/ CHAPTER 12 - INSTRUMENT RATING (AEROPLANES) – PROFESSIONAL LICENCES

### 12.1 INSTRUMENT RATING PRIVILEGES

The privileges of the Instrument Rating (Aeroplanes) are detailed at Regulation 64 of the Air Navigation Regulations. In general terms, the holder of a professional pilot licence (aeroplanes) is required to hold a valid Instrument Rating for: -

- (a) Any flight as pilot-in-command or co-pilot in conditions or circumstances requiring compliance with the Instrument Flight Rules;
- (b) Any flight as pilot-in-command on a scheduled journey;
- (c) Any flight as pilot-in-command of an aeroplane exceeding 5700 kgs maximum certificated mass engaged in flying for the purposes of public transport, except a flight beginning and ending at the same aerodrome and not extending beyond 25 nautical miles from that aerodrome; or
- (d) Any flight as pilot-in-command at night when passengers are carried or flying instruction is given, unless the licence holder has certain specified recent night flying experience.

12.1.2 A CPL (A) may be issued without an Instrument Rating, although privileges will not include flights under the circumstances detailed above.

12.1.3 ATPL (A) will not be issued unless the applicant has qualified for an Instrument Rating. Should the rating at any time become invalid, the privileges of the licence will be restricted to those of a CPL (A).

12.1.4 The flight test for the Instrument Rating (Aeroplanes) is normally conducted in a multi-engine aeroplane, other than a centreline thrust aeroplane, as if it were being flown by a single flight crew member. This is regarded as the most demanding case and the privileges conferred by a rating gained as the result of such a test may be exercised in single-engine or multi-engine and in single-crew or multi-crew aeroplanes.

12.1.5 At the applicant's request, however, the test may be conducted in a single engine aeroplane and/or with a co-pilot, in which case the licence will be endorsed with the appropriate limitations.

### 12.2 FLYING EXPERIENCE REQUIREMENTS

12.2.1 The normal method of recording flight time and the way in which it will be credited toward meeting the flight experience requirements is given in Appendix A.

12.2.2 For Issue of an Instrument Rating (Aeroplanes), the applicant shall have completed not less than:

- (a) 50 hours cross country time as pilot-in-command (PIC), in categories acceptable to the Authority, of which not less than 10 hours shall be in the aircraft category being sought; and.
- (b) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorised instructor.

12.2.3 Where a pilot holds, or has held within the three years preceding the date of receipt by the Authority of the application for the Instrument Rating (Aeroplanes), a valid ICAO Contracting State Instrument Rating on helicopters, the minimum experience required in aeroplanes is: -

- (a) 50 hours as PIC, of which not less than 20 hours must be cross-country flying; and
- (b) 20 hours as pilot by sole reference to instruments. Up to 10 hours of this may be in an Approved Flight Simulator, including up to five hours in another approved synthetic Flight Training Device.

12.2.4 Flight time in microlight aeroplanes, defined in the footnote to Appendix A, may not be counted toward satisfying any of these requirements.

### 12.3 TECHNICAL EXAMINATION REQUIREMENTS

12.3.1 The Technical examination for the Instrument Rating is a CASA cyber examination. Details can be found in Section 1 chapter 8 of this document.

12.3.2 Persons who have passed the technical examinations for Issue of an instrument rating within the 5 years preceding the date of receipt by the Authority of the application or who have been issued a concession from having to take them will not normally be required to take any further examinations for Issue of an Instrument Rating.

### 12.4 INSTRUMENT RATING FLIGHT TEST

12.4.1 All applicants for the Issue of an Instrument Rating (Aeroplanes) will be required to pass an Instrument Rating flight test conducted by an Authority Flight Operations Inspector. The test for an unrestricted rating will be conducted in a non centre-line thrust multi-engine aeroplane. The test will comprise of the following: -

- (a) Preliminary and external checks;
- (b) Departure Procedures;
- (c) En-route Procedures including GPS, VOR, DME, NDB;
- (d) NDB, VOR, instrument approach procedures;
- (e) ILS instrument approach procedure;
- (f) Holding procedures; and
- (g) Engine failure procedures.

Multi-Engine and Single Engine Flight Test Forms are available from the Authority.

12.4.2 The combined initial issue CFT/IR test is not available in Fiji.

### 12.5 INSTRUMENT RATING FLIGHT TEST PASS CONDITIONS

12.5.1 Before an applicant may take the Instrument Rating flight test he must obtain a certificate, signed by a person authorised to sign such forms, certifying that he has satisfactorily completed any training which may have been required of him and that, in the judgement of the person signing the form, he is fully ready to take the test. However, if the applicant considers that he is ready to take the test but is unable to obtain a signature, he may then appeal to the Authority to take the test provided he has completed the required hours.

12.5.2 Full details regarding the flight test, the conditions and level of acceptable performance are detailed in Standards Document – Instrument and Type Rating Tests for Pilots.

### 12.6 FLIGHT TEST ARRANGEMENTS



12.6.1 Flight tests for the Issue of an Instrument Rating may be conducted at Nadi or Nausori Airports.

12.6.2 Bookings for the test may be made directly with the Authority.

## **12.7 INSTRUMENT RATING RENEWAL**

12.7.1 The period of validity of an Instrument Rating is 13 months from the date of the last test.

12.7.2 Before the Instrument Rating can be renewed the licence holder must pass a further test conducted by an FOI or an Authority approved person in an aeroplane or in a flight simulator approved by the Authority for the purpose. Most operators have on their staff an approved examiner. Alternatively, the Authority should be able to make arrangements for the test.

12.7.3 Any suitable means of simulating instrument flight conditions in an aeroplane including the use of visors may be used for the renewal test. The method or device for simulating instrument flight conditions requires approval by the Authority.

12.7.4 On successful completion of the test, the check form should be signed by the examiner. The completed form, licence and fee should then be forwarded to the Authority. The application for renewal of a licence should include details of the test and results.

### **12.7.5 EXPIRY OF AN INSTRUMENT RATING BY A PERIOD OF MORE THAN 5 YEARS**

12.7.5.1 If a period of more than 5 years has elapsed since the period of validity of the last Instrument Rating, the licence holder will be required, to pass a full Instrument Rating flight test conducted by an FOI as for the initial Issuing of the rating.

## **12.8 TEST FOR REMOVAL OF THE SINGLE-ENGINE AEROPLANE RESTRICTION**

12.8.1 The holder of an Instrument Rating valid only for single-engine aeroplanes may have the restriction removed by passing a flight test conducted by an FOI or Instrument Rating Examiner in an aeroplane of the type specified in paragraph 12.1.4.

## **12.9 ENDORSEMENT OF RNAV (GNSS) IN THE INSTRUMENT RATING**

12.9.1 Endorsements are required, and recency specified for:

- i) RNAV (GNSS) Non precision approach using stand-alone systems.
- ii) RNAV (GNSS) Non precision approaches using multi-sensor FMC systems.

12.9.2 All applicants for the inclusion of the RNAV (GNSS) approach endorsement in the Instrument Rating must provide evidence of the following:

- i) Completion of an issue of a Certificate for an Authority Approved Training Programme that meets the syllabus requirements of *9. Recommended GNSS Training Syllabus of Standards Document - RNAV (GNSS) Approaches* and covers the general information and procedures to all types of GPS equipment,

as well as the essential operating procedures for the specific type of aircraft equipment or other record acceptable to the Authority.

- ii) Practical assessment in the aircraft or a simulator approved by the Authority.

12.9.3 On satisfactory completion of the course and demonstration of competence in operation, the approach type will be endorsed on the Instrument Rating page of the licence:

*Examples*

“Rated on RNAV (GNSS) Approach (B737 Only)”

“Rated on RNAV (GNSS) Approach (BE20 Only)”

12.9.4 Other than the normal training in the use of aircraft navigation equipment no other competency or recency requirements are specified for:

- (i) En-route GPS navigation
- (ii) Use of GPS in lieu of DME.
- (i) DME arrival.
- (iv) RNAV (GNSS) arrival procedures.



## **S2/ CHAPTER 13 - INSTRUMENT RATING (HELICOPTERS)**

### **13.1 INSTRUMENT RATING PRIVILEGES**

- 13.1.1 The Air Navigation Regulations do not at present provide for the issue of an Instrument Rating (Helicopter). Until the appropriate amendment is made to the regulation's consideration will be given to the issue of such privileges under a permit.
- 13.1.2 The permit will be issued only in respect of helicopters having a Fiji Certificate of Airworthiness that permits unrestricted flight in Instrument Meteorological Conditions and will be issued in respect only of the type of helicopter in which the licence holder has passed an Instrument Rating flight test.

## **S2/ CHAPTER 14 - ASSISTANT FLIGHT INSTRUCTOR AND FLIGHT INSTRUCTOR RATINGS**

### **14.1 INTRODUCTION**

14.1.1 The circumstances under which an Assistant Flight Instructor (AFI) or Flight Instructor (FI) Rating is required are set out in Regulation 65 of the Air Navigation Regulations. In general terms, a valid AFI Rating is required if flying instruction is to be given to a person for the purpose of becoming qualified for the Issue of a pilot licence, or the inclusion or variation of any rating in a pilot licence.

14.1.2 The requirement to hold a valid AFI or FI Rating will not apply where a check or a routine test required under the regulations is to be given to a person on an aircraft when he already holds a current rating for such an aircraft.

### **14.2 AFI AND FI RATING PRIVILEGES**

14.2.1 The privileges of the AFI and FI Ratings are set out in Regulation 64 of the Air Navigation Regulations.

14.2.2 In general terms, the holder of a valid Assistant Flight Instructor Rating may give flying instruction in any type of aircraft in which he is qualified to act as pilot-in-command, and for which his instructor rating is so endorsed. An AFI may not give directions to a person undergoing instruction, in respect of his: -

- (a) First solo flight;
- (b) First solo flight by night; or
- (c) First solo cross-country flight by day.

14.2.3 Cross-country flight in this context means any flight in which the aircraft goes more than 20 nautical miles from the airport except for flights to and from the local training area.

### **14.3 AFI RATING (AEROPLANES): QUALIFYING REQUIREMENTS**

14.3.1 Applicants for an AFI Rating (Aeroplanes) should have undertaken an Authority approved course of training for the Issue of the rating and have passed an AFI Rating flight test and oral technical examination conducted by the Authority. Before starting the approved course of training, they should have minimum level of flying experience and, in certain cases, a pass in a pre-course flight test.

#### **14.3.2 Flying Experience Requirements**

14.3.2.1 The minimum level of flying experience required before the holder of a professional pilot licence (aeroplanes) may start an approved course of training for the AFI Rating is, for the minimum course specified in paragraph 14.3.4.1, not less than 100 hours as pilot-in-command of aeroplanes, of which not less than 30 hours must be on single-engine aeroplanes.

#### **14.3.3 Pre-Course Flight Test**

14.3.3.1 An applicant who has not had recent experience on single-engine aeroplanes may be required to pass a flight test on such an aeroplane before permitted to start the approved course of training for the AFI Rating.

#### **14.3.4 APPROVED TRAINING**

14.3.4.1 The minimum course of approved training for the AFI Rating (Aeroplanes) comprises not less than 50 hours technical and 25 hours flight training conducted by an instructor approved by the Authority to conduct AFI Rating courses.

14.3.4.2 This minimum course is designed to train the applicant to give instruction on single-engine aeroplanes up to basic PPL standard. It does not permit instruction in night flying until approved by the Authority.

#### 14.3.5 **AFI Rating Flight Test**

14.3.5.1 On completion of the approved course of training, the applicant will be required to pass an AFI Rating flight test and oral technical examination conducted by the Authority.

14.3.5.2 Application for the test should be made to the Authority and be accompanied by the appropriate fee notified by the Authority.

14.3.5.3 The applicant will be responsible for providing a suitable dual control aeroplane for the test of the type he wishes to have endorsed in the rating. He must have not less than 10 hours as pilot-in-command on the type.

14.3.5.4 On satisfactory completion of the test, the applicant should forward the test results, the licence, the application and the appropriate fee for inclusion of the rating in his licence.

#### 14.3.6 **PERIOD FOR COMPLETION OF QUALIFYING REQUIREMENTS**

14.3.6.1 The approved course of training for the AFI Rating (Aeroplanes) and the AFI Rating flight test must be satisfactorily completed within a period of 6 months from the date on which the training is started.

#### 14.3.7 **REMOVAL OF THE NIGHT FLYING INSTRUCTION RESTRICTION**

14.3.7.1 To qualify for removal of the restriction on night flying instruction, the rating holder will be required to complete a night flight test by the Authority or approved person.

#### 14.3.8 **ENDORSEMENT OF ADDITIONAL AEROPLANE TYPES**

The holder of an AFI Rating (Aeroplanes) may only give flying instruction in aeroplane types for which his rating is specifically endorsed.

#### 14.3.9 **ADDITIONAL SINGLE ENGINE TYPES**

To qualify for endorsement in the rating of additional types of single-engine aeroplanes subsequent to the first, the rating holder will be required to obtain not less than 10 hours as pilot-in-command on each type concerned and to pass a flight test and oral technical examination on the type conducted by an approved person. On receipt of a satisfactory test report, and the appropriate application, the Authority will endorse the licence with the additional rating.

#### 14.3.10 **ADDITION OF MULTI ENGINE AEROPLANE TYPE**

14.3.10.1 To qualify for endorsement in the AFI Rating of the first type of multi-engine aeroplane the rating holder will be required to: -

- (a) Have not less than 50 hours experience as pilot-in-command or pilot-under-instruction of multi-engine aeroplanes, of which not less than 25 hours must be as pilot-in-command, including not less than 5 hours as Pilot-in-Command on the type for which the endorsement is sought;

- (b) Complete an approved course of multi-engine aeroplane instructor training conducted by an authorised instructor at an approved school; and
- (c) Pass a flight test on the type for which the endorsement is sought and an oral technical examination conducted by the Authority.

14.3.10.2 The qualifying requirements and test arrangements for the endorsement in the rating of further multi engine aeroplane types subsequent to the first are the same as those for single-engine aeroplanes; see paragraph 14.3.9.

#### 14.4 **FLIGHT INSTRUCTOR'S RATING (AEROPLANES) QUALIFYING REQUIREMENTS**

14.4.1 Experience requirements (Also see paragraph 14.4.5)

To qualify for the Issue of a Flight Instructor's Rating (Aeroplanes) the applicant will be required: -

- (a) To have obtained not less than 250 hours experience as pilot-in-command of aeroplanes, including not less than 200 hours as instructor on aeroplanes; and
- (b) To have been an Assistant Flight Instructor (Aeroplanes) for a period of not less than 6 months.

14.4.2 **Knowledge requirements**

The applicant shall have met the knowledge requirements for the issue of a commercial pilot licence. In addition, the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight instructor rating, in at least the following areas: -

- (a) Techniques of applied instruction;
- (b) Assessment of student performance in those subjects in which ground instruction is given;
- (c) The learning process;
- (d) Elements of effective teaching;
- (e) Student evaluation and testing, training philosophies;
- (f) Training programme development;
- (g) Lesson planning;
- (h) Classroom instructional techniques;
- (i) Use of training aids;
- (j) Analysis and correction of student errors;
- (k) Human performance relevant to flight instruction; and

**NOTE:** *Guidance material to design training programmes on human performance can be found in the Human Factors Training Manual (ICAO Doc 9683).*

- (l) Hazards involved in simulating system failures and malfunctions in the aircraft.

14.4.3 If the applicant has not qualified for the removal of the night flying instruction restriction, this restriction will continue to apply to any Flight Instructor Rating issued. The qualifying requirements to have them removed are the same as for the AFI Rating: see paragraph 14.3.8.

#### 14.4.4 **FLIGHT TEST REQUIREMENT**

14.4.4.1 Unless exempted by the Authority on the basis of experience and currency, applicants for the Flight Instructor Rating will be required to pass a flight test and oral technical examination conducted by the Authority. The test may be taken on a single-engine

aeroplane, or a multi-engine aeroplane where the applicant holds an AFI Rating endorsed for multi-engine aeroplanes.

14.4.4.2 Arrangements for the flight test should be made with the Authority.

14.4.4.3 On satisfactory completion of the test, the applicant should forward the test results, licence, application form and the appropriate fee for inclusion of the rating in his licence.

#### **14.4.5 ENDORSEMENT OF AEROPLANE TYPES IN THE FLIGHT INSTRUCTOR RATING**

14.4.5.1 A Flight Instructor's Rating (Aeroplanes) will be endorsed to permit the holder to give flying instruction in any single-engine aeroplane specified in the Rating page of his licence.

14.4.5.2 Provided he is qualified to give instruction in multi-engine aeroplanes, the Authority may permit the holder to give instruction in any multi engine aeroplane of which the maximum certificated mass does not exceed 5700 kg. For aeroplanes above 5700kg, applicants should apply to the Authority for the requirements.

14.4.5.3 If the holder of a Flight Instructor's Rating endorsed only for single-engine aeroplanes wishes to add an endorsement for multi-engine aeroplanes, he will be required to meet the same qualifying requirements as in the case of the AFI Rating as detailed in paragraph 14.3.10.

#### **14.4.6 EXPERIENCED PILOTS**

14.4.6.1 In certain circumstances the Authority may, at its discretion and subject to paragraph 14.4.4.3 issue a Flight Instructor Rating to an experienced pilot who has previously undertaken flight training, without requiring him to undergo a formal course of approved training. To qualify for the Issue of a Flight Instructor Rating (Aeroplanes) under these circumstances, he will be required: -

- (a) To have obtained not less than 500 hours experience as pilot-in-command of the type of aeroplane concerned including not less than 150 hours flight time under instruments; and
- (b) To have given not less than 20 hours flying instruction of which at least 10 hours shall have been on the aeroplane for which the Rating is required, under the supervising of a qualified Flight Instructor within the 12 months immediately preceding the date of receipt of the application by the Authority.

14.4.6.2 The issue of the Flight Instructors Rating to an experienced pilot will be subject to the following conditions: -

- (a) The pilot concerned should have held an Assistant Flight Instructor's or Flight Instructor's Rating previously and have exercised its privileges; and
- (b) He shall have obtained prior permission from the Authority before undertaking any flight for the purpose of acquiring the experience required under paragraph 14.4.6.1 (b).

14.4.6.3 The Flight Instructor's Rating issued under such criteria mentioned in, paragraphs 14.4.6.1 (a) and (b) would normally be restricted to an aeroplane not exceeding 5700 kg for which the applicant meets the experience requirements.



14.4.7 Additional criteria, including the requirement for a formal course, will be applicable for a Flight Instructor's rating for aircraft exceeding 5700kg.

## **14.5 AFI RATING (HELICOPTER): QUALIFYING REQUIREMENTS**

14.5.1 Applicants for an AFI Rating (Helicopters) will be required to have a minimum level of flying experience, undergo an approved course of training for the Rating and pass an AFI Rating flight test and oral technical examination conducted by the Authority or an approved examiner.

14.5.2 Flying Experience and Pre-Course Handling Check Requirements

14.5.2.1 Before undertaking an approved course of training for the AFI Rating (Helicopters), applicants will be required to: -

- (a) Have obtained not less than 150 hours as pilot-in-command of helicopters, including not less than 15 hours in the 6 months immediately preceding the start of the course as Pilot-in-Command of the type of helicopter on which the course is to be conducted; and
- (b) Pass a general handling flight check conducted by the Authority or an approved examiner on the type of helicopter on which the course is to be conducted.

14.5.2.2 Before being permitted to take the AFI Rating flight test, the applicant will be required to have obtained not less than 30 hours as pilot-in-command of the type of helicopter to be endorsed in the rating and on which the test is to be taken. 15 hours of this must have been obtained in the 6 months preceding the date of the test. Time on type included in that required under paragraph 14.5.2.1 may be counted toward this requirement.

### **14.5.3 APPROVED TRAINING**

The minimum course of approved training for the AFI Rating (Helicopters) comprises of not less than 50 hours technical and 25 hours flight training conducted by an instructor approved by the Authority to conduct helicopter AFI Rating courses. This minimum course will not fit the applicant to give instruction in instrument or night flying and an AFI Rating Issued as a result of it will be restricted accordingly.

### **14.5.4 AFI RATING FLIGHT TEST**

The AFI Rating flight test will be conducted subject to the same arrangements as for the AFI Rating (Aeroplanes) (see paragraph 14.3.5). Application for the test should be made to the Authority. The test will be conducted by the Authority or by an approved examiner.

### **14.5.5 PERIOD FOR COMPLETION OF QUALIFYING REQUIREMENTS**

The approved course of training for the AFI Rating (Helicopters) and the AFI Rating flight test must be satisfactorily completed within a period of 6 months from the date on which the training is started.

### **14.5.6 REMOVAL OF THE NIGHT FLYING INSTRUCTION RESTRICTION**

To qualify for removal from the AFI Rating of the restriction on night flying instruction, the rating holder will be required to complete a test conducted by the Authority or an

approved instructor, and to be certified by the instructor as competent to give instruction in night flying.

#### **14.5.7 ENDORSEMENT OF ADDITIONAL HELICOPTER TYPES IN THE RATING**

14.5.7.1 The holder of an AFI Rating (Helicopters) may only give flying instruction on the types of helicopters specifically endorsed in the rating.

14.5.7.2 A rating holder who wishes to qualify for the endorsement of a further type of helicopter in the rating will be required to have not less than 5 hours as pilot-in-command on the type, and to pass a flight test on that type conducted by an approved instructor or examiner.

14.5.7.3 Where the type for which the additional endorsement is sought is of a type falling into any of the categories listed below, the applicant will be required to have not less than 30 hours as pilot-in-command of helicopters falling into that category, including 10 hours as pilot-in-command of the type on which the test is to be taken. The categories are: -

- (a) Helicopters exceeding 2300 kg maximum total weight authorised;
- (b) Turbine engine helicopters;
- (c) Multi engine helicopters; and
- (d) Multi-rotor helicopters.

#### **14.6 FLIGHT INSTRUCTOR RATING (HELICOPTERS): QUALIFYING REQUIREMENTS**

##### **14.6.1 EXPERIENCE REQUIREMENTS**

To qualify for Issue of a Flight Instructor's Rating (Helicopters), the applicant will be required to: -

- (a) Have not less than 400 hours experience as pilot-in-command of aeroplanes or helicopters, of which not less than 250 hours must be as Pilot in Command of helicopters, including not less than 100 hours as instructor on helicopters. This Pilot in Command time must include not less than 30 hours on the type of helicopter to be endorsed in the rating and upon which the rating flight test is to be taken; and
- (b) Have been an Assistant Flight Instructor (Helicopters) for a period of not less than six months.

##### **14.6.2 FLIGHT TEST REQUIREMENT**

Unless exempted by the Authority on the basis of experience and currency, applicants for the Flight Instructor Rating (Helicopters) will be required to pass a flight test and oral technical examination conducted by the Authority or an approved examiner.

## **S2/ CHAPTER 15 - GUIDANCE ON REQUIREMENTS FOR APPOINTMENT AS AN APPROVED PERSON FOR INSTRUMENT RATING, TYPE RATING AND BASE CHECK AND LINE CHECK RENEWALS**

### **15.1 INTRODUCTION**

Authority Flight Operations Inspectors carry out all initial issue of pilot's licences, aircraft type ratings, instrument ratings and foreign licence conversions. The Authority at their discretion may approve persons to act on their behalf.

### **15.2 CATEGORIES OF EXAMINERS**

Authority approved persons may renew base, line, and instrument and type rating renewal checks on behalf of CAAF for ANR 45 requirements. The approved person is checked initially, and then normally annually, by an Authority Flight Operations Inspector.

### **15.3 GENERAL REQUIREMENTS FOR APPOINTMENT**

15.3.1 In general, a person appointed to be an approved person should be over 21 years old, have a mature outlook, good judgement, be impartial and be able to accept responsibility. He would be expected to hold an ATPL or in certain circumstances, a CPL with extensive flying experience.

15.3.2 Other qualities on experience that will be considered are: -

- (a) Knowledge of the learning process
- (b) Knowledge of effective teaching methods
- (c) Ability to undertake constructive evaluation and testing
- (d) Experience in planning lessons and course development and instructing techniques
- (e) Ability to evaluate student flight performance including pre-flight and post flight actions
- (f) Knowledge of common pilot errors and the required corrective action
- (g) Ability to analyse student performance and operating standards relative to the appropriate level, and examination being undertaken.

### **15.4 INSTRUMENT RATING EXAMINER – EXPERIENCE**

15.4.1 The appointment as an Instrument Rating Examiner may be conditional as to the aircraft types.

15.4.2 An applicant for such an appointment will be expected to have the following experience and qualifications: -

- (a) Possess a valid Instrument Rating for the aircraft type;
- (b) Have a total flying experience of not less than 2000 hours with at least 250 hours pilot-in-command experience on the aircraft type concerned;
- (c) Have at least 200 hours experience of flight by sole reference to under instruments of which not less than 50 hours were acquired in the previous 12 months;

- (d) Have held a Flight Instructor Rating and have exercised its privileges; Similar qualifications may be acceptable to the Authority; and
- (e) Have attended a formal course of training as an Instrument Rating Examiner or alternatively have extensive experience in the conduct of such examinations.

## 15.5 TYPE RATING EXAMINER – EXPERIENCE

15.5.1 The appointment may be restricted to one or more aircraft types at the discretion of the Authority and the need for examiners on the type.

15.5.2 An applicant for such an appointment will be expected to have the following experience and qualifications: -

- (a) Have a total flying experience of not less than 2000 hours hold a valid Aircraft Rating for the type with at least 100 hours pilot-in-command experience;
- (b) Have a valid Instrument Rating and have held a Flight Instructor's Rating and exercised its privileges or an equivalent qualification that are acceptable to the Authority; and
- (c) Have served as a line check-examiner conducted on recurrent training checks for the operator as required under applicable regulations.
- (d) Have attended a formal course of training as a type rating examiner or alternatively have extensive experience in the conduct of such examinations.

## 15.6 APPLICATION AND RENEWALS

15.6.1 Applications, on the appropriate form, should be made by an executive of the company and be supported by the necessary evidence of experience, where necessary.

15.6.2 The applicant will be required to provide an undertaking to act on the Authority's behalf at all times whilst exercising the approval, protects its interests in flight safety, and to provide it with information on a regular basis on any tests conducted under the approval.

15.6.3 An approval will be valid for 12 months from the date of issue and may, on application, be renewed at the discretion of the Authority for further periods subject to the applicant's satisfactory performance and experience in the previous period.

## 15.7 BASE, LINE AND INSTRUMENT RATING RENEWAL CHECK EXAMINERS

15.7.1 Regulation 36(2) of the Air Navigation Regulations prohibits an operator from allowing any person to be a member of the crew of an aircraft during any flight for the purpose of public transport unless such person has had the necessary training, experience, practice and has undergone the periodic tests prescribed and is considered competent to perform his duties on board. Details of the training, experience, practice and tests and their frequency are specified at Regulation 45 of the Air Navigation Regulations. In order to fulfil the provisions of the regulations the crews concerned are required to be tested at the specified intervals by or on behalf of the operator. Accordingly, the operator should appoint suitably qualified and experienced personnel from his own organisation or make arrangements with other operators or persons to undertake the checks on his behalf. In addition, the operator is required to promulgate a Training Manual as specified in and containing the information and procedure detailed in Regulation 44.

Whilst the appointment of such "Check and Training" personnel is the responsibility of the operator, the regulations, nevertheless, provide the Authority with overall control under Regulation 34. This Regulation provides for the issue of an Air Operators



Certificate of Competency by the Authority provided it is satisfied that such an operator is able to provide a secure and safe operation of aircraft having regard to his previous conduct and experience, his equipment, organisation, staffing, maintenance and other arrangements.

15.7.2

Operators should, therefore, ensure that persons selected or appointed to undertake the duties relating to periodic checks have the necessary qualifications and experience necessary to undertake the duties effectively and may wish to use the guidance on experience and qualification detailed in this Chapter for the appointment of appropriate examiners by the Authority. Operators need to seek the Authority's approval in each case in order to avoid any effect on the validity of their Air Operator Certificate of Competency.

## **S2/ CHAPTER 16 - MULTI-CREW PILOT LICENCE APPROPRIATE TO THE AEROPLANE CATEGORY**

**NOTE:** *Further to the provisions of section 61 of the Air Navigation regulations, Fiji does not issue original issue of any multi-crew pilot licences. It will only validate or issue an equivalent licence as a conversion of a licence issued by another ICAO Contracting State acceptable to the Authority. The applicant will need to demonstrate that the licence issued by another ICAO Contracting State meets the requirements defined below:*

### **16.1 GENERAL REQUIREMENTS FOR THE ISSUE OF THE LICENCE**

#### **16.1.1 Age**

The applicant shall be not less than 18 years of age.

#### **16.1.2 Knowledge**

The applicant shall have met the requirements specified in 16.1.2 for the airline transport pilot licence appropriate to the aeroplane category in an approved training course.

#### **16.1.3 Skill**

16.1.3.1 The applicant shall have demonstrated the skills required for fulfilling all the competency units specified in Appendix 3 as pilot flying and pilot not flying, to the level required to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR, and to:

- Recognize and manage threats and errors;

**NOTE:** *Guidance material on the application of TEM is found in the Procedures for Air Navigation Services — Training (PANS- TRG, ICAO Doc 9868), Part II, Chapter 1, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (ICAO Doc 9683).*

- Smoothly and accurately, manually control the aeroplane within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;
- Operate the aeroplane in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;
- Perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight; and
- Communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to SOPs and use of checklists.

16.1.3.2 Progress in acquiring the skills specified in 2.5.1.3.1 shall be continuously assessed.

#### **16.1.4 Medical fitness**

The applicant shall hold a current Class 1 medical assessment.

## 16.2 PRIVILEGES OF THE HOLDER OF THE LICENCE AND THE CONDITIONS TO BE OBSERVED IN EXERCISING SUCH PRIVILEGES

16.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.1, the privileges of the holder of a multi-crew pilot licence shall be:

- To exercise all the privileges of the holder of a private pilot licence in the aeroplane category provided the requirements of paragraph 2.3.3 have been met;
- To exercise the privileges of the instrument rating in a multi-crew operation; and
- To act as co-pilot of an aeroplane required to be operated with a co-pilot.

16.2.2 Before exercising the privileges of the instrument rating in a single-pilot operation in aeroplanes, the licence holder shall have demonstrated an ability to act as pilot-in-command in a single-pilot operation exercised by reference solely to instruments and shall have met the skill requirement specified in 2.7.1.2 appropriate to the aeroplane category.

16.2.3 Before exercising the privileges of a commercial pilot licence in a single-pilot operation in aeroplanes, the licence holder shall have:

Completed in aeroplanes 70 hours, either as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;

Completed 20 hours of cross-country flight time as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and 10 hours as pilot-in-command under supervision, including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made; and Met the requirements for the commercial pilot licence specified in 2.4.1.2, 2.4.1.3, 2.4.3.1.1 (with the exception of 2.4.3.1.1.1 a)) and 2.4.3.2 appropriate to the aeroplane category.

**NOTE** *When a Contracting State grants single-pilot operation privileges to the holder of a multi-crew pilot licence, it can document the privileges through an endorsement of the multi-crew pilot licence or through the issuance of a commercial pilot licence in the aeroplane category.*

**NOTE** *Certain privileges of the licence are curtailed by 2.1.10 for licence holders when they attain their 65th birthday.*

## 16.3 EXPERIENCE

16.3.1 The applicant shall have completed in an approved training course not less than 240 hours as pilot flying and pilot not flying of actual and simulated flight.

16.3.2 Flight experience in actual flight shall include at least the experience requirements at 2.3.3.1, upset prevention and recovery training, night flying and flight by reference solely to instruments.

**NOTE** *Procedures for upset prevention and recovery training in actual flight are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868).*





**NOTE** *Guidance on upset prevention and recovery training in actual flight is contained in the Manual on Aeroplane Upset Prevention and Recovery Training (ICAO Doc 10011).*

16.3.3 In addition to meeting the provisions of 2.5.3.2, the applicant shall have gained, in a turbine-powered aeroplane certificated for operation with a minimum crew of at least two pilots, or in a FSTD approved for that purpose by the Licensing Authority in accordance with Appendix 3, paragraph 4, the experience necessary to achieve the advanced level of competency defined in Appendix 3.

#### **16.4 FLIGHT INSTRUCTION**

16.4.1 The applicant shall have completed a course of approved training covering the experience requirements specified in 2.5.3.

16.4.2 The applicant shall have received dual flight instruction in all the competency units specified in Appendix 3, to the level required for the issue of the multi-crew pilot licence, to include the competency units required to pilot under IFR.

## SECTION 3 - PRIVATE PILOT LICENCES AND FLYING TRAINING PERMITS

### S3/ CHAPTER 1 - GENERAL INFORMATION AND APPLICATION PROCEDURES

#### 1.1 INTRODUCTION

- 1.1.1 The Air Navigation Regulations 1981 provide for the issue of Flying Training Permits and Private Pilot Licences to permit persons to act as pilots of aeroplanes, balloons or helicopters registered in Fiji.
- 1.1.2 The Authority issues these Permits and Licences (and in the case of Private Pilot Licences, with ratings which extend the privileges of the Licence) to applicants who qualify in accordance with the requirements set out in detail in this publication.
- 1.1.3 Details of charges payable on application for permits, Licences and ratings issued, and certain examinations and tests conducted by the Authority are as notified in current A.I.C. 05/00 Information on the current charges applicable may be obtained from the Authority.
- 1.1.4 Nothing in this publication is intended to conflict with the Air Navigation Regulations 1981 or other legislation which, in case of doubt, must be regarded as over-riding.

#### 1.2 MINIMUM AGE

- 1.2.1 The minimum age for the Issue of Flying Training Permit or Private Pilot Licence is 17 years.
- 1.2.2 In the case of a Private Pilot Licence the technical examination requirements for the Issue of a Licence may be met before the applicant reaches the minimum required age but the Licence will not be issued until he reaches his 17<sup>th</sup> birthday.

#### 1.3 APPLICATION PROCEDURES

- 1.3.1 The requirements which have to be met for the Issue of a Licence, permit or rating, and the details upon which exemption may be given from having to comply with certain of the requirements are detailed in the chapters dealing with the Licences, permits and ratings concerned.
- 1.3.2 The normal method of recording flight time and the way in which it will be credited toward satisfying the flying experience requirements are explained in Appendix "A".
- 1.3.3 Where an exemption is being sought from any particular requirement, such supporting documentation as may be required will be called for. The Authority will then advise the applicant whether he satisfies the flying experience requirements for the permit, Licence or rating in question and what requirements remain to be met.
- 1.3.4 The requirements for the Issue of a permit, a Licence or rating must be met before an application is made. An applicant for an Aircraft Type Rating shall have passed the written examination before undertaking any flight test necessary.
- 1.3.5 When all the requirements for a Licence or rating have been met, the applicant should obtain the appropriate application form from the Authority and, when it is completed, return it together with such supporting documentation as may be required and payment of the appropriate charge.

### **1.3.6 PROOF OF NATIONALITY AND DATE OF BIRTH.**

The Authority may require an applicant for the initial issue of a permit or Private Pilot Licence to provide proof of nationality and date of birth. He will be required to provide supporting evidence by including with the Licence application form either a passport, or a birth certificate.

### **1.3.7 LICENCE PHOTOGRAPH.**

Applications for issue of a permit or Pilot Licence must be accompanied by two copies of a recent passport style photograph. These should be in colour and should be 2cm by 3cm in size showing full face only. Both photographs must show the same image.

## **1.4 MAXIMUM PERIOD OF VALIDITY**

The period of validity of Fiji Flying Training Permit and Private Pilot Licence is related to the medical examination and is indicated at Item XIV of the Licence. This is normally 24 months for applicants up to age 40 years and 12 months in respect of those above this age. In the case of the Private Pilot Licence a completely new Licence including photographs will be issued every 4 years.

## **1.5 REVALIDATION OF LICENCES AND PERMITS**

1.5.1 Licences will normally be revalidated on application provided that the applicant has completed a biennial Flight Review with an approved person, and holds a valid medical assessment (see Chapter 2), and the application form, duly completed accompanied by payment of the appropriate charge.

1.5.2 If the validity of a Licence has expired by a period of more than 5 years, the applicant may, before the Licence is renewed or re-issued be required to pass all the technical examinations for the Private Pilot Licence, the Flight Test, the Aircraft Type Rating Flight Test and, if applicable, the Instrument Rating flight test. This will normally be modified, however, if the applicant has continued in flying practice on, for example, an equivalent foreign Licence. The Authority will judge each case on its merits.

## **1.6 REVIEW OF LICENSING DECISIONS BY THE AUTHORITY**

1.6.1 Where an application for a Licence or a rating is refused, or is Issued in terms other than those requested, the applicant may request that the case be reviewed by the Chief Executive of the Authority, as opposed to the officials acting on its behalf.

1.6.2 Similarly, an applicant who has failed a test or examination which he is required to pass before he is Issued or may exercise the privileges of a Licence or rating, may request that the Chief Executive determine whether the test or examination was properly conducted.

1.6.3 Any request under these provisions should be made to the Controller Air Safety within 14 days of receipt by the applicant of the notice of refusal to Issue a Licence or rating, or notice to Issue it in terms other than those requested, or receipt of notice of failure of an examination or test.

## **1.7 LOG BOOKS**

Every person undergoing instruction in flying or holding a pilot's Licence is required to keep a personal flying log book showing the particulars detailed in Regulation 124 of the Air Navigation Regulations. All entries in a personal flying log book must be made in ink. Log books submitted in support of an application for a Licence should bear an official stamp and the signature of a Flight Instructor or other approved person attesting as to its accuracy.

## 1.8 CONTENTS OF A PRIVATE PILOT LICENCE

Each Private Pilot Licence is made up of a basic Licence (or title page) and Licence renewal page containing Licence validity, and various ratings to which the holder may be entitled as follows: -

(a) **Basic Licence Title Page:**

The basic Licence indicates the class of Licence and the personal particulars of the holder (address, date of birth, nationality etc.) and validity. On being issued with the Licence the holder must sign their name in ink in the space provided.

(b) **Medical Assessment and Period of Validity**

The medical validity testifies to the medical fitness of the Licence holder, and indicates the period for which the Licence is medically valid. Details of the medical requirements are given in Chapter 2.

(c) **Aircraft Type Rating**

- (i) The Aircraft Rating page (Item XII) indicates types of aircraft that the holder of a Licence is entitled to fly.
- (ii) The Licence cannot be issued without the inclusion of an Aircraft Type Rating. When the Licence is first issued, the Authority's licensing branch will endorse the Aircraft Rating page with the type(s) of aircraft for which the holder is qualified. The Authority may delete a type from a Licence if at any time there are technicalities that show that it should no longer be included in the Licence.

(d) **Instrument Rating**

The flight tests and technical examinations for the Instrument Rating are given in Section 1 Chapter 12 of this document.

## 1.9 LANGUAGE REQUIREMENTS

An applicant for a private pilot licence or flying training permit must comply with the language requirements of ICAO Annex 1 Personnel Licensing Chapter 1, paragraph 1.2.9 and associated Appendix.

## **S3/ CHAPTER 2 - MEDICAL REQUIREMENTS**

### **2.1 INTRODUCTION**

A Flying Training Permit or a Private Pilot Licence will not be issued unless the applicant holds a valid Class 2 medical issued by a Designated Medical Examiner (DME) appointed by the Authority. Prospective applicants for a professional licence are strongly advised to ensure that they meet the higher Class 1 medical requirements before committing themselves to any substantial expense in satisfying the other licensing requirements.

### **2.2 INITIAL ISSUE OF THE MEDICAL ASSESSMENT**

2.2.1 For the initial Issue of a Class 2 medical assessment the applicant must undergo an examination with a Designated Medical Examiner appointed by the Authority and satisfy the examiner that he meets the medical standards laid down. In general terms, applicants should be free from any physical or mental disability, have good vision in both eyes and have good colour vision and hearing. The need to wear glasses is not, in itself, a bar provided that the vision can be satisfactorily corrected and the power of the glasses is not excessive. Certain other physical disabilities may also be acceptable provided that they can be adequately compensated.

2.2.2 Arrangements for examination for the initial Issue of a Class 2 medical may be made with a Designated Medical Examiner.

### **2.3 PERIOD OF VALIDITY OF THE MEDICAL ASSESSMENT**

The medical which forms part of the Flying Training Permit or Private Pilot Licence will be valid for a period of 60 months, 24 months or 12 months (depending on age) from the date of the examination by the DME.

### **2.4 HOLDERS OF FOREIGN PRIVATE PILOT LICENCES**

Holders of Private Pilot Licences issued by an ICAO Contracting States may exercise its privileges in Fiji on aircraft registered in the country of the licence held, subject to a pass in the Fiji Aviation Law and Procedures examination.

Or if the duration does not exceed seven days, subject to a briefing on the local procedures by the Senior Air Traffic Control Officer at either Nadi or Nausori Airports. Holders of such licences wishing to obtain a Fiji licence should present their foreign licence, personal flying log book and apply to the authority for a 28 day validation, A Fiji Private Pilot Licence will be issued subject to the applicant passing Fiji Air Law, the appropriate medical examination by a Designated Medical Examiner appointed by the Authority and passing a private licence flight test.

### **2.5 ISSUE OF SUBSEQUENT MEDICAL ASSESSMENTS**

A licence holder may not exercise the privileges of his licence beyond the relevant period of validity of the medical or licence validity. The Authority may in certain circumstances, provided the applicant has undergone the required medical examination, Issue a limited extension of the previous licence validity for completion of the medical review and issue of a clearance.

## **S3/ CHAPTER 3 - REQUIREMENTS FOR THE ISSUE OF A FLYING TRAINING PERMIT (AEROPLANES, BALLOONS OR HELICOPTERS)**

### **3.1 PRIVILEGES OF THE PERMIT**

- 3.1.1 The privileges of a Flying Training Permit are detailed at Regulation 66 of the Air Navigation Regulations. In general terms, the holder of such a permit may fly as pilot-in-command (PIC) of aeroplanes, balloons or helicopters, as appropriate, within Fiji only, for the purpose of training and acquiring experience for the Issue of a pilot licence provided that he shall fly at all times under Visual flight Rules, and under the authority and supervision of an Assistant Flight Instructor or Flight Instructor. The holder is not permitted to carry in the aircraft any other persons, animals or goods and he is not permitted to fly solo beyond a distance of 5 nautical miles, or to and from the Training Area, from the airport of departure unless he meets the additional conditions prescribed by the Authority.

### **3.2 MINIMUM AGE**

- 3.2.1 The minimum age for the Issue of a Flying Training Permit is 17 years.

### **3.3 MEDICAL REQUIREMENTS**

- 3.3.1 An applicant for a Flying Training Permit must hold a medical to a minimum of Class 2 standard. Applicants who propose to acquire experience to eventually qualify for issue of a professional pilot licence are advised to undergo a medical examination to the higher Class 1 standard.
- 3.3.2 Details concerning the medical requirements and the periods over which a medical clearance will remain valid are given in Chapter 2.

### **3.4 APPROVED TRAINING**

- 3.4.1 Unless qualifying for exemption as detailed in paragraph 3.4.3 persons holding a Flying Training Permit will be required to undergo a course of flight and technical training approved by the Authority before qualifying for a pilot licence.
- 3.4.3 Concessions from having to undergo an approved course of training will normally be given to pilot who have previously held a pilot licence which have lapsed due to lack of current flying experience and the person wishes to qualify for its renewal or re-issue.

### **3.5 TECHNICAL EXAMINATIONS AND FLYING EXPERIENCE REQUIREMENTS**

For the Issue of a Flying Training Permit the applicant will not be required to pass any technical examination nor will he be required to have any flying experience.

## S3/ CHAPTER 4 - REQUIREMENTS FOR THE ISSUE OF PRIVATE PILOT'S LICENCE (GLIDERS) PPL (G)

### 4.1 REQUIREMENTS FOR THE ISSUE OF THE LICENCE

#### 4.1.1 Age

The applicant shall be not less than 16 years of age.

#### 4.1.2 Knowledge

4.1.2.1 The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a glider pilot licence, in at least the following subjects:

##### **Air law**

Rules and regulations relevant to the holder of a glider pilot licence; rules of the air; appropriate air traffic services practices and procedures;

##### **Aircraft general knowledge**

Principles of operation of glider systems and instruments;  
Operating limitations of gliders; relevant operational information from the flight manual or other appropriate document;

##### **Flight performance, planning and loading**

Effects of loading and mass distribution on flight characteristics; mass and balance considerations;  
Use and practical application of launching, landing and other performance data;  
pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;

##### **Human performance**

Human performance relevant to the glider pilot including principles of TEM;

**NOTE** *Guidance material to design training programmes on human performance, including TEM, can be found in the Human Factors Training Manual (ICAO Doc 9683).*

##### **Meteorology**

Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

##### **Navigation**

Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;  
Operational procedures



Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

Different launch methods and associated procedures;

Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

Principles of flight

Principles of flight relating to gliders.

- 4.1.2.2 It is recommended that— The applicant should have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of a glider pilot licence, in communication procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.

#### 4.1.3 **Experience**

- 4.1.3.1 The applicant shall have completed not less than six hours of flight time as a pilot of gliders including two hours of solo flight time during which not less than 20 launches and landings have been performed.

- 4.1.3.1.1 When the applicant has flight time as a pilot of aeroplanes, the Licensing Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 2.9.1.3.1 can be reduced accordingly.

- 4.1.3.2 The applicant shall have gained, under appropriate supervision, operational experience in gliders in at least the following areas:  
Pre-flight operations, including glider assembly and inspection;  
Techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;  
Traffic pattern operations, collision avoidance precautions and procedures;  
Control of the glider by external visual reference;  
Flight throughout the flight envelope;  
Recognition of, and recovery from, incipient and full stalls and spiral dives;  
Normal and crosswind launches, approaches and landings;  
Cross-country flying using visual reference and dead reckoning;  
Emergency procedures.

#### 4.1.4 **Skill**

The applicant shall have demonstrated the ability to perform as pilot-in-command of a glider, the procedures and manoeuvres described in 2.9.1.3.2 with a degree of competency appropriate to the privileges granted to the holder of a glider pilot licence, and to:

Recognize and manage threats and errors;

**NOTE** *Guidance material on the application of TEM is found in the Procedures for Air Navigation Services — Training (PANS- TRG, ICAO Doc 9868), Part II, Chapter 1, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (ICAO Doc 9683).*

Operate the glider within its limitations;

Complete all manoeuvres with smoothness and accuracy;

Exercise good judgment and airmanship;

Apply aeronautical knowledge; and

Maintain control of the glider at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

#### 4.1.5 **Medical fitness**



The applicant shall hold a current Class 2 Medical Assessment.

- 4.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges
  - 4.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1 and 2.1, the privileges of the holder of a glider pilot licence shall be to act as pilot-in-command of any glider provided the licence holder has operational experience in the launching method used.
  - 4.2.2 It is recommended that if passengers are to be carried, the licence holder should have completed not less than 10 hours of flight time as a pilot of gliders.

## **S3/ CHAPTER 5 - REQUIREMENTS FOR THE ISSUE OF A PRIVATE PILOT LICENCE (AEROPLANES): PPL (A)**

### **5.1 LICENCE PRIVILEGES**

- 5.1.1 The privileges of a PPL (A) are detailed at Regulation 61 of the Air Navigation Regulations. The holder of such a licence may fly as pilot in command or as co-pilot of any aeroplane which is specified in the Aircraft Rating page in the licence and may carry passengers except when the aeroplane is flying for the purpose of public transport or aerial work.
- 5.1.2 The holder may not fly under Instrument Flight Rules or carry passengers at night unless the licence includes the appropriate rating.

### **5.2 MINIMUM AGE**

- 5.2.1 The minimum age for Issue of a PPL (A) is 17 years.

### **5.3 MEDICAL REQUIREMENTS**

- 5.3.1 An applicant for a PPL (A) must hold a valid Fiji Class 2 medical assessment.
- 5.3.2 Details concerning the medical assessment and period of validity are given in Chapter 2.

### **5.4 APPROVED TRAINING**

- 5.4.1 An applicant for a PPL (A) will be required to have undergone at least part of a formal flight and technical training course approved by the Authority. The course need not be undertaken on a full-time basis.

#### **5.4.2 CONCESSION FROM APPROVED TRAINING**

Concessions from having to undergo an approved course of training for Issue of the PPL(A) will normally be given as follows: -

- (a) Pilot who do not fully meet the requirements for concessions from an approved course may, depending on their experience, be permitted to undertake an abridged course of approved training; and
- (b) Experienced pilot holding higher professional licences will be issued a concession from the requirement to undergo an approved course for issue of a PPL (A). Holders of such licences are automatically accorded private pilot privileges on the appropriate aircraft of the type included in the Aircraft Rating page of the licence.

### **5.5 FLYING EXPERIENCE REQUIREMENTS**

- 5.5.1 Appendix A set out the way in which flight time will be counted towards meeting the flying experience requirements.
- 5.5.2 An applicant for a Private Pilot Licence (Aeroplanes) shall produce evidence of having completed satisfactorily a total of at least 40 hours as pilot of an aeroplane. The total of 40 hours shall include: -
- (a) Not less than 10 hours as pilot in command;

- (b) Adequate flying training under a qualified instructor in an aeroplane fitted with dual controls; and
  - (c) The flying training in paragraph (b) shall include 1 hour's appreciation of instrument flying including an introduction to the subject and demonstrations under simulated IMC, intended primarily to show the student his limitations and the need for him to avoid flight in bad weather until he has had formal instrument flying training after obtaining his private pilot licence.
- 5.5.2.1 Of the 10 hours as pilot in command, not less than 5 hours must have been on cross country flights totaling no less than 270 km (150 nm).
- 5.5.2.2 The 5 hours of cross-country flying must include one flight during which the applicant made two intermediate stops, one of which must have been at least 50 nautical miles from the airport at which the flight began. Cross country routes which fall short of this requirement, but which contain one sector of not less than 50 nautical miles may be accepted. Prior approval to include such a route should be obtained from the Authority.
- 5.5.2.3 The required flying experience may be obtained in any aircraft type but the applicant will be required to submit evidence of having had a reasonable amount of recent experience in the aircraft for which he wishes to obtain a rating. In the case of aircraft subject to individual ratings, the applicant will, in addition, be required to undergo a test in the particular type of aircraft for which he wishes to obtain a rating. (See chapter on Aircraft Type Ratings).
- 5.5.3 The flying experience required for the Issue of a licence, with the exception of that detailed in paragraphs 5.5.2.2., 5.5.2.3 and 5.5.4 may be obtained at any time before the date of application for a licence.
- 5.5.4 Approved course of Training - Reserved.
- 5.5.5 ACCEPTANCE OF FLYING EXPERIENCE IN BALLOONS, MICROLIGHTS, GLIDERS OR HELICOPTERS**
- 5.5.5.1 Experience gained on balloons may not be counted towards any of the minimum flying experience requirements for the Issue of a Private Pilot Licence (Aeroplanes).
- 5.5.5.2 Flying experience on Microlights or Gliders may be counted towards the minimum flying experience requirements for the Issue of a PPL (A) as follows: -
- (a) A maximum of ten hours on microlights may be counted towards the PPL(A) minimum flying experience requirement of 40 hours provided the applicant has acquired not less than 40 hours experience on microlights as pilot in command; and
  - (b) A maximum of ten hours on gliders may be counted towards the PPL (A) minimum flying experience requirement of 40 hours provided the applicant has acquired not less than 40 hours experience on gliders as pilot in command.
- 5.5.5.3 The 40 hours flying experience on aeroplanes may be reduced to 30 hours if the applicant holds a valid helicopter pilot licence or, if he is a pilot not holding a licence, he has more than 40 hours piloting experience on helicopters.
- 5.5.6 The possession of experience on balloons, gliders or microlights will not entitle the holder to any exemption from the practical flying test and technical examinations that are required for the Issue of a Private Pilot Licence.

### **5.5.7 RENEWING THE PRIVILEGES OF THE AIRCRAFT RATING**

- 5.5.7.1 To maintain the privileges of the licence holder is required to pass a biennial flight test. See chapter 1. (I1.5)

## 5.6 TECHNICAL EXAMINATION REQUIREMENTS

- 5.6.1 Unless qualifying for concessions as detailed in paragraph 5.6.3 applicants for a PPL(A) will be required to pass technical examinations including: -

- (a) Fiji Aviation Law, Flight Rules and Procedures;
- (b) Navigation;
- (c) Meteorology;
- (d) Airframes and Engines (General);
- (e) Aircraft Type Rating Technical Examination;
- (f) Aircraft Performance; or
- (g) The appropriate CASA cyber examination.

Full information concerning the examinations is detailed in Section 1 Chapter 8.

- 5.6.2 Before being permitted to enter for any required technical examinations, applicants must: -

- (a) Have embarked on a course of approved training; or
- (b) Be exempt from having to undergo an approved course of training.

### 5.6.3 CONCESSIONS FROM TECHNICAL EXAMINATIONS

Concessions from having to take certain of the technical examinations may be given subject to the applicants having undergone a formal course of training.

#### 5.6.3.1 HOLDERS OF FIJI HELICOPTER PILOT LICENCES

Holders of valid Fiji helicopter pilot licences will normally be Issued a concession from having to take the technical examinations for Issue of a PPL(A), other than: -

- (a) Aircraft Performance;
- (b) Airframes and Engines; and
- (c) Technical Examination.

#### 5.6.3.2 HOLDERS OF A FOREIGN PILOT LICENCE

Holders of a valid professional pilot licence (aeroplanes) issued by an ICAO Contracting State will normally be Issued a concession from having to take the technical examinations for Issue of the Fiji licence other than in Aviation Law, Flight Rules and Procedures. Holders of a PPL (A) issued by an ICAO Contracting State may, at the discretion of the Authority, be issued a concession from some or all the technical examinations.

## 5.7 PRIVATE PILOT FLIGHT TEST (PPL)

- 5.7.1 An applicant for a PPL (A) will be required to undertake a flight test conducted by an approved examiner.
- 5.7.2 Normally the test will consist of a flight of approximately one hour during which the applicant will be assessed on airmanship including circuit procedure, airport discipline, setting and use of instruments, pre-flight inspection, and engine start and run up procedures, cockpit checks, vital actions and in-flight emergencies.
- 5.7.3 A pass in this PPL Flight Test will enable the applicant to obtain a basic licence with private pilot privileges for operation under Visual Flight rules. Separate tests will be required for the addition of other ratings (e.g. night, instrument).

#### **5.7.4 HOLDERS OF FOREIGN PILOT LICENCES**

Holders of a valid pilot licence issued by an ICAO Contracting State will be required to undertake a foreign licence conversion check flight.

#### **5.8 THE AIRCRAFT RATING REQUIREMENTS**

5.8.1 The privileges of a pilot licence may only be exercised in the Aircraft included in the licence. Full details concerning the Aircraft Type Rating requirements are given in Chapter 7.

5.8.2 A PPL (A) will not be issued unless the applicant has qualified for inclusion in the Aircraft Type Rating of the licence as pilot in command of at least one aeroplane type. This normally requires that he pass the Technical Examination and the aircraft rating flight test.

#### **5.8.3 CONCESSION FROM THE AIRCRAFT RATING FLIGHT TEST**

5.8.3.1 The holder of a pilot licence (aeroplane) issued by an ICAO Contracting State which includes a specific aeroplane type may have that type entered in the Aircraft Type Rating page of the Fiji PPL(A) without having to take an Aircraft Rating flight test on the type, provided that: -

- (a) The applicant has a minimum of 100 hours experience as PIC on the aeroplane type and exercised the privileges of the Aircraft Type Rating within 12 months preceding the date of application;
- (b) The applicant is entitled under the privileges of his foreign licence to fly the aeroplane type as pilot in command; and
- (c) The technical examination requirements have been satisfied or the applicant qualifies for exemption as provided for in this document.

#### **5.9 INSTRUMENT RATING REQUIREMENTS**

5.9.1 The holder of a Fiji PPL (A) may not fly as pilot in command or as a co-pilot in circumstances requiring compliance with the Instrument Flight Rules unless the licence contains a valid Instrument Rating.

5.9.2 A PPL (A) may be issued without it containing an Instrument or Night Rating and the privileges of the licence are restricted accordingly.

5.9.3 Full details concerning the Instrument Rating (Aeroplanes) are given in Section 1 Chapter 12.

#### **5.10 PERIOD OF VALIDITY**

The flight test and technical examinations must be completed within the period of six months immediately preceding the date of qualifying for the Issue of the licence. Failure to do so will entail complete re-examination.

## **S3/ CHAPTER 6 - REQUIREMENTS FOR THE ISSUE OF A PRIVATE PILOT LICENCE (HELICOPTERS) - PPL (H)**

### **6.1 LICENCE PRIVILEGES**

- 6.1.1 The privileges of a PPL (H) are detailed in Regulation 61 of the Air Navigation Regulations. The holder of such a licence may fly as pilot in command or as co-pilot of any helicopter which is specified in the Aircraft Rating page included in the licence and may carry passengers except when the helicopters is flying for the purpose of public transport or aerial work.
- 6.1.2 The holder may not fly under Instrument Flight Rules or carry passengers at night unless the licence includes the appropriate rating.

#### **6.1.3 PRIVILEGES ON GYROPLANES**

When an applicant wishes to fly gyroplanes, he should contact the Authority for advice on the detailed requirements that will have to be met. A licence issued under these circumstances will be plainly marked as being restricted to gyroplanes.

### **6.2 MINIMUM AGE**

- 6.2.1 The minimum age for Issue of a PPL (H) is 17 years.

### **6.3 MEDICAL REQUIREMENTS**

- 6.3.1 The applicant for a PPL (H) must hold a valid Fiji class 2 medical.
- 6.3.2 Details concerning the medical and period of validity are given in Chapter 2.

### **6.4 APPROVED TRAINING**

- 6.4.1 An applicant for a PPL (H) will be required to have undergone at least a partial approved course of technical and flight training. The course need not be undertaken on a full-time basis.

#### **6.4.2 EDUCATIONAL STANDARD**

- 6.4.2.1 Reserved.

#### **6.4.3 CONCESSION FROM APPROVED TRAINING**

- 6.4.3.1 The circumstances under which a concession may be given are similar to that applicable to the PPL (A) as detailed in paragraph 5.4.3

### **6.5 FLYING EXPERIENCE REQUIREMENTS**

- 6.5.1 Appendix A sets out the way in which flight time will be counted towards meeting the flying experience requirements.
- 6.5.2 The applicant shall have completed 40 hours as pilot of a helicopter. The 40 hours experience on helicopters may be reduced to 30 hours if the applicant is the holder of a licence to fly aeroplanes, or if he is a pilot not holding a licence, he has more than 40 hours pilot in command experience on aeroplanes.

- 6.5.3 Of the experience referred to in 6.5.2: -
- (a) Normally at least 12 hours dual instruction on helicopters is required; and
  - (b) At least 10 hours as pilot-in-command of a helicopter is required, of which at least 3 hours must have been carried out on cross-country flights, including a cross-country flight of 180 km (100 nm) with 2 landings not less than 45 km (25 nm) distant from the point of departure. The cross-country flight is not required in the case of the holder of a current licence to fly aeroplanes.
- 6.5.4 An applicant is required to have at least 10 hours as pilot-in-command on the first type of helicopter to be endorsed on the licence, and at least 5 hours as pilot on any subsequent type, provided that these 5 hours may be reduced in the case of a pilot with considerable experience on similar types of helicopter.

## **6.6 TECHNICAL EXAMINATION REQUIREMENTS**

- 6.6.1 Unless qualifying for a concession as detailed in paragraph 6.6.3 applicants for a PPL(H) will be required to pass technical examinations in: -
- (a) Aviation Law, Flight Rules and Procedures;
  - (b) Navigation and Meteorology;
  - (c) Rotor craft (General);
  - (d) Aircraft Technical Examination.
  - (e) Radio telephony; or
  - (f) The appropriate CASA cyber examination (Details in Section 1 Chapter. 8)
- 6.6.2 Before being permitted to enter for any required technical examination (except Radiotelephony) the applicant should have acquired at least 15 hours experience on aeroplanes or helicopters.

### **6.6.3 CONCESSION FROM TECHNICAL EXAMINATIONS.**

Persons who hold a valid professional pilots licence (helicopters) issued by an ICAO contracting State will normally be Issued a concession from having to take the technical examinations for the Issue of the Fiji PPL(H) other than in Aviation Law, Flight Rules and Procedures. Holder of a foreign PPL (H) may, at the discretion of the Authority, be issued a concession from some or all the technical examinations.

## **6.7 FLIGHT TEST**

- 6.7.1 An applicant for a PPL (H) will be required to undertake a flight test on a helicopter as appropriate, conducted by an approved examiner.
- 6.7.2 Holders of a valid pilot licence (Helicopters) issued by an ICAO Contracting State who has acquired not less than 150 hours as pilot in command in helicopters will not normally be required to take the PPL (H) FT.

## **6.8 AIRCRAFT RATING REQUIREMENTS**

- 6.8.1 The privileges of a pilot licence may only be exercised in individual helicopters specified in the Aircraft Rating page included in the licence. Full details concerning the Aircraft Type Rating requirements are given in Chapter 7.
- 6.8.2 A PPL (H) will not be issued unless the applicant has qualified for inclusion in the Aircraft Type Rating of the licence as pilot in command of at least one helicopter type.





This normally requires that he pass the Aircraft Technical Examination, and the aircraft rating flight rest.

## **6.9 NIGHT AND INSTRUMENT RATING REQUIREMENTS**

- 6.9.1 Night and Instrument Rating not available in Fiji
- 6.9.2 When a PPL (H) is first issued it will include a limitation that will restrict the holder to fly under Visual Flight Rules. There is at present no provision for Instrument Rating applicable to helicopters. The holder of an Instrument Rating (Aeroplanes) may not exercise the privileges of that rating whilst flying as pilot in helicopters.
- 6.9.3 The holder of a Fiji PPL (H) may not fly as pilot in command or as a co-pilot in circumstances requiring compliance with the Instrument Flight Rules.

## **6.10 PERIOD OF VALIDITY**

- 6.10.1 The flying test and technical examinations must be completed within the period of six months immediately preceding the date of qualifying for the Issue of the licence. Failure to do so will entail complete re-examination.

## S3/ CHAPTER 7 - AIRCRAFT TYPE RATING REQUIREMENTS

### 7.1 INTRODUCTION

- 7.1.1 The privileges of a pilot licence may only be exercised in the aeroplane that is endorsed on the Aircraft Rating page of the licence. A licence will not be issued unless the applicant has qualified for inclusion of an Aircraft Type Rating of at least one aircraft type.
- 7.1.2 Co-pilot time may only be recorded and the privileges exercised if the aircraft shown on the Type Rating is certified to be flown by more than one pilot.
- 7.1.3 To qualify for inclusion of an Aircraft Type Rating the applicant will normally be required to: -
- (a) Pass the Technical Examination if required;
  - (b) Acquire the minimum flying experience relative to the type of aircraft; and
  - (c) Pass an Aircraft Rating flight test on the type.

### 7.2 AIRCRAFT TYPE RATINGS – PPL

- 7.2.1 The PPL contains provision for individual type ratings.
- 7.2.2 Aircraft types will be individually identified and the applicant will be required to meet all the requirements detailed in paragraph 7.1.3 in respect of each aircraft type.

### 7.3 AIRCRAFT TYPE RATING FLIGHT TEST

- 7.3.1 Aircraft Type Rating flight tests will be conducted by Authority Flight Operations Inspector or a person approved by the Authority to conduct such tests on its behalf.
- 7.3.2 The arrangement and payment for the conduct of an Aircraft Type Rating flight test will be a matter between the applicant and the Authority.
- 7.3.3 The flight test requires that the applicant demonstrate to the Authority his competence in carrying out normal and emergency manoeuvres and drills appropriate to the aircraft type. Details of the manoeuvres are shown in the appropriate Authority type rating form.

### 7.4 PERIOD FOR COMPLETION OF AIRCRAFT RATING REQUIREMENTS

- 7.4.1 All manoeuvres required to be tested must be satisfactorily completed within 3 months immediately preceding the date of receipt by the Authority of the application.
- 7.4.2 Both the technical examination and the flight test on the aircraft must be satisfactorily completed within 6 months immediately preceding the date of receipt by the Authority of the application. Exceptions to this period may be made in the case of applicants for a higher licence undergoing an approved course of full-time training.

### 7.5 MINIMUM FLYING EXPERIENCE FOR AN AIRCRAFT TYPE RATING

- 7.5.1 Applicants for an Aircraft Type Rating will be required to demonstrate competency and pass a type rating test flight.

#### 7.5.2 FIRST AIRCRAFT TYPE RATING

The aircraft type used for the PPL Flight Test shall be included in the Type Rating Page of the licence on successful completion of the Flight Test.

### **7.5.3 SECOND AND SUBSEQUENT AIRCRAFT**

The applicant shall undergo Type Rating training to the standard required to successfully complete a Type Rating Test Flight on that aircraft for the inclusion of that type in the licence.

### **7.6 CREDIT FOR FOREIGN AIRCRAFT TYPE RATING**

7.6.1 The holder of a pilot's licence (Aeroplanes) issued by another ICAO Contracting State that includes a specific aeroplane type may be credited with that Aircraft Type Rating provided that aircraft type is registered in Fiji. If an aircraft type not registered in Fiji is requested for inclusion, then the applicant will have to demonstrate a need to have the aircraft type credited on the Fiji licence. The decision for that accreditation will be made by the Chief Executive of the Authority.

7.6.2 The applicant is entitled under the privileges of his foreign licence to fly the aeroplane type as endorsed in the licence.

## S3/ CHAPTER 8 - INSTRUMENT RATING (AEROPLANES & HELICOPTERS) – PRIVATE LICENCE

### 8.1 INSTRUMENT RATING PRIVILEGES

The privileges of the Instrument Rating (Aeroplanes) are detailed at Regulation 64 of the Air Navigation Regulations. In general terms, the holder of a private pilot licence (aeroplanes) is required to hold a valid Instrument Rating for: -

- (a) Any flight as pilot-in-command or co-pilot in conditions or circumstances requiring compliance with the Instrument Flight Rules;
- (b) Any flight as pilot-in-command on a scheduled journey;
- (c) Any flight as pilot-in-command of an aeroplane exceeding 5700 kgs maximum certificated mass engaged in flying for the purposes of public transport, except a flight beginning and ending at the same aerodrome and not extending beyond 25 nautical miles from that aerodrome; or
- (d) Any flight as pilot-in-command at night when passengers are carried or flying instruction is given, unless the licence holder has certain specified recent night flying experience.

8.1.2 A PPL (A) may be issued without an Instrument Rating, although privileges will not include flights under the circumstances detailed above.

8.1.3 Reserved

8.1.4 The flight test for the Instrument Rating (Aeroplanes) is normally conducted in a multi-engine aeroplane, other than a centreline thrust aeroplane, as if it were being flown by a single flight crew member. This is regarded as the most demanding case and the privileges conferred by a rating gained as the result of such a test may be exercised in single-engine or multi engine and in single-crew or multi-crew aeroplanes.

8.1.5 At the applicant's request, however, the test may be conducted in a single engine aeroplane and/or with a co-pilot, in which case the licence will be endorsed with the appropriate limitations.

### 8.2 FLYING EXPERIENCE REQUIREMENTS

8.2.1 The normal method of recording flight time and the way in which it will be credited toward meeting the flight experience requirements is given in Appendix A.

8.2.2 For Issue of an Instrument Rating (Aeroplanes), the applicant shall have completed not less than:

- (a) 50 hours cross country time as pilot-in-command (PIC), in categories acceptable to the Authority, of which not less than 10 hours shall be in the aircraft category being sought; and
- (b) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorised instructor.

8.2.3 Where a pilot holds, or has held within the three years preceding the date of receipt by the Authority of the application for the Instrument Rating (Aeroplanes), a valid ICAO Contracting State Instrument Rating on helicopters, the minimum experience required in aeroplanes is: -

- (a) 50 hours as PIC, of which not less than 20 hours must be cross-country flying; and
- (b) 20 hours as pilot by sole reference to instruments. Up to 10 hours of this may be in an Approved Flight Simulator, including up to five hours in another approved synthetic Flight Training Device.

8.2.4 Flight time in microlight aeroplanes, defined in the footnote to Appendix A, may not be counted toward satisfying any of these requirements.

### **8.3 TECHNICAL EXAMINATION REQUIREMENTS**

8.3.1 The Technical examination for the Instrument Rating is a CASA cyber examination. Details can be found in Section 1 chapter 8 of this document.

8.3.2 Persons who have passed the technical examinations for Issue of an instrument rating within the 5 years preceding the date of receipt by the Authority of the application or who have been issued a concession from having to take them will not normally be required to take any further examinations for Issue of an Instrument Rating.

### **8.4 INSTRUMENT RATING FLIGHT TEST**

8.4.1 All applicants for the Issue of an Instrument Rating (Aeroplanes) will be required to pass an Instrument Rating flight test conducted by an Authority Flight Operations Inspector. The test for an unrestricted rating will be conducted in a non centre-line thrust multi engine aeroplane. The test will comprise of the following: -

- (a) Preliminary and external checks;
- (b) Departure Procedures;
- (c) En-route Procedures including GPS, VOR, DME, NDB;
- (d) NDB, VOR, instrument approach procedures;
- (e) ILS instrument approach procedure;
- (f) Holding procedures; and
- (g) Engine failure procedures.

Multi-Engine and Single Engine Flight Test Forms are available from the Authority.

8.4.2 The combined initial issue CFT/IR test is not available in Fiji.

### **8.5 INSTRUMENT RATING FLIGHT TEST PASS CONDITIONS**

8.5.1 Before an applicant may take the Instrument Rating flight test he must obtain a certificate, signed by a person authorised to sign such forms, certifying that he has satisfactorily completed any training which may have been required of him and that, in the judgement of the person signing the form, he is fully ready to take the test. However, if the applicant considers that he is ready to take the test but is unable to obtain a signature, he may then appeal to the Authority to take the test provided he has completed the required hours.

8.5.2 Full details regarding the flight test, the conditions and level of acceptable performance are detailed in Standards Document – Instrument and Type Rating Tests for Pilots.

### **8.6 FLIGHT TEST ARRANGEMENTS**

8.6.1 Flight tests for the Issue of an Instrument Rating may be conducted at Nadi or Nausori Airports.

8.6.2 Bookings for the test may be made directly with the Authority.

## 8.7 INSTRUMENT RATING RENEWAL

8.7.1 The period of validity of an Instrument Rating is 13 months from the date of the last test.

8.7.2 Before the Instrument Rating can be renewed the licence holder must pass a further test conducted by an FOI or an Authority approved person in an aeroplane or in a flight simulator approved by the Authority for the purpose. Most operators have on their staff an approved examiner. Alternatively, the Authority should be able to make arrangements for the test.

8.7.3 Any suitable means of simulating instrument flight conditions in an aeroplane including the use of visors may be used for the renewal test. The method or device for simulating instrument flight conditions requires approval by the Authority.

8.7.4 On successful completion of the test, the check form should be signed by the examiner. The completed form, licence and fee should then be forwarded to the Authority. The application for renewal of a licence should include details of the test and results.

### 8.7.5 EXPIRY OF AN INSTRUMENT RATING BY A PERIOD OF MORE THAN 5 YEARS

8.7.5.1 If a period of more than 5 years has elapsed since the period of validity of the last Instrument Rating, the licence holder will be required, to pass a full Instrument Rating flight test conducted by an FOI as for the initial Issuing of the rating.

## 8.8 TEST FOR REMOVAL OF THE SINGLE-ENGINE AEROPLANE RESTRICTION

8.8.1 The holder of an Instrument Rating valid only for single-engine aeroplanes may have the restriction removed by passing a flight test conducted by an FOI or Instrument Rating Examiner in an aeroplane of the type specified in paragraph 8.1.4.

## 8.9 ENDORSEMENT OF RNAV (GNSS) IN THE INSTRUMENT RATING

8.9.1 Endorsements are required, and recency specified for:

- i) RNAV (GNSS) Non precision approach using stand-alone systems.
- ii) RNAV (GNSS) Non precision approaches using multi-sensor FMC systems.

8.9.2 All applicants for the inclusion of the RNAV (GNSS) approach endorsement in the Instrument Rating must provide evidence of the following:

- i) Completion of an issue of a Certificate for an Authority Approved Training Programme that meets the syllabus requirements of *9. Recommended GNSS Training Syllabus of Standards Document - RNAV (GNSS) Approaches* and covers the general information and procedures to all types of GPS equipment, as well as the essential operating procedures for the specific type of aircraft equipment or other record acceptable to the Authority.
- ii) Practical assessment in the aircraft or a simulator approved by the Authority.

8.9.3 On satisfactory completion of the course and demonstration of competence in operation, the approach type will be endorsed on the Instrument Rating page of the licence:

*Examples:*

“Rated on RNAV (GNSS) Approach (BE20 Only)”



- 8.9.4 Other than the normal training in the use of aircraft navigation equipment no other competency or recency requirements are specified for:
- (i) En-route GPS navigation
  - (ii) Use of GPS in lieu of DME.
  - (iii) DME arrival.
  - (iv) RNAV (GNSS) arrival procedures.

## **8.10 INSTRUMENT RATING PRIVILEGES - HELICOPTERS**

- 8.10.1 The Air Navigation Regulations do not at present provide for the issue of an Instrument Rating (Helicopter). Until the appropriate amendment is made to the regulation's consideration will be given to the issue of such privileges under a permit.
- 8.10.2 The permit will be issued only in respect of helicopters having a Fiji Certificate of Airworthiness that permits unrestricted flight in Instrument Meteorological Conditions and will be issued in respect only of the type of helicopter in which the licence holder has passed an Instrument Rating flight test.

## S3/ CHAPTER 9 - NIGHT RATING

### 9.1 INTRODUCTION

- 9.1.1 The experience requirements and the flying training syllabus for the Private Pilot Licence do not call for any night flying training, and the privilege of the licence is limited in relation to the carriage of passenger at night.
- 9.1.2 The Night Rating is a night flying qualification that a private pilot may obtain to supplement the licence and which confers on the holder the privilege of carrying passengers at night.
- 9.1.3 Before carrying passengers at night the holder of a Night Rating must have within the immediately preceding 6 months carried out as pilot in command, in the case of aeroplanes, at least 5 take-offs and 5 landings at night, ('Touch and Go' take-offs, circuits and landings may be accepted for this purpose) and in the case of helicopters, 5 flights by night, each consisting of a take-off, transition from hover to forward flight, climb to at least 500 feet followed by an approach and landing.

### 9.2 NIGHT RATING (AEROPLANES) - EXPERIENCE REQUIREMENT

- 9.2.1 An applicant for a night rating must produce evidence of having completed satisfactorily a total of 50 hours as pilot of aeroplane, which shall include: -
- (a) At least 25 hours as pilot in command;
  - (b) At least 5 hours instruction in instrument flying of which not more than half may be tuition in instrument flying in an approved device such as a flight trainer or simulator; and
  - (c) At least 5 hours flight by night, including not less than five flights by night as pilot in command. The flights as pilot in command must have been obtained within the six months immediately preceding the date of qualifying for the rating. A Flight Instructor must certify that this requirement has been fulfilled. 'Touch and Go' take-off and landings are not acceptable for the purpose of satisfying this requirement; each flight must terminate in a full stop landing.

**NOTE:** *A Night Rating (aeroplanes) does not have to be renewed but the recent night flying requirements set out in paragraph 9.1.3 must be satisfied before a pilot may exercise the privileges of the Night Rating.*



### S3/ APPENDIX 1 - RECORDING AND LOGGING OF FLIGHT TIME

Case	Operating Capacity	Minimum Pilot qualification required	Designation in Log Book under 'Holder's operating capacity'	Recording of flight time in log book and crediting of such time towards licence experience requirements
1	2	3	4	5
A	Pilot under instruction for the purpose of gaining a license or rating, or for variation of a rating, or for addition of an aircraft type.	Flying Training Permit	P/UT	Enter time in 'Dual' column. Counted in full toward overall license experience requirements
B	Pilot flying as the sole occupant of an aircraft during training for the grant of a PPL or CPL.	Flying Training Permit	PIC or P1	Enter time in 'P1' column. Counted in full towards overall license experience.
C	Pilot flying as pilot-in-command during training for the Issue of a CPL:	Solo - Flying Training Permit With passenger(s) - PPL		
D	Pilot undergoing a flight test in the capacity of pilot-in command for Issue of a license or rating, or for variation of a rating	Flying Training Permit	PICUS or P1 (U/S) for successful test. P/UT for unsuccessful test.	For successful test enter time in 'P1' column and have it certified by the examiner. For unsuccessful tests enter time in 'Dual' column Counted in full toward overall license experience requirements.
E	Co-Pilot See NOTE 3	Commercial Pilot Licence	P2	Enter time in 'Second Pilot' or 'Co-pilot (P2)' column. Counted at half rate toward overall license experience requirements up to a maximum of 250 hrs towards ATPL(A).
F	Pilot undergoing a flight test in the capacity of co-pilot for Issue of a license or rating, or for variation of a rating.			



G	Pilot under instruction on an approved course for CPL or CPL/IR training acting as pilot-in-command under the supervision of a flight instructor.	Flying Training Permit	PICUS or P1 U/S	Enter time in 'P1' column. Counted in full toward PIC requirements for Issue of a CPL or CPL/IR subject to certification by the supervising pilot and to a maximum of 30 hours.
H	Pilot on flight deck but not as P1, P2 i) Pilot supervising co-pilot activities. ii) No duties assigned (supernumerary)	Commercial Pilot Licence Flying Training Permit	P2 SNY	Enter time as for Case E and count at half rate toward overall license experience requirements up to maximums specified. Enter time in 'Any other flying' or spare column and annotate 'SNY'. Not counted toward license experience required.
I	Co-pilot performing the duties of PIC under supervision of pilot-in-command (ICUS)	Commercial Pilot Licence	PICUS or P1 U/S	Enter time in 'P1' column. Counted in full toward license experience requirements subject to certification by the pilot-in-command and the maximum specified.
J	Pilot in Command (PIC)	Flying Training Permit	PIC or P1	Enter time in 'P1' column. Counted in full towards overall license experience.
K	Pilot undergoing AFI training as pilot as pilot in command accompanied by: Pilot acting as 'student' for instructional purposes.	Private Pilot Licence Private Pilot Licence	PIC or P1	Roles in Column 2 are inter-changeable between pilots. Time spent as 'PI' to be entered and counted as for Case B. Time spent as 'student' to be entered and counted as for Case H (ii).

### AUGMENTED CREW OPERATIONS

L	Pilot in Command (PIC)	Airline Transport Pilot Licence	PIC or P1	The pilot-in-command may log as flight time the actual flight time, including that time spent resting during flight.
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M	Co-pilot or First Officer (F/O) (Authorised to relieve the PIC during flight)	Airline Transport Pilot Licence	P2	Log as co-pilot the time spent acting as co-pilot, including that time spent resting during flight. Log as PIC (U/S) or P1 (U/S) all that time occupying a pilot's seat and acting as pilot-in-command under the supervision of the pilot-in-command when the pilot-in-command is so approved. Time spent on active duty on the flight deck operating in accordance with the operator's prescribed procedures may be logged as co-pilot time.
N	Second co-pilot, Second Officer (S/O) or Cruise Relief Pilot	To relieve the co-pilot – Commercial Pilot Licence	P3	Log as co-pilot the time spent acting as co-pilot. Time spent on active duty on the flight deck operating in accordance with the operator's prescribed procedures may be logged as co-pilot time.

**NOTES:**

1. Whenever two members of flight crew acting in the same capacity share a particular operating duty, each performing such duty for particular periods only and neither acting under the supervision of the other, only the time during which the duty was performed is to be recorded in the appropriate column of the personal flying log book.2. A pilot claiming time spent as co-pilot performing the duties and functions of pilot-in-command, under the supervision of the pilot in command, toward meeting the license experience requirements given in case I, will be credited with that flight time only if: -
  - (a) the flight was conducted in an aircraft having a Certificate of Airworthiness which requires its flight crew to include not less than two pilots or which is required, by operational rules, to be crewed by two pilots; and
  - (b) The pilot in command certifies in the co-pilot's flying log book against the entry for that flight that it was carried out by the co-pilot acting as pilot-in-command under supervision. Such certification will be taken as confirming;
  - (c) he was responsible for checking the accuracy of the flight plan, loadsheet and fuel calculations for the flight;
  - (d) he ensured that all crew checks were carried out in accordance with the laid down operating procedures;
  - (e) throughout the flight he carried out all the duties and functions of pilot-in-command and conducted the take-off and the landing;
  - (f) he resolved all meteorological, communication and air traffic control problems;
  - (g) The pilot-in-command did not have to overrule any course of action proposed or taken by the co-pilot.
2. A pilot claiming co-pilot time towards meeting the overall flying experience requirements for a license provided for in Cases E, F or H (i) will only be credited with that flight time if: -



- (a) the flight was conducted in an aircraft having a Certificate of airworthiness which requires its flight crew to include not less than two pilots or which is required, by operational rules, to be crewed by two pilots and the pilot in command certifies in the co-pilot's log book that the flight was conducted as a genuine two pilot operation; or
  - (b) It was conducted in a military aircraft normally flown by more than one pilot.
3. A proportion of the flight time in gliders or microlights may be counted towards the experience for issue of a PPL (A) CPL (A). These and any flight time in balloons should be entered in 'any other flying' or spare column and annotated accordingly with the capacity in which it was operated. See AIC 05/05
4. Pilot in command flight time accrued in microlight aircraft equipped with conventional three axis flying controls, that have been accepted by the Authority as having flight characteristics substantially similar to the average light aircraft, may be credited towards the pilot in command required for the issue of a flight crew licence.  
The flight time so credited may not exceed 10 hours in the case of a private pilot licence, or 25 hours in the case of a commercial licence. It may not be credited to the requirements of an Airline Transport Pilot Licence.  
Dual instruction or flying training received in a microlight aircraft will not be accepted as meeting any of the requirements for the issue of a flight crew licence.

## SECTION 4 - AIRCRAFT MAINTENANCE ENGINEERS

### S4/ CHAPTER 1 - LICENCES AND CATEGORIES

#### 1.0 GENERAL

- 1.1 Under Regulation 53 (2) of the Air Navigation Regulations (ANR) the Civil Aviation Authority of Fiji may grant an Aircraft Maintenance Engineer's Licence subject to such conditions as it thinks fit, upon its being satisfied that an applicant is a fit person to hold the Licence, and has furnished such evidence and passed such examinations and tests as the CAAF may require for the purpose of establishing that the applicant has sufficient knowledge, experience, competence and skill in aeronautical engineering'.
- 1.2 Licences are granted and extended within the defined Categories given in the table 1. Generally, there are two parts to each Category —
- (a) Licence without Type Rating (LWTR).
  - (b) Type Ratings.

#### 2.0 LICENCE WITHOUT TYPE RATING (LWTR) (SEE TABLE 1)

- 2.1 (a) This Licence does not in itself, confer any certification responsibilities or privileges. It is, however, a prerequisite for the grant of the relevant Type Ratings which confer the privileges of certification appropriate to that Type Rating.
- (b) CAAF Approval of Organisations under ANR145C and the Fiji national requirements are described in the appropriate Standards documents (SDs). In general, these approvals require at least an appropriate LWTR to be held before authorisation for maintenance certification may be granted. For further information reference should be made to the latest issue of those SDs.

#### 3.0 TYPE RATINGS (SEE TABLE 2 AND APPENDIX 2)

- 3.1 General. Type Ratings confer on the holder of a Licence privileges and certification responsibilities in respect of certain aircraft registered in the Fiji. The certification responsibilities are described in Appendix 3.
- 3.2 Type Ratings granted in Category 'C' Engines - Aeroplanes cannot be used to certify engines in rotorcraft or airships.

#### 4.0 VALIDITY OF LICENCES

- 4.1 Licences are issued or renewed for a period of 2 years.
- 4.2 Use of a Licence with a Type Rating to issue a certification requires that, during the 24 months preceding the date of the certification, the holder has been engaged for periods totaling at least 6 months on work affording experience comparable with that required for the grant of the Licence.
- 4.3 The Licence holder shall be satisfied that the Licence Ratings are correct.
- 4.4 The Licence is not valid until signed in ink by the holder.
- 4.5 Licence holders may not exercise the privileges of a Licence whilst medically unfit or under the influence of drink or drugs.

## S4/ TABLE 1 - LICENCE CATEGORIES, LWTRs and TYPE RATINGS

CATEGORIES	LICENCE WITHOUT TYPE RATING SUB-DIVISIONS	TYPE RATINGS AS DEFINED IN THE FOLLOWING PARAGRAPHS OF APPENDIX 2
'A' - Aeroplanes	Aeroplanes 1* Aeroplanes 2*	Paras 5.0, 5.1, 5.5.1, 5.5 Para 5.6
"B" – Aeroplanes - Rotorcraft	Granted concurrently with a Category "B" Type Rating only and requires a relevant Category "A" Type Rating	Paras 5.1, 5.5.1 and 5.5 (less pressurized types and aeroplanes over 5700kg) Paras 7.1, 7.3
'C' Engines	Piston Engines - Aeroplanes Turbine Engines - Aeroplanes	Para 6.3 Paras 6.4, 6.5, 6.6
"A" & "C" - Rotorcraft	Piston-engined Rotorcraft Turbine-engined Rotorcraft	Para 7.1 Paras 7.3, 7.4
"D" – Piston Engines	(Granted concurrently with a Type Rating only)	Para 6.3
"X" – Electrical	Electrical	Paras 9.1, 9.2, 9.3 and 9.4
'X' - Instruments	Instruments	Paras 8.1, 8.2, 8.3 and 8.4
'X' – Automatic Pilots	Automatic Pilots – Aeroplanes Automatic Pilots – Rotorcraft	Paras 13.1, 13.2 and 13.3 Paras 13.4 and 13.5
'X' – Combined Category	Combined Category Instruments/Automatic Pilots	Paras 10.1.4, 10.1.5, and 10.1.6
'X' – Compass Compensation	Compass Compensation and Adjustment	Para 15
'R' - Radio	Communication and Navigation Radar	Para 12.2 Para 12.3

\*Aeroplanes 1: Unpressurised types of any weight or pressurized types not exceeding 5700 kg.

\*Aeroplanes 2: Pressurized types exceeding 5700 kg.

## S4/ TABLE 2 TYPE RATINGS

CATEGORY	PARAGRAPH OF APPENDIX 2	TYPES / SYSTEMS COVERED
'A' – Aeroplanes 1	5.0+ 5.1+ 5.5.1+ 5.5+	Composite Material Aeroplanes (see <b>NOTE</b> below). Wooden and Combined Wood and Metal Aeroplanes. Metal Aeroplanes not exceeding 2730 kg MTWA. Pressurized Metal Aeroplanes not exceeding 5700kg MTWA and all Unpressurised Metal Aeroplanes.
'B' – Aeroplanes	5.1+ 5.5.1+ 5.5+	Wooden and Combined Wood and Metal Aeroplanes. Unpressurised Metal Aeroplanes not exceeding 2730kg MTWA. Unpressurised Metal Aeroplanes not exceeding 5700kg MTWA.
'A' – Aeroplanes 2	5.6*	Pressurized Aeroplanes exceeding 5700kg MTWA.
'C' - Engines	6.3+ 6.4+ 6.5* 6.6*	Piston Engines in Aeroplanes. Jet-turbine engines not exceeding a power rating of 22.25kN (5000lbs) in aeroplanes including, where so endorsed, the associated APU. Propeller-turbine engines in aeroplanes including, where so endorsed, the associated APU. Jet-turbine engines exceeding a power rating of 22.25kN (5000 lbf) in aeroplanes including where so endorsed, the associated APU.
'D' - Engines	6.3+	Piston engines not exceeding 500KW (670lbs) in aeroplanes/rotorcraft/airships.
'A' & 'C' - Rotorcraft	7.1+ 7.3+ 7.4*	Piston-engined rotorcraft. Turbine-engined rotorcraft not exceeding 2730kg MTWA. Turbine-engined rotorcraft exceeding 2730kg MTWA.
'B' - Rotorcraft	7.1+	Piston-engined rotorcraft. Turbine-engined rotorcraft not exceeding 2730kg MTWA.

### NOTES:

- (i) Aeroplanes of composite material are those in which the primary structure is of reinforced plastic/epoxy manufacture.
- (ii) A Category B Licence will not be granted for composite material aeroplanes in paragraph 5.0 (Table continued)
  - + Available as a complete paragraph
  - \* Available as specific types only within the paragraph

**S4/ TABLE 2 (continued)**

CATEGORY	PARAGRAPH OF APPENDIX 2	TYPES/SYSTEMS COVERED
'X' - Instruments	8.1 8.2 8.3 8.4	Aircraft having installed: - General aircraft instruments (excluding any aircraft which has installed a Flight Director) Smith's Flight Systems. Sperry Zero Reader ZL1, ZL2 Flight Director System. Flight Director Systems employing air-driven Gyroscopes (attitude). Flight Director Systems employing Electrically-driven gyroscopes (attitude) excluding those systems defined in Paragraph 8.2.
'X' - Electrical	9.1 9.2 9.3 9.4	Aircraft in which the main generation System output is d.c. (including alternators having a self-contained rectifier system) and in which secondary alternators having an individual power rating not exceeding 1.5kVA may be fitted. Aircraft in which the main generation system output is d.c. and which have installed 'frequency wild; alternators with an individual power rating exceeding 1.5kVA for auxiliary services. Aircraft in which the main generator system output is 'frequency wild' a.c. and d.c. power is supplied from transformer rectifier units. Aircraft in which the main generation system output is 'constant frequency' a.c. from alternators driven by constant speed drive units or variable speed constant frequency (VSCF) generator/converter systems, and d.c. power is supplied from transformer rectifier units.
'X' Combined Category (Instruments and Automatic Pilots)	10.1.4 10.1.5 10.1.6	Includes all the general instrumentation, flight director, automatic pilot, inertial Navigation, compasses (excluding compensation) and ground proximity Warning systems installed in aircraft listed in the relevant sub-paragraph of Appendix 2.
'R' - Radio	12. 2 12.3	Airborne Communication and Navigation Systems. Airborne Radar Systems.
'X' – Automatic Pilots - Aeroplanes	13.1 13.2 13.3	Aeroplanes having installed: - Non radio-coupled Automatic Pilots. Radio-coupled Automatic Pilots excluding ILS coupled (LOC and GS) Automatic pilots. ILS Coupled (LOC and GS) Automatic Pilots.
'X' – Automatic Pilots - Rotorcraft	13.4 13.5	Rotorcraft having installed: - Non radio-coupled Automatic pilots. Radio-coupled Automatic Pilots.
'X' – Compass Compensation and Adjustment	15	Compass compensation and adjustment.



## **S4/ CHAPTER 2 - APPLICATION FOR THE GRANT OR EXTENSION OF A LICENCE**

### **1.0 GENERAL**

- 1.1 This Chapter prescribes the minimum age and experience requirements, including any courses required or accepted as part of the process of determining whether a Licence be granted or extended.
- 1.2 The applicant's experience of maintenance of aircraft will be required to be of an extent and recency according to the application being made.
- 1.3 Military aircraft maintenance experience may be accepted following consultation and agreement by the CAAF.
- 1.4 Satisfactory completion of a CAAF-Approved ab-initio training course may vary these requirements (see Chapter L6).
- 1.5 The charges payable for the grant and extension of Licences are set out in the CAAF Scheme of Charges.

### **2.0 ELIGIBILITY**

- 2.1 Prior to the grant/extension of a Licence an applicant shall be not less than:
- (a) 20 years of age for a LWTR;
  - (b) 21 years of age for a Type Rating.
- An application may be made no more than three months in advance of these ages.
- 2.2 An applicant for the grant / extension of a Licence shall:
- (a) Submit an application which is acceptable in content and presentation;
  - (b) Provide evidence of acceptable experience and any training course requirements relevant to the application;
  - (c) Be able to read, write, interpret technical reports and carry out technical discussions in the English language;
  - (d) Reach a satisfactory standard in any examinations required;
  - (e) Pay the appropriate fee.
  - (f) Successfully completed a Human Performance Training and examination conducted by the employing ANR145C Organisation.

### 3.0 APPLICATION FOR A LICENCE WITHOUT TYPE RATING (LWTR)

- 3.1 An application for the grant or extension of a Licence without Type Rating should be made on Form AW101D, an example of which is shown in Appendix 4. Applicants should ensure that they use forms of the current version. These are available from the CAAF Personnel Licensing Department.
- 3.2 Section 5 of the Form AW101D requires information on the nature of experience, the periods during which the experience has been gained and the signatures required in confirmation. Documents pertaining to relevant service in the Armed Forces, completion of aeronautical engineering courses, foreign licences and professional qualifications should be submitted to the CAAF in support of the application when relevant. If copy documents are submitted these shall be countersigned by the person who confirms the experience on the Form AW101D. For certain certificates and qualifications, the CAAF may grant partial exemption from the licence examinations. Details of these are given in the Guidance notes for the Form AW101D.
- 3.3 If the application is acceptable the applicant will be advised, in the case of a written examination, of the venue and time of the sitting. In the case of an oral examination, the applicant will normally be asked to contact the CAAF Personnel Licensing Department and make arrangements for the examination on a mutually convenient date.
- 3.4 LWTR Sub-Divisions may be applied for in any order with the exception of:
- (a) Category 'R' which requires that the LWTR Sub-Division Radio Communication and Navigation is held before the Licence can be extended to include Category 'R' Radio Radar.
  - (b) Category 'X' — Compass Compensation and Adjustment Category 'X' which requires an applicant to hold any LWTR in Categories 'A', 'C', 'X' or 'R'. The applicant is required to have a minimum of 6 months engineering experience relating to the maintenance of operating aircraft in the 2 years preceding the date of application.
  - (c) Category 'B' (see paragraph 4.2.2).

## 4.0 EXPERIENCE REQUIREMENTS — LWTR

### 4.1 CATEGORIES - A, C, X AND R

Applications for the grant or extension of a Licence in any of these Categories (except Category 'X' — Compass Compensation and Adjustment, for which see paragraph 3.4) must show confirmed minimum specific periods of aviation maintenance engineering experience totaling 4 years.

4.1.1 Applications must also show the following minimum experience, which must have been gained whilst maintaining operating aircraft and not in component workshops or on static or non-flying aircraft:

- (a) For a Category 'A' and/or 'C' LWTR, 36 months relating to Airframe and/or Engine maintenance, 12 months of which must be in the 2 years immediately preceding the date of application.
- (b) For any Category 'R' and/or 'X' LWTR (excluding Category 'X' — Compass Compensation and Adjustment), 36 months related to avionic systems, 12 months of which must be in the 2 years immediately preceding the date of application.
- (c) 6 months, within the 12 months referred to in (a) and (b), relevant to the specific LWTR for which application is being made.

4.1.2 Where an applicant for Category 'X' Electrical holds a valid Licence which includes both Category 'A' and Category 'C' LWTR sub divisions, the experience in paragraph 4.1.1(b) above need not be complied with and the applicant need show only the 6 months experience relevant to the LWTR required in paragraph (c).

4.1.3 Any of the periods specified in this paragraph may be concurrent.

### 4.2 CATEGORY 'B'

4.2.1 Applications for Category 'B' Aeroplanes or Rotorcraft must show confirmed minimum specific periods of: —

- (a) 12 months, within the 2 years immediately preceding the date of application, major maintenance/major repair/overhaul activity on aircraft in paragraphs 5.1, 5.5.1, 5.5, 7.1 or 7.3 of Appendix 2. Or
- (b) 2 years, within the 3 years immediately preceding the date of application, maintenance management of aircraft in paragraphs 5.1, 5.5.1, 5.5, 7.1 or 7.3 of Appendix 2, including some major maintenance / major repair / overhaul activity.

These alternative experience requirements will be additional to, but may have been obtained concurrently with, the experience required for the prerequisite Category 'A' Licence.

4.2.2 An applicant for the grant or extension of a Licence to include Category 'B' must hold the equivalent LWTR in Category 'A Aeroplanes or Category A/C' Rotorcraft, together with the equivalent Type Rating(s).

4.2.3 Category 'B' LWTR is only granted concurrently with an appropriate Type Rating.

### 4.3 CATEGORY 'D'

4.3.1 Applications for grant/extension of a Licence in Category 'D' must show confirmed minimum periods of: —

- (a) 4 years overhaul of aircraft piston engines, 12 months of which must be in the 2 years immediately preceding the date of application, Or
- (b) 2 years use of a Category 'C' Type Rated Licence on piston engines in aircraft and 12 months, within the 2 years immediately preceding the date of application, overhaul of aircraft piston engines.

4.3.2 Category 'D' LWTR is only granted concurrently with an appropriate Type Rating.

4.4 Where in a particular case, the LWTR or Sub-Division syllabus covers systems or subjects which may not be encountered necessarily by an applicant, specific practical experience on that subject or system will not be required, provided that the general area of the LWTR / Sub-Division is supported by experience; for example, in the case of: —

- (a) LWTR Turbine Engines-Aeroplanes, experience of propellers may not have been gained;
- (b) LWTR Instruments, experience of INS may not have been gained;
- (c) LWTR Electrical, experience of a.c. power may not have been gained.

However, acceptance of an application lacking experience in these subjects will not exclude these subjects from the examination.

## 5.0 APPLICATION FOR A TYPE RATING

5.1 Type Ratings are designated within paragraphs of Appendix 2 and the paragraphs relate to the various Licence Categories. For the purpose of this Chapter, the Types / Systems covered by the Type Ratings are summarized in Table 2 (Chapter L1).

5.2 An application for a Type Rating in respect of the type of aircraft, engine or system will be considered provided that: —

- (a) The appropriate LWTR is held or is being applied for simultaneously (see Table 1 Chapter L1). In the latter case the Type Rating will not be granted until the appropriate LWTR is held;
- (b) The aircraft is of a type, or the engine or system is installed in a type that is registered in the Fiji and in respect of which a Fiji Certificate of Airworthiness is in force or has been applied for;
- (c) The application is **not**:
  - (i) For an aircraft type, engine or system described in, or considered by the Authority to fall within the description of paragraph 14 of Appendix 2.
  - (ii) In Category 'B', for
    - A pressurized Aeroplane, or
    - An Aeroplane in which the primary structure is of reinforced plastic/epoxy manufacture, or
    - An Aeroplane having a MTWA exceeding 5700 kg (12,500 lb.), or
    - A Rotorcraft having a MTWA exceeding 2730 kg (6,000 lb.);

- (iii) In Category 'D', for Piston Engines with a power rating exceeding 670 BHP (500 kW) or for any jet or propeller turbine engine.
    - (d) Notwithstanding any exclusion by paragraph (b) or (c) (i) above, the application may be considered where an ANR145C approved organisation in the Fiji can show a requirement for a type rating to permit certification authorisation under ANR145C.
- 5.3 For Type Ratings indicated '+' in Table 2 Chapter L1, an application maybe made for the paragraph itself or for specific types of Aeroplanes, Rotorcraft or Engines within the paragraph.
- 5.4 The Type Ratings within paragraphs 5.6, 6.5, 6.6 and 7.4 of Appendix 2 are available only as specific types of Aeroplane, Rotorcraft or Engine and therefore are not available as a paragraph.
- 5.5 The assessment procedure for the grant of a Type Rating varies according to the particular Type Rating required and may take the form of an oral examination, completion of a CAAF Recognised Course or assessment of experience alone. Where satisfactory completion of a CAAF Recognised Course is required normally, the CAAF may decide in a particular circumstance that an oral examination should be carried out either in lieu of the course or in addition to it.
- 5.6 The application procedure to extend a licence to include a Type Rating is similar to that described in paragraph 3, except that the application Form CAAF AW101D must be accompanied by an acceptable Record of Experience (see Appendix 4). Related to the Type Rating applied for.
- 5.6.1 The certification required in Section 9 of Form CAAF AW101D shall be made by an engineer, acceptable to the CAAF, who shall normally have had regular professional contact with the applicant and who has held a Fiji Licence, in the discipline for which application is made, for a minimum period of 24 months. The Licence must be valid. The signatory may be an experienced person other than an appropriately licensed engineer with the prior agreement of the CAAF Personnel Engineer Licensing Department.
- 5.6.2 Where the applicant is required to undergo a CAAF Recognised Course, the applicant must give details on the Form CAAF AW101D and submit a copy of the appropriate Certificate.

## 6.0 EXPERIENCE REQUIREMENTS — TYPE RATINGS

- 6.1 Subject to paragraph 6.2, extension of a Licence to include a Type Rating does not normally require a period of general experience additional to that required for the relevant LWTR, which must be held before a Type Rating will be granted (see Table 1 Chapter L1). However, a satisfactory Record of Experience appropriate to the Type applied for must be submitted as part of the application for a Type Rating (see paragraph 5.6 and Appendix 4). The experience shown on it must have been gained within the three years before the application.
- 6.2 An application for a Type Rating from a holder of an LWTR which was gained following successful completion of an Approved Ab initio Course must show confirmed evidence that he or she has obtained at least 12 months relevant aircraft engineering experience with an organisation engaged upon the maintenance of operational aircraft in addition to that gained during the Course.

## 6.3 CATEGORY 'A', 'B', 'C' AND 'D' TYPE RATINGS

- 6.3.1 For:
  - Category 'A' — Aeroplanes in paragraphs 5.0, 5.1, 5.5.1, or 5.5 of Appendix 2;

Category 'B' — Aeroplanes in paragraphs 5.1, 5.5.1 or 5.5 of Appendix 2 which are not over 5700 kg or not pressurized;

Category 'B' — Rotorcraft in paragraphs 7.1 or 7.3 of Appendix 2;

Category 'C' — Engines in paragraph 6.3 of Appendix 2;

Category 'D' — Engines not more than 500 kW (670 BHP) in paragraph 6.3 of Appendix 2;

Categories 'A/C' — Rotorcraft in paragraph 7.1 of Appendix 2.

- (a) A Type Rating will normally be granted subject to a satisfactory oral examination on those items in the modular syllabus applicable to the Category Type Rating.
- (b) Where application is made for the paragraph itself, the Record of Experience referred to in paragraph 6.1 must provide satisfactory evidence of relevant experience of at least 1 year on a minimum of two types of aeroplanes, rotorcraft and/or engines, as appropriate, of different manufacturers within that paragraph. The types must be representative of those within the paragraphs and one type must satisfy the following criteria:

For paragraph 5.5.1: Aeroplanes having retractable landing gear but not necessarily pressurized.

For paragraph 5.5: Aeroplanes over 2730 kg and having retractable landing gear, but not necessarily pressurized.

For paragraph 6.3: Engines that are Supercharged / turbocharged. Where application is made for a specific type only, the Record of Experience need only cover that specific type.

6.3.2

For:

Category 'A' — Aeroplanes in paragraph 5.6 of Appendix 2.

Category 'C' — Engines in paragraphs 6.4, 6.5 and 6.6 of Appendix 2.

Category 'A' and 'C' — Rotorcraft in paragraphs 7.3 and 7.4 of Appendix 2.

- (a) A Type Rating will normally be granted subject to evidence of satisfactory completion either of a CAAF Recognised Course (See Chapter L5) covering the Type Rating or of a type training course to ATA 104 level 3 covering the Type Rating and carried out by a suitably Approved Maintenance Training Organisation approved by, or acceptable to the CAAF. In either case the course should have been completed within the 3 years immediately preceding the date of application.
- (b) Application may be made only for specific types of Aeroplanes, Rotorcraft and/or Engines listed in paragraphs 5.6, 6.5, 6.6 and 7.4 and not for the paragraph itself.
- (c) Applications will be considered for paragraphs 6.4 and 7.3 or for specific types of Engine or Rotorcraft covered by the paragraph. Where application is made for the paragraph, the Record of Experience must provide satisfactory evidence of relevant experience of at least 1 year on a minimum of two types of Engines and/or Rotorcraft by different manufacturers within that paragraph. The types must be representative of the paragraph. Where application is made for a specific type only, the Record of Experience need only cover that specific type.

6.3.3

Application for one of the paragraphs 5.0 (Category A only), 5.1, 5.5.1, 5.5,

6.3, 6.4, 7.1 or 7.3, may be accepted without examination for the paragraph itself, or without a training course for the paragraph itself, provided that:

- (a) The applicant has obtained two Type Ratings of aircraft and/or engines of different manufacturers, representative of types within the paragraph, and
  - (i) For paragraphs 5.5.1, 5.5 and 6.3, one of the Type Ratings must satisfy requirement (c) below.
  - (ii) For paragraph 7.3, engine types by two different manufacturers are required.
- (b) The applicant must show confirmed experience of 2 years maintenance of aircraft and/or engines within the paragraph. For paragraphs 5.5.1, 5.5 and 6.3, 1 year must be on types satisfying requirement (c).
- (c) For paragraph 5.5.1: Aeroplanes having retractable landing gear but not necessarily pressurized.

For paragraph 5.5: Aeroplanes over 2730 kg and having retractable landing gear, but not necessarily pressurized.

For paragraph 6.3: Engines that are supercharged / turbocharged.

## 6.4 CATEGORY 'X' TYPE RATINGS

6.4.1 Category 'X' — Instruments. A Type Rating for any of the paragraphs 8.1, 8.2, 8.3 or 8.4 of Appendix 2 will be granted subject to a satisfactory oral examination on those items in the modular syllabus applicable to the Category and to the Type Ratings.

Category 'X' — Electrical

- (a) A Type Rating for any of the paragraphs 9.1, 9.2 or 9.3 of Appendix 2 will normally be granted subject to a satisfactory oral examination on those items in the modular syllabus applicable to the Category and to the Type Ratings.
- (b) A Type Rating in paragraph 9.4 of Appendix 2 will normally be granted subject to evidence of satisfactory completion either of a CAAF Recognised Course (See Chapter L5) covering the Type Rating or of a type training course to ATA 104 level 3 covering the Type Rating and carried out by a Maintenance Training Organisation approved by, or acceptable to the CAAF. In either case the course should have been completed within the 3 years immediately preceding the date of application.

6.4.3 Category 'X' — Automatic Pilots — Aeroplanes or Rotorcraft. A Type Rating for any of the paragraphs 13.1, 13.2, 13.3, 13.4 and 13.5 of Appendix 2 will normally be granted subject to a satisfactory oral examination on those items in the modular syllabus applicable to the Category and to the Type Ratings.

6.4.4 Category 'X' — Combined Category Instruments/Automatic Pilots. 'X' Combined Category LWTR is a prerequisite for the grant of any of the Combined Category Type Ratings listed in paragraph 10 of Appendix 2.

Such a Type Rating will normally be granted subject to evidence of satisfactory completion either of a CAAF Recognised Course (See Chapter L5) covering the Type Rating or of a type training course to ATA 104 level 3 covering the Type Rating and carried out by a Maintenance Training Organisation approved by, or acceptable to the CAAF. In either case the course should have been completed within the 3 years immediately preceding the date of application.

6.4.5 Category 'X' — Compass Compensation and Adjustment. A Type Rating for paragraph 15 of Appendix 2 will normally be granted to holders of any Type Rated Licence in



Categories 'A', 'C' 'X' or 'R' subject to the provision of evidence of compass swings, which have included compensation of compasses, on four aircraft within the preceding 12 months.

## **6.5 CATEGORY 'R' TYPE RATINGS**

A Type Rating for paragraph 12.2 or 12.3 of Appendix 2, will normally be granted subject to assessment by the CAAF of the Record of Experience required in paragraph 6.1.



## S4/ CHAPTER 3 – EXAMINATIONS

### 1.0 GENERAL

This Chapter provides information on the examinations appropriate to the grant or extension of Licences. The information in relation to LWTRs in particular may not apply to candidates who have completed successfully an Approved Ab-initio Course. Such candidates should consult Chapter L6.

### 2.0 LICENCES WITHOUT TYPE RATING

2.1 An applicant for an LWTR will be examined on those modules of the syllabus in Appendix I which are applicable to the Category/Sub-Division, less those modules previously satisfied by an existing LWTR held on a valid Licence.

2.2 The examination for the grant of a Licence will normally be in two parts:

- (i) A written examination, comprising a multi-choice question paper and an essay question paper, and
- (ii) An oral examination. All papers of the written examination must be taken at one sitting. The oral examination can only be taken after the written examination has been passed and normally must be taken within 3 months of the written examination.

2.3 The examination format for licence extension to include an LWTR is the same as that described in paragraph 2.2 but where an oral examination is part of the examination process the candidate normally will not be required to take an essay paper.

However, in the case of Categories 'B' or 'D' an essay paper is taken instead of a multi—choice paper.

2.4 Category 'X' - Compass Compensation and Adjustment does not normally require an oral examination.

2.5 The Authority may grant exemption from parts of the written examination to holders of particular qualifications: details are given in the Guidance notes to the Form CAAF AW101D in Appendix 4.

2.6 Technical manuals or other similar documentation are not used for reference purposes during the examination. Calculators or similar devices are not permitted to be used during examinations.

### 3.0 TYPE RATINGS

- 3.1 The assessment procedure for Type Ratings is set out in paragraphs 5 and 6 of Chapter L2. Where an oral examination is required it will cover those items of the modular syllabus appropriate to the Type Rating.
- 3.2 Concurrent applications for an LWTR and an associated Type Rating where both require an oral examination will result in one oral examination covering both aspects following a satisfactory written examination covering the LWTR aspects only.

### 4.0 THE EXAMINATIONS

#### 4.1 GENERAL

Examinations are either written or oral or both and information on their format is given below. The candidates should expect to be examined on the complete syllabus appropriate to the rating regardless of whether or not they have experience on particular systems.

- 4.2 Candidates should be prepared to show proof of identity, such as a passport or an identity pass, when attending for examination.

#### 4.3 WRITTEN EXAMINATION

The time allowed for each examination paper *is* shown **on** the answer sheet which the candidate must sign. Each question in the written examination is worth equal marks; the pass mark *is* 75% *in* each module and 70% in the essay paper. Copies of past papers are not published but sample questions are shown in Appendix 6.

##### 4.3.1 MULTI-CHOICE PAPER

Examination question booklets, which include instructions, are provided to candidates together with an answer sheet (see Appendix 7). Each question comprises an introduction statement and three alternative answers designated (A), (B) and (C) printed below the statement. Only one of these answers is totally correct, the remaining two answers are incorrect or incomplete in some definite aspect.

##### 4.3.2 ESSAY PAPER

This paper tests the candidate's ability to read, write and express himself in technical English and comprises a number of questions each with an allocated space in which the candidate is required to write the response. Some questions will cover basic principles and practical features appropriate to systems and/or components but in the main they will relate to maintenance and inspection aspects, condition assessment, functional checking, trouble-shooting procedures and maintenance certification.

#### 4.4 ORAL EXAMINATION

The oral examination is the final stage in the examining process for the grant or extension of an LWTR and, where appropriate (see paragraph 3.1), for extension to include Type Ratings. The examinations are conducted by Airworthiness Officers at CAAF Headquarters at times mutually agreed.

- 4.4.1 An LWTR oral examination covers both theoretical and practical aspects, with emphasis on typical maintenance practices and troubleshooting, of a sample from the syllabus modules appropriate to the Category of Licence and within the levels indicated in Appendix 1.

- 4.4.2 An oral examination for a Type Rating is based on those items of the syllabus applicable to the Category and Type rating (see Appendix 1), emphasis being placed

on practical aspects. Areas of work itemised by the candidate in the Type Rating Record of Experience will be included in the examination.

## **5.0 FAILURE AND PARTIAL PASSES**

### **5.1 LWTR**

A candidate who wishes to reapply after any failure of an examination must complete and submit a Form CAAF AW101D, showing a further 2 months experience applicable to the LWTR and obtained since the date of the failure.

5.1.1 Following a written examination failure a candidate will be required to retake at the next attempt at the examination all multi-choice and/or essay papers appropriate to) the LWTR, less any passed and credited under paragraph 5.1.2 or any for which the candidate continues to hold valid exemption.

5.1.2 A candidate who passes any multi-choice paper or essay paper of a written examination but who fails to achieve a pass overall may hold the pass (es) in credit for 12 months from the date of the examination. Any subsequent passes in other parts of the examination achieved during this period will also be held in credit provided that a pass in all papers applicable to the LWTR (including module 1 if applicable) is achieved within 12 months of the first pass. A candidate who does not achieve a pass in all elements of the written examination relevant to the LWTR within the 12 months since the first pass was achieved will be required to re-sit all parts of the written examination at the next attempt. If a candidate has separate applications for different LWTRs in progress at a time, the examinations for the respective LWTRs will be treated separately and passes may not be transferred between them.

5.1.3 A candidate is allowed two successive attempts at an oral examination for an LWTR provided that the second attempt takes place within one year of the first attempt. A candidate who fails the second attempt at the oral examination may be required to take or retake the appropriate written examination, notwithstanding that the candidate may have been granted exemption from all or part of the written examination originally.

5.1.4 Where a candidate has applied for both Category R' Radio Communication/Navigation and Category 'R' Radio Radar and fails the examination for only the former, the pass in Radio Radar will be held for 12 months from the examination, If the candidate does not achieve a pass in Radio Communication/Navigation within this time the pass in Radio Radar will lapse.

### **5.2 TYPE RATING**

A candidate, who has failed a Type Rating oral examination and wishes to be re-examined, should complete a further copy of Form CAAF AW101D, and submit it together with further Type Rating Record of Experience information listing items of experience since the previous application.

### **5.3 FAILURE GUIDANCE**

Candidates may request guidance following failure of an oral examination. However, the Authority is unable to offer any beneficial guidance on failure of written examinations beyond the marks shown on the failure notification. Requests must be made in writing to the CAAF Personnel Licensing Department and guidance will be supplied only in writing.

## S4/ CHAPTER 4 - LICENCE RENEWAL

### 1.0 GENERAL

A Licence may be renewed as described below provided that the holder provides evidence of having been engaged on the maintenance of operating aircraft for periods totaling at least 6 months during the 12 months before application for renewal. Where a Licence holder is unable to show such experience but has been involved actively for the same minimum period in matters concerned with aircraft maintenance (e.g. as a quality engineer or quality manager, an aeronautical engineering instructor or as a flight engineer) consideration will be given to renewing the Licence.

### 2.0 RENEWAL

2.1 It is the responsibility of the Licence holder to ensure that his or her Licence remains valid. It is important for Licence holders to notify changes of address promptly to the CAAF. Applications for renewal will not be accepted more than 60 days before expiry of the Licence.

2.2 A Licence cannot be back-dated and in order to ensure continuity of Licence coverage an acceptable application for renewal must be received by the CAAF in good time before expiry of the Licence. Any lack of continuity in the validity of the Licence will be recorded on the renewed Licence. Any certifications issued after a Licence has lapsed could affect the validity of the Certificate of Airworthiness of the aircraft for which those certifications were issued.

2.2.1 If certification has been made under the authority of a Licence which has lapsed, the Licence will not be renewed until a statement has been made that all such certifications have been re-certified by the holder of a valid Licence. This statement must be made by the owner of the aircraft or by the maintenance organisation(s) responsible for the maintenance of the aircraft since the invalid certification was made.

2.2.2 If certification has been made under the authority of a Company Authorisation based upon the certifier holding a valid Licence which had lapsed at the time the certification was made, the Licence will not be renewed until a statement has been made that all such certifications have been re-certified by the holder of a valid Company Authorisation. This statement must be made by the Quality Manager of the approved maintenance organisation(s) responsible for the maintenance of the aircraft since the invalid certification was made.

2.3 The CAAF can only renew a Licence upon being satisfied with the renewal submission and upon the receipt of the statutory fee. The charges payable are in accordance with the CAAF Fees Regulations. Licences are renewed for a period of two years. Application for Licence renewal shall be made on CAAF Form 111 appropriately signed by the Quality Assurance Manager, Chief Engineer or Maintenance Manager of the approved maintenance organisation.

### 3.0 EXPIRED LICENCES

3.1 A Licence which has lapsed for less than 2 years will be considered for renewal without examination of the holder provided that the other requirements of this Chapter are met.

3.2 A Licence which has lapsed for more than 2 years will not be renewed without examination of the holder. The amount of **recent** experience required will depend on the length of time since the licence lapsed and the nature of employment. Application for the re-issue of the Licence should be made in accordance with the procedures in



Chapter 1.2. Examination details appropriate to the circumstances will be notified by the CAAF. The extent of the examination will generally be dependent on the nature of the holder's employment since the Licence was last renewed and on the degree to which such employment can be considered by the CAAF as comparable to those privileges for which the Licence was valid.

## **S4/ CHAPTER 5 - RECOGNISED TYPE TRAINING**

### **1.0 GENERAL**

- 1.1 For the extension of a licence to include Type Ratings in paragraphs 5.6, 6.4, 6.5, 6.6, 7.3, 7.4, 9.4 and 10 of Appendix 2, the applicant shall have completed satisfactorily a type course recognized by the CAAF. This Chapter sets out the requirements for the recognition of such courses.
- 1.2 An organisation applying for recognition of a type training course must be a Fiji Operator, Fiji Maintenance Organisation or a CAAF Approved Maintenance Company. Recognition must also be requested for Manufacturers' Courses or other contracted out courses, ensuring that such training meets the Maintenance Organization's needs for its employees. It may be necessary in these circumstances to supply additional training on those areas of the Section L syllabus that are not covered.
- 1.3 An applicant for a type rating referred to in paragraph 1.1 will normally be employed by the company requesting course recognition. However, an application may be made by an engineer not employed directly by an organisation described in paragraph 1.2 provided that the applicant has completed successfully a CAAF recognized course applicable to the type rating applied for and satisfies the experience requirements set out in Chapter L2.

### **2.0 REQUIREMENTS**

- 2.1 Where the training is conducted internally the organisation shall nominate a manager of training and ensure that an adequate number of suitably qualified instructors are available. Training personnel must be provided with appropriate information to keep them up to date. Appropriate administrative support must be provided. Suitable facilities including classrooms, training aids and demonstration equipment shall be made available. Each course will cover at least the appropriate Type requirements shown in Appendix 1. Assessment of the standard attained at the end of each distinct phase of the course must be made and a final examination must also be conducted.
- 2.2 Where the training is contracted out, the organisation seeking recognition will be responsible for ensuring that standards equivalent to those in paragraph 2.1 are met.

### **3.0 APPLICATION FOR GRANT OF RECOGNITION**

- 3.1 An organisation requiring recognition must submit an application to the Licensing Officer of the CAAF. Following receipt of the application and other supporting documentation, the CAAF will decide the level of investigation and assessment of training facilities and programmes, in accordance with the requirements of paragraph 2. No fee is payable for the grant of Recognition of Courses.

### **4.0 CONTINUANCE OF RECOGNITION**

- 4.1 The training organisation shall be maintained at an acceptable standard and material changes in staff, syllabuses or facilities shall be notified to the CAAF. Recognition shall become invalid if any of the information supplied is no longer correct. To ensure that these requirements are being met the CAAF shall have access to the training organisation and its records at any reasonable time.
- 4.2 CAAF Recognition of training courses will normally be valid for a period of 3 years. No renewal reminder will be sent. To renew the recognition, the training organisation must submit a fresh application. If none is received, the CAAF recognition of the course concerned will lapse automatically.

## **S4/ CHAPTER 6 - APPROVED AB-INITIO TRAINING**

### **1.0 INTRODUCTION**

This Chapter details the requirements to be satisfied by Training Organizations seeking Approval of ab-initio courses giving basic aircraft engineering training and preparing students for CAAF examinations for the grant of Categories 'A', 'C', 'X' or 'R' LWTRs. It also gives information on the application procedures and requirements for students completing such courses where they differ from those specified elsewhere in this document.

### **2.0 APPROVAL OF TRAINING COURSES**

2.1 Training courses may be approved within: —

- (a) Mechanical Categories ('A', 'C' and may include 'X' Electrical) and / or
- (b) Avionic Category 'X' (excluding Compass Compensation and Adjustment) and Category 'R'.

The Approval granted will be related to one or more LWTR Categories only. No approval will be granted in relation to any Type Rating.

2.2 Applications for Approval of a training course covering periods of training of not less than 24 months for any acceptable group either of mechanical category LWTRs or of avionic category LWTRs will be considered. Applications for variations from the basic courses will be assessed by the CAAF which may require adjustment of course duration. The inclusion of additional LWTRs will require consideration of extra theoretical and practical training.

2.3 Application shall be made to the Personnel Licensing Department of the CAAF. The information to be provided relates to the requirements set out in this Chapter. On completion, the forms and other relevant training documentation, including the proposed company exposition, should be sent for assessment to the Personnel Licensing Department with the appropriate fee.

### **3.0 REQUIREMENTS FOR APPROVAL**

#### **3.1 NOMINATED PERSONNEL**

The applicant for approval shall nominate the following:

- (a) A responsible person and deputy whose functions will include co-ordination of all appropriate departments to ensure compliance with the Authority's requirements and that the training is carried out in a satisfactory manner. If the nominated person lacks an aircraft maintenance background or experience, the applicant must ensure that such person is supported by a member of the instructional staff appointed to advise on all technical aspects of training.
- (b) Departmental heads as appropriate to the training conducted.
- (c) A sufficient number of instructional staff, whose experience and qualifications shall be acceptable to the CAAF, to carry out the training adequately. Account shall be taken of the instructor/student ratio. It will normally be required that personnel experienced in civil aircraft maintenance procedures are employed to supervise the practical training. The organisation shall establish a programme to provide periodic update training for instructors which may



include attendance at seminars, type training or observation of maintenance.

- (d) Examiners and signatories of course certificates.

### 3.2 COMPANY EXPOSITION

The applicant shall provide an exposition of the organisation which shall include the following information:

- (a) The structure of the organisation, the terms of reference of senior and nominated personnel and the associated lines of responsibility.
- (b) A list of instructional staff.
- (c) Addresses of locations at which training is carried out and a general description of the facilities available at each site.
- (d) A list of the courses approved by the CAAF.
- (e) The procedures for notification of changes to the organisation.
- (f) The amendment procedure for the exposition and associated manuals.
- (g) The procedures, including details of the management and control systems, which the organisation has instituted to ensure compliance with the requirements for the Approval(s) held.

The exposition may be supplemented by a separate procedures manual which gives detailed guidance on the various procedures.

### 3.3 FACILITIES AND EQUIPMENT

- 3.3.1 The accommodation provided for classrooms, workshops and/or demonstration areas and administrative offices shall be acceptable to the CAAF.
- 3.3.2 The number of classrooms and workshops (and/or demonstration areas) shall be satisfactory when considered in relation to the intended maximum number of students. Heating, lighting and noise insulation shall be to acceptable standards. Suitable arrangements shall be made for cleaning and maintenance. Classroom furniture, wall boards and equipment shall be to an acceptable standard.
- 3.3.3 Appropriate teaching, demonstration and projection facilities shall be available and shall be maintained to a satisfactory standard. Storage facilities shall be provided for equipment not in use.
- 3.3.4 Workshops shall be provided with basic equipment and hand tools appropriate to the training being given. Instructional equipment, airframes, engines and components sufficient to support the practical training specified in the approved course syllabus shall be provided. Such equipment shall be representative of the technology in current use and appropriate to the licence category for which training is being given.
- 3.3.5 Unless agreed otherwise with the CAAF, a library shall be provided for the use of staff and students. Sufficient technical material to support the training given shall be provided. This should include relevant CAAF publications, typical type related maintenance documentation and other general publications and documents. A nominated person shall be responsible for keeping the material up to date and for ensuring that the facility is maintained to a satisfactory standard.

### 3.4 TRAINING

- 3.4.1 An acceptable course entry standard, which shall include competence in written and



spoken English, shall be specified.

- 3.4.2 Detailed course syllabuses shall be submitted to the CAAF for approval. Syllabuses shall be compatible with the relevant examination requirements of Appendix 1.
- 3.4.3 Detailed lesson plans shall be produced showing all practical and theoretical training periods, their durations and the subjects covered.
- 3.4.4 Lecture notes, diagrams and other training material supplied shall be prepared in accordance with an agreed procedure and shall be accurate at the time they are given to the students. Where no provision is made for subsequent amendment, written warning must be given to this effect. Care should be taken to ensure that such material is clear and legible.
- 3.4.5 An adequate period of the course must be spent in experience of the maintenance of representative operational aircraft/engines/systems as appropriate to the course. For a course covering one or two LWTR sub divisions this must be a minimum of six months (26 weeks) duration. Where the course covers more than two sub divisions this period will be extended by two months for each additional sub division. It is essential that the student gains a representative mix of experience, to a reasonable depth and complexity, reflecting the sub divisions being taken. This experience must be managed and monitored by the training organisation in accordance with an agreed procedure and records must be maintained by the organisation. Students are expected to maintain a logbook, to be countersigned appropriately, showing the experience gained. With the agreement of the CAAF, this experience may be obtained at a suitable maintenance organisation, subject to a written agreement between the two organizations and acceptable arrangements for liaison and supervision of the students being in place.
- 3.4.6 Daily attendance records shall be maintained and held available for CAAF inspection.
- 3.4.7 The process of monitoring students' progress shall be defined and the required standards shall be specified by the training organisation. Such monitoring shall include periodic reviews and the identification of any action required to correct any shortfall in a student's performance. A record of all reviews shall be kept.

### **3.5 EXAMINATIONS**

- 3.5.1 The training organisation shall establish an examination and assessment system to check the progress of each student and to demonstrate that the student has achieved a satisfactory level of knowledge and skill. This system shall be managed and monitored in accordance with procedures agreed with the CAAF. An assessment shall be held at the conclusion of each section or phase of training.
- 3.5.2 A final assessment, representative of all subjects undertaken, will be carried out. As a minimum this will be a written examination, of multiple-choice questions and essay type papers, but may be supplemented by an oral examination. The examinations shall be set at a level equivalent to the CAAF examinations. This final assessment shall determine whether the student has achieved a satisfactory understanding of the subjects within the LWTRs sufficient to enable an application for those LWTRs to be made to the CAAF.
- 3.5.3 Examination papers shall be prepared by nominated individuals within the organisation. Papers may be prepared from a question data bank for each examination sitting or a sufficient stock of papers may be held. Examination papers shall cover the complete syllabus or section of the syllabus concerned. Examples of examination papers shall be submitted to the CAAF for assessment. Each paper shall be identified with a reference number, issue or revision number and serial number. Records of papers shall be maintained. The papers used in any particular examination shall be decided by a nominated examiner or supervisory staff other than the instructor of the subject.

Completed examination papers shall be made available to the CAAF on request.

- 3.5.4 A system for the management of the development, review and amendment of questions shall be established and records maintained. A regular programme of analysis of examination questions shall be arranged under the direct supervision of a senior member of staff. The questions shall be reviewed against students' answers and to ensure that they reflect adequately new systems and advances in technology. Records of such reviews shall be kept.
- 3.5.5 Examination databanks shall be kept secure and protected from unauthorised access by adequate computer security means. Examination papers and databank printouts shall be kept in locked cabinets under the control of supervisory staff.

### **3.6 RECORDS**

Unless agreed otherwise with the CAAF, examination papers shall be retained for a minimum of five years. Examination records shall not be destroyed without the written agreement of the CAAF. Student records and other records required to be kept under the Approval shall be retained for such time as agreed with the CAAF.

## **4.0 REQUIREMENTS FOR MAINTENANCE OF THE APPROVAL**

- 4.1 An Approval granted under this Chapter shall be valid for a year but may be renewed subject to the following conditions:
- (a) The organisation continues to satisfy the requirements for the grant of Approval.
  - (b) Any changes to the nominated personnel are notified in writing to and have been accepted by the CAAF.
  - (c) The exposition and procedures required under this Chapter are reviewed periodically by the organisation and any necessary amendments promulgated.
  - (d) Payment of the appropriate charge.
- 4.2 The Approved Organisation shall adhere to the agreed procedures set out in its exposition. Any variation to these procedures shall have the prior agreement of the CAAF.
- 4.3 The CAAF will carry out periodic audits of the structure and procedures of the organisation. Any deficiencies noted during an audit will be notified to the management of the organisation. Deficiencies are classified as either Level 1 or Level 2 dependent upon their significance as follows:
- (a) Level 1 — an item of a significant nature which is considered to lower the standard of training or which compromises the conditions or requirements of the Approval. This would warrant suspension of the Approval in whole or in part until corrective action has been taken. The organisation would be expected to take steps immediately to rectify any such item.
  - (b) Level 2 — an item of a less significant nature but which still requires correction to restore compliance with the requirements of the Approval. A Level 2 deficiency would require the organisation to offer a proposal for corrective action within a time scale agreed with the CAAF.
- 4.4 The organisation shall inform the CAAF in writing of intended action and proposed timescales to rectify any deficiency noted under paragraph 4.3. Confirmation that such action has been completed shall also be given to the CAAF. The adequacy of any changes or procedures will be reviewed at the following audit.

## 5.0 APPLICATION FOR LICENCE WITHOUT TYPE RATING

- 5.1 Subject to paragraph 6, a candidate who has completed successfully a course approved under this Chapter is not required to comply with the normal experience requirements set out in Chapter L2 for those LWTRs in which he or she has been recommended as described below.
- 5.2 Subject to a satisfactory standard by the student throughout the Approved Course and specifically in the final examinations, an application may be made for those LWTRs in which a satisfactory standard has been reached. The application must be made on a form CAAF AW101D within 3 months of completion of the course and must include a recommendation by the training organisation. If the application is acceptable to the CAAF, the candidate will be exempt from the written examination associated with the grant of those LWTRs.
- 5.3 Licence applicants who have completed an Approved Course are subject to the normal age requirement of 20 years for the acceptance of a licence application. Nevertheless, students who are under 20 years of age at the completion of the training may take the Approved Course final examinations provided they satisfy all other course requirements and are not less than 18 years of age. Subject to a satisfactory standard being achieved, an application may be made, as described in paragraph 5.2, at 20 years of age. The application for grant of the Licence must be made and all examinations completed within 3 months immediately following the 20th birthday of the applicant. He or she must also have been engaged in employment providing relevant aircraft engineering experience for an acceptable period between completion of the training and the date of application for grant of the Licence. The date of completion of the Approved Course should be quoted in the application.
- 5.4 Applications to extend a Licence via the ab-initio scheme will not be accepted except for a re-sit allowed in paragraph 6.1 which follows a partial pass resulting in the issue of a Licence.
- 5.5 A Licence issued as a result of an Approved ab-initio course will have the following condition included: "The holder of this licence is required to show a minimum of 12 months experience, from the date of issue, of maintenance of operating aircraft before they may be granted any authorisation privileges under ANR145C. This endorsement applies a requirement to the grant of authorisation to certify similar to that contained in Chapter L2 paragraph 6.2 for an application for a type rating. If, at the time of application for a licence, the applicant can show evidence of these 12 full month's experiences, in addition to that gained as part of the ab-initio course, the Authority may grant the licence without the endorsement. The licence holder may apply for removal of the endorsement on a Form CAAF AW101D which must show evidence of the additional experience required. A charge for the variation of a licence will be payable in the latter case.

## 6.0 FAILURE OF CAAF LWTR EXAMINATION

- 6.1. A candidate, on completion of an Approved Course for an LWTR, who fails the first attempt at the CAAF oral examination, may be accepted for re-examination following a further period of at least 2 months training managed by the ab-initio training organisation. This training shall consist of a combination of theoretical instruction and practical experience relevant to the areas in which the candidate failed to achieve a satisfactory standard in the oral examination. Details of the additional training undertaken shall be shown on the application form. The application for re-examination must be made on Form CAAF AW101D and must be supported by the Training Organisation. If these procedures are not followed the candidate must meet the experience requirements in paragraph 7.1 or 7.2 as appropriate and the normal examination requirements set out in Chapter L3.
- 6.2 If the second attempt at the CAAF oral examination also results in failure no

further applications for that candidate via the ab-initio scheme will be accepted. If reapplication for the grant of a Licence is made, the candidate must show a minimum of a further 12 months experience in the relevant discipline, including at least 6 months experience relating to the LWTR sub division(s) being applied for. The candidate will be subject to the normal written and oral examination requirements set out in Chapter L3.

## **7.0 APPLICATIONS FROM FORMER AB-INITIO STUDENTS**

- 7.1 An ab-initio candidate who has completed the full course of ab-initio training but has not been recommended by the training organisation for CAAF oral examination will be required to satisfy the normal requirements. However, some credit will be granted in recognition of the candidate having attended a structured course of ab-initio training. The candidate will be required to obtain an additional eighteen months relevant practical experience before applying for the grant of a Licence without Type Rating.
- 7.2 A candidate who has gained a licence through the ab-initio scheme and who wishes to extend the licence subsequently will be required to show 12 months recent experience of the maintenance of operating aircraft, 6 months of which must be applicable to the LWTR applied for.

## **S4/ CHAPTER 7 - AUTHORISATION TO EXAMINE**

### **1.0 INTRODUCTION**

This Chapter describes the requirements which an organisation must meet before being granted an Authorisation to conduct written examinations on behalf of the CAAF. Authorisation to Examine will be granted only to organisations within the Fiji.

### **2.0 AUTHORISATION TO EXAMINE**

- 2.1 Authorisation to Examine may be granted to an organisation to conduct written examinations which will be recognized in lieu of the CAAF's own written examinations. The Authorisation granted will be for one or more LWTR Categories. No Authorisation will be granted in relation to any Type rating.
- 2.2 Organisations providing examinations under the Authorisation to examine scheme shall first be able to carry out an assessment of a potential candidate's experience and knowledge, equivalent to that conducted by the CAAF under Chapter L2, before acceptance into this scheme.
- 2.3 The written examinations conducted by the organisation must establish that the requirements of Air Navigation Regulations are met by each candidate in respect of the relevant LWTR categories and that he or she is able to read, write and carry out a technical discussion in English (see Chapter L2). These examinations carried out on behalf of the CAAF must establish an assessment of knowledge standards equivalent to the CAAF's own examinations. The examination processes conducted by the organisation and the standards achieved will be monitored closely by the CAAF.
- 2.4 Some organisations authorised to conduct examinations may also be capable of providing additional training to applicants if considered necessary before examination. Such training is not a requirement of the scheme and is a matter for the applicant and the training organisation concerned.
- 2.5 An organisation which wishes to apply for Authorisation to Conduct Examinations in respect of Licence without Type Rating (LWTR) Categories should apply to the CAAF Licensing Officer and should include a copy of its Exposition, or an amendment to an existing ab-initio Approval Exposition, and the appropriate fee.
- 2.6 The CAAF will conduct a review of the organisation and its procedures. The investigation and subsequent monitoring will concentrate on the procedures to ensure that the examinations are to a satisfactory standard. The organisation must satisfy the CAAF that it has in place, the applicable procedures required by this Chapter. Authorisation will not be granted until satisfactory compliance has been demonstrated.

### **3.0 REQUIREMENTS FOR AUTHORISATION**

#### **3.1 NOMINATED PERSONNEL**

The applicant for Authorisation shall nominate the following:

- (a) A responsible person and deputy whose functions will include co-ordination of all appropriate departments to ensure compliance with the Authority's requirements and that the examinations are carried out in a satisfactory manner. In a case where the nominated person lacks an aircraft maintenance

background or experience, the applicant must ensure that such person is supported by a suitably experienced member of the examining staff appointed to advise on all technical aspects of examination.

- (b) A sufficient number of examination staff, whose experience and qualifications shall be acceptable to the CAAF, to carry out satisfactorily the preparation and conduct of the examinations. The term examiner in the context of this Chapter describes the person who will be setting and/or assessing each particular examination. This person should ideally have an aircraft maintenance technical background (or equivalent up-to-date knowledge through instructing) and, although he/she may be an instructor within the organisation, will not have been involved in any top up training provided to the applicant. The training and examination processes are to be kept separate.
- (c) Signatories of Certificates of Examination.
- (d) Persons who may make the recommendation to the Authority in support of a candidate's application for a Licence.

### **3.2 COMPANY EXPOSITION**

3.2.1 The applicant shall provide an exposition of the organisation which shall include the following information:

- (a) The structure of the organisation, the terms of reference of senior and nominated personnel and the associated lines of responsibility.
- (b) A list of examining staff that will be responsible for setting and/or assessing each particular examination.
- (c) Addresses locations at which examinations are to be carried out and a general description of the facilities available at each site.
- (d) A list of the LWTR sub divisions for which Authorisation is held.
- (e) The procedures for notification of any changes to the organisation.
- (f) The amendment procedure for the exposition and associated manuals.
- (g) The procedures, including details of the management and control systems, which the organisation has instituted to ensure compliance with the requirements for the Authorization's held.

3.2.2 The exposition may be supplemented by a separate procedures manual which gives detailed guidance on the various procedures. Where the organisation is already approved by the CAAF, an amendment to the existing exposition may be submitted. This should group assessment and examination procedures together under appropriate headings and provide cross references.

3.2.3 The exposition shall be subject to regular review to ensure that it is up-to-date and that the organisation is following the defined procedures. Exposition development guidance is available from the CAAF Air Safety Department.

### **3.3 FACILITIES AND EQUIPMENT**

3.3.1 The accommodation provided for examination and administrative areas shall be acceptable to the CAAF.

3.3.2 Offices and common rooms must be of an acceptable size appropriate to the numbers of examiners. Secure facilities will be available for the storage of examination papers

and records, whether in hard copy or electronic format.

- 3.3.3 A suitable room must be available for the conduct of examinations and this should be arranged to ensure the comfort of the candidates and the integrity of the examination. The room must be free from any outside environmental interference and there should be no internal distractions. No training or technical material shall be displayed in the room during examinations.

### 3.4 PROCEDURES

#### 3.4.1 Quality

The standards of assessment, examination and the management process should be monitored on a regular basis by a responsible person of senior management level, preferably one who is not involved with the examination process.

#### 3.4.2 Records

Records should be maintained for each engineer showing training given, examinations, dates and assessments. Such records should not be destroyed without the prior agreement of the CAAF and must be produced upon request.

#### 3.4.3 Staff training

The organisation shall establish a programme to provide periodic update training for examiners in new airworthiness requirements and new technology to keep their skills and experience up-to-date so that examinations may be kept current. This may include attendance at seminars type training or observation of maintenance.

### 4.0 ASSESSMENT PROCEDURE

- 4.1 The organisation will carry out an assessment of the examination candidates experience to ensure that the normal minimum requirements of Chapter L2 are satisfied. This assessment should be made by the organisation before acceptance of each candidate for examination.
- 4.2 A Form CAAF AW101D showing the applicants experience must be completed in the normal manner for final acceptance by the CAAF following successful examination. Should the experience be found by the CAAF to be unacceptable the application will be rejected and any examinations taken by the applicant will be invalid. In the case of doubt over the acceptability of a candidate's experience the organisation should consult the CAAF.
- 4.3 As well as considering whether a potential candidate's experience is broad enough to be acceptable to the CAAF, the assessment should also determine the candidate's academic knowledge. Entry standards should be such that potential candidates will be judged to have a reasonable chance of successfully completing the process. The organisation must pay particular attention in the pre-acceptance assessment to the requirement that the candidate is able to read, write and carry out a technical discussion in English.
- 4.4 Following assessment, the organisation may have identified some areas where an additional element of training is necessary or would be beneficial. Whilst this top up training is not part of the Authorisation to examine process it is recognized that some Authorised organisations may also be training organisations. In such cases the organisation may reach agreement with a candidate to provide any such training. It's emphasized that this training should be related to teaching the subject and not training to pass the examination.



- 4.5 On completion of the assessment process and any top up training, the candidate may take the written examinations applicable to the Licence without Type Ratings sought.

## **5.0 EXAMINATION PROCEDURE**

- 5.1 The written examination will test as far as possible the candidate's practical and theoretical knowledge and understanding of maintenance practices and procedures. The examinations will cover all the appropriate modules of the syllabus set out in Appendix 1. All multiple choice and essay papers for a LWTR Category shall be taken in one day.
- 5.2 An organisation may not grant any exemptions from the relevant examination requirements for academic qualifications or foreign licences held, nor may credit be given for partial passes achieved at another Authorised organisation or in the CAAF's own examinations. Exemptions may be granted only for those modules of Appendix I previously satisfied by an existing LWTR held on a valid CAAF Licence.
- 5.3 The examination shall consist of written examinations for each module, as appropriate, based upon multiple choice type papers, which contain a sufficient number of questions to cover the breadth and depth of subjects in each module.
- 5.4 In addition a selection of essay type questions, with a practical maintenance bias and covering the range of modules applied for, shall be set. The essay paper has two main purposes: to assess technical knowledge and to test the ability to read and write technical English to an acceptable standard.
- 5.5 The method of marking must be defined in the Exposition and shall reflect a pass mark standard of 75% for both the multiple choice and essay elements of the examination. There will be a selection of papers available for each LWTR covered by the Authorisation.
- 5.6 Examination papers will be prepared by nominated individuals within the organisation. Papers may be prepared from a question databank for each examination sitting or previously prepared hard copy papers may be held. The papers used in any particular examination shall be chosen by a nominated examiner and in the case of re-examination a paper shall not be given to a particular candidate more than once. The examination paper control process should be formalized to include question development, paper raising, moderation, analysis and security. A system of serializing examination papers and indicating amendment or revision standard will be required. Completed examination papers shall be submitted to the CAAF on request.
- 5.7 A system for the management of the development, review and amendment of questions shall be established and records maintained. There should be a regular review of candidates' answers to examination questions in order to consider the continued acceptability of the questions and to allow updating of the examination papers where necessary. A regular programme of analysis of the questions shall be established to ensure that the questions reflect adequately new systems and advances in technology. Records of such reviews shall be kept.
- 5.8 Examination databanks shall be kept secure and protected from unauthorised access by adequate computer security means. Examination papers and databank printouts shall be kept in locked cabinets under the control of nominated individuals.

## **6.0 RECOMMENDATION AND APPLICATION FOR LICENCE WITHOUT TYPE RATING**

- 6.1 A Certificate of Examination shall be issued to each candidate showing the LWTRs or modules examined the date of examination and the marks achieved in each module. The Certificate shall be signed by a nominated person specified and accepted in the exposition.



- 6.2 Where an organisation is authorised to examine for a number of LWTR categories, candidates may be recommended only for those in which they have reached a satisfactory standard during the written examination.
- 6.3 Recommendations must not be made before the candidate's 20th birthday.
- 6.4 The examining organisation will submit a list of all candidates examined and their results, regardless of whether they have passed or failed, to the CAAF no later than two weeks following each examination sitting.
- 6.5 A candidate who has successfully passed the appropriate LWTR examination modules may apply on Form CAAF AW101D to the CAAF for a LWTR. The form should show the candidate's experience (countersigned by appropriate referees), details of all Authorised examining organisations where the candidate has been examined, with all the relevant dates and results (pass or fail). The Form CAAF AW101D must also be endorsed with a clear recommendation from the Authorised organisation for the LWTRs for which the candidate is being proposed for oral examination, giving details of the dates of the examinations and marks gained. The recommendation must be made against valid Certificates of Examination and copies of all relevant Certificates shall be included with the application. A candidate must submit the application within three months of the date of It is recommended that
- 6.6 The application will be assessed by the CAAF and if found satisfactory (see paragraph 4.1) the candidate will be asked to contact the CAAF to arrange a mutually convenient date for an oral examination.

## 7.0 EXAMINATION FAILURE

- 7.1 A candidates who does not reach the required standard in any part of a written examination taken under this scheme will be required to complete the minimum period of two months additional relevant experience as specified in Chapter L3 before re-examination.
- 7.2 Any partial pass obtained will be valid for 12 months as described in Chapter L3 paragraph 5.1.2, involved that the candidate is re-examined at the organisation at which he or she failed. If a candidate is re-examined by another Authorised organisation, or by the CAAF, no credit for any previous attempt at the LWTR examination may be given and the full examination relevant to the LWTR must be taken. Such a candidate must declare all previous examination attempts when applying for a further examination.
- 7.3 Only three attempts at the written examination for a particular LWTR, whether at one or a combination of Authorised organisations, will be allowed under this procedure. Thereafter a candidate will be required to submit a licence application directly to the CAAF as described in Chapter L2.
- 7.4 A candidate will be allowed two attempts at the oral examination for a particular LWTR, as described in Chapter L3 paragraph 5.1.3. A candidate who has failed both attempts and who wishes to be re-examined for that LWTR will be required to submit a licence application directly to the CAAF in accordance with Chapter L2 and re-sit all the relevant CAAF written examinations as scheduled in Chapter L3.

## 8.0 REQUIREMENTS FOR MAINTENANCE OF THE AUTHORISATION

- 8.1 An Authorisation granted under this Chapter shall be valid for a year but may be renewed subject to the following conditions:
- (a) The organisation continues to satisfy the requirements for the grant of the Authorisation.

- (b) Any changes to the nominated personnel are notified in writing to and have been accepted by the CAAF.
  - (c) The exposition and procedures required under this Chapter are reviewed periodically by the organisation and any necessary amendments promulgated.
  - (d) Payment of the appropriate charge.
- 8.2 The Authorised organisation shall adhere to the agreed procedures set out in its exposition. Any variation to these procedures shall have the prior agreement of the CAAF.
- 8.3 The CAAF will carry out periodic audits of the structure and procedures of the organisation. Any deficiencies found during an audit will be notified to the management of the organisation as outlined in paragraph 4.3 of Chapter L6.
- 8.4 The organisation shall inform the CAAF in writing of intended action and timescales to rectify any deficiencies **noted** under paragraph 8.3. Confirmation that each action has been completed shall also be given to the CAAF. The adequacy of any changes or procedures will be reviewed at the following audit.

## S4/ APPENDIX 1

### EXAMINATION SYLLABUS

- 1.0** The syllabus relevant to the examinations for all Licence Categories is presented in this Appendix as a series of subjects or combinations of subjects referred to as Modules, the content of each of the Modules is detailed in this Appendix.
- 2.0** The written and oral examinations for each Category of Licence, (and its Sub Divisions where appropriate) are based on a number of the Modules, and the Module/Category relationship is set out overleaf. It will be noted that the modular arrangements recognise that major areas of the syllabus are common to more than one Licence Category and/or its Sub Divisions. Thus, when an existing Licence is to be extended to include another Category or Sub-Division, those Modules which have been satisfied by previous examinations may be excluded.
- Each module is numbered and contains a series of syllabus subject headings. Each subject is then further expanded in more detail against 'level numbers' corresponding to Licence without Type Rating (LWTR) and Type Rating (TR). This expansion of detail provides an indication of the degree/level of knowledge, experience, competence and skill in aeronautical engineering required by the CAAF.
- 3.0** There are three level numbers and they are defined as follows: -
- Level 1:** General appreciation of principles and familiarization of the subject.
- Level 2:** Comprehension of principles and salient features with a practical ability to assess operational condition.
- Level 3:** Detailed knowledge of all aspects of the subject.
- 3.1** In applying the above levels to the subjects which, in particular engines, systems and items of equipment, the following aspects should be taken into account: -
- (a) Theoretical principles
  - (b) Constructional arrangements, functional and design features
  - (c) Maintenance practices
  - (d) Normal deteriorated and failed conditions.



CATEGORY	'A' Aeroplanes		'C' Engines		'A' & 'C' Rotorcraft		'A' & 'C' Airships		'B'	'D'	'X'						'R'-Radio		
	1	2	Piston	Turbine	Piston	Turbine	Piston	Turbine	Aeroplanes or Rotorcraft	Engines	Electrical	Instruments	Automatic Pilots Aeroplanes Rotorcraft		Combined	Compass Compensation	Communication & Navigation	Radar	
MODULE	SUBJECT MODULE NUMBERS																		
Regulations	1		1		1	1	1	1	1		1	1	1	1	1			1	
Basic: Aircraft & Engines	2		2		2	2	2	2	2		2								
Common	Aircraft		3	3	}	}	}	3	3	3									
	Aeroplanes-1 Aeroplanes-2		4	4															
Aeroplanes-2 only			5																
Piston Engines					6		6		6		6								
VP Propellers					7	7		7	7										
Turbine Engines						8		8		8									
Rotorcraft							9	9											
Airships									10	10									
'B' Licence										11									
Engine Overhaul										12									
Human Performance	13		13		13	13	13	13	13		13	13	13	13	13			13	
Common: Categories 'X' & 'R'											20	20	20	20	20			20	



Basic:	Electrical Equipment & Systems			{						21								
	Instruments			{							22				22			
	Gyroscopes			{	}						}	}	}	}				
	Servomechanisms										23		23	23				
Automatic Pilots:	Aeroplanes			{								24			24			
	Common			{								25	25	25				
	Rotorcraft												26					
Instruments/Automatic Pilots														27				
Compass Compensation																30		
Radio:	Communication & Navigation			{													31	
	Radar																	32

## S4/ MODULE 1 - REGULATIONS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Maintenance Engineer's Licences	2	-	Air Navigation Regulations Responsibilities: by statutory law and by the need to fly aircraft in a satisfactory condition, i.e. common/civil constitutional law Penalties – under statutory law and resulting from civil law suits Categories – applicability Area and extent of limitations and privileges within Categories Overlap of Category applicability Relevant secondary legislation
Certifications	1	2	Air Navigation Regulations; Fiji Standards Documents Certificates of: Release to Service; Maintenance; Fitness for Flight Duplicate inspections Contributory certifications and reliance on other documentation and persons Certification – acceptance investigation and judgement procedures
Aircraft, Engine and VP Propeller Log Books	1	2	Air Navigation Regulations; Fiji Standards Documents CAAF Approval: Light aircraft, large aircraft Worksheet; Technical Log Data to be entered in log books Condition reports – e.g. heavy landing checks, defect investigations, NDT and other inspections, mandatory and non-mandatory Maintenance checks and inspections Cross-reference to other files/records

SYLLABUS SUBJECT	Level		
	WTR	TR	
Air Navigation Regulations; STANDARDS DOCUMENT-AOC Technical Log – Air Operator's Certificate requirements	1	2	

Aircraft Documentation and Requirements	1	2	<b>Type Certification</b> Weight schedule External, and internal markings and signs, e.g. nationality and registration no smoking and fasten seat belt, placards and requirements, doors and exits Certificate of Airworthiness Categories, purposes of flight Certificate of Registration Air Operator's Certificate ANR requirements for equipment Radio station licence and approval Change of ownership Aerial Application Certificate Glider/banner towing
Approvals	1	2	ANR145C Approved Maintenance Organisations Maintenance Schedules AOC interface ETOPS Stores: systems, release of parts
Defect Reporting	1	2	Air Navigation Regulations Defects which are to be reported Reportable accidents (STANDARDS DOCUMENT-AOC1)

SYLLABUS SUBJECT	Level		
	WTR	TR	
CAAF Requirements	1 2 1	2 - 2	Airworthiness of Aircraft (STANDARDS DOCUMENT-AIRWORTHINESS OF AIRCRAFT) AME Licensing (STANDARDS DOCUMENT-LICENSING AIRCRAFT MAINTENANCE ENGINEERS) Aeronautical Information Circulars Air Operators Certificate (STANDARDS DOCUMENT-AOC) Approval of Organisations (STANDARDS DOCUMENT-ANR145C APPROVAL OF AIRCRAFT MAINTENANCE ORGANIZATIONS) Mandatory Modifications and Inspections: - British American Foreign Aircraft, engines, equipment

## S4/ MODULE 2 — BASIC: AIRCRAFT / ENGINES

SYLLABUS SUBJECT	Level		
	WTR	TR	
Engineering Drawings and Technical Information	1 2 1	- - 2	Drawing details -common practices: plan, elevation, isometric, sections, scale, dimensional and indicating presentation Use, validity control, interpretation Maintenance Manuals, Parts Catalogues, Overhaul Manuals Service bulletin and modification data Maintenance schedules: approved and otherwise
Mathematics/Science	1	-	Simple calculations: measurements, angles, graphs, metric/imperial, volume, density specific gravity, pressure, forces, moments, centre of gravity Resolution of forces Pressure/volume/temperature of gases Hydraulics: basic principles, liquids in flow and static conditions The atmosphere - density/pressure/temperature/altitude/humidity Basic principles of motion, acceleration, centrifugal, centripetal forces, friction
Hangar/Workshop Common Practices and Tools	1  1 2 1	-  - - -	Lubrication methods and application Hand tools, simple machine tools Go/No Go gauges, fits and clearances  Precision measuring instruments Torque loading Assessment of in-service condition of soldered, brazed and welded joints Inhibiting and corrosion protection <i>(continued over)</i>
	Level		
SYLLABUS SUBJECT	WTR	TR	
Hangar/Workshop Common Practices and Tools (continued)	1	-	Painting and paint stripping Fire protection and safety in and around the workshop/hangar/aircraft Storage and handling
Common Parts	1	2	Control cables and fittings Fastening devices - threaded, riveted and swaged V-band clamps and couplings Locking: parts and methods Bearings Pipes: rigid and flexible Keys and key ways Worm drive and other types of band clips
Gases and Compounds	1	2	Air, nitrogen, carbon dioxide, oxygen, helium Acetylene Safety aspects Adhesives, oils, greases, sealing compounds
Metals	1 1 1 1	- 2 - 2	Lights alloys, iron and steel Titanium Brass, bronze, copper, lead Recognition and general characteristics of metals used



			Application and use of metals The purpose of heat treatments Uses of different heat-treated materials Anodic treatments Corrosion treatments during manufacture Identification of corrosion
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SYLLABUS SUBJECT	Level		
	WTR	TR	
Metals (continued)	2	2	Corrosion treatments during repair Fatigue Other protective treatments/finishes
Non-destructive Condition-Testing	1	-	Typical uses and display of defects using: X ray/ gamma ray, ultrasonic, eddy current, magnetic particle
	2	-	Penetrant leaching
	1	2	Visual probes Eyeglass equipment: usefulness, effectiveness of various magnifications
Basic Electrics	1	-	General principles and practices Simple circuits a.c. to d.c., d.c. to a.c., a.c. to a.c. conversion Insulation and conductivity Common items used in aircraft applications e.g. resistors, potentiometers, solenoids, transformers, semi-conductors, capacitors, relays Micro switches Proximity detectors Fuses, circuits breakers Motors/actuators Principles of frequency wild, constant frequency a.c. power Circuit wiring, connectors, crimping, clipping, cable sizes and types Bonding Static electricity, lighting; static charges; "interference" effects on radio equipment
Environmental Aspects	1	2	Effects of snow; ice; lighting and turbulence

## S4/ MODULE 3 – CATEGORY ‘A’ COMMON – AEROPLANES / ROTORCRAFT /AIRSHIPS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Basic Aerofoil Theory	1	2	Lift/thrust/drag/weight Stalling of an aerofoil Induced and parasitic drag Boundary Layer Aerofoil shapes Chord/span/aspect ratio
Sub-Structures	1	2	Folded metal, sheet metal, extrusions, tubing Effect of swaging, lightening holes Use of different metals Commonly used fasteners and joint methods Protective treatments and precautions Honeycomb Reinforced plastic/epoxy materials, applications Floors Seats-crew, passenger- ‘crash’ situation Aerials, pitot probes, drain masts, air intakes and similar structural fitments Instrument panels and consoles Radio and equipment racks and stowage.
<b>Materials – non-Metal: -</b> Reinforced Plastics/Epoxy Composites	1	2	Glass, fibre and filament reinforcement Materials used Cold setting, hot setting systems Construction principles used, aircraft applications Failure characteristics Honeycomb, foam sandwich

SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Systems: -</b>			
(1) Hydraulic	2 1	- 2	Simple systems, i.e. powered pump, reverse selection, pressure relief, pressure regulation LP and HP filters Types of pump Different fluids – mineral/fire-resistant Control and indication methods
(2) Landing Gear and Brakes	1 2 1 1	2 - 2 -	Wheels, tyres, shock absorbers castering, steering methods Simple hydraulic brakes, i.e. master cylinder to wheel-brake unit Brake discs and calipers Landing and braking energy conversion
(3) Electrical	1	2	Simpler type systems Batteries, generators, relays, wiring Voltage control Current limiting Paralleling a.c. from inverters Crimping Soldered joints Control and indications
Instruments (other)	1	2	Pitot/static systems and associated instruments



than Engine)			Gyro instruments – vacuum/pressure/electrical Pressure and temperature indication Position indication Compasses
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SYLLABUS SUBJECT	Level		
	WTR	TR	
(5) Radio	1	-	VHF communication systems
Safety Equipment	1	2	Fire extinguishers - hand Life jackets Life rafts
	-	3	Seat belts/harness - passenger/crew 3-point, 4-point, inertial, lapstraps Mandatory requirements for upper torso restraint
Ground Handling	1	1	Jacking, trestling, slinging, towing, tie down 'Servicing' activities Storage Painting – protective finish/external markings Weighing and centre of gravity determination – weighing report
	1	2	Fiji Requirements Scale positions Basic Weight Unuseable fuel Oil and other consumable liquids – quantities Role variations Hold/seat row/removable equipment Station identification C of G datum

## S4/ MODULE 4 - CATEGORY 'A' - AEROPLANES 1 AND AEROPLANES 2

SYLLABUS SUBJECT	Level		
	WTR	TR	
Theory of Flight and Control	1	2	Stability and control Equilibrium Stalling of the aircraft Flaps and slats Aerodynamic balance Mass balance Aileron/elevator/rudder control Tabs-servo/anti-servo/balance/anti-balance/trim/spring Canard/foreplanes
Aircraft Structures	1	2	Main structures – fuselage/wing Stressed skin – diaphragms and longerons Tubular structures Skin, frames and stiffening Wing: spar and rib structures Integral fuel tanks Load paths Empennage Windows, doors and hatches
<b>Material – non-Metals:</b> (1) Wood	-	2	Types, application and uses Diseases – environmental effects Plywood's Glues – past and present Storage and condition control Damage – failure modes Painting/protective finishes

SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Material – non-Metals:</b> <b>(continued)</b> (2) Fabrics	- - -	2 1 2	Natural and man-made materials – types, applications and uses Techniques used during covering Repairs Paint finishes and protective treatments Butrate and nitrate paints Ageing Tautening, heat shrinking Strength considerations Drainage and apertures Stitching, stringing, adhesives Testing
<b>Systems:</b> (1) Flight Controls	1 - 1 - 1	2 2 2 2 2	Aileron, elevator rudder Operating systems and surfaces – manually operated Trim operating systems and surfaces – manual and electric Flap systems – electrical, hydraulic and manual Flap systems – pneumatic Simple asymmetric protection Slat systems – automatic, and manual Hydraulic

			<p>Tab systems – trim, balance, servo, anti-servo, anti-balance, spring servo</p> <p>Stall sensing and warning – simple systems e.g. vane or reed types</p> <p>Basic auto pilots – simple systems</p> <p>Inputs into main controls – function testing – attitude, heading and height sensing</p>
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SYLLABUS SUBJECT	Level		
	WTR	TR	
(2) Ice and Rain Protection	1	2	<p>Liquid, electric and boot systems</p> <p>Power source, control and indication</p> <p>Windscreen wipers</p> <p>Electrically-heated windscreens</p>
(3) Heating and Ventilation	-	2	<p>Combustion heaters, exhaust heat exchangers</p> <p>Ram air</p> <p>Ventilation fans</p>
(4) Oxygen	1	2	<p>Bottle storage, distribution, regulation</p> <p>Masks</p>
	2	-	<p>Safety features and requirements</p>
(5) Pressurisation	1	2	<p>Simple systems – bleed air turbo charger bleed</p> <p>Passenger environmental requirements for the control of: -</p> <p>oxygen, heating, ventilation, rate of change, humidity</p> <p>Mass flow control</p> <p>Temperature control</p> <p>Differential pressure - maximum, negative</p> <p>Control and indication</p> <p>Cabin structure, windows and doors for pressurised flight</p>
(6) Vacuum/Pressure	1	2	<p>Dry and wet pump systems</p> <p>Oil separation</p> <p>Gyro supply</p> <p>Relief valve</p> <p>Filtering</p> <p>Aerofoil anti-icing</p>

SYLLABUS SUBJECT	Level		
	WTR	TR	
(7) Pneumatic	-	2	<p>Landing gear/flaps/brakes</p> <p>Operating systems</p> <p>Basic theory and common practices</p>

### S4/ MODULE 5 – CATEGORY ‘A’ – AEROPLANES 2 ONLY

SYLLABUS SUBJECT	Level		
	WTR	TR	
Theory of Flight and Control	1	2	Transonic effects, swept wings, wing fences, spoilers, high lift devices, vortex generators High speed stall Shock wave Speed of sound – mach numbers Wake turbulence
	-	2	Supersonics – sound waves Delta wing forms Kinetic heating C of G control
	1	2	Active controls – computerised flight management systems – general principles
Aircraft Structures	1	2	Fail-safe application Fatigue effects and control Wing: box/integral tank construction Pressure-loaded skin, bulkheads, windows, windscreens, doors Milling/chemical etch constructed structures Bonded type construction Fasteners – close tolerance Sealing compounds Maintenance programmes – structural surveys NDT programmes Large aircraft paint and protective finishing processes Cargo holds Venting and draining Sound proofing

SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Materials – non-Metal:</b> Furnishings	1	1	Upholstery Toilet and galley partitioning Carpets and curtains Particle boards and plastic laminates
	1	2	Fire resistance/escape requirements Passenger seats Crew seats – cabin and flight crew
<b>Systems:</b> (1) Flight Control	1	2	Powered controls Spoiler, air/speed brake, lift dump Lift augmentation – LE droop, slats/flaps Flap operating systems – large transport aircraft Flap asymmetric and alternate operation Stall sensing – stick shake
	-	2	Stick push/nudge
	-	1	Electronic control systems
	1	1	Fly by wire
(2) Hydraulic	1	2	Variable delivery systems Accumulator/cut-out dependent systems Pressure/volume control Pressure-reducing valves Fire-resistant fluids – temperature, contamination, compatibility Pressurised reservoirs Multiple system provision Alternate systems – HYRAT/hydraulic motors Electrically-powered and air-driven systems Leak protection systems – system isolation, 'fused' systems, priority control Internal leakage – cause and effects – acceptability

SYLLABUS SUBJECT	Level		
	WTR	TR	
(3) Landing Gear	1         -	2         2	Multiple axles and wheels Bogey beams Door sequencing Main and alternate brake provision Anti-skid system – electronic and mechanical – aquaplaning Landing gear unsafe protection Alternate lowering Weight on/weight off sensing Fire protection Powered steering – retraction – self centring Auto braking
(4) Pneumatic (ATA 36)	1	2	Bleed air pneumatic systems Systems supplied Bleed air valves Mass, flow, pressure and temperature control and indication Ducting Leak detection Alternate supply – APU and ground cart
(5) Ice and Rain Protection	1	2	Main plane / tail hot air anti-ice systems Control and indication Leak/overheat-detection/protection Ice detection Rain repellent Windscreen wipers Laminated windscreen heating Waste water discharge Pitot/static sensors

SYLLABUS SUBJECT	Level		
	WTR	TR	
(6) Environmental and Passenger Systems: - 6.1 Air Conditioning	1	2	Cabin blower/bleed air supply Heat exchangers Cold air units/air cycle machines Vapour cycle systems Humidity control systems Mass, flow, pressure and temperature control and Indication Leakage detection and protection Ventilation requirements Passenger service unit air supply Water extraction Recirculation



6.2 Pressurisation	1	2	<p>Outflow control – electric, electronic and pneumatic</p> <p>Maximum differential and negative pressure control</p> <p>Cabin altitude and rate of change</p> <p>Emergency dump and manual control</p> <p>Ditching</p> <p>Cabin altitude warning</p> <p>Entrance/access/baggage door sealing and locking, indications and warnings</p>
6.3 Oxygen	1	2	<p>Storage, distribution and charging</p> <p>Drop-out system</p> <p>Chemical systems</p> <p>Therapeutic provision</p>
	1	3	<p>Masks – passengers/crew/smoke</p> <p>Bottle checks and precautions</p>

SYLLABUS SUBJECT	Level		
	WTR	TR	
<p><b>Systems: (continued)</b></p> <p>Environmental and Passengers Systems: (continued)</p> <p>6.4 Toilets, Waste and Water, Galley Services</p>	1 1	1 2	<p>Toilets: servicing provision</p> <p>Toilet flushing systems – pump overheated protection</p> <p>Water – washing, hot/cold, potable</p> <p>Potable water – health protection</p> <p>Pressure control</p> <p>Water heating systems - safety provisions</p> <p>Waste collection and drainage</p> <p>Galleys – refrigerators, food and drink, ice – health protection</p> <p>Lifts, safety factors</p> <p>Catering trolleys</p>
6.5 Baggage	1 1	2 1	<p>Automatic systems – pallets and containers</p> <p>Restraints and securing</p> <p>Dangerous goods</p>
6.6 Entertainment and Passenger Service	1	1	<p>Films, video, television and audio</p> <p>Public address</p>

(7) Electrical	1	1	3-phase a.c. power generation systems: - Control and protection Transformer rectifier units Cables and terminations Basic electronics – hardware – printed circuits boards Built-in testing provisions Static inverters Multiplex – basic principles Logic – basic principles
	- 1	1 1	

	<i>Level</i>		
<b>SYLLABUS SUBJECT</b>	<b>WTR</b>	<b>TR</b>	
<b>Systems: (continued)</b>			
(8) Instruments	1	1	ADI, HSI presentation and ground functioning Altitude encoding and transponder systems – general Computer inputs Centralised air data units CRT displays Flight recorders – voice recorders INS
Equipment, Safety	1	2	Slides, rafts, dinghies Portable oxygen Loud hailers Smoke masks/hoods Survival equipment Notices / placards

## S4/ MODULE 6 — CATEGORY ‘C’ — PISTON ENGINES IN AEROPLANES / ROTORCRAFT / AIRSHIPS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Principles. Terminology. Definitions and Laws	1	2	Normally aspirated and supercharged operation Four stroke cycle Ignition timing, mixture, fuel grade. detonation Power Overhaul periods/continuation in service beyond overhaul recommendation Ground running — principles and problems Effect of altitude, humidity, temperature, and icing Standard atmosphere, pressure altitude Fixed and variable pitch propeller effects (not rotorcraft) Vibration characteristics Type certification
Constructional Arrangement	1 1	1 2	General arrangement — internal General arrangement — external Crankcase breathing Propeller shaft sealing Materials Fixed pitch propeller provision (not rotorcraft) Power take-off provision (rotorcraft/airships) Cooling Cylinders, pistons and valve gear Hydraulic tappets Camshaft Casings, mountings and accessories drive

SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Systems:</b> (1) Carburation and Induction	1	2	Air intake — normal / alternate — filtering Manifolds Anti-icing provision Float type and injection systems Engine driven fuel pumps Priming systems Mixture / idle cut-off / throttle control
(2) Ignition	1	2	Magnetos Ignition harness Spark plugs — reach variations, operating temperatures — long life Switch control Timing (internal/external) Advancing and retarding mechanisms Screening Starting aids — impulse couplings and ignition

			boosting
(3) Starting	1	2	Starter motors — manual, Bendix, solenoid. pre-engaged — engagement methods Non-engagement indication and effects Starter relays Earth straps Cooling Effects on battery
(4) Fire Protection and Indication	1	2	Extinguishant, bottles, cartridges, 'life control' Detection systems and warnings Two shot provision

SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Systems: (continued)</b> (5) Lubrication	1	2	Wet and dry sump systems System arrangement Pressure control Effects of hot and cold weather Filtering Straight, detergent, ash dispersant oils Engine condition assessment using oil system analysis Propeller feathering systems (not rotorcraft or airships) Oil coolers — temperature control valves Hoses, rigid pipes, internal passages, splash — oil jet Cooling functions of the oil system
(6) Supercharging/ Turbo-charging	1	2	Directly driven and exhaust driven superchargers Manual and automatic control Lubrication and hydraulic power Controls and indication Automatic control systems

(7) Aircraft Fuel	1	2	Tanks, cells and integral systems Venting Fuel pumps — electrical Fuel grades and quality MOGAS Water contamination — drains Filtering Controls and indications
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SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Systems: (continued)</b> (8) Engine Controls	1	2	Throttle Mixture Propeller (not rotorcraft) Alternate air Manual controls for turbocharger
(9) Engine Instruments	1	2	Manifold pressure Rotational speed Pressure and temperature Cylinder head temperature Exhaust gas temperature
(10) Propellers — fixed pitch (not Rotorcraft)	1	2	Materials Diameter — minimum/maximum Protective finishes Damage areas Cropping Balance control Attachment Spinners Alternative types — different manufacturer/ pitch

## S4/ MODULE 7 — CATEGORY ‘C’ — VP PROPELLERS — PISTON ENGINES IN AEROPLANES/AIRSHIPS, TURBINE ENGINES IN AEROPLANES / AIRSHIPS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Principles. Terminology. Definitions and Laws	1	-	Constant speeding Pitch variation Ground and flight functioning characteristics Power conversion Blade forces: aerodynamic and centrifugal Aerofoil aerodynamic principles Pitch coarse/fine, high/low, reverse Feathering Vibration characteristics Turbine engine installation propeller systems
Constructional Arrangement	1	2	Pitch change mechanism single/double acting CSUs / governors Balance control Materials Diameter — minimum and maximum Pitch stops — fixed, centrifugal, manual and electrical Protective finishes — contour control Damage acceptance areas
	1	3	Attachment and assembly methods
	1	2	Oil transfer — governor/propeller/sump Safety visibility
Automatic and Manual Pitch Control Systems	1	2	Pilot control and governor sensing Feathering
Ice Protection	1	2	Liquid and electrical systems

SYLLABUS SUBJECT	Level		
	WTR	TR	
Turbine Engine Application (not airships)	1	2	Auto-feathering Synchronising/ synchrophasing Braking Automatic and manually controlled pitch limiting systems Beta control Permitted balancing

## S4/ MODULE 8 – CATEGORY ‘C’ –TURBINE ENGINES IN AEROPLANES / ROTORCRAFT / AIRSHIPS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Principles, Terminology Definitions and Laws	1	2	Gas flow path -- temperature, velocity and pressure Compression Combustion Turbine power extraction Effects of atmospheric variations in temperature, density, pressure altitude on engine and on engine/aircraft combination Single shaft, two and three shaft engines Centrifugal and axial flow compressors Fan engines By-pass engines Water/water methanol injection Power turbines Surge/compressor stalling Propeller turbines Gas producers APU applications Thrust reversal Power assessment
Constructional Arrangement	1	2	Casings, shafts, bearings, accessories drive Air intakes and compressors Combustion section Turbines and exhaust Materials Modular construction Engine inspection capability and condition assessment provision
	1	3	Principles of condition monitored' and 'on condition' maintenance programmes
	-	2	Supersonic flight air intake geometry control systems
	<i>Level</i>		

SYLLABUS SUBJECT	WTR	TR	
Propeller and Shaft Power Provisions	1  1	2  1	Gas producers Reduction gearing Power and auxiliary drive Rotational speed and power control, safety systems Principles of torque/power/rotational speed in power transmission by rotating shafts
<b>Systems:</b> (1) Thrust Reversing (not rotorcraft)	1	2	General arrangements Control /interlocks Safety features Operating systems - hydraulic/pneumatic/mechanical Turbine and fan applications
(2) APUs  <i>labus Subject</i>	1	2	General Arrangements Intake and exhausts systems - door operation Load control Electrical output control and management Speed control Fuel control Safety features Ground/flight/altitude-limiting factors Mounting Fire protection and indication Bay cooling Ground running
(3) Fuel Control	1	2	Principles - parameters Mechanical/electronic control Power speed — control and limiting Temperature and power factors Burners — primary and secondary provision <i>(continued over)</i>

	<i>Level</i>		
SYLLABUS SUBJECT	WTR	TR	
<b>Systems: (continued)</b> Fuel Control (continued)	- 1	2 2	Burners — shaft injection, torch ignition Governor speed sensing



(4) Fuel Systems	1	2	<p>Tanks — cells and integral systems          Refuelling / defueling. Crossfeed, jettison. venting, transfer          Scavenging — jet pumps          Boost pumps. backing pumps          LP/HP valves and control          Tank selection          Internal/external pipes, hoses, connectors          Fuel types          Static electricity — effects and control          Leak assessment and control          Fuel quantity indication — ‘Level Sticks’          Water contamination — effects and control          SG / Density/volume/weight          Filtering and heating          Fuel systems in pressurised cabin areas</p>
(5) Water injection (not rotorcraft)	1	2	<p>Water/water methanol applications          Sensing, control and safety provision          Power effects          Tankage          Replenishing/dumping          Pumps          Effects on fuel control          Pipes and pipe lines</p>

SYLLABUS SUBJECT	<i>Level</i>		
	WTR	TR	
<p><b>Systems: (continued)</b>            (6) Lubrication</p>	1	2	<p>Tanks, storage, venting, contents indication            Pressure/scavenge pumps            Filters, screens and magnetic plugs/ chip detectors            Pressure/ flow control            Heat exchangers oil/fuel, oil/air            Sealing - labyrinth seals, carbon seals, etc.            Overboard drains - drain systems            Lubrication of main bearings, accessories and gear trains            Supply to propeller systems            Contamination by hydraulic fluid/fuel            Types of oil            Internal/external pipes, hoses and passages - effects of heat            Use of oil for ice protection - intake and fuel</p>



			control
(7) Cooling, Sealing, and Bleed Air Services	1	2	Internal cooling, external cooling. sealing air Overboard dump — temperature monitoring Off-takes for other services — air conditioning. Anti-icing. Equipment drive. Pressurising of hydraulic reservoirs, water systems. etc. Centrifugal filters
<b>Systems: (continued)</b> (8) Surge Protection and Airflow. Control	1	2	Bleed valves — operating system Variable inlet guide vanes — scheduling, operating systems Surge sensing 'Surge margins'
	-	2	Supersonic flight air intake geometry control

SYLLABUS SUBJECT	Level		
	WTR	TR	
(9) Ice Protection	1	2	Hot air systems - struts and intakes Electrical systems - engine and intakes Use of oil and air bleeds Pressure sensor heating Control and indication
(10) Fire Protection	1	2	Fire detection Overheat warning Fire extinguishing Bay and zone isolation Fire walls, bulkheads, cladding Fire wires, detector units Single/dual detection Extinguishants First and second shot capability Warnings and indications — lights. Aural warnings fuse types. squib test 'Bottle gone' indicators Operating systems Over pressure Cartridges — life control Electric and electronic systems
(11) Ignition	1 - 1	2 2 2	High energy ignition systems Torch ignition Glow plug systems Igniter plugs and leads Operation inside and outside the starting cycle
(12) Starting	1	2	Starting cycle Initiation — HP valves, termination, bleed valves, starter valves, power lever, self-sustaining speeds Starter motors — electrical. Pneumatic. starter/generators — HP air, impingement air <i>(continued over)</i>
SYLLABUS SUBJECT	Level		
SYLLABUS SUBJECT	WTR	TR	
<b>Systems: (continued)</b> (12) Starting (continued)	1	2	Clutch provision, overspeed sensing Manual operation starter cooling/resting Ground power electrical/pneumatic provisions
(13) Controls	1 - 1	2 1	Power/throttle/thrust reverse HP / LP valve controls — manual and electric Condition control systems Propeller control (not rotorcraft) Auto control of throttle Control runs Electronic control systems
(14) Pods, Pylons, Cowlings and Mountings	1	2	General arrangements Services and controls — input/exit Materials Venting Zone demarcation Mountings Pylon and pod structural features Torque. vibration, expansion provisions Bay venting Cooling air intakes
(15) Electrical	1	2	ac. generators — CSDs / IDGs Starter/generators



			Starter motor high current circuits CSDs — principles of operation, disconnect/reconnect, lubrication/ hydraulic operation, filters, coolers
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SYLLABUS SUBJECT	Level		
	WTR	TR	
<b>Systems: (continued)</b> (16) Instruments	1	2	Rotational speed indication; a.c. generator and pulse probe systems Temperature and pressure systems Pressure ratio systems Turbine temperature systems Instrument system amplifiers Fuel flow indication Torque indication Fuel contents/oil contents — electrical and electronic Vibration indication
Ground Handling	1	2	Storage and inhibiting Spare engine carriage Ground running — noise control —power checking Functional checks of engine associated services

## S4/ MODULE 9 – CATEGORY ‘A’/‘C’ ROTORCRAFT

SYLLABUS SUBJECT	Level		
	WTR	TR	
Theory of Flight and Control	1	2	Rotor disc: forces acting, lift, drag, centrifugal force, weight, rotor useful force, phase lag; advance angle-non constant speed drive (Hookes Joint) effect Articulated/semi-rigid/rigid rotors Flapping/dragging feathering Climbing/losing height/horizontal flight Main and anti-torque rotors —control inputs — cyclic and collective Effects of aircraft speed on rotors Directional control Translational lift/inflow/ground effect Vortex ring effect Retreating blade stall Reverse flow Auto-rotation; auto-rotative force/blade section Auto-rotation rev/mm Twin rotors
Constructional Arrangements	1	2	Rotorcraft structures, load paths, vibration effects Landing gear configurations: skids/wheels/floats Fuselages, tail cones, pylons, engine mounts Gearbox and transmission mountings Doors and windows
<b>Systems:</b> (1) Flying Controls	1	2	Collective / cyclic / directional Hydraulic Rotor heads — main and tail rotor Articulated, rigid, semi-rigid. teetering Swash plate/spider control input methods
			<i>(continued over)</i>
SYLLABUS SUBJECT	Level		
	WTR	TR	
Flying Controls (continued)	1	2	Blades: construction and materials; balancing: static, dynamic. span wise, chord wise Tracking: flag and in-flight methods Tabs/trailing edge bending Vibration — effects and analysis BIM indicators Automatic Pilots/Auto stabilisers —Control interface System components — component replacement and subsequent testing
(2) Ice and Rain Protection	1	2	Windscreen wipers Electrically-heated windscreens
(3) Heating and Ventilation	1	2	Exhaust heat exchangers Ram air Ventilation fans
Transmission Systems	1	2	Engines to rotors: shafts, clutches, free wheel units; reduction gearboxes; main transmission/ gearboxes, combining



			gearboxes Tail rotor drive: drive shafts, intermediate gearboxes, tail rotor gearboxes Lubrication systems: oils, coolers, cooling fans, filters, magnetic plugs, chip detectors, pumps, pressure control Universal drive provision Splined shafts, type of gears — tooth pattern Instrumentation Rotor brake systems
Equipment	1	2	Hoists and winches External load carrying Flotation Survival systems Specialised role equipment, aerial spraying, cameras
Instruments	1 1	1 2	ADI, HSI Flight Recorders HUMs

### S4/ MODULE 10 - CATEGORY 'A'/'C' AIRSHIPS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Principles of Lift	1	-	Bodies immersed in fluids Gases: free to expand/constant volume / constant temperature / constant pressure Mixture of gases in a containing vessel
	2	-	Centre of gravity, centre of buoyancy, static heaviness, static lightness, static trim Ballonet ceiling, pressure height Super pressure, superheat Porosity Equilibrium Ballast-shot/water
Theory of Flight and Control	1	-	Aerodynamic lift, aerodynamic balance Stability and control Free ballooning Fins, rudders, elevators Tabs: balance / servo / trim / spring Powered flying controls
Envelope	2 1	- -	Materials: fabrics, Kevlar Ultra-violet light effects Gas-tight membranes Ballonets, gases, load curtains, shear curtains, support cables, gas valves, air valves, entry ports, inspection domes, charge adaptors, load patches, handling lines, nose cone Charging, purging, porosity cheeks Lightning protection Air systems: ram air scoops, ballonet fans, dampers, transfer fans

SYLLABUS SUBJECT	Level		
	WTR	TR	
Gondola	2	-	Main Structures Materials: Kevlar laminate. Fibrelam. sandwich panels, metal skin frames and stiffening
	1	-	Moulding/bonding techniques Support cables, support cable attachment, bulkheads, equipment attachment Furnishings Doors. windows and hatches Fire protection — skinning Lightning protection
<b>Systems:</b>			
(1) Flight Control	1	-	Fins, rudders, elevators Operating systems and surfaces — manually/power operated Trim operating systems — manual and electric
(2) Ice and Rain Protection	1	-	Windscreen wipers
(3) Heating and ventilation	1	-	Exhaust heat exchangers Ventilation system
(4) Vacuum/Pressure	1	-	Supply and associated system
(5) Landing Gear	1	-	Geometric arrangement Structural arrangements Castering/pivoting/locking Shock absorbers Weight sensing/measurement



SYLLABUS SUBJECT	Level		
	WTR	TR	
Ducted Propellers	1	-	Principles of operation Propeller forces: aerodynamic/centrifugal Pitch variation/control Positive/negative vectoring Power conversion Control systems: electronic control, emergency forward coarse selection Balance Clutches Materials Protective finish: contour control, visibility Duct pivoting systems: drive and control, motors, limit control, gear-boxes, inter-connection, emergency manual
Ground Handling	1	-	Attaching to/releasing from/mast Ground power Fuelling Ballasting Helium: charging, purifying, leak, testing Pressure watch techniques Mooring — mobile/portable Engine running Hangaring Adverse weather



### S4/ MODULE 11 - CATEGORY 'B' – AEROPLANES / ROTORCRAFT

SYLLABUS SUBJECT	Level		
	WTR	TR	
Regulations	1	2	Registration process Issue of Certificates of Airworthiness —special conditions, mandatory requirements for modifications/ inspections, markings, equipment Flight Manual — provision of manuals and documents Prototypes, modified prototypes, series aircraft Acceptability of foreign type certification AANs for a type within particular C of A Categories Modification standard — recording Relevance of previous maintenance records Build standard Public transport — operator's responsibilities Loading Performance Categories of Flight Glider towing Parachuting Aerial application Exits and break-in markings Documents to be carried Records to be kept Production and preservation of records Offences in relation to documents and records
Refurbish/'Overhaul' of Aircraft	1	2	Preparation of the aircraft — cleaning, access dismantling, jacking and trestling, furnishing removal Preparation of inspection reports and establishment of work required  <i>(continued over)</i>

SYLLABUS SUBJECT	Level		
	WTR	TR	
Refurbish/'Overhaul' of Aircraft (continued)	1	2	Final inspection — preparation of final reports and records/log book entries Mandatory Modifications, Inspections, Service Bulletins, Airworthiness Directives applicable to the type rating sought
Overhaul/Repair of Parts/Components	1	2	Overhaul data — requirements, documentation, work sheets, inspection stages, testing Use and control of workshop inspection aids including non-destructive test equipment Factors and limitations affecting choice of equipment and methods used Overhaul and testing procedures for component parts of pneumatic, hydraulic, air conditions, oxygen, ant icing, de-icing, fire extinguishing and rotorcraft transmission systems Assembly procedures and approved repair schemes applicable to major components

			<p>Engine mounting structures</p> <p>Inspections necessary before, during and after repair, including checking of alignment and symmetry</p> <p>Repair, inspection and testing of tanks, heat exchangers, fuel and oil systems, and all types of control systems relevant to a Category 'B' Licence</p>
Facilities	1	2	<p>Preparation and layout of workshops</p> <p>Care, use and checking for accuracy of test equipment</p>
Welding	1	2	<p>Use and application</p> <p>Approved welders — limitations, periodic testing</p> <p>Support — pre-heating — pressure relief</p> <p>Cleaning and preparation</p> <p>Fluxes and filler/welding rods</p> <p>Gas and specialist welding principles</p>
			<i>(continued over)</i>
	<b>Level</b>		
<b>SYLLABUS SUBJECT</b>	<b>WTR</b>	<b>TR</b>	
Welding (continued)	1	2	<p>Materials</p> <p>Strength of welded joints</p> <p>Inspection before, during and after welding</p> <p>Pre- and post-treatments</p> <p>Equipment</p>
Brazing/Hard Soldering	1	2	<p>Use and application</p> <p>Support, pre-heating, pressure relief</p> <p>Cleaning and preparation</p> <p>Fluxes — fillers/spelter</p> <p>Materials</p> <p>Equipment</p>

## S4/ MODULE 12 - CATEGORY 'D' - ENGINE OVERHAUL

SYLLABUS SUBJECT	Level		
	WTR	TR	
Category D' Licences: General	2	-	Overhaul as a condition control process — its advantages and disadvantages Familiarity with the operating environment of piston engines in aircraft Sudden stoppage — over -revving. over-boosting, over-heating Bogus parts Fatigue Mandatory reporting Fuels and oils — Mogas
Overhaul Process Control	2	-	Facilities: shop layout — stores: work environment; equipment for cleaning, inspection, rework and testing Control of precision measuring instruments and equipment Work package control and processing Acceptability of third-party work! opinions/reports/ recommendations e.g. manufacturers and their agents/ other agencies Use of experts and expert opinion Use of unskilled labour
Constructional Arrangement and Piston Engine General Considerations	1	2	Crankshaft, balance weights. main bearings Auxiliary drives, internal lubrication provisions Seals and sealing materials Oil coolers and thermostatic valves Oil pumps. filtering, pressure control Fuel pumps — engine driven Ignition and valve timing provision Drive pulleys Hardness testing, fits and clearances <i>(continued over)</i>
SYLLABUS SUBJECT	Level		
SYLLABUS SUBJECT	WTR	TR	
Constructional Arrangement and Piston Engine General Considerations (continued)	1	2	Dowels and blind holes Sequential torque assembly —retorquing requirements Tooth patterns and backlash checks Contact area checking End float clearance, checking and setting Bonding and main earthing

Repairs and Rectification	1	1	Machining Heat treatments Anodic treatments Plating Corrosion treatments
	2	2	Protective treatments and finishes Surface finishes Fits and clearances Thread forms
Overhaul Activity	1	2	Cylinder and piston assemblies Cooling baffles -hottest cylinder Main casings Rear covers Gear trains Camshaft and valve operating mechanisms Crankshaft, connecting rods bearings Lubrication systems — passages. Jets. Pumps. Pressure relief valves. Coolers. thermostatic valves, filters and strainers Sealing — slinger rings, and mechanical flow control Crank cases, rear covers, sumps Engine mounting provision Governor drive provision Induction and exhaust manifolds <i>(Continued over)</i>
	<b>Level</b>		
<b>SYLLABUS SUBJECT</b>	<b>WTR</b>	<b>TR</b>	
Overhaul Activity (continued)	1	2	Reduction gears, assemblies and housings Superchargers/turbochargers Carburettor/injection systems Hoses and pipes Electrical wiring Ignition harness
Non-Destructive Testing	2	-	Eddy current/ultrasonic/X-ray/ gamma ray/ magnetic particle Techniques — status and approval Approved NDT organisations Interpretation of results Certification of inspection completion/ acceptability of the condition found

Welding/Brazing	2	-	Preparation — fluxes, welding/brazing rods Expansion/contraction effects and control Hollow parts — internal protection Welding methods: gas/arc/resistance welding Brazing/hard soldering methods Approval of welders Inspection of welded/brazed joints
Testing after Overhaul	2	-	Dynamometer testing Fan testing Endurance tests Final tests Testing in aircraft Run-in procedure Oil consumption run Turbocharger setting up after overhaul

SYLLABUS SUBJECT	Level		
	WTR	TR	
Release, Preservation, Storage and Transportation	2	-	Log Books: — certification, reports, references, recording of parts. limits, concessions, modifications, alternate parts, mandatory modifications and inspections Service information leaflets, etc Lifed parts, salvage schemes/oversize parts Inhibiting: — internal, external, injectors, carburettors, turbochargers

## S4/ MODULE 13 - HUMAN PERFORMANCE

SYLLABUS SUBJECT	Level		
	WTR	TR	
General	2		The need to take human factors into account Incidents attributable to human factors/human error 'Murphy's' Law
Human Performance and Limitations	2		Vision Hearing Information processing Attention and perception Memory Claustrophobia and physical access
Social Psychology	1		Responsibility: individual and group Motivation and de-motivation Peer pressure 'Culture' issues Team working Management, supervision and leadership
Factors Affecting Performance	2		Fitness/health Stress: domestic and work related Time pressure and deadlines Workload: overload and underload Sleep and fatigue, shift work Alcohol, medication, drug abuse
Physical Environment	1		Noise and fumes Illumination Climate and temperature Motion and vibration Working environment

SYLLABUS SUBJECT	Level		
	WTR	TR	
Tasks	1		Physical work Repetitive tasks Visual inspection Complex systems



Communication	2		Within and between teams Work logging and recording Keeping up to date, currency Dissemination of information
Human Error	2		Error models and theories Types of error in maintenance tasks Implications of errors (i.e. accidents) Avoiding and managing errors
Hazards in the Workplace	2		Recognising and avoiding hazards Dealing with emergencies



## **S4/ MODULES 14 TO 19**

**RESERVED**



### S4/ MODULE 20 – COMMON – CATEGORIES ‘X’ / ‘R’

SYLLABUS SUBJECT	Level		
	WTR	TR	
Engineering Drawings	2 3	- 3	Use, validity control Wiring diagram manuals, inter-connection charts, schematic diagrams
Technical Information	1	2	Service bulletins, modification data, manuals, schedules
Mathematics	1	-	Simple calculations, measurements, angles, graphs, transposition of formulae volume, density, pressure Powers of numbers, binary notation, simple equations, conversion of units, SI/Imperial
Tools	1	1	Hand tools, simple machine tools, precision measuring instruments
	2	3	Crimping tools, hand and hydraulic
Common Parts	1	1	Fasteners, locking devices, washers, pipes (rigid and flexible), bearings, adhesives, solvents, oils, greases
Common Practices	1	2	Torque loading Corrosion protection, metal contamination Storage and handling, fire protection general safety
	1	-	Earthing of aircraft and bonding Aircraft handling, towing and mooring
	1	2	Ground services, ac. and d.c. Soldering
	1 2 2	- 3 -	Crimping Electrostatic damage protection Cable looms, harnesses, terminations and disconnects
SYLLABUS SUBJECT	Level		
SYLLABUS SUBJECT	WTR	TR	
Electrical Theory	2	-	General principles, basic laws, units, power in circuits, magnetism, simple d.c. and ac. circuit calculations, insulators, conductors, semi-conductors, circuit elements and symbols
	2	2	Transformers — single phase, 3-phase, auto-transformers
	1 2	- -	Transistor — biasing, simple circuit arrangements Amplifiers signal amplifiers, feedback Synchros — CTs, differential, torque synchros and resolvers
	1	-	Switch gear, relays, circuit protection devices, magnetic indicators and annunciators Batteries — applications and handling Electrical measuring instruments, circuit testing methods
Digital Techniques	2 1	- -	Logics — basic gate functions and truth tables Microprocessors block diagram Digital computing techniques Parallel and serial operation Volatile/non-volatile data storage
	1	2	Multiplex systems
High Intensity Radiated Fields	1	1	Effect on sensitive systems, principles and methods used to minimise HIRF effects
Fly by Wire	1	1	General principles

## S4/ MODULE 21 – BASIC: ELECTRICAL EQUIPMENT AND SYSTEMS

SYLLABUS SUBJECT	Level		
	WTR	TR	
Batteries	1	-	Principles of primary and secondary cells
	2		Lead-acid types
	2	3	Ni-Cad types
	2	-	Methods of charging batteries in aircraft Capacity testing. storage
Direct Current Machines	2	-	Basic laws and principles Types and characteristics Control
Direct Current Generation	1	2	Voltage Regulation Control Load Sharing Paralleling System Layouts Interlock Circuits
Power Conversion Equipment	1	2	Static and rotary inverters Transformer rectifier units
Fire Protection	1	2	Detection systems Fire and overheat warning Smoke detectors - principles and applications Overheat sensors Extinguishing systems Warnings
Flight Controls	1	2	Motors and actuators clutches and brakes Limit switches, micro switches and proximity detectors
			<i>(continued over)</i>
SYLLABUS SUBJECT	Level		
	WTR	TR	
Flight Controls (continued)	1	2	Power Control Units Flap motors protection and control Trim motors
Fuel Systems	1	2	Boost pumps control and indication Jettison systems Refuel/defuel systems Fuel heaters Crossfeed. supply and shut-off valves - normal and emergency
Hydraulic Systems	1	2	Pump control and isolation Pressure switches Overheat warnings Electrically - operated priority valves Fluid reservoir components Low level warnings
Landing Gear Systems	1	2	Actuation motors - selection and control Indication proximity sensors micro switches Air/ground sensor systems Anti-skid systems - operation, control and override Automatic braking systems — inputs: control

			and override
Lighting Systems	1	2	External systems: landing. Navigation. Anti-collision and inspection. etc. Internal systems: normal and emergency fluorescent tubes. Reading and passenger information systems. multiplex function
Pneumatics	1	2	Control - indication and protection

SYLLABUS SUBJECT	Level		
	WTR	TR	
Engine and Propeller Control	1	2	Fuel control valves Temperature and speed limiting systems Propeller feathering controls Electronic engine control
Starting and Ignition	1	2	System types Control Principles of operation of high energy ignition units Aircraft and engine applications and related systems, e.g. stall warning
Alternating Current Machines	2	-	Basic laws and principles Types and characteristics Control
Alternating Current Power Generation	1	2	Constant and variable frequency Constant speed drive units Paralleling Load Sharing Load shedding Generator control unit Voltage regulation Load controller Differential protection Fault and test panels Voltage, frequency and excitation control and protection
Alternating Current Power Distribution Systems	1	2	Bus-bar layouts Split and parallel systems Transfer relay interlocks
			<i>(continued over)</i>

SYLLABUS SUBJECT	Level		
	WTR	TR	
Alternating Current Power Distribution Systems (continued)	1	2	Emergency conditions APU and GPU interlocks Warnings Maintenance panels
Air Conditioning Systems	1	2	Control Indication Protection
Ice and Rain Protection Systems	1	2	Windscreen heating: control, indication and failure Engine/propeller and airframe anti-ice protection: thermal, electrical and pneumatic Warnings and indications Overheat indications and protection Ground operations Windscreen wiper, washer and rain repellent systems Sensor protection — angle of airflow, pitot



			head, static plate and temperature probes Waste water heaters — thermal anti-icing protection Aerial heaters
Auxiliary Power Units	1	2	Starting, control, protection Power generation Fire protection
Ground Power Supplies	-	2	Interlocks and protection of aircraft supplies Control
Centralised Warning and Indication Systems	1	2	Inputs Output warnings Priority philosophy
Galley/Toilet Services	1	-	Power supply and protection Water heating Water heating Equipment

### S4/ MODULE 22 – BASIC: INSTRUMENTS CATEGORY ‘X’

SYLLABUS SUBJECT	Level		
	WTR	TR	
Pitot-Static Systems and Instruments	1	-	Atmospheric physics, temperature lapse rate, Mach number computation
	2	-	Airspeed indicator, altimeter, vertical speed indicator, and machmeter Servo altimeter
	1 2 1	2 2 2	Pitot probes, static plates and heaters Pipelines and flexible hoses Drain traps, associated equipment Altitude and airspeed switches
Rate of Turn and Slip Indication	1	2	Rotor speed; display
Vacuum Systems	1 1	- 2	Sources Control and adjustment Indication
Pressure Measurement	1	-	Sensing elements; capsules, bellows, Bourdon tubes, transmitters Displays
Temperature Measurement	1	2	Variable resistance Thermocouples; compensation; limits and values; servo indicators; control system inputs
Rotational Speed Measurement	1	2	Direct drive indicators; tachogenerator and indicator systems; pulse probe systems Displays
Position Measurement	1	2	d.c. and a.c. systems
Level			
SYLLABUS SUBJECT	WTR	TR	
Quantity Measurement	1 2 1	2 2 2	Direct reading Electrical and electronic systems Compensation Power supplies
Flow Measurement	1	2	Indicators Transmitters Power Supplies
Compasses	1	2	Direct reading compass installation; safe distance Flux detectors and remote sensors remote system components Heading reference outputs
Air Data Computation	2	-	Sensors and inputs Signal processors: mechanical, electrical and electronic Signal outputs and displays
Reduced Vertical Separation Minima	1 1	2 2	Signal sources and interface with other systems Maintenance practices
Flight Path Computation	2 1	2 2	Signal sources, radio inputs Modes, computation Displays
Electronic Display Systems	1 1	1 2	CRT; LED; LCD displays EADI; EHSI; symbol generators Control panels Comparators and monitors Engine indicating and crew alerting systems Electronic centralised aircraft monitors
Level			
SYLLABUS SUBJECT	WTR	TR	



Flight Data Recorders	1	2	Requirements
	1	2	Sensors and inputs
			Cockpit Voice Recorder inputs
			Interface with aircraft systems
			Signal processing
			Entry panels
			Computer principles
			Data recording methods
			Retrieval and verification
	1	1	Readout
	1	2	Failure monitors
Inertial Navigation Systems and Inertial Reference Systems	1	1	Basic principles
			Platform construction
			Computation
			Displays and interface with aircraft equipment
	1	2	Mode selector and CDU
			Failure/fault indicators
			Power supplies and cooling
Ground Proximity Warning Systems	2	2	Modes
			Warnings
	1	2	Inputs and interface with other aircraft systems
	1	1	Computation
			Monitors
			Failure indications
Vibration Measurement	1	2	Types of pick-up
			Signal conditioning
			Displays
			Alarm levels and warnings

## S4/ MODULE 23 – BASIC GYROSCOPES AND SERVOMECHANISMS

### CATEGORY 'X'

SYLLABUS SUBJECT	Level		
	WTR	TR	
Gyroscopes	1	-	Basic principles
	1	2	Types and methods of operation — vacuum electrical, or laser
	2	-	Handling care
	1	2	Attitude sensing: — Errors, correction Remote gyros, interconnections and transfers Limits Direction sensing: — Errors, compensation Remote gyros, interconnection and transfers Rate sensing: — Alignment Rotor speeds
Accelerometers	1	2	Basic principles
Servo mechanisms	1	2	Rate and position sensing and control Integrators Response and damping Power requirements Clutches Override and lockout protection Null and loop error sensing Synchronization systems Force rebalance systems

## S4/ MODULE 24 – AUTOMATIC PILOTS – AEROPLANES CATEGORY 'X'

SYLLABUS SUBJECT	Level		
	WTR	TR	
Theory of Flight (Fixed Wing)	1	2	Forces on the aircraft Stability — dihedral, sweepback, etc. Control axis Primary control surfaces — operation and effect on the aircraft Secondary controls Forces during turns Functions of trim tabs, balance tabs and servo tabs High speed buffet and stall conditions Auto-pilot control axis Auto-stabilisers — wing levellers Co-ordinated turns, aileron/rudder cross feed Versine generation and application Sideslip monitors — Slip and skid in a turn Turbulence penetration and the effect on autopilot control
Yaw Dampers	1	2	Dutch Roll phenomenon Yaw sensing Yaw signal processing Synchronization Series and parallel systems Cockpit indication Aileron/rudder control interaction in turns Rudder PCU, LRUs Interlocks with autopilot systems
Pitch Trim Systems	1	2	Longitudinal axis stability High speed tuck Mach No. inputs

SYLLABUS SUBJECT	Level		
	WTR	TR	
Mach Trim	1	2	Mach trim actuators computation Connections with aircraft controls Warnings
Alpha Trim	1	2	Angle of attack sensing Computation Interface with other aircraft systems: e.g. N1 computers — stall warning systems Flight directors
Auto-Stabilisers	1	2	Trim actuators — control and safety interlocks Speed change systems for trim actuators Interlocks Elevator/stabiliser interaction
C of G Trimmers	1	2	Computation Indication
Demand Signals	1	2	Control wheel steering systems Touch wheel steering systems



**S4/ MODULE 25 - AUTOMATIC PILOTS - COMMON - CATEGORY 'X'**

SYLLABUS SUBJECT	Level		
	WTR	TR	
Error Signals	1	2	Rate system — errors and control Displacement system — errors and control Heading and course error inputs Radio beam deviation inputs Attitude inputs CADC/autopilot interface — e.g. q or % adaptation Sideslip sensors and monitors
Signal Processing	1	2	Typical channel signal flow path Buffer amps Input signal modulation Summing points Signal sensors and switching functions Integrators Limiters Gain programmers Dual channel monitors Voter systems
Demand Signals	1	2	Mode selectors Control display units Turn controllers Control column transducers Command override systems Mode compatibility Mode annunciators Failure and disconnect lights and aural warnings Interlocks - pre and post engage Pitch attitude trim Roll out/heading-hold, engage
			<i>(continued over)</i>

SYLLABUS SUBJECT	Level		
	WTR	TR	
Demand Signals (continued)	1	2	Synchronisation Trim monitors and indicators Altitude hold inputs Vertical speed control Mach / IAS hold Altitude acquire or change systems
Command Signal Outputs	1	2	Power control units — line replaceable units Solenoid valves Transfer valves Position sensors Servomotors — construction, interconnection with control runs Clutches — torque settings Brakes Tachogenerators — feedback and damping Position feedback — indication Torque limiting Hardover sensing — disconnection Jam detection



			Runaway conditions —disconnection Pilot override — disconnection
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**S4/ MODULE 26 - AUTOMATIC PILOTS - ROTORCRAFT -  
CATEGORY 'X'**

SYLLABUS SUBJECT	Level		
	WTR	TR	
Theory of Flight (Rotorcraft)	1	2	Rotor disc: forces, lift, drag, centrifugal force, weight, phase lag Articulated / semi-rigid / rigid rotors lapping / dragging / feathering Vertical and translational flight Main and anti-torque rotors, control inputs cyclic, collective, rudder pedals Directional control Autorotation Forward speed effects
Command Outputs	1	2	Actuators Indicators
Trim Systems	1	2	Manual / Automatic Indication
Stability Augmentation Systems	1	2	Actuators Indicators Computation

**S4/ MODULE 27 – COMBINED CATEGORY  
INSTRUMENTS/AUTOMATIC PILOTS – CATEGORY ‘X’**

SYLLABUS SUBJECT	Level		
	WTR	TR	
Automatic Throttle Systems	1	2	Control inputs Related engine controls Sensors Engine coupling units: clutches and servo-motors Override and safety considerations Modes of operation Electronic engine control: microprocessor inputs and control
Automatic Landing Systems	1	2	Principles, requirements and approach categories Types of system operation: dual or triple channel System operation on approach Monitors and failure conditions Roll-out control BITE
	1	3	Category downgrade and reinstatement procedures
Digital Flight Systems	1	2	Flight management systems



## **S4/ MODULES 28 AND 29**

**RESERVED**

## S4/ MODULE 30 – COMPASS COMPENSATION

SYLLABUS SUBJECT	Level		
	WTR	TR	
Compass Compensation	2	-	Base survey techniques Compass swinging areas Aircraft magnetism Terrestrial magnetism — variation Methods and procedures for swinging compasses
	1	-	Flux valve operation
	3	-	Deviation: calculations and effects on a compass
	1	-	Compensation and adjustment procedures Various compass types

## S4/ MODULE 31 – RADIO COMMUNICATION AND NAVIGATION - CATEGORY 'R'

SYLLABUS SUBJECT	Level		
	WTR	TR	
Radio Theory	1	-	Propagation of radio waves Polarisation Radiation patterns Transmitters and receivers RF Amps, IF Amps Oscillators, frequency synthesisers Frequency multipliers Mixers, detectors, BFO, AGC Noise limiters, muting circuits, audio amplifiers Modulators, RF power amplifiers matching units Filters and tuned circuits
Interference	2	-	Principles and methods used to minimise the effects of conducted and radiated interference Methods used to minimise the effects of lightning strikes and static on aerials
Aerials and Feeders	2	-	Diplexers, baluns and matching stubs Fixed and variable matching arrangements Locations and types of aerials —communication and navigation Bandwidth and effective height of an aerial
Communication	2	-	Calculation of standing wave ratio Control and monitoring circuits
Audio Systems	2	-	Intercommunication Audio mixing and distribution systems Public address and entertainment systems Headsets and microphones

SYLLABUS SUBJECT	Level		
	WTR	TR	
Cockpit Voice Recorder	2	-	Signal sources Control circuitry; hot microphone Requirements
VHF/HF Communications	2	-	Airborne installations
VOR/ILS	1	-	Ground station signals Airborne installations Control
	2	-	Monitors Indicators Loading AFCS and instrument interface
Marker	1	-	Ground installations
	2	-	Airborne systems
Automatic Direction Finding	2	-	Receiver Loop and sense aerials and feeders Bearing errors and correction devices Loop swings
Satellite Communication and Navigation (GPS) Systems	1	-	Airborne installations Receiver, computer
	2	-	Displays Interface with other systems
Flight Compartment Electronic Display Systems	1	-	EADI; EHSI; symbol generators Control panels Comparators and monitors
Microwave Landing Systems (TRSB)	1	-	Receiver, computer Interface with other systems
RNAV	1	-	Computer Interface with other systems Indications

## S4/ MODULE 32- RADAR SYSTEMS - CATEGORY 'R'

SYLLABUS SUBJECT	Level		
	WTR	TR	
Pulse Techniques	1	-	Radar transmitter/receiver Pulse modulation Peak power, average power Duty cycle, pulse shape, pulse width Pulse rise time and repetition frequency Range accuracy and resolution Receiver bandwidth Noise
Primary Radar	2	-	Weather radar: — Control and monitoring circuits Indicators; displays Scanners; waveguides
	1	-	Doppler: — Aerials Indicators Interface with other equipment
	2	-	Radio altimeters: — Pulse and FM. CW systems
Secondary Radar	2	-	DME: — Indicators Control and monitor circuits Interface with other aircraft systems
			ATC Transponders: — Instrument system interface Control and monitor circuits
			TCAS: — Indicators Control and monitor circuits Interface with other aircraft systems



## S4/ APPENDIX 2 - AIRCRAFT MAINTENANCE ENGINEER'S LICENCES – TYPE RATINGS

### 1.0 INTRODUCTION

1.1 This Appendix 2 sets out the Type Rating that may be endorsed upon an Aircraft Maintenance Licence issued by the Civil Aviation Authority of Fiji in respect of the certification of aircraft registered in the Fiji including also their engines and systems.

**NOTE:** *A Licence can only be used to certify for non-commercial air transport. Aircraft which are operated for commercial air transport must be maintained by an ANR145C Approved Organisation and all staff who certify for maintenance within those organisations must be in possession of a valid certifying authorisation.*

1.2 The extent to which the privileges of a Type Rated Licence may be exercised as shown in Appendix 3 in conjunction with paragraph 3 of this Appendix 2.

### 2.0 GENERAL

2.1 The requirements for the grant, extension and renewal of Aircraft Maintenance Engineer's Licences are contained in the current issue of **STANDARDS DOCUMENT – LICENSING-AIRCRAFT MAINTENANCE ENGINEER'S**. For full understanding of the requirements, this must be read in conjunction with this Appendix 2.

2.2 The requirements of STANDARDS DOCUMENT – LICENSING-AIRCRAFT MAINTENANCE ENGINEER'S recognise the standards prescribed by the International Civil Aviation organisation (ICAO) for the grant and extension of licences.

### 3.0 APPLICABILITY

3.1 Where a type of aircraft (or its engines or systems) is defined by one of the Group Type Ratings in paragraph 5 to 9, 12, 13 or 15 of these appendices, an engineer may exercise the certification privileges in respect of that type provided that: -

- (a) He holds a valid Fiji Island Type Rated Licence, in the appropriate Category, endorsed with the appropriate sub division of this Appendix and
- (b) An aircraft of the type is registered in the Fiji and holds a Fiji Certificate of Airworthiness.

3.2 Where a type of aircraft (or its engines or systems) is listed individually within paragraphs 5, 6, 7 and 10 of these appendices, the licence holder has certification privileges in respect of the individual types as listed on the licence.

3.3 Where a type of aircraft (or its engines or systems) is not defined by a Group Type Rating or is not listed by name, an application for the Type Rating of a licence in respect of that type of aircraft, engines or systems, will be considered provided that: -

- (a) An aircraft of the type is registered in the Fiji and holds a Fiji Certificate of Airworthiness, and
- (b) The aircraft is not a type of which is defined in paragraph 14 of this Appendix.

### 4.0 CATEGORIES 'A' 'B' 'C' 'D' AEROPLANES, ENGINES AND ROTORCRAFT

#### 4.1 SPECIFIC TYPE RATINGS

- 4.1.1 Type Ratings may be granted for specific aircraft and/or engines defined by, or listed in, paragraph 5, 6 or 7 of this Appendix, except as indicated in sub paragraphs 4.1.2, 4.1.3 and 4.1.4.
- 4.1.2 A Type Rating in Category 'B' - Aeroplanes, will not be granted in respect of an unpressurised aeroplane exceeding 5700 kg MTWA, an aeroplane in which the primary structure is reinforced plastic/epoxy manufacture, or any pressurized aeroplane.
- 4.1.3 A Type Rating in Category 'D' - Engines, will not be granted in respect of a piston engine with a power rating exceeding 500 kW (670 bhp), or any jet or propeller-turbine engine.
- 4.1.4 A Type Rating in Category 'B' - Rotorcraft, will not be granted in respect of a turbine-engined rotorcraft exceeding 2730kg MTWA.

## 4.2 GROUP TYPE RATINGS

- 4.2.1 A Group Type Rating granted in relation to sub paragraphs of paragraph 5, 6 or 7 of this Appendix includes all the aeroplanes, engines, or rotorcraft defined by that sub paragraph except as limited by sub paragraphs 4.2.4 or 4.2.5.
- 4.2.2 Group Type Ratings for Categories 'A' and 'C' may be granted only for a group of aeroplane, engines or rotorcraft defined by sub paragraphs 5.0, 5.1, 5.5, 5.5.1, 6.3, 6.4, 7.1 or 7.3.
- 4.2.3 Licence holders with Group Type Ratings in Categories 'A', 'B', 'C' or 'D' for sub paragraphs 5.2, 5.2.1, 5.3, 5.3.1, 5.4, 6.1, 6.2 and 6.3.1 may continue to exercise the privileges of the licence for the types defined by these groups.
- 4.2.4 Group Type Ratings for Category 'B' - Aeroplanes or rotorcraft, may be granted for sub paragraphs 5.1, 5.5.1, 7.1 and 7.3 excluding aeroplanes exceeding 5700kg MTWA, all pressurized aeroplanes and any rotorcraft exceeding 2730kg MTWA.
- 4.2.5 Group Type Ratings for Category 'D' – Engines may be granted for sub-paragraph 6.3, and includes rotorcraft and airship engines, but excludes engines with a power rating exceeding 500 kW (670bhp).
- 4.2.6 Sub-paragraphs indicated thus \* in paragraph 5, 6, 8 and 12 of this Appendix are not obtainable as new endorsements on a licence.

## 5.0 CATEGORY 'A' AND 'B' AEROPLANES

- 5.0 Composite Materials Aeroplanes Not Exceeding 5700kg MTWA (not available in Category B).
- 5.1 Wooden and Wood and Metal Aeroplanes: -  
Aeroplanes where the primary structure is manufactured from wood or combinations of wood and metal.
- \*5.2 Unpressurised metal aeroplanes not exceeding 2730kg MTWA.
- \*5.2.1 Unpressurised metal aeroplanes not exceeding 2730kg MTWA with fixed landing gear only.
- \*5.3 Unpressurised metal aeroplanes not exceeding 5700kg MTWA.
- \*5.3.1 Pressurized metal aeroplanes not exceeding 5700kg MTWA with fixed landing gear only.

- \*5.4 Unpressurised metal aeroplanes, but excluding aeroplanes defined in paragraph 14 of this Appendix.
- 5.5 Pressurized metal aeroplanes not exceeding 5700kg MTWA and all unpressurised metal aeroplanes, but excluding aeroplanes defined in paragraph 14 of this Appendix.
- 5.5.1 Pressurized and unpressurised metal aeroplanes not exceeding 2730kg MTWA.
- \*5.6 Pressurized aeroplanes exceeding 5700kg MTWA, but excluding those aeroplanes defined in paragraph 14 of this Appendix.
- 5.6.1 Due to the significant changes in the type since it was first introduced, the type rating for the Boeing 737 will be grouped to cover the following variants:
- B737-100 and –200 series  
B737-300, -400 and –500 series  
B737-600, -700 and –800 series
- New applicants for a B737 type rating will be granted a rating or ratings corresponding to the variants covered by the recognized training course.

## 6.0 CATEGORY ‘C’ AND ‘D’ – ENGINES

- \*6.1 Unsupercharged reciprocating piston engines fitted with a fixed pitch propeller.
- \*6.2 Unsupercharged reciprocating piston engines fitted with a fixed or variable pitch propeller.
- 6.3 Category ‘C’ – Piston engines not exceeding 500 kW (670 bhp) in Aeroplanes/Rotorcraft/Airships.
- \*6.3.1 Piston engines, in Aeroplanes not exceeding 2730kg MTWA.
- 6.4 Jet-turbine engines in Aeroplanes not exceeding 22.25kN (5000lbf) static thrust including where so endorsed the associated APU installations.
- \*6.5 Propeller turbine engines in aeroplanes: -
- Allison 250Δ  
Garret Airesearch TPE 331  
General Electric CT7Δ including, where so endorsed, the  
Rolls Royce Dart associated APU installations.  
Rolls Royce Tyne  
Pratt & Whitney Canada PT6Δ  
Pratt & Whitney Canada 118  
Turbomeca Astazou

**NOTE:** For engines annotated  $\theta$  or  $\Delta$  see Appendix 3, sub-paragraph 4.4

- \*6.6 Jet turbine engines, in aeroplanes, exceeding 22.25 kN (5000 lbf) static thrust, including where so endorsed the associated APU installation.

## 7.0 CATEGORIES ‘A’ AND ‘C’ AND ‘B’ – ROTORCRAFT

- 7.1 Piston-engined rotorcraft.
- 7.2 Reserved.
- 7.3 Turbine-engined rotorcraft not exceeding 2730 kg MTWA.

**NOTE:** This paragraph includes the Allison 250 and Turbomeca Arriel engines which are annotated  $\Delta$  for the purposes of Appendix 3, sub-paragraph 6.4.

- \*7.4
- Aerospatiale SA 330 with Turbomeca Turmo  $\Delta$
  - Aerospatiale AS 332 with Turbomeca Makila  $\Delta$
  - Aerospatiale SA 365 with Turbomeca Arriel  $\Delta$
  - Augusta 109E with P&W Canada 206 Series  $\theta$
  - Bell 212 with P & W Canada PT6T  $\Delta$
  - Bell 214 with General Electric CT7  $\Delta$
  - Bell 222 with Lycoming LTS 101  $\Delta$
  - MBB BK—117 with Lycoming LTS 101  $\Delta$
  - McDonnell Douglas MD902 with P&W Canada 206 series  $\theta$
  - Sikorsky S58 with P & W Canada PT6T  $\Delta$
  - Sikorsky S61 with General Electric CT58
  - Sikorsky S76 with Allison 250  $\Delta$
  - Sikorsky 576 with P & W Canada PT6B  $\Delta$
  - Sikorsky S76 with Turbomeca Arriel  $\Delta$
  - Westland W30 with RR Gem
  - Westland S55 with BS Gnome  $\theta$
  - Westland Wessex 60 with BS Gnome  $\theta$

**NOTE:** For an engine annotated  $\theta$  or  $\Delta$ , see Appendix No. 3, sub-paragraph 6.4.

## 8.0 CATEGORY 'X' — INSTRUMENTS

- (a) A Rating granted in relation to any of the sub-paragraphs 8.1 to 8.4 inclusive, includes all of the instruments fitted to those aircraft in which are installed systems defined by or listed in that sub-paragraph excluding those aircraft listed in paragraph 10, and as limited by paragraph 3 of this Appendix.
- (b) A Rating granted in relation to sub-paragraph 8.8 relates to Instruments — Direct and remote reading compasses only, but excludes compasses on those aircraft listed in paragraph 10, and is limited by subparagraph 3.3 of this Appendix.

- NOTES:**
- (1) A Type Rated Licence which is valid for paragraphs 8.2, 8.3 or 8.4 also includes paragraph 8.1.
  - (2) A Type Rated Licence which is rated for Category 'X' — Instruments now includes the INS, GPWS and compass systems; (excluding compass compensation and adjustment) whether or not these systems are separately endorsed on the licence.
  - (3) Where a system is a combined flight director/automatic pilot the rating does not include items of equipment associated solely with the automatic pilot.

- 8.1 General aircraft instrument systems but excluding instruments installed on any aircraft which has installed a Flight Director System.
- 8.2 Smiths Flight System, Sperry Zero Reader ZL1, ZL2 Flight Director System.
- 8.3 Flight Director Systems employing air driven gyroscopes (attitude).
- 8.4 Flight Director Systems employing electrically driven gyroscopes (attitudes) but excluding those systems defined in sub-paragraph 8.2.
- 8.5 Reserved
- 8.6 Reserved

8.7 Reserved

\*8.8 'X' Instruments (compasses) Direct and remote reading compasses.

## 9.0 CATEGORY 'X' — ELECTRICAL

A rating granted in relation to any sub-paragraph of paragraph 9 of this Appendix includes the generation system and the electrical installation in aircraft as defined by that sub-paragraph, as limited by paragraph 3 of this Appendix.

**NOTE:** *A Type Rated Licence which is valid for paragraphs 9.2 or 9.3 also includes paragraph 9.1.*

9.1 Aircraft in which the main generation system output is dc (including alternators having a self-contained rectifier system) and in which secondary alternators having an individual power rating not exceeding 1.5 kVA may be fitted.

9.2 Aircraft in which the main generation system output is dc and which have installed 'frequency wild' alternators with an individual power rating exceeding 1.5 kVA for auxiliary services.

9.3 Aircraft in which the main generation system output is 'frequency wild' ac and dc power is supplied from transformer rectifier units.

9.4 Aircraft in which the main generation system output is constant frequency' ac from alternators driven by constant speed drive units, or variable speed constant frequency (VSCF) generator/converter systems, and dc power is supplied from transformer rectifier units.

## 10.0 COMBINED CATEGORY 'X' - INSTRUMENTS AND AUTOMATIC PILOTS

A rating granted in relation to any sub-paragraph of paragraph 10 of this Appendix includes all the general instrumentation, flight director and automatic pilot systems installed in the aircraft listed in that sub-paragraph as limited by paragraph 3 of this Appendix.

**NOTE:** *A Type Rated Licence which is valid for combined Category X' -instruments and Automatic pilots now includes the INS, GPWS and compass systems (excluding compass compensation and adjustment) whether or not these systems are separately endorsed on the licence.*

10.1.1	Deleted
10.1.2	Deleted
10.1.3	Deleted
10.1.4	BAC One Eleven series excluding 510
10.1.5	BAC One Eleven 510
10.1.6	Boeing 737 series

## 11.0 RESERVED

## 12.0 CATEGORY 'R' — RADIO

A rating granted in relation to any sub-paragraph of paragraph 12 of this Appendix includes all the types of radio systems listed in that sub-paragraph, as limited by paragraph 3 of this Appendix.

**NOTE:** *A Type Rated Licence in Category 'R' — Radio includes Ground Proximity Warning Systems only when the licence is endorsed to that effect.*

\*12.1 Airborne communication systems.

12.2 Airborne communication systems, airborne navigation systems.

12.3 Airborne radar systems.

### 13.0 CATEGORY 'X' — AUTOMATIC PILOTS

A rating granted in relation to any sub-paragraph of paragraph 13 of this Appendix includes all the automatic pilot systems defined by that sub-paragraph when installed in aircraft, excluding those aircraft listed in paragraph 10, and as limited by paragraph 3 of this Appendix.

**NOTES:** (1) A Type Rated Licence which is valid for paragraph 13.2 also includes paragraph 13.1.

A Type Rated Licence which is valid for paragraph 13.3 also includes paragraphs 13.1 and 13.2.

A Type Rated Licence which is valid for paragraph 13.5 also includes paragraph 13.4.

(2) For the purpose of licensing, automatic stabilisers are deemed to be automatic pilots.

(3) Automatic pilots include related systems such as yaw dampers and/or roll dampers, mach trim systems and automatic throttle systems.

13.1 Non-Radio-Coupled Automatic Pilots (Aeroplanes)

13.2 Radio-Coupled Automatic Pilots (Aeroplanes) excluding ILS Coupled (LOC and GS) Automatic Pilots

13.3 ILS Coupled (LOC and GS) Automatic Pilots (Aeroplanes)

13.4 Non-Radio-Coupled Automatic Pilots (Rotorcraft)

13.5 Radio-Coupled Automatic Pilots (Rotorcraft)

### 14.0 AIRCRAFT 13,610 KG (30,000 LB) MTWA OR GREATER FOR WHICH MAINTENANCE IS CARRIED OUT AND CERTIFIED UNDER COMPANY APPROVAL

Certain types of aircraft and non-rigid airships are required to have their maintenance accomplished and certified by Approved maintenance organisations. Type Ratings will not be granted for these aircraft or their respective engines and systems. The list current at the date of this Appendix is: -

14.1 Pressurized Aeroplanes

Aerospatiale / BAC Concorde  
Airbus A300  
Airbus A310  
Airbus A320  
Airbus A321  
Airbus A340  
ATR 42, ATR 72  
British Aerospace / Avro 146 & RJ series  
British Aerospace ATP /Jetstream 6100  
British Aerospace/Hawker 1000  
Boeing 727  
Boeing 747  
Boeing 757  
Boeing 767



Boeing 777  
Canadair CL 600 series  
Cessna 750 (*continued over*)  
Dassault Falcon 900  
DHC-7  
DHC-8  
Dornier 328  
Douglas DC9/MD80 Series  
Douglas DC10  
Embraer EMB 135/145  
Fokker 50  
Fokker 70  
Fokker 100  
Grumman Gulfstream IV  
Lockheed L-188  
Lockheed L1011  
Shorts SC5 Belfast

**NOTE:** *The Combined Category 'X' – Instruments/Automatic Pilots (Aeroplanes). LWTR is the licence required by engineers authorised to issue certifications in respect of instruments or automatic pilots on aircraft which have an automatic landing capability or potential.*

14.1            **Unpressurised Aeroplanes:** - None

14.2            **Rotorcraft:** -  
Boeing Vertol 234

1.43            **Airships:** -  
Skyship 500  
Skyship 600

## 15.0            **COMPASS COMPENSATION AND ADJUSTMENT**



## **S4/ APPENDIX 3 - LICENSED AIRCRAFT MAINTENANCE PERSONNEL – CERTIFICATION RESPONSIBILITIES OF TYPE RATED / AUTHORISED PERSONNEL IN RELATION TO SECTION 14, 15 AND 16 OF THE AIR NAVIGATION REGULATIONS AND ANR145C.50**

### **1.0 GENERAL**

The purpose of this Appendix is to describe the certification responsibilities of Fiji Licensed Aircraft Maintenance Personnel. Such personnel may be the holder of an Aircraft Maintenance Engineer's Licence issued under STANDARDS DOCUMENT – LICENSING - AIRCRAFT MAINTENANCE ENGINEER'S or previously approved system. The responsibilities apply when issuing certifications either as a Type Rated Licence holder or an engineer holding a certification authorisation. It also describes the privileges of the various Type Rated Licences.

It should be noted that where the holder of a licence is performing maintenance activities on aircraft on which he or she is not appropriately licensed, i.e. acting as a non-certifying engineer, they are still expected to act responsibly and carry out such work in accordance with the procedures and standards identified in the following paragraphs.

A licence issued by the Civil Aviation Authority of Fiji does not confer any certification privileges with respect to aircraft which are not registered in the Fiji unless the licence holder is entitled to certify for such activities by way of having the licence validated by the relevant Airworthiness Authority and/or is authorised by a maintenance organisation approved by that Authority.

**NOTES:** (1) *STANDARDS DOCUMENT – LICENSING - AIRCRAFT MAINTENANCE ENGINEER'S Licence without Type Rating does not confer any certification privileges on the holder in their own right. Such licences must be used in conjunction with a certification authorisation. See paragraph 1.10.*

(2) *In the context of this Appendix, reference to an authorisation means an authorisation issued by a CAAF Approved Maintenance Organization (under the requirements of ANR145C) to allow the holder to issue certifications within the limitations shown on the authorisation.*

1.1 The Certificate referred to under Air Navigation Regulation 14 is a Certificate of Fitness for flight to be issued for the specific purpose of enabling an aircraft to be flown without a Certificate of Airworthiness.



The Certificate referred to under Air Navigation Regulation 15 is a Certificate of Maintenance to be issued following completion of a review in order to certify that the aircraft including its engines together with its equipment and radio is maintained in accordance with the Approved Maintenance Schedule. The periods at which this is to occur are specified in the Maintenance Schedule Approval Document.

The Certificate referred to under Air Navigation Regulation 16 is a Certificate of Compliance to be issued on completion of maintenance of aircraft or components not required to be maintained under ANR145C. Aircraft above 2730kg maximum take-off weight and all aircraft operated for Commercial Air Transport on the Fiji Register are required to be maintained by organisations approved to the requirements of ANR145C these are identified in Fiji as ANR145C approved organisations.

The certificate referred to in ANR145C.50 is a Certificate of Release to Service to be issued on completion of maintenance of aircraft or components which are required to be maintained under the provisions of ANR145C. AIC 4/98 determines that the Certificate of Release to Service issued under the terms of ANR145C approval shall be taken as fulfilling the requirements for the Certificate of Compliance, specified in ANR 16.

1.2 In connection with the issue of Certificate of Release to Service, the following definition apply:

- (a) **Maintenance** means any one or combination of overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft/aircraft component.
- (b) **Overhaul** means the restoration of an aircraft/aircraft component by inspection and replacement in conformity with an approved standard to extend the operations life.
- (c) **Repair** means the restoration of an aircraft/aircraft component to a serviceable condition in conformity with approved standards.
- (d) **Inspection** means the examination of an aircraft/aircraft component to establish Conformity with an approved specification.
- (e) **Replacement** is any work operation which involves the removal and replacement of the same part or the substitution of an approved alternative part.
- (f) **Modification** means the alteration of an aircraft/aircraft component in conformity with an approved standard.

- NOTES:**
1. Defect rectification normally consists of an element of inspection and troubleshooting followed by repair and replacement of the defective item.
  2. Inspection includes:
    - i) *Mandatory Inspection, an inspection classified as Mandatory by the CAAF where the inspection itself is the work.*
    - ii) *Scheduled Maintenance Inspection, an inspection or maintenance including test required by the Approved Maintenance Schedule.*

1.3 Although many terms in common usages describe the various aspects of aircraft engineering, the meanings assigned to such terms are not always the same. For the purpose of this Appendix, in relation to airworthiness, the following definitions apply:

- (a) **Condition** – the physical state of an item.
- (b) **Assembly** – that items are fitted, assembled, attached, installed, connected, secured or adjusted in the approved manner.
- (c) **Functioning** – operation in the approved manner achieving such performance, range of movement and freedom of movement as may be specified.

The certifying engineer shall be responsible for the condition, assembly and functioning of the aircraft or its components for maintenance that has been certified under the privileges of a Type Rated Licence or an authorisation.

1.4 The certifying engineer shall be responsible for ensuring that work is performed and recorded in a satisfactory manner taking into account the following:

- (a) Whenever work is carried out on an aircraft, it is the duty of all persons to whom this Appendix applies to ensure that the work, for which they are responsible, progresses in a managed and controlled manner. Where they are supported by additional staff to carry out the work, consideration shall be given by them before starting the work to the manpower resource available and the abilities of the staff concerned. This is to ensure that the certifying engineer determines and exercises an adequate degree of supervision over such staff.

**NOTE:** *Within a CAAF Approval Maintenance Organisation it is the responsibility of the Organisation to ensure the provision and management of the overall manpower resource is adequate.*

- (b) In relation to work carried out on an aircraft, it is the duty of all persons to whom this Appendix applies to ensure that an adequate record of the work carried out is maintained. This is particularly important where such work carries on beyond a working period or shift, or is handed over from one person to another. The work accomplished, particularly if only disassembly or disturbance of components or aircraft systems, should be recorded as the work progresses or prior to undertaking a disassociated task. In any event, records should be completed no later than the end of the work period or shift of the individual undertaking the work. Such records should include 'open' entries to reflect the remaining actions necessary to restore the aircraft to a serviceable condition prior to release. In the case of complex tasks which are undertaken frequently, consideration should be given to the use of pre-planned stage sheets to assist in the control, management and recording of these tasks. Where such sheets are used, care must be taken to ensure that they accurately reflect the current requirements and recommendations of the manufacturer and that all key recommendations of the manufacturer and that all the stage inspections or replacements are recorded.

**NOTE:** *Within a CAAF Approved Maintenance Organisation it is the responsibility of the Organization to control the preparation of such pre-planned worksheets and to put in place a managed document control system.*

(c) It is also the duty of all persons to whom this Appendix applies to consider the effect such work may have, directly or indirectly, on items which are the responsibility of other such persons. In all cases where an overlap of responsibility between licence categories occurs, the person primarily responsible for the item must involve all other trade disciplines affected. Every person to whom this Appendix applies must therefore be conversant with all other relevant paragraphs of this Appendix. Certificates of Release to Service for each relevant trade category must be issued by all persons concerned, each assuming responsibility of and certifying those aspects of the work for which the licence/authorisation holder is entitled to assume responsibility.

1.5 A Certificate of Release to Service shall only be issued on completion of maintenance when the signatory is (signatories are) satisfied that the work has been properly carried out and accurately recorded, having due regard to the use of:

- (a) Up-to-date instructions and approved airworthiness data (including manuals, drawings, specifications, CAAF mandatory modifications/inspections, and where applicable company procedures).
- (b) Recommended tooling and test equipment which is currently calibrated where applicable.
- (c) A working environment appropriate to the work being carried out.

When issuing a Certificate of Release to Service for work performed by others, the certifying engineer assumes responsibility. The certifying engineer must have inspected a sufficiently representative sample of the work and the associated documentation, and be satisfied with the competence of the persons who have performed the work. For complex tasks this may require progressive inspections to be carried out as the work proceeds.

**NOTE:** *Licensed engineers certifying under the privileges of their licence may not deviate from the manufacturer's maintenance instruction or approved airworthiness data, nor use alternative parts, components or assemblies unless such deviation is supported by the written agreement of the manufacturer, approved as modification or agreed by the CAAF. The CAAF should be consulted in cases of difficulty. Authorised engineers shall comply with all company procedures covering such issues.*

1.6 (a) When the work involves the assembly or any disturbance of a vital point defined in SD – AIRWORTHINESS OF AIRCRAFT Chapter 6-2 or control system, the duplicate inspection required must be completed and certified in accordance with SD – AIRWORTHINESS OF AIRCRAFT Chapter 6-2 before the relevant Certificate of Release to Service is issued.

(b) The holder of a Type Rated Licence in Category A and/or C may make certification on aircraft or their engines, as appropriate) below 5700kg MTWA for Duplicate Inspections of minor adjustments to control systems on other types within the Category in which the licence is type rated.

**NOTE:** *A minor adjustment is considered to be a single point adjustment or reassemble of a control.*

The holder of an appropriately Type Rated STANDARDS DOCUMENT – LICENSING-AIRCRAFT MAINTENANCE ENGINEER'S Aircraft Maintenance Engineer's Licence in Categories 'A', 'B', 'C' or 'D', or the holder of an aircraft Type Authorisation equivalent to STANDARDS DOCUMENT – LICENSING- AIRCRAFT MAINTENANCE

ENGINEER'S Categories 'A' and/or 'C' may issue a Certificate of Release to Service to cover Non Destructive Inspections on aircraft or components, within the privileges of the licence or authorisation held, subject to the work being carried out as follows:-

- (a) Inspection requiring the use of Field Kit for the Colour Contrast Dye Penetrate technique may be carried out by persons either Type Rated or Type Authorised as above or persons qualified in accordance with SD – ANR145C APPROVAL OF AIRCRAFT MAINTENANCE ORGANISATIONS Appendix 11.
- (b) Non-Destructive Inspections requiring any other technique, including Fluorescent Penetrant Dye, shall be carried out and signed for by persons appropriately qualified in accordance with SD – ANR145C APPROVAL OF AIRCRAFT MAINTENANCE ORGANISATIONS Appendix 11 prior to the issue of the CRS by licensed or authorised engineer.

Use of either a Type Rated Licence or an authorisation to issue a certification requires that, in addition to the Licence or Authorisation being valid at the time of certification, the holder has been engaged for periods totalling at least 6 months during the 24 months preceding the date of the certificate on work affording experience comparable with that required for the grant of the Licence/Authorisation.

A Type Rated Licensed Engineer may issue the Certificates identified below in relation to aircraft for which the licence is Type Rated and in accordance with the privileges detailed in the remaining paragraphs to this Appendix. An authorised engineer may only issue these certificates as permitted within the limits of the authorisation.

- (a) Certificate of Release to Service for aircraft not required to be maintained under ANR145C – the holder of an appropriately Type Rated Licence may issue Certificates of Release to Service subject to compliance with the requirements of SD – AIRWORTHINESS OF AIRCRAFT Chapters 6-2 and 6-7.
- (b) Certificate of Maintenance – the holder of an appropriately Type Rated Licence in at least two Categories (other than Category 'X' Compasses) may issue a Certificate of Maintenance subject to compliance with the requirements of SD – AIRWORTHINESS OF AIRCRAFT Chapters 6-2 and 6-7 and the Maintenance Schedule Approval Document.
- (c) Certificate of Fitness for Flight – the holder of an appropriately Type Rated Licence may issue Certificates of Fitness for Flight subject to compliance with the requirements of SD – AIRWORTHINESS OF AIRCRAFT Chapter 3-8.

**NOTE:** For aircraft listed in Paragraph 14 of Appendix 2 certificates shall only be issued by appropriately authorised engineers. (See also SD-ANR145C APPROVAL OF AIRCRAFT MAINTENANCE ORGANISATIONS Appendix 8 to ANR145C).

1.10 STANDARDS DOCUMENT – LICENSING- AIRCRAFT MAINTENANCE ENGINEER'S licences (Licence without Type Rating and Type Rated Licences) may be used to allow the grant of an authorisation within a CAAF Approved Maintenance Organisation. In addition to the foregoing paragraph, when working with such Organisations, the licensed engineer should be aware that he/she is part of a comprehensive maintenance system. It is therefore important to realize that company procedures may further define, or require specific actions, as to how certain issues are to be dealt with and these procedures must be adhered to. It is also important to realize that when working within a CAAF Approved Maintenance Organisation. In addition to the foregoing paragraphs, when working within such Organisations, the licensed engineer should be aware that he/she is part of a comprehensive maintenance system. It is therefore important to realize that company procedures may further define, or require specific actions, as to how certain issues are to be dealt with and these procedures must be adhered to. It is also important to realize that when working within a CAAF Approved Maintenance

Organisation and certifying under the privileges of an authorisation the licensed engineer is not certifying under the privileges of the licence.

## 2.0 AIRCRAFT MAINTENANCE ENGINEERS - TYPE RATED IN CATEGORY 'A' – AEROPLANES

**NOTE:** *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

2.1 The holder of a Category 'A' licence may issue Certificates of Release to Service in respect of maintenance in relation to aeroplanes (but not including engines) for which the licence is Type Rated.

2.2 In connection with the certification of maintenance the holder of a Type Rated Licence in Category 'A' is responsible for all parts of the aeroplane subject to the limitations detailed in sub-paragraphs 2.3 and 2.4 below (excluding those parts which are the responsibility of the holder of a Type Rated Licence in Category 'C').

2.3 The holder of a Type Rated Licence in Category 'A' may issue Certificates of Release to Service relating to maintenance (excluding overhaul) of parts of the aeroplanes for which the holder is responsible, providing that the work has not involved any of the following:

- (a) Bolted joints requiring special techniques.
- (b) Complete riveted joints in primary structures.
- (c) Bonded glued joints in primary structures.
- (d) Bonded assemblies in primary structures.
- (e) Composite material primary structures.
- (f) Welded and brazed joints, other than minor weld repairs carried out by an Approved Welder, but excluding replacement of structural members or repairs to flying control components.
- (g) Cotton, linen, polyester and glass fibre fabric covering of a complete fuselage or aerofoil.
- (h) The disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.

2.4 In connection with the maintenance of instruments, electrical, automatic pilot and radio systems installed in aeroplanes (excluding overhaul or such systems as are associated with the engine(s) and auxiliary power unit(s) the holder of a Type Rated Licence in Category 'A' is entitled to issue Certificates of Release to Service for aircraft for which he holds a Type Rating subject to the limitations detailed in sub-paragraphs 2.4.1, 2.4.2, 2.4.3, 2.4.4 and 2.4.5.

**NOTE:** *Where no limitations are shown, Certificates of Release to Service may be issued for repair, replacement, modification, mandatory inspection or scheduled maintenance inspection. In respect of the certification of scheduled maintenance inspections, reference should also be made to the Maintenance Schedule Approval Document which may require certification specifically by an engineer licensed in the appropriate 'X' or 'R' Category. However, in the absence of such a requirement, the holder of a Type Rated Licence in Category 'A' – Aeroplanes assumes the responsibility for establishing compliance with the maintenance schedule requirements on the systems before issuing the Certificate of Release to Service.*

- 2.4.1 In respect of instrument systems in the aeroplane (excluding instrument systems associated with the engine(s) and auxiliary power unit(s):
- (a) If the aeroplane has instrument system specified in sub-paragraph 8.1 of Appendix 2 Certificate of Release to Service may be issued.
  - (b) If the aeroplane has an instrument system specified in sub-paragraphs 8.2 to 8.4 inclusive of Appendix 2, Certificate of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
  - (c) If the aeroplane is specified in paragraph 10 of Appendix 2 Certificate of Release to Service may not be issued.
- 2.4.2 In respect of electrical systems in the aeroplane (excluding electrical systems associated with the engine(s) and auxiliary power unit(s):
- (a) If the aeroplane has an electrical system specified in sub-paragraph 9.1 of Appendix No. 2 Certificates of Release to Service may be issued.
  - (b) If the aeroplane has an electrical system specified in sub-paragraphs 9.2 to 9.4 inclusive of Appendix No. 2, Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
  - (c) If the aeroplane is specified in paragraph 10 of Appendix 2 Certificate of Release to Service may not be issued.
- 2.4.3 In respect of automatic pilot systems in the aeroplane:
- (a) If the aeroplane has an automatic pilot system specified in sub-paragraph 13.1 of Appendix 2 installed, Certificates of Release to Service may be issued.
  - (b) If the aeroplane has an automatic pilot system specified in sub-paragraph 13.2 Appendix 2 installed, Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
  - (c) If the aeroplane has an automatic pilot system as specify in sub-paragraph 13.3 or the aeroplane is specified in paragraph 10 of Appendix 2 Certificate of Release to Service may not be issued.
- 2.4.4 Certificates of Release to Service may not be issued in respect of radio systems, except that if the aeroplane has a MTWA not exceeding 2730 kg, certificates may be issued in respect of the replacement of VHF communication equipment only.
- 2.4.5 Certificates of Release to Service may not be issued in respect of compass compensation and adjustment unless the licence is endorsed to that effect.

### **3.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORY ‘B’ – AEROPLANES OR ROTORCRAFT**

**NOTE:** *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

- 3.1 The holder of a Category ‘B’ Licence may issue Certificates of Release to Service in respect of overhaul, repair, replacement, modification and mandatory



inspection in relation to aeroplanes or Rotorcraft (but not including engines) for which the licence is Type Rated, subject to the limitations of sub-paragraph 3.2 and 3.3.

### 3.2 CATEGORY 'B' – AEROPLANES

3.2.1 In connection with the certification of overhaul, repair, replacement, modification and mandatory inspection, the holder of a Type Rated Licence in Category 'B' – Aeroplanes is responsible for all parts of the aeroplane (provided that the work does not involve the making of components or parts) excluding those parts which are the responsibility of the holder of a Type Rated Licence in Category 'C' or 'D' and subject to the same limitations as detailed in sub-paragraph 2.4 for Category 'A' and excluding the overhaul of electrical, instrument or automatic pilot systems.

3.2.2 Notwithstanding the above the holder of a Type Rated Licence in Category 'B' may also issue Certificates of Release to Service relating to all aspects of overhaul, repair, replacement, modification and mandatory inspection relating to items listed as (a) to (e) below, except for those parts which form part of or are attached to the engine, provided that the work does not involve the making of components or parts.

- (a) Engine mounting structures and cowlings
- (b) Engine controls
- (c) Engine fuel, oil and coolant systems
- (d) Engine fire extinguishing systems
- (e) Engine fluid de-icing systems

### 3.3 CATEGORY 'B' – ROTORCRAFT

3.3.1 In connection with the certification of overhaul, repair, replacement, modification and mandatory inspection the holder of a Type Rated Licence in Category 'B' – Rotorcraft is responsible for all parts of the Rotorcraft (provided that the work does not involve the making of components or parts) excluding those parts which are the responsibility of the holder of a Type Rated Licence in Category 'D' and subject to the same limitations as detailed in sub-paragraph 6.5 for Category 'A' and 'C' Rotorcraft excluding the overhaul of electrical, instrument, automatic pilot systems, main and tail rotor blades.

## 4.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORY 'C' – ENGINES

**NOTE:** *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

4.1 The holder of a Category 'C' licence may issue Certificates of Release to Service in respect of maintenance in relation to engines and auxiliary power units for which the licence is Type Rated.

4.2 In connection with the certification of maintenance (excluding overhaul) the holder of a Type Rated Licence in Category 'C' is responsible for all parts of the engine(s), the engine installation(s), auxiliary power unit(s), other propulsive device(s) and all associated systems and devices which are concerned with their operation, subject to the limitations detailed in sub-paragraphs 4.3, 4.4, 4.5 and 4.6 (excluding those parts which are the responsibility of the holder of a Type Rated Licence in Category 'D').

4.3 The holder of a Type Rated Licence in Category 'C' may issue Certificates of Release to Service relating to maintenance (excluding overhaul) of components or parts for which the holder is responsible, providing that the work has not involved:

- (a) Dismantling of a piston engine other than to obtain access to the piston/cylinder assemblies or the removal of the engine rear accessory cover to inspect and/or replace oil pump assemblies where such work does not involve the removal and refitment of internal gears.
- (b) Dismantling of main casings or main rotating assemblies of a turbine engine, except as detailed in sub-paragraph 4.4.
- (c) The removal or dismantling of reduction gears, except that, in the case of the BS (DH) Gipsy Queen 70 engine, reduction gears may be removed for the purpose of carrying out inspections after suspected shock loadings.
- (d) Propeller balancing, except for the certification of static balancing where required by the maintenance manual and dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data. The work itself may have been carried out by an LAE who has received suitable training on the balancing equipment to be used and the associated procedures, or by an organisation approved for that purpose and which has issued an Approved Test Certificate for the inspection.
- (e) Welded and brazed joints, other than minor weld repairs to exhaust units carried out by an Approved Welder but excluding component replacement.
- (f) The disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.

4.4 Where the maintenance manual for the particular engine provides instruction for the task, replacement of main casings and/or rotating assemblies comprising the whole or part of a particular rotating system will be permitted provided that removal from the engine is achieved solely by disconnecting the flanges of main casings. In accordance with the above principles, some engines have been assigned the following symbols,  $\theta$  or  $\Delta$  in Appendix 2. Dismantling of these engines is permissible, but is limited to:

- (a)  $\theta$  - Removal/replacement of main casings, **excluding** those whose removal results in concurrent removal of a rotating assembly from the engine. No dismantling of main rotating assemblies is permitted.
- (b)  $\Delta$  - Removal/replacement of main casings **including** those whose removal results in concurrent removal of a rotating assembly from the engine **provided this is accomplished solely by disconnecting at the casing flanges**. No dismantling of main rotating assemblies is permitted.

4.5 In connection with the maintenance of instrument, electrical and automatic pilot systems installed in aeroplanes, the holder of a Type Rated Licence in Category 'C' is entitled to issue Certificates of Release to Service in respect of such systems associated with engine and auxiliary power unit installations for which the holder has a Type Rating, subject to the limitations detailed in sub-paragraphs 4.5.1, 4.5.2 and 4.5.3.

**NOTE:** *Where no limitations are shown, Certificates of Release to Service may be issued for replacement, modification, repair mandatory inspection or scheduled maintenance inspection. In respect of the certification of scheduled maintenance inspections reference should also be made to the Maintenance Schedule Approval Document which may require certification specifically by an engineer licensed in the appropriate 'X' Category. However, in the absence of such a requirement, the holder of a Type Rated Licence in Category 'C' – Engines assumes the responsibility for establishing compliance with the maintenance schedule requirements on the systems before issuing the Certificate of Release to Service.*



4.5.1 In respect of instrument systems associated with the engine(s) and auxiliary power unit(s):

- (a) If the engine is installed in an aeroplane which has an instrument system specified in sub-paragraph 8.1 of Appendix 2 Certificates of Release to Service may be issued.
- (b) If the engine is installed in an aeroplane which has an instrument system specified in sub-paragraphs 8.2 to 8.4 inclusive of Appendix 2, Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
- (c) If the engine is installed in an aeroplane specified in paragraph 10 of Appendix 2, Certificates of Release to Service may not be issued.

4.5.2 In respect of electrical systems associated with the engine(s) and auxiliary power unit(s):

- (a) If the engine is installed in an aeroplane which has an electrical system specified in sub-paragraph 9.1 of Appendix 2, Certificates of Release to Service may be issued.
- (b) If the engine is installed in an aeroplane which has an electrical system specified in sub-paragraphs 9.2 to 9.4 inclusive of Appendix 2 Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
- (c) If the engine is installed in an aeroplane specified in paragraph 10 of Appendix 2 Certificates of Release to Service may not be issued.

In respect of automatic pilot systems associated with the engine(s):

- (a) If the aeroplane has an automatic pilot system specified in sub-paragraph 13.1 of Appendix 2 installed, Certificates of Release to Service may be issued.
- (b) If the aeroplane has an automatic pilot system specified in sub-paragraph 13.2 of Appendix 2 installed, Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
- (c) If the aeroplane has an automatic pilot system as specified in sub-paragraph 13.3 or is specified in paragraph 10 of Appendix 2 Certificate of Release to Service may not be issued.

## 5.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORY 'D'- ENGINES

**NOTE:** *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraph 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

5.1 The holder of a Category 'D' Licence may issue Certificates of Release to Service relating to engines for which the Licence is Type Rated in respect of overhaul, repairs, replacements, modification and mandatory inspection, subject to the limitations of sub-paragraphs 5.2 and 5.3.

5.2 In connection with overhaul, repair, replacement, modification and mandatory inspection, the holder of a Type Rated licence in Category 'D' is responsible for all parts of the engine including functioning only insofar as test bed performance is concerned.

The certification of functioning insofar as an installed engine is concerned must be made in conjunction with a holder of a Type Rated Licence in Category 'C'.

- 5.3 The holder of a Category 'D' Licence may issue Certificates of Release to Service relating to all aspects of overhaul, repair, replacement, modification and mandatory inspection of components and parts of the engine only (excluding overhaul, repair, replacement, modification and mandatory inspection of ignition apparatus, instrument equipment and electrical equipment) provided that the work does not involve the making of components or parts.

## 6.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORIES 'A' AND 'C' – ROTORCRAFT

**NOTES:** 1) This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.

2) A Category A and C Rotorcraft Licence may not be used to certify for piston or jet turbine engines installed in aeroplanes.

- 5.4 The holder of a Categories 'A' and 'C' Rotorcraft Licence may issue Certificates of Release to Service in respect of maintenance in relation to Rotorcraft and its engines for which the licence is Type Rated.

- 5.5 In connection with the certification of maintenance the holder of a Type Rated Licence in Categories 'A' and 'C' – Rotorcraft is responsible for all parts of the Rotorcraft subject to the limitations detailed in sub-paragraphs 6.3, 6.4 and 6.5.

- 5.6 The holder of a Type Rated Licence in Category 'A' and 'C' – Rotorcraft may issue Certificate of Release to Service relating to maintenance (excluding overhaul) of parts of the Rotorcraft for which the holder is responsible, providing that the work has not involved any of the following:

- (a) Bolted joints requiring special techniques.
- (b) Complete riveted joints in primary structures.
- (c) Complete glued joints in primary structures.
- (d) Bonded assemblies in primary structures.
- (e) Composite material primary structures.
- (f) Welded and brazed joints, other than minor weld repairs to aircraft structure or exhaust units carried out by an Approved Welder but excluding structural or component replacement.
- (g) Dismantling of a piston engine other than to obtain access to the piston/cylinder assemblies or the removal of the engine rear accessory case cover to inspect and/or replace oil pump assemblies where such work does not involve the removal and refitment of internal gears.
- (h) Dismantling of main casings or main rotating assemblies of a turbine engine, except as detailed in sub-paragraph 6.4.
- (j) Dismantling of gearbox casings, except that separation of casings to obtain access for the purposes of internal inspections in accordance with the manufacturer's instruction is permitted.
- (k) The disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.

- 5.7 Where the maintenance manual for the particular engine provides instruction for the task, replacement of main casing and/or rotating assemblies comprising the whole or part of a particular rotating system will be permitted provided that removal from the engine is achieved solely by disconnecting the flanges of main casings. In accordance with the above principles, some engines have been assigned the following symbols,  $\theta$  or,  $\Delta$  in Appendix 2. Dismantling of these engines is permissible, but is limited to:
- (a)  $\theta$  - Removal/replacement of main casings, **excluding** those whose removal results in concurrent removal of a rotating assembly from the engine. No dismantling of main rotating assemblies is permitted.
  - (b)  $\Delta$  - Removal/replacement of main casings **including** those whose removal results in concurrent removal of a rotating assembly from the engine, **provided this is accomplished solely by disconnecting at the casing flanges**. No dismantling of main rotating assemblies is permitted.
- 5.8 In connection with the maintenance of instrument, electrical, automatic pilot and radio systems installed in Rotorcraft (excluding overhaul) the holder of a Type Rated Licence in Categories 'A' and 'C' – Rotorcraft is entitled to issue Certificates of Release to Service for Rotorcraft for which he holds a Type Rating, subject to the limitations detailed in sub-paragraphs 6.5.1, 6.5.2, 6.5.3 and 6.5.4.
- NOTE:** *Where no limitations are shown, Certificates of Release to Service may be issued for replacement, modification, repair, mandatory inspection or scheduled maintenance inspection. In respect of the certification of scheduled maintenance inspections, reference should also be made to the Maintenance Schedule Approval Document which may require certification specifically by an engineer licensed in the appropriate 'X' or 'R' Category. However, in the absence of such a requirement, the holder of a Type Rated Licence in Categories 'A' and 'C' – Rotorcraft assumes the responsibility for establishing compliance with the maintenance schedule requirements on the systems before issuing the Certificate of Release to Service.*
- 5.8.1 In respect of instrument systems in the Rotorcraft if the Rotorcraft is specified in sub-paragraph 7.4 of Appendix 2 Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
- 5.8.2 In respect of electrical systems in the Rotorcraft, if the Rotorcraft is specified in sub-paragraph 7.4 of Appendix 2 Certificate of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
- 5.8.3 In respect of automatic pilot/automatic stabilizer systems in Rotorcraft, if the Rotorcraft has an automatic pilot/automatic stabilizer system specified in sub-paragraph 13.4 or 13.5 of Appendix 2 installed, Certificates of Release to Service may be issued relating to replacements only, provided that functioning checks to prove serviceability do not require the use of test apparatus.
- 5.8.4 Certificates of Release to Service may not be issued in respect of radio systems, except that if the Rotorcraft has a MTWA not exceeding 2730kg, certificates may be issued in respect of the replacement of VHF communication equipment only.

## 7.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORY ‘X’ – INSTRUMENTS

**NOTE:** *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

7.1 The holder of a Category ‘X’ – Instruments licences may issue Certificates of Release to Service in respect of maintenance in relation to aircraft instrument systems for which the licence is Type Rated, subject to the limitations detailed in sub-paragraph 7.3.

7.2 In connection with the certification of maintenance, excluding overhaul, the holder of a Type Rated Licence in Category ‘X’ – Instruments is responsible for all parts of instrument systems included in the Type Rating.

7.3 The holder of a Type Rated Licence in Category ‘X’ – Instruments may issue Certificates of Release to Service in respect of maintenance, excluding overhaul, of components and parts for which the holder is responsible provided that units which are supplied as bench tested units may not have their individual parts disturbed, except for the replacement or adjustment of items normally replaceable or adjustable in service.

## 8.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORY ‘X’ – ELECTRICAL

**NOTE:** *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

8.1 The holder of a Category ‘X’ – Electrical Licence may issue Certificates of Release to Service in respect of maintenance in relation to aircraft electrical systems for which the licence is Type Rated, subject to the limitations detailed in sub-paragraphs 8.3.

8.2 In connection with the certification of maintenance, excluding overhaul, the holder of a Type Rated Licence in Category ‘X’ – Electrical is responsible for all parts of electrical systems included in the Type Rating.

8.3 The holder of a Type Rated Licence in Category ‘X’ – Electrical may issue Certificates of Release to Service in respect of maintenance, excluding overhaul, of components and parts for which the holder is responsible provided that units which are supplied as bench tested units may not have their individual parts disturbed, except for the replacement or adjustment of items normally replaceable or adjustable in service.

## 9.0 AIRCRAFT MAINTENANCE ENGINEERS – TYPE RATED IN CATEGORY ‘X’ – AUTOMATIC PILOTS

**NOTE:** (1) *This paragraph must be read in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

(2) *For the purpose of certification, automatic stabilization systems are deemed to be automatic pilots.*

(3) *Automatic pilots include related systems such as yaw and or roll dampers, mach trim systems, and automatic throttles.*

9.1 The holder of a Category ‘X’ – Automatic Pilots Licence may issue Certificates of Release to Service in respect of maintenance in relation to aircraft automatic pilot systems for which the licence is Type Rated, subject to the limitations detailed in sub-paragraphs 9.3.

9.2 In connection with the certification of maintenance, excluding overhaul, the holder of a Type rated Licence in Category ‘X’ – Automatic Pilots is responsible for all parts of the automatic pilot systems included in the Type Rating.

9.3 The holder of a Type Rated Licence in Category ‘X’ – Automatic Pilots may issue Certificates of Release to Service in respect of maintenance, excluding overhaul, of components and parts for which the holder is responsible provided that units which are supplied as bench tested units may not have their individual parts disturbed, except for the replacement or adjustment of items normally replaceable or adjustable in service.

## 10.0 AIRCRAFT MAINTENANCE ENGINEERS - TYPE RATED IN COMBINED CATEGORIES ‘X’ - INSTRUMENTS/AUTOMATIC PILOTS

The Type Rated Licence in Combined Categories ‘X’ – Instruments/Automatic pilots is comprised of two ‘X’ Category ratings and the provisions and limitations contained in both paragraphs 7 and 9 of this Appendix in relation to the Instrument and Automatic Pilot systems installed in any aircraft for which the Combined Categories ‘X’ Licence is type rated.

## 11.0 AIRCRAFT MAINTENANCE ENGINEERS - TYPE RATED IN CATEGORY ‘R’- RADIO

**NOTE:** *This paragraph must be in conjunction with paragraph 1 of this Appendix and particular attention paid to sub-paragraphs 1.3, 1.4, 1.5 and 1.6 which are concerned with areas of responsibility.*

- 11.1 The holder of a Category 'R' – Radio Licence may issue Certificates of Release to Service in respect of maintenance in relation to aircraft radio systems for which the licence is Type Rated, subject to the limitations detailed in sub-paragraphs 11.3.
- 11.2 In connection with the certification of maintenance, excluding overhaul, the holder of a Type Rated Licence in Category 'R' – Radio is responsible for all parts of the radio systems included in the Type Rating.
- 11.3 The holder of a Type Rated Licence in Category 'R' – Radio may issue Certificates of Release to Service in respect of maintenance, excluding overhaul, of components and parts for which the holder is responsible provided that units which are supplied as bench tested units may not have their individual parts disturbed, except for the replacement or adjustment of items normally replaceable or adjustable in service.
- 11.4 The holder of a Type Rated Licence in Category 'R' – Radio, endorsed to include the overhaul of radio apparatus, is responsible for and may issue Certificate of Release to Service in respect of the maintenance of components and parts of all radio apparatus undergoing periodic check, repair or overhaul in workshop for which the licence is Type Rated, provided that the work done does not involve the making of radio components or parts.
- 11.5 The holder of a Type Rated Licence in Category 'R' – Radio endorsed 'including GPWS' may issue Certificates of Release to Service in respect of maintenance, excluding overhaul or scheduled maintenance inspection, of Ground Proximity Warning Systems for aircraft for which the licence is Type Rated in respect of its radio systems, subject to the limitations of sub-paragraphs 11.3.

## 12.0 COMPASS COMPENSATION AND ADJUSTMENT

The Paragraph 15 type rating of Appendix 2 permits the issue of Certificates of Release to Service by the holder in respect of the compensation and adjustment of direct and remote reading compasses on any aircraft.

## **S4/ APPENDIX 4 - TYPE RATING RECORD OF EXPERIENCE**

### **1.0 GENERAL**

As stated in Chapter L2, a satisfactory Record of Experience must be submitted to the CAAF as part of an application for a Type Rating. This Record of Experience may be presented on CAAF Form 117 or as part of the company experience record book.

### **2.0 ITEMS TO BE RECORDED**

- 2.1 The Record of Experience items should be grouped under suitable headings appropriate to the Licence Category (see Tables 1 and 2 of this Appendix) in order that distribution and depth of coverage can be assessed. The experience shown must have been gained within the three years prior to the application.
- 2.2 The amount of detail should be related to the construction and complexity of the type/group of aircraft, engine or equipment concerned. Account should also be taken (if maintenance procedures, defect rectification and the duties and responsibilities which devolve on the holder of the Type Rated Licence.
- 2.3 It is not sufficient to make such simple statements as for example, 'No. 1 inverter replaced', 'Hydraulic pump replaced' or, '50-hour check carried out'. The replacement of items requires subsequently that specific functional checks are carried out, and therefore evidence of such checks must also be given in the Type Rating Record of Experience, in the case of time-cycled checks, reference should also be made to the extent of work involved relevant to the systems and/or equipment covered by the checks. Checking/inspection items are of limited worth, but the work items which follow from such checks/inspections provide the greater experience.
- 2.4 If an oral examination is to be conducted for the Type Rating, the Record of Experience will be used as a basis for questions on the practical aspects of items included in it.
- 2.5 An example of a completed Type Rating Record of Experience is given in Table 3 of this Appendix.

### **3.0 CONFIRMING SIGNATORIES**

Items and dates entered in the Record of Experience should be countersigned by a person of supervisory status to whom the applicant is responsible in relation to the work experience recorded and who should confirm that the experience is reflected accurately in the document. See also Chapter L2, concerning the certification required on CAAF AW101D.

### **4.0 ASSESSMENT BY THE CAAF**

It should be assumed that the person assessing the Record of Experience is not acquainted either with the applicant or the company by whom he or she is employed. For this reason, emphasis is placed on the way in which work is recorded against specific registered types of aircraft, on overall practical experience and on countersigned certifications.



**TABLE 1 (APP 4) CLASSIFICATION OF ITEMS OF WORK FOR COMPLETION OF TYPE RATING RECORD OF EXPERIENCE**  
(Categories 'A' and 'C')

Sub-headings under which representative selection of items of work carried out or participated in	Licence Categories			ATA Chapter
	'A' - Aeroplanes	'C' – Engines	'A' & 'C' Rotorcraft	
Airframe Structure, including X  X doors and windows 51	X		X	51
Flight Control Systems	X		X	27
Flaps and Lift Control Systems	X			27
Hydraulic Systems	X		X	29
Pneumatic Systems	X		X	36
Landing Gear Systems	X		X	32
Air Conditioning Systems	X		X	21
Pressurisation Systems	X			21
Ice and Rain Protection Systems	X		X	30
Oxygen Systems	X		X	35
Life-saving and Safety Equipment	X		X	25
Fire Detection and Extinguishing Systems	X	X	X	26
Electrical Systems	X*	X*	X*	24
Instrument Systems	X*		X*	31
Automatic Pilot Systems		X	X	22
Airframe Fuel Systems		X	X	28
Main Engines and Power Plant		X	X	71
Engine Fuel Systems		X	X	73
Oil Systems		X	X	79
Ignition Systems		X	X	74
Propeller Systems		X		61
Air Intake Systems		X		72
Thrust Reverser and Exhaust Systems		X		78
Rotor Systems			X	65
Transmission Systems			X	65
Replacements of Systems Components	X	X	X	ALL
Replacements of Main Engines		X	X	71
Replacements of APUs		X	X	49
Ground Handling	X		X	9/10
Ground Running and Adjustments		X	X	76
Minor Repairs	X		X	51
Defect Diagnosis and Rectification	X	X	X	ALL
Current Mandatory Modifications and Inspections	X	X	X	ALL

\*In accordance with the responsibilities and privileges defined in Appendix 3 of STANDARDS





DOCUMENT – LICENSING - AIRCRAFT MAINTENANCE ENGINEER'S.

**TABLE 2 (APPENDIX 4) CLASSIFICATION OF ITEMS OF WORK FOR COMPLETION OF TYPE RATING RECORD OF EXPERIENCE**  
(Categories 'X' and 'R')

Sub-headings under which representative selection of items of work carried out or participated in	Licence Categories		ATA Chapter
	'X' - Electrical	'X' – Compass Compensation and Adjustment	
Main a.c. Power Generation Systems	X		24
Main a.c. Power Generation Systems	X		24
Power Distribution Systems	X		24
Batteries	X		24
Secondary Power Generation Systems	X		24
External Power Supply Systems	X		24
Auxiliary Power Units	X		49
Warning and Altering Systems	X		ALL
Circuit Installation and Testing	X		ALL
Engine Starting Systems	X		74/80
Engine and Propeller Control Systems	X		61/76
Rotor Control Systems	X		22
Fuel Systems	X		28/73
Oil Systems	X		79
Fire Detection and Extinguishing Systems	X		26
Ice and Rain Protection Systems	X		30
Air Conditioning Systems	X		21
Pressurisation Systems	X		21
Flight Control Systems	X		27
Hydraulic and/or Pneumatic Systems	X		29/36
Landing Gear Systems	X		32
Lighting Systems	X		24
Passenger Service Systems	X		25
Multiplex Systems	X		31/ALL
Indicating Systems	X		31/ALL
Replacement of systems Components	X		ALL
BITE Checks	X		ALL
Defect diagnosis and Rectification	X		ALL
Current Mandatory Modifications and Inspections	X		ALL
Warning and Alerting Systems	X		ALL
Circuit Installation and Testing	X		ALL
Direct and Remote-reading Compass swings		X	34

**TABLE 2 (APPENDIX 4) CONTINUED**

Sub-headings under which representative selection of items of work carried out or participated in	Licence Categories		ATA Chapter
	'X' - Electrical	'X' – Compass Compensation and Adjustment	
<b>Indicating Systems:</b>			
Pressure	X	X	77
Temperature	X	X	77/79
Engine Speed	X	X	77
Quantity	X	X	28/29/79
Flow	X	X	73
Position	X	X	ALL
Vibration	X	X	77
Pitot-Static Instrument Systems	X	X	34
Gyroscopic Flight Instrument Systems	X	X	34
Compasses Direct-reading and/or Remote-Reading	X	X	34
Flight Director Systems	X	X	34
Air Data Computer Systems	X	X	34
Inertial Navigation Systems	X	X	34
Ground Proximity Warning Systems	X	X	34
CRT Display System	X	X	31
Flight Director Systems	X	X	31
Replacement of System Components	X	X	ALL
BITE Checks	X	X	ALL
Defect Diagnosis and Rectification	X	X	ALL
Current Mandatory Modifications and Inspections	X	X	ALL
Yaw Damper Systems		X	22
Pitch Trim Systems		X	22
Mach Trim Systems		X	22
Automatic Pilot Systems		X	22
Auto Throttle Systems	X	X	22
Autoland Systems		X	22
Flight Management Systems		X	34

**TABLE 2 (APPENDIX 4) CONTINUED**

Sub-headings under which representative selection of items of work carried out or participated in	'X' Automatic Pilots Aeroplanes	'X' Automatic Pilots Rotorcraft	R Radio Communication / Navigation	'R' Radio Radar	ATA Chapter
Yam Damper Systems	X				22
Mach Trim Systems	X				22
Pitch Trim Systems	X	X			22
Automatic Pilot Systems	X	X			22
Yam systems		X			22
Stability Augmentation Systems		X			22
Trim Systems		X			22
Warning and Alerting Systems	X	X	X	X	ALL
Circuit Installation and Testing	X	X	X	X	ALL
Replacement of System Components	X	X	X	X	ALL
Defect Diagnosis and Rectification	X	X	X	X	ALL
Current Mandatory Modifications and Inspections	X	X	X	X	ALL
BITE Checks	X	X	X	X	ALL
HF Communication Systems			X		23
VHF Communication Systems			X		23
Intercommunication			X		23
Service Interphone/Public Address Systems			X		23
Passenger Entertainment Systems			X		23
Multiplex Systems			X		31
Cockpit Voice Recorder			X		31
VHF Navigation Systems			X		34
Marker Systems			X		34
ADF Systems			X		34
Sat Comm			X		34
GPS			X		34
Weather Radar Systems				X	34
Radio Altimeter Systems				X	34
DME Systems				X	34
Transponder Systems				X	34
TCAS				X	34
Microwave Landing Systems				X	34



TABLE 3 (APPENDIX 4) EXAMPLE OF A COMPLETED TYPE RATING RECORD OF EXPERIENCE

Applicant's Full Name Pradeep Chandra

Signature Phandra

Date 13 / 08 / 99

Aircraft Type & Registration	Details of Work Performed	Specific Date of Work Performed	Signature, Name and Status of Person in Charge and Date
HS 748	<u>STRUCTURES, DOORS, WINDOWS</u>		
DQ-CAA	Area of corrosion found in lower fuselage skin at station H25, is area of stringer 25R. Repair carried out as detailed in repair manual page 28. Size 180 mm x 230 mm.	06 / 10 / 98	
DQ-CAB	Main passenger door seal found damaged. New seal fitted, door checked for correct fit and closure, pressure test carried out.	02 / 12 / 98	
DQ-CAA	Captain DV window delaminated. New DV window fitted, all connections made, heating checked, correct opening closing and sealing checked.	05 / 05 / 99	T Kamanitoga Engineering Manager Auth: 189 13/08/99
DQ-CAC	Loose rivets found in right wing aileron shroud rib 21 position. All loose rivets replaced.	02 / 07 / 99	
DQ-CAC	Mandatory Modification AD 76-15-02. Periodic check carried out. Fuel tank pressure check,	06 / 08 / 99	



Applicant's Full Name Pradeep Chandra

Signature Phandra

Date 13 / 08 / 99

Aircraft Type & Registration	Details of Work Performed	Specific Date of Work Performed	Signature, Name and Status of Person in Charge and Date
HS 748	<u>FLIGHT CONTROL SYSTEM</u>		
DQ-CAA	During a 300-hour inspection right aileron trailing edge distorted due to ground equipment contact. Trailing edge de-riivetted, straightened and re-rivvetted.	02/07/99	
DQ-CAA	Right aileron main enter lower cable frayed, new cable fitted and tensioned, rigging and movement check carried out.	03/07/99	
DQ-CAA	Rudder right cable pressure seal at pressure bulkhead leaking. New cable and pressure seal assembly fitted and tensioned, rigging and movement checks carried out, cabin pressure test carried out.	05/07/99	
DQ-CAC	Right elevator trim/balance tab operating rod rear bearing loose, new rod end fitted, rigging and movement checks carried out	02/12/98	T Kamanitoga Engineering Manager Auth: 189 13/08/99
	<u>HYDRAULIC SYSTEM</u>		
DQ-CAC	Right engine driven pump leaking at gland, new pump fitted, system bled and fluid level topped up, function tested on engine run.	12/05/99	
DQ-CAC	Main system hydraulic feed line from reservoir chaffed in hydraulic bay, new pipe fitted, system topped up and function tested.	23/06/99	



**CIVIL AVIATION AUTHORITY OF FIJI**

**APPLICATION FOR GRANT OR EXTENSION OF AN AIRCRAFT**

**MAINTENANCE ENGINEER'S LICENCE**

1 Give details of ALL applications made for the grant or extension of a Fiji Aircraft Maintenance Engineer's Licence during the last two years.

Surname: ..... (BLOCK CAPITALS)	(i) Date of Birth: ..... / ..... / .....
Other Name: .....	(ii) Nationality: .....Permanent Address: ..... ..... .....
Address for use with this application: ..... .....	
Name of Employer: .....	Date of Joining: ..... / ..... / .....
Employed at: .....	Telephone No: .....

Telephone No

Approximate date	Category and / or ratings	Was application accepted?	Results of examination

2. Particulars of Fiji Aircraft Maintenance Engineer's Licence.

Licence No: ..... Issue date.....

3. Fill in below details of licence for which you wish to make application (see the current issues of STANDARDS DOCUMENT - AIRCRAFT MAINTENANCE ENGINEER'S LICENCE

Licence	Category	Sub division / type rating being applied for
WITHOUT TYPE RATING		
TYPE RATING		

4. I wish to take my written/oral examination at .....

**FOR CAAF USE ONLY**

Regulations:  
Exemptions:  
Time:  
Fee:

Surveyor's Signature:  
Written:  
Oral:  
Receipt No:



5. State in date order full particulars of experience in Armed Forces, if applicable) together with any practical experience gained as a student at any aeronautical school or college. Please indicate whether experience was obtained in full-time or part-time involvement. If part-time, quote approximate hours worked per week.

**IMPORTANT:** The application will not be accepted unless (i) the information required is given in sufficient detail to clearly show satisfaction with any experience requirement in the current issue of STANDARDS DOCUMENT - AIRCRAFT MAINTENANCE ENGINEER'S LICENCE for the category of licence for which application is made, (ii) The conditions of Column (4) are complied with, and (iii) a satisfactory Type Rating Record of Experience is submitted if applicable.

**NOTES:**

1. *If the application is for an extension within a Category, particulars of relevant experience are required ONLY since the date of the last application for the Category, together with Type Rating Record of Experience on the type to which the application relates.*

2. *The Type Rating Record of Experience should be compiled in accordance with Appendix 4 of STANDARDS DOCUMENT - AIRCRAFT MAINTENANCE ENGINEER'S LICENCE.*

3. *The signature in Column (4) constitutes confirmation of adjacent entry in Columns (1), (2), (3).*





Type of Aircraft, Engine or Equipment, showing the particulars relevant to the application being made.	PRECISE NATURE of work, and name of person in charge of Department or in similar authoritative position.  State name of employer and place of employment.	DATES  From:  To:	Signature of Referee and name in capitals. To be signed by person quoted in Column (2). (See <b>NOTES</b> above.)

*Continue on separate sheets, if necessary*



6. Have you studied the following current publications?
- The current Air Navigation Regulations CAP 174.....
- Standard Documents 16, 17 & 18.....
- Airworthiness Notices.....
- Aeronautical Information Circulars: .....

7. Have you had Human Performance Training and examination by your ANR145C AMO?
- If you answered, yes attach evidence or course certificate.

8. Are you the holder of any Aircraft Maintenance Engineer's Licence issued by an authority OTHER THAN THE CAAF?

If so, state:

- (i) Issuing authority .....
- (ii) Licence Number .....
- (iii) Date of expiry ..... / ..... / .....

9. I hereby declare that the information given on this form is true in every respect.

Signature of Applicant: .....

Date: ..... / ..... / .....

10. This section is required to be completed only when an application is made for a Type Rating.

I hereby certify that I am not aware of any reason why .....should not be granted a Type Rating in respect of

Category .....

Signed: .....

Date: ..... / ..... / .....

Position or Status: .....

Licence No.: .....

This certification shall normally be made by an engineer who has regular professional contact with the applicant and who has held a Fiji Licence in the discipline for which application is made, for a minimum period of 24 months. The licence must be valid. The signatory may be an experienced person other than an appropriately licensed engineer with the prior agreement of the CAAF Airworthiness Officer.

**IMPORTANT NOTES:**

- (1) When completed, this form and relevant Type Rating Record of Experience if applicable should be returned to the Licensing Officer, Civil Aviation Authority of Fiji, Nadi Airport,

Fiji.  
This application is valid for 6 months only.

- (2) Requests to amend this application subsequent to its receipt by the CAAF will not be accepted.

## **GUIDANCE NOTES**

**NOTE:** *Please read the relevant parts of STANDARDS DOCUMENT – LICENSING – AIRCRAFT MAINTENANCE ENGINEER'S before completing the form CAAF 117.*

### **1.0 EXAMINATION VENUES**

- 1.1 AMEL written examinations are held usually every Monday at the following location:

The Civil Aviation Authority of Fiji  
Head Quarters  
Nadi  
Fiji

If you are taking a written examination, an examination date approximately two weeks after acceptance of the application form will be offered; if you have a preference for a particular range of dates or if you are unavailable for any period please **NOTE** this on the application form: we will try to accommodate your preference but cannot guarantee that this will always be possible as the exam centre has limited seating capacity.

- 1.2 Oral examinations are normally conducted at the CAAF Headquarters subject to the availability of a Surveyor.
- 1.3 Examinations will only be conducted in the Fiji.

### **2.0 COMPLETING THE APPLICATION FORM**

- (a) You will need to complete a separate CAAF AW101D for each LWTR category (i.e. Airframe, Engine, each X Category and Radio) for which you are applying, however, where STANDARDS DOCUMENT – LICENSING - AIRCRAFT MAINTENANCE ENGINEER'S requires multiple categories to be taken together (e.g. A&C Rotorcraft) one CAAF AW101D will be acceptable.

- (b) If you are applying for a type rating a CAAF AW101D covering the work you have done on the type must be submitted for each type for which you are applying (see STANDARDS DOCUMENT – LICENSING - AIRCRAFT MAINTENANCE ENGINEER’S Appendix 4) unless it is a group type rating when one form 117 covering the group should be submitted.
- (c) When completing Part 5 column 2 of the CAAF Form 117 you must show the precise nature of the work you have done and its relevance to the maintenance of operating aircraft, descriptions of individual tasks are not required for a LWTR application.

### 3. EXEMPTIONS

You may be granted exemption from parts of the **written** examination if you hold certain qualifications or licences; if you think you qualify for these exemptions you must submit supporting documentation **each** time you make an application. These exemptions are listed below.

IF YOU	YOU MAY BE EXEMPT
Hold a valid Fiji AMEL	Multi-choice questions from modules which form part of a category already held on your licence.
Hold a valid ICAO Type II Licence or FAA A&P Certificate (but not a temporary certificate)	Multi-choice questions from modules (except module 1) where the rating on the licence corresponds to the category for which you are applying.  <b>NOTE:</b> Where a candidate’s results are such that all of the examination must be retaken or following a partial pass a candidate again fails, these exemptions may be withdrawn for further applications for that category.
Hold a valid foreign AME licence, the examinations for which were conducted by a CAAF Surveyor, or which was issued under the direct supervision of CAAF personnel.  <b>NOTE:</b> You will need to provide written confirmation from the relevant foreign authority.	All written examinations (except Regulations) provided that:  (a) The examination was conducted to the current issue of STANDARDS DOCUMENT – LICENSING AIRCRAFT MAINTENANCE ENGINEER’S and  (b) Any type rating which you are applying to be transferred must be for a type currently on the Fiji register and not a type for which completion of course is required by STANDARDS DOCUMENT – LICENSING AIRCRAFT MAINTENANCE ENGINEER’S.



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## S4/ APPENDIX 5 - SUGGESTED STUDY MATERIAL

- 1 A study of the following official publications relevant to the subject of Regulations and Airworthiness Requirements is essential in respect of examinations associated with the various categories of licence. The publications may be purchased at the address below: -

The Air Navigation Regulations (As amended)	}	CAAF Headquarters Nadi FIJI
SD - Airworthiness of Aircraft		
SD – LICENSING AIRCRAFT MAINTENANCE ENGINEER'S		
SD ANR145C Approvals of Aircraft Maintenance Organisations		

- 2 The following publications provide useful information for study in connection with the Licence Categories noted, and may be obtained direct from the publisher, or through bookshops.

UK CAA CAP 562 Civil Aircraft Airworthiness Information and Procedures	}	Westward Digital Limited 37 Windsor Street Cheltenham Glos. GL52 2DG UK

Open Tech Study Plans Learning Packages	}	Aviation Training Association 125 London Road High Wycombe Bucks HP11 1BT Telephone High Wycombe (01494) 45262 UK



**Aircraft and Systems**

Understanding Aircraft Structures	J Cutler	Blackwell Publications	Scientific
The Aeroplane Structure	A C Kermode	} Longman Group Publications	
Mechanics of Flight	A C Kermode		
Light Aircraft Inspection	J E Heywood	T & AD Poyser	
Light Aircraft Maintenance	J E Heywood	Blackwell Scientific Publications	
Into Thin Air	E W Still	Normalair-Garrett	
Aircraft Maintenance and Repair	Bent & McKinley	} McGraw-Hill	
Maintenance of Aeroplane Vehicles	Northrop Institute of Technology		
A & P Mechanics General Handbook	EA-AC65-9A	} Aviation Maintenance Foundation Inc (USA)	
A & P Mechanics Airframe Handbook	EA-AC65-ISA		
Aviation Maintenance Handbook and Standard Hardware Digest	EA-AHS-1		
Transport Category Aircraft Systems	EA-363		
Aircraft Weight and Balance	EA-BAL		

**Aircraft and Systems (continued)**

Aircraft Corrosion Control	EA-CC-1	} Aviation Maintenance Foundation Inc (USA)	
Advanced Mathematics for the Aircraft Technician	EA-MAT		
Aircraft Air Conditioning Systems	EA-AAC-1		
Aircraft Fabric Covering	EA-ADF		
Aircraft Hydraulic Systems	EA-AH-1		
Aircraft Oxygen Systems	EA-AOS		
Aircraft Painting and Finishing	EA-AP-2		
Aircraft Tires and Tubes	EA-ATT		
Aircraft Wheels, Brakes and Anti-Skid Systems	EA-AWB		
Aircraft Bonded Structure	EA-NMR		
Aircraft Sheet Metal Construction and Repair	EA-SMF		
The Anatomy of the Aeroplane	Darrol Stinton	Blackwell Publications	Scientific
The Helicopter — Its History and How It Flies	J Fay	David and Charles	
Helicopter Flight Theory for Pilots and Mechanics	J R Montgomery	Sikorsky	
Dynamics of Helicopter Flight	Saunders	John Wiley & Sons	
Fundamentals of Helicopter Maintenance	EA-HF-1	Aviation Maintenance Foundation Inc (USA)	



### Powerplants

The Jet Engine	Rolls-Royce	
Aircraft Powerplants	Bent & McKinley	}
Powerplants for Aerospace Vehicles	Northrop Institute of Technology	
		McGraw-Hill
The Aircraft Gas Turbine Engine	Pratt & Whitney	
Light Aircraft Inspection	J E Heywood	T & A D Poyser
A & P Mechanics Handbook	EA-AC65-12A	}
Aircraft Propellers and Controls	EA-APC	
Aircraft Reciprocating Engines	EA-ARE	
Aircraft Fuel and Metering Systems	EA-FMS	
Aircraft Ignition and Electrical Power Systems	EA-IGS	Aviation Maintenance Foundation Inc (USA)
Aircraft Gas Turbine Powerplants	EA-TEP-1	Foundation Inc (USA)
Jet Aircraft Power Systems	Cassamassa & Bert	}
	Irwin E Tregar	
Aircraft Gas Turbine Engine Technology		McGraw-Hill



## Avionics

Aircraft Flight Instruments and Integrated Systems	E Pallett				
Aircraft Electrical Systems	E Pallett	Longman Publications			Group
Aircraft Radio Systems	J Powell				
Automatic Flight Control	E Pallett	Blackwell Publications			Scientific
Electrical Technology	E Hughes	Longmans			
Electronics II Electronics III	D C } Green	Longman Publications			Group
Microprocessors / Microcomputers: An Introduction	Givens / Roesser				
Elements of Electronics	Hickey / Villines	McGraw-Hill			
Handbook for Electronic Engineering Technicians	Kaufman / Siedman				
Aircraft Electricity and Electronics	Eisman/Bent/ McKinley				
Electronic Computers Made Simple	Jacobweitz	W H Allen			
Aircraft Batteries	EA-AB-1				
Basic Electricity for A & P Mechanics	EA-BE-1				
Basic Electronics and Radio Installation	EA-BEM	Aviation Maintenance Foundation Inc (USA)			
Aviation Electronics	EA-AEG-1				
D C Circuits	EA-DCC				
Manual of Avionics	Brian Kendal	PSP Professional Books			
Digital Avionics Systems	GRS Spitzer	Prentice Hall			
Modern Aviation Electronics	A Helfrich				
Avionics Fundamentals		IAP Inc Training Manual			

**Suggested reading list**

**Author or  
origin**

**Source**

International Federation of Airworthiness Video “Every Day”	IFA	Via www.ifairworthy.org
Airworthiness Notices 3, 12 and 47 (CAP 455)	CAA	Westward documedia Limited
ICAO Circular Human Factors Digest No. 12	ICAO	ICAO Document sales unit –for address see ICAO web page
ICAO Circular Human Factors Digest No. 10 Human Factors, Management and Organisation	ICAO	ICAO Document sales unit – for address see ICAO web page
ICAO Circular Human Factors Training Manual (containing an abbreviated version of ICAO Digest No. 12)	ICAO	ICAO Document sales unit – for address see ICAO web page
Human Factors Guide for Aviation Maintenance	FAA	The full document is available on <a href="http://hfskyway.faa.gov/">http://hfskyway.faa.gov/</a>
Human Factors in Aviation; Maintenance and inspection: 10 years of research and development	FAA	<a href="http://hfskyway.faa.gov/">http://hfskyway.faa.gov/</a>
Global Fatal Accident Review 1980 – 1996 CAP 681	CAA	Westward documedia Limited
Aviation Safety Review CAP 673	CAA	Westward documedia Limited
Human Error	J Reason	ISBN 0 521 31419 4 (Cambridge University Press)
Managing the risks of organizational accidents	J Reason	ISBN 1 84014 105 0 (Ashgate)
Psychology: The Science of Mind and Behavior	Richard Gross	ISBN 0 340 64762 0 (Hodder and Stoughton)
Occupational Health in Aviation: maintenance and support personnel	Ribak J Rayman R Froom P	ISBN 0 12 583560 4 (Academic Press)



ATA Specification 113 for Maintenance Human Factors Programme Guidelines	ATA	<a href="http://www.air-transport.org">www.air-transport.org</a>
AAIB Report No. 3/96 – Boeing 737-400, G-OBMM, Near Daventry, on 23 February 1995. (Published in July 1996)	AAIB	HMSO <a href="http://www.open.gov.uk/aaib">www.open.gov.uk/aaib</a>
AAIB Report BCA 1-11 GBJRT Accident report No. 1/92	AAIB	HMSO
Reason J – The BAC 1-11 windscreen accident, Chapter 4 in Beyond Aviation Human Factors. Maurino D – Reason J – Johnston N – Lee R 1995	Maurino D Reason J Johnston N Lee R	0 291 398227 (Ashgate)
Bond N – Majoros A – Maintainability; Chapter 10.3 in Handbook of Human Factors – Salvendy G 1997	Salvendy G	ISBN 0 471 11690 4 (Wiley – Interscience)
Marx D A and Graeber C – Human Error in Aircraft Maintenance; Chapter 5 in Aviation Psychology in Practice – Johnston N – McDonald N – Fuller R	Johnston N McDonald N Fuller R	ISBN 0 291 398 081 (Avebury)

CAPs are available from:

Westward Documedia Limited  
37 Windsor Street  
Cheltenham  
Gloucestershire  
GL52 2DG  
Tel: 01242 283100  
Fax: 01242 584139

HMSO publications are available direct from:

HMSO Publications Centre  
P O Box 276  
London  
SW8 5DT  
Tel: 0171 873 9090

## **S4/ APPENDIX 6 - SPECIMEN EXAMINATION QUESTIONS**

### **1.0 ESSAY QUESTIONS**

#### **Regulations**

Describe the responsibilities of a company approved under ANR-45.

#### **CATEGORY A**

Describe the inspections and procedures you would adopt to rectify the following reported fault. 'The trailing edge flaps fail to extend to the selected position'.

#### **CATEGORY B**

Describe the procedure associated with the supervision, and the eventual certification, of the repair of a severely (damaged aileron) hinge attachment.

#### **CATEGORY C**

Describe the inspections and procedures you would adopt to rectify the following reported fault. 'High vibration indicated on number one engine.'

#### **CATEGORY D**

Describe the inspections and their purposes, necessary before dismantling an engine for overhaul.

#### **CATEGORY X — ELECTRICAL**

Detail the checks on an anti-ice system following electrical engine inlet heater mat failure.

#### **CATEGORY X — INSTRUMENTS**

Following a report that the engine speed indication system was intermittent, describe how you would carry out defect diagnosis on the system.

#### **CATEGORY X – AUTOPILOTS**

Following reports that the aircraft was flying off the radio beam describe the checks to prove the defect.

#### **CATEGORY X — RADIO**

The ADF is reported as unreliable. Detail checks and inspections required to ascertain serviceability of the system.

## 2.0 MULTIPLE CHOICE QUESTIONS CATEGORY 'A'

A hydraulic regulator (cut out): -

- (a) Will control the maximum pressure automatically.
- (b) Will reduce the working pressure as selected.
- (c) Will regulate the amount of fluid in the reservoir.

### CATEGORY 'A'

A balance tab is an auxiliary surface fitted to a main control surface: -

- (a) Operating automatically to assist the pilot in moving the controls.
- (b) Operating automatically to provide 'feel' to the controls.
- (c) Operating independently by the pilot to remove excessive loads from the controls.

### CATEGORY 'A'

The turbine in an air cycle machine/cold air unit: -

- (a) Increases the air pressure above that of the cabin.
- (b) Drives the compressor which provides pressurisation.
- (c) Drives the compressor in the unit and creates a temperature drop in the pressurising air.

### CATEGORY 'A'

In an air supply system using a positive displacement type cabin supercharger, if the supply is not required it will: -

- (a) Be prevented from leaving the supercharger outlet.
- (b) Be returned to the supercharger inlet.
- (c) Be spilled to atmosphere.

### CATEGORY 'A'

Balance marks on an aircraft tyre and tube are normally: -

- (a) A coloured line on tyre and tube.
- (b) Two parallel coloured lines 1 inch apart on the tyre, and two-coloured dots on the tube.
- (c) A coloured line on the tube and a coloured dot on the tyre.

**CATEGORY 'C'**

The Beta range (propeller turbine engines) is: -

- (a) Where the throttle lever controls the blade angle of the propeller above the 'FLIGHT IDLE' position.
- (b) Where the throttle lever controls the blade angle of the propeller between 'GROUND IDLE' and 'MAX REVERSE' position.
- (c) Where the throttle lever controls the blade angle of the propeller below the 'FLIGHT IDLE' position.

**CATEGORY 'C'**

When inhibiting gas turbine engine fuel systems: -

- (a) The fuel must be drained from the engine fuel system before attaching the inhibiting rig.
- (b) The inhibiting oil is drawn through the engine fuel system by suction from the inhibiting rig.
- (c) The fuel should be forced out of the engine fuel system by inhibiting oil pressure.

**CATEGORY 'C'**

Piston engine inlet valve opening before exhaust valve closing is intended to permit:

- (a) An increase of pressure in the cylinder on completion of the induction stroke.
- (b) The incoming mixture to mix with a certain proportion of exhaust gases.
- (c) A greater amount of mixture to enter the cylinder.

**CATEGORY 'C'**

Gas turbine engine variable inlet guide vanes: -

- (a) Ensure satisfactory starting is achieved at any ambient temperature.
- (b) Minimise stalling at the front stages of the compressor, with variation of engine condition.
- (c) Prevent excessive exhaust gas temperatures during rapid accelerations of the compressor rotational speed.

**CATEGORY 'A / C'**

The advancing blade of a helicopter rotor: -

- (a) Is the blade moving with the relative airflow?
- (b) Is the blade moving to the highest point during one revolution of the rotor?
- (c) Is the blade moving forward into the relative airflow?

**CATEGORY 'A / C'**

With increase in altitude, stalling of the main rotor retreating blade will occur: -

- (a) At a lower helicopter forward speed than that at a lower altitude.
- (b) Only at a higher helicopter forward speed than that at a lower altitude.
- (c) Only at a lower helicopter forward speed with a decrease in all-up weight.

**CATEGORY 'X'**

An auto-transformer incorporates: -

- (a) A tapped winding with a part that is common to primary and secondary circuits.
- (b) Three separate windings with three separate connections.
- (c) Two windings wound 180° apart and centre tapped.

**CATEGORY 'X'**

The secondaries of a linear variable differential transformer are connected in: - (A) series opposition.

- (a) Series opposition.
- (b) Parallel.
- (c) Series additive.

**CATEGORY 'X'**

In an Integrated Flight Control System, signals from radio navigation systems can provide control in: —

- (a) The lateral aircraft axis only.
- (b) The vertical aircraft axis only.
- (c) Both lateral and vertical axes.

**CATEGORY 'X'**

During descent, the pressure around the capsule in a rate of climb indicator will be: —

- (a) The same as the pressure in the capsule.
- (b) Lower than the pressure in the capsule.
- (c) Higher than the pressure in the capsule.

**CATEGORY 'X'**

A high inertia mass, restrained by springs, is usually the basic component in: -

- (a) A heading sensor.
- (b) A liquid flow rate sensor.
- (c) An acceleration sensor.



### **CATEGORY 'X'**

In an Inertial Navigation System, 'Transport Rate' errors are due to: —

- (a) Aircraft movement in any direction over the earth's surface.
- (b) Aircraft movement across parallels of longitude.
- (c) Aircraft movement across parallels of latitude.

### **CATEGORY 'X'**

When function testing the autopilot on the ground, the first check would be: —

- (a) That rigging pins are fitted.
- (b) That the control surfaces and systems are free and clear of obstruction.
- (c) That the aircraft is on jacks and the undercarriage is retracted.

### **CATEGORY 'R'**

A radar transmission pulse of very short duration: —

- (a) Allows reception of returns from very short range.
- (b) Does not allow reception of returns from very short range.
- (c) Does not provide good range resolution.





# S4/ APPENDIX 7 – ANSWER SHEET SAMPLE

## EXAMPLE OF EXAMINATION ANSWER SHEET



**CIVIL AVIATION AUTHORITY OF FIJI**

**AIRCRAFT MAINTENANCE ENGINEERS LICENCE EXAMINATION**

NAME	SUBJECT	VENUE																																			
SIGNATURE	CATEGORY & NO. LICENCE HELD IF ANY	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="5" style="text-align: center;">FOR CAAF USE ONLY</td></tr> <tr><td colspan="2">Paper Ref:</td><td colspan="3"></td></tr> <tr><td colspan="2">Es say:</td><td colspan="3"></td></tr> <tr><td colspan="2">Amd.</td><td colspan="3"></td></tr> <tr><td colspan="2">Attempt</td><td colspan="3"></td></tr> <tr> <td>Total</td> <td>X</td> <td>O</td> <td>✓</td> <td>%</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	FOR CAAF USE ONLY					Paper Ref:					Es say:					Amd.					Attempt					Total	X	O	✓	%					
FOR CAAF USE ONLY																																					
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DATE	TOTAL TIME    HRS    MINS																																				

Please complete the reverse side of this sheet after studying the 'Instructions to Candidates' accompanying the question folder.  
This is a multi-purpose answer sheet. Please see last page in question booklet for exact number of questions.

QUES. NO.		RESULT	INFO. REF.	REMARKS
EXAMINER:				



PLEASE COMPLETE REVERSE SIDE

	A	B	C		A	B	C		A	B	C		A	B	C		A	B	C
1				41				81				121				161			
2				42				82				122				162			
3				43				83				123				163			
4				44				84				124				164			
5				45				85				125				165			
6				46				86				126				166			
7				47				87				127				167			
8				48				88				128				168			
9				49				89				129				169			
10 /0				50 /0				90 /0				130 /0				170 /0			
11				51				91				131				171			
12				52				92				132				172			
13				53				93				133				173			
14				54				94				134				174			
15				55				95				135				175			
16				56				96				136				176			
17				57				97				137				177			
18				58				98				138				178			
19				59				99				139				179			
20 /0				60 /0				100 /0				140 /0				180 /0			
21				61				101				141				181			
22				62				102				142				182			
23				63				103				143				183			
24				64				104				144				184			
25				65				105				145				185			
26				66				106				146				186			
27				67				107				147				187			
28				68				108				148				188			
29				69				109				149				189			
30 /0				70 /0				110 /0				150 /0				190 /0			
31				71				111				151				191			
32				72				112				152				192			
33				73				113				153				193			
34				74				114				154				194			
35				75				115				155				195			
36				76				116				156				196			
37				77				117				157				197			
38				78				118				158				198			
39				79				119				159				199			
40 /0				80 /0				120 /0				160 /0				200 /0			



## SECTION 5 - AERONAUTICAL FACILITY TECHNICIAN LICENSING

### S5/ CHAPTER 1 – INTRODUCTION

#### 1.1 PURPOSE

- (a) The purpose of Standards Document - Aeronautical Facility Technician's Licence (SD-AFTL) is to-
  - (1) Explain the administrative procedure for the issue and renewal of trainee permits, licences and ratings required of aeronautical telecommunications personnel; and
  - (2) Specify the requirements to be met by Aeronautical Facility Technician's Licence holders in respect of training and other matters affecting the provision of support services for air traffic and air navigation services.
- (b) Any personnel involved in the training of technical personnel for the provision of support services for air traffic services and air navigation services needs to have successfully completed an approved instructor's course apart from being qualified in that field of expertise.
- (c) The requirements of this document should also be used as guidance material for those personnel undertaking services which do not require the holding of an Aeronautical Facility Technician Licence and may be taken as an indication of the standards expected to be met.
- (d) In Fiji, the provision of support service for air traffic and air navigation services at the applicable aerodromes is the responsibility of Airports Fiji Limited. Persons wishing to follow a career as a technician in the support service of aeronautical facilities are advised to contact this organisation for further information.
- (e) Approved foundation courses for technical training are available within Fiji and from a number of colleges overseas.
- (f) Aeronautical technical personnel from other States should obtain information from the Authority prior to undertaking training towards the grant of an Aeronautical Facility Technician Licence.

#### 1.2 REGULATORY LICENSING STRUCTURE, HIERARCHY AND PROCESS

- (a) The diagram following this paragraph shows the hierarchy applicable to AFT personnel licensing.
- (b) Whilst the Authority issues the AFT licence, the AFT provider has the responsibility for having in place appropriate documented processes, procedures and machinery in support of the regulatory licensing requirements. In the diagram below, the horizontal dotted line (in bold) shows the interface between the Authority and the AFT provider. However, the composition of the AFT Rating Board\* and AFT Examiners\* are subject to endorsement of the Authority. (a) The diagram over the page shows the regulatory licensing structure, hierarchy and process on aeronautical facility technical personal licensing.
- (c) An AFT licence cannot be initially granted unless it includes at least one rating and one validation under that licence. For licence renewal, an oral or written examination is to be made within 28 days prior to the renewal date. An AFT Examiner so approved may carry this out. The questions for this licence renewal

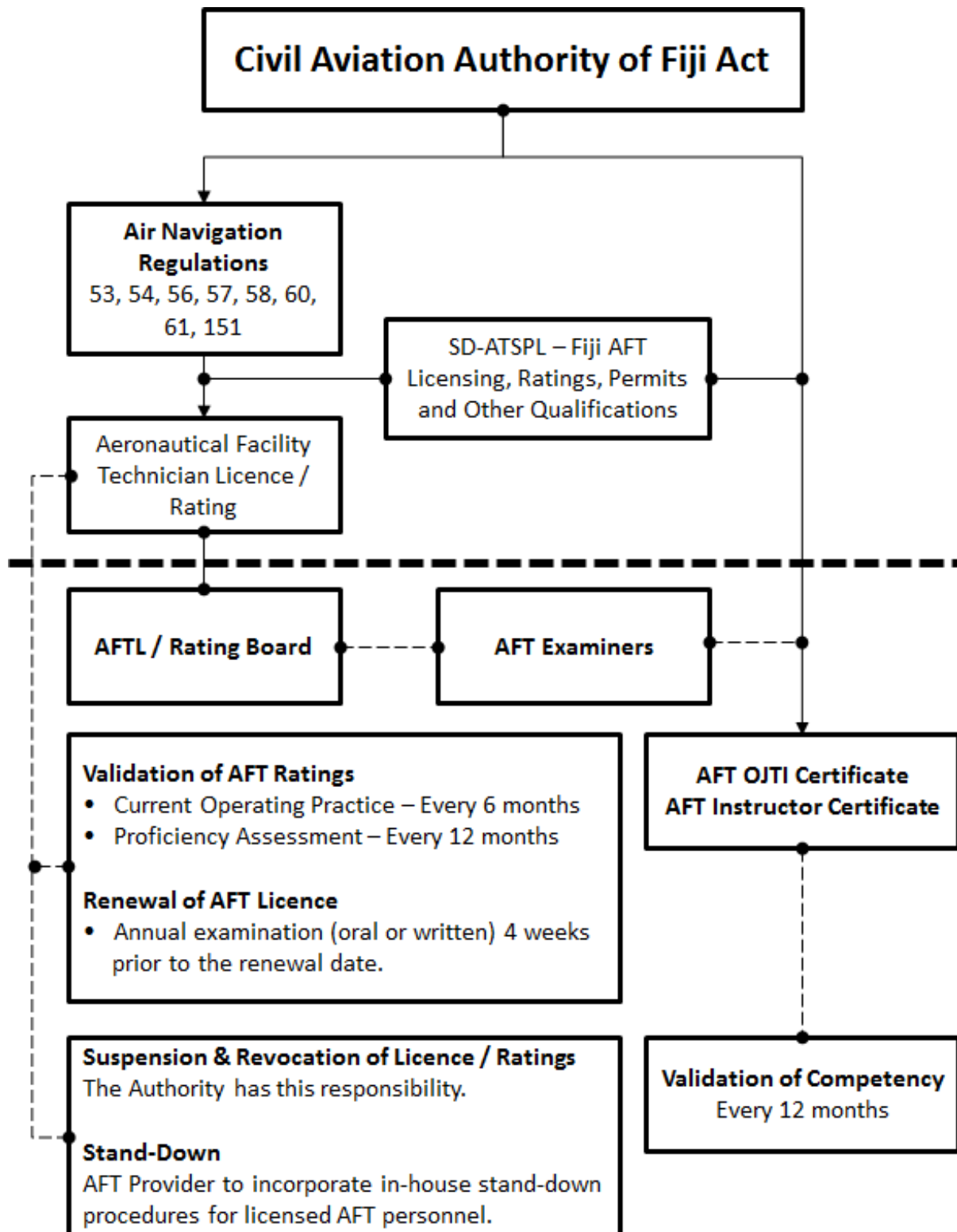
examination should be from a database of at least 100 questions on current AFT standards and procedures. This database should be reviewed periodically or at least annually to ensure currency of the subject matters.

- (d) An AFT rating cannot be granted unless it includes at least one validation of an aeronautical navigation facility.
- (e) An AFT validation remains current if the person is in current operating practice (i.e. worked on the facility every 6 months) and satisfies the requirements of a proficiency assessment every 12 months.

**NOTE:**

*These 12 monthly proficiency assessments relates to the licence holder's application of the AFT standards and procedures whilst on-the-job. The renewal of AFT licence examination in above paragraph (e) serves the purpose of ensuring the licence holder of the need to maintain competency and updated on any changes to standards, procedures and practices.*

- (f) Airports Fiji being responsible for the provision of air navigation service in the Fiji is expected to be actively involved by ensuring that aeronautical facility technicians are competent, maintains currency of practice and meet licensing requirements. This SD-AFTL requires AFL to nominate suitable AFT personnel it considers as competent to be members of the AFT Rating Board, and as AFT Examiners.
- (g) The AFT Rating Board's role is to examine and certify whether the candidate has successfully completed the appropriate training programme meeting the requirements of this SD-AFTL and that the Operational Manual of Aeronautical Telecommunications Services / Electrical & Mechanical Services for convening a Licensing, Rating/Validation Board have been complied with.
- (h) For issue and validation of ratings, the AFT Rating Board shall comprise of a Regulatory representative, approved senior AFT Provider personnel to be the chairperson, and should include two members consisting of the approved standards / training AFT officer and an AFTL holder with relevant ratings valid for that function.



### 1.3 TECHNICAL LICENCE / RATING BOARD

- (a) The Technical Licence / Rating Board's role is to examine and ascertain whether the candidate is competent to exercise the privileges of the licence and facility rating.
- (b) The Technical Licence / Rating Board shall comprise of at least three approved persons with one member holding a valid rating for the facility.



## **1.4 LICENCE FORMAT**

Where applicable, an aeronautical facility technician licence issued will: -

- (1) Comply with ICAO Annex 1-Personnel Licensing Chapter 5 paragraph 5.1.1;
- (2) Specify type of facility or facilities for which the technician is authorized (or rated) to perform those functions; and
- (3) Record other relevant qualification(s).

## S5/ CHAPTER 2 - GENERAL

### 2.1 APPLICABILITY

- (a) Pursuant to Regulation 53(3), SD-AFTL prescribes the licensing standards for the:
- (1) Issue of Aeronautical Facility Technician's Licence and the specific Rating(s) requirements associated with specific aeronautical facilities;
  - (2) Conditions under which licences/ratings are necessary;
  - (3) Privileges and limitations of the licence/rating(s).
- (b) Whilst aeronautical facility technician under training is not required to hold a trainee permit, it is incumbent upon the approved maintenance organisation for air navigation services to ensure that its trainees meet the requirements specified in Chapter 3 of this SDAFTL and are supervised by licensed personnel.

### 2.2 DEFINITIONS

In this Standards Document-Aeronautical Facility Technician Licence (SD-AFTL)-  
**Aeronautical Fixed Service (AFS)** – means a telecommunication service between fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services;

**Aeronautical Fixed Telecommunications Network (AFTN)** - means a world-wide system of aeronautical fixed circuits provided, as part of aeronautical fixed service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communication characteristics;

**Aeronautical Facility Technician Licence (AFTL)** - means a licence issued under Regulation 53(2) (aa), as amended by the Civil Aviation Reform Act 1999;

**Air-Ground Communications** means- means two-way communications between aircraft and stations on the surface of the earth;

**ATEMS provider** - means a provider of aeronautical telecommunications and/or electrical & mechanical services.

**Authority** - means the Civil Aviation Authority of Fiji.

**Automatic Dependent Surveillance (ADS)** - means 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-dimension position and additional data as appropriate

**Automatic Terminal Information Service (ATIS)** - means the provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts during the hours when the unit responsible for the service is in operation;

**CAAF** - means Civil Aviation Authority of Fiji

**Certify fitness for use** - means following the rectification of faults; completion of scheduled maintenance (including flight inspections); modifications; or training, the facility, is returned to operational service by an authorised licence holder with a current rating endorsement for the facility, having satisfied him/her self that all necessary checks have been completed and meet approved standards;



**Competent** – means the defined minimum level of knowledge, performance skills and experience required of the licence holder in the relevant area(s);

**Controller Pilot Data Link Communications (CPDLC)** - means data communication between an air traffic controller and pilot using text messages;

**COP** - means Currency of Practice;

**Distance Measuring Equipment (DME)** - means equipment, which measures in nautical miles, the slant range distance of an aircraft from the selected DME station;

**Facility** - means a total electronic system, including any associated aerials, power distribution system, communications cables and housing used to support the system;

**Foreign Licence / Rating** - means an aeronautical facility licence or rating issued to persons by civil aviation regulatory organisations other than the CAAF;

**Glide Path** – means a descent profile determined for vertical guidance during the final approach;

**Global Positioning System (GPS)** - A satellite-based radio navigation system, which utilises precise range measurements from GPS satellites to determine position and time;

**Ground to Air Communication**- means one-way communication from stations or locations on the surface of the earth to aircraft;

**ICAO** - means International Civil Aviation Organisation;

**Invalid rating** - means the right to exercise the privileges of a facility rating is withdrawn;

**Licence / Rating Board** - means an official body of examiners authorised to determine a candidate's technical skill, ability and local knowledge, in respect to a given facility, for which a licence/rating is sought;

**Localizer** - means the component of an ILS that provides azimuth guidance to a runway;

**Locator** - means a Low /Medium frequency NDB, used as an aid to final approach;

**Marker Beacon** - means a type of radio beacon, the emission of which radiate in a vertical pattern, to indicate predetermined distance from the threshold along the ILS glide path.

**Non-Directional Beacon (NDB)** - means a radio station, the emissions of which are intended to enable aircraft to determine its radio bearing or direction, with reference to that radio station;

**NOTAM - (Notice to Airman)** - means a notice distributed by means of telecommunications 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;

**Performance Parameter** - means performance parameter that has a direct effect on the operational integrity of a facility;

**Rating Examination** - means an oral examination and practical demonstration of a candidate's knowledge and skill in respect to a facility for which the rating is being sought;

**Regulations** - means Air Navigation Regulations, as amended;

**Revalidation** - means the process of validating a facility rating after the rating becomes invalid;

**Specialised equipment course** - means a course on specific telecommunications equipment conducted by an approved instructor, at which participants are taught and examined on equipment principles, theory of operation and practical applications;

**Technician** - means a licensed aeronautical facility technician responsible for the maintenance of aeronautical telecommunications and/or electrical and mechanical facilities at airports in the Fiji;

**Validation** - means an authorisation to exercise the privileges of that rating at a specified location;

**VHF Omni-Directional Radio Range (VOR)** - means very high frequency radio navigational aid that provides a continuous indication of bearing from the selected VOR ground station with respect to magnetic north.

## 2.3 REQUIREMENT FOR LICENCE, RATING(S) AND OTHER QUALIFICATIONS

In pursuance of Regulations 53(1), (2) (aa) and (3), an aeronautical facility technician licence will include ratings and requirements prescribed by paragraph 2.4 and 2.7.

## 2.4 LICENCE AND RATINGS

(a) Each person who is certifying aeronautical facilities as fit for operational service or withdrawing / releasing it from service for maintenance, shall be a holder of:

- (1) An Aeronautical Facility Technician's Licence, issued by the Authority; and
- (2) A rating specific to the facility type as prescribed by paragraph 2.4 (b) and for that location.

(b) To be eligible for the issue of an AFTL, an applicant shall have been assessed as competent and meet rating requirements on at least one of the aeronautical facilities listed below: -

### (1) CATEGORY A - NAVIGATIONAL AIDS:

- (i) VHF Omnidirectional Radio Range (VOR), Conventional/Doppler;
- (ii) Distance Measuring Equipment (DME)
- (iii) Instrument Landing System (ILS) comprising: -
  - Localizer
  - Glide Path
  - Markers
- (iv) Non-Directional Beacon (NDB) and Locators

### (2) CATEGORY B - AIR TRAFFIC SERVICES FACILITIES:

- (i) VHF Air Ground Facilities consisting of: -
  - Voice Communication Control Switch, (VCCS),
  - Transmitters
  - Receivers
  - Monitors
  - Aerodrome Terminal Information Service (ATIS)
- (ii) HF Air Ground Facilities
  - Voice Communication Control Switch (VCCS)
  - Transmitters
  - Receivers
  - Monitors
- (iii) Automatic Dependent Surveillance System;
- (iv) Controller Pilot Datalink Communications (CPDLC)
- (v) Aeronautical Fixed Telecommunications Network (AFTN)
- (vi) Aeronautical Telecommunications Network (ATN)
- (vii) Direct Telephone Voice Communication

(viii) Multi-channel Voice Recorder

**(3) CATEGORY C - VISUAL AIDS AND BACKUP POWER SUPPLIES:**

- (i) Precision Approach Path Indicator (PAPI)
- (ii) Airfield Lighting
- (iii) Standby Generators
- (iv) Aerobridge

**(4) CATEGORY D - SECURITY EQUIPMENT:**

- (i) Hold Baggage Screening (HBS)
- (ii) Cabin Luggage X-Ray Screening Machine
- (iii) Archway / Weapons Detector
- (iv) Security Surveillance Closed Circuit Television (CCTV)

(a) The Authority will periodically review the facility Rating requirements prescribed in paragraph 2.4 (b) above in cognisance of any new requirements due to new development in aeronautical facilities that may necessitate a review of rating requirements.

(b) Persons providing specialised equipment courses or on-the-job training shall be a holder of a technical instructor's competency certificate

**2.5 EXCHANGE OF QUALIFICATIONS**

- (a) The qualifications and facility assessment examination criteria previously required by the Authority prior to 12<sup>th</sup> April 1999, are deemed to meet the requirements of this SD-AFTL for the issue of an Aeronautical Facility Technician's Licence.
- (b) Subject to approval and licensing by the Authority, persons previously authorised by CAAF, as of April 12, 1999, to certify facilities fit for operational service, may continue exercising those privileges.

**2.6 APPLICATIONS FOR LICENCES, RATING(S) AND RENEWALS**

- (a) Pursuant to Regulation 54(1), each application for the issue of an aeronautical facility technician's licence, rating, renewal, or any other endorsement on that licence, shall complete and submit form CA352A to the Authority together with specifics prescribed in para 2.5 (b).
- (b) Each AFTL application submitted shall include-
  - (1) Application fees;
  - (2) Recommendation from the appropriate facility manager;
  - (3) Certified copy of birth certificate (for initial application);
  - (4) Certified copy of relevant qualifications;
  - (5) Results of medical assessment on colour perception tests, mental and physical fitness (for initial and as required);
  - (6) Evidence of:
    - (i) Experience;
    - (ii) Special equipment training;
    - (iii) On-the-job training records;
    - (iv) Competency checks;
    - (v) Examination results.

- (c) Applicants should allow at least ten (10) working days for processing applications.

## 2.7 ISSUE OF LICENCES, RATINGS AND RECORDING OF OTHER QUALIFICATIONS

- (a) The Authority may grant or renew the licence under Regulations 53(2) and the rating(s) prescribed herein provided that it is satisfied that –
- (1) The applicant is a fit and proper person; and
  - (2) The applicant is at least 18 years of age; and
  - (3) The applicant is physically and mentally fit and meeting the medical requirements applicable; and
  - (4) The applicant has sufficient ability in reading, writing, speaking, and understanding the English language to enable the applicant to carry out their responsibilities as the holder of an AFTL and associated rating(s); and
  - (5) The granting of the licence or rating(s) is not contrary to the interests of aviation safety.
- (b) The following may be relevant for determining whether the applicant or licensee is considered fit and proper to hold a licence:
- (1) A conviction or a person currently facing criminal charges;
  - (2) A conviction for any offence relating to alcohol or drugs, including a refusal to submit to any lawful test for alcohol or drugs; and
  - (3) Considered to be unacceptable risk to aviation safety.
- (c) An applicant shall meet ICAO Class 3 medical assessment on: -
- (1) Hearing; and
  - (2) Vision (particularly correct colour perception).
- (d) An applicant shall not suffer from any physical and mental disabilities that will inhibit his / her ability to competently and safely carry out the privileges of the licence.
- (e) A licence issued may include a record of other qualification(s) considered by the Authority as relevant to the licence. A record of such qualification(s) in the licence does not indicate its currency of practice.

## 2.8 DURATION OF LICENCES AND RATINGS

- (a) Except as provided in paragraphs (b) and (c), a licence or rating(s) issued under this SD-AFTL shall be valid for a period not exceeding 12 months unless it is suspended or revoked in accordance with the Regulations.
- (b) The Chief Executive may, subject to any conditions as may be prescribed, issue a temporary licence or rating.

## 2.9 EXAMINATIONS (Pursuant to ANR 57)

- (a) A candidate for an examination prescribed by this SD-AFTL shall
- (1) Demonstrate to an approved examiner a satisfactory working knowledge of the subject being tested; and
  - (2) Produce proof of personal identity.

- (b) Notwithstanding paragraph 2.9 (c) below, achieve a passing mark of at least 70% from a list of prepared questionnaires approved by the Authority.
- (c) Any candidate shall fully satisfy the Licence / Rating Board on those subject matters considered as critical / essential knowledge of core importance for a holder of an aeronautical facility technician licence.

## 2.10 CHEATING OR OTHER UNAUTHORIZED CONDUCT

- (a) During any examination prescribed under SD – AFTL, no person shall, unless authorized by the conducting officer: -
  - (1) Copy from another person;
  - (2) Refer to any source of information;
  - (3) Communicate in any way with anyone other than the conducting officer;
  - (4) Take an examination on behalf of anyone else;
  - (5) Remove material from the examination;
  - (6) Record any examination by electronic means.
- (b) Any person who performs any of the acts specified in paragraph 2.11 (a) may be subject to all or any of the following as the Authority may determine: -
  - (1) Failure in that subject;
  - (2) Disqualification of all or any subjects already passed;
  - (3) Debarment from sitting further examinations for up to 12 months;
  - (4) Suspension or revocation of any licence, rating or certificate issued to that person.

## 2.11 PERSONAL LOG BOOK [Pursuant to ANR 124(3)]

- (a) Subject to paragraphs (b) and (c), an AFTL holder and any person engaged for the purpose of qualifying for the grant or renewal of an AFTL shall record the aeronautical facility activities\* and the actual time worked in his/her aeronautical facility personal logbook.

*(\* Activities here mean works done on an aeronautical facility associated with a facility rating.)*

- (b) Single entry shall be used for recording the period of: -
  - (1) Temporary acting at a higher position;
  - (2) Test or examination undertaken;
  - (3) Supervision of trainee; and
  - (4) Duty time incurred at the specific facility.
- (c) Any entry on supervising trainee shall include the name of the trainee.
- (d) Entries made shall be periodically certified by a supervisory officer.

## 2.12 CREDITING OF TIME

For the purpose of satisfying the currency of practice requirement of the licence, any holder of a current AFTL will be credited with the actual time worked on those facilities where specific rating is required by this SD-AFTL.

## 2.13 SUSPENSION AND REVOCATION OF LICENCE

- (a) Suspension and revocation of AFTL is the prerogative of the CAAF and provided for by Regulation 151 (3), (4) and (5).

- (b) For the purpose of clarity, the mechanism used by the Authority is defined as follows: -
- (1) **Provisional suspension:** a temporary measure that places a licence and its associated rating(s) in abeyance, with or without conditions set, pending investigation or inquiry into the case;
  - (2) **Suspension:** the act of placing a licence, or its associated rating(s), in abeyance, with conditions set whereby the licence holder may seek withdrawal of the suspension;
  - (3) **Revocation:** the act of withdrawing a licence, or its associated rating(s).
- (c) The Authority may take any of the mechanism prescribed in paragraph (b).
- (d) The grounds that may lead to suspension and revocation of an aeronautical facility technician licence or rating(s) are –
- (1) Deficiency in, or doubts about, competence to provide ANS.  
*(Examples: A licensee who has a series of incidents and has not responded to unit re-training; or a licensee who, having undergone unit re-training, persist in unsafe techniques and / or not complying with requirements. Where a licensee concerned cannot accept his / her shortcomings or is considered not competent regardless of any re-training to provide safe ANS in a particular rating or any ratings, this may become grounds for revocation.)*
  - (2) Doubts about whether an individual is a fit person to hold a licence, in which safety regulatory will usually be concerned with judgements about attitude (character or behaviour), such as integrity, reliability and self-control.  
*(Examples: "Fit person" becomes an issue where that person knowingly puts an aircraft at risk by his own actions or through inaction. The "fit person" grounds include disregard of procedures, negligence, recklessness and substance abuse (drugs [including kava], alcohol). A conviction for any offence relating to alcohol or drugs, including a refusal to submit to any lawful test for alcohol or drugs, shall be relevant for determining whether a person is or remains fit and proper to hold a licence. Such conviction may result in a refusal to grant/renew a licence, or suspension or revocation of the licence. See also para. 2.10)*
  - (3) Inability to meet the appropriate medical requirements.
  - (4) Where competence is deficient or in doubt, the action taken will normally be in regard to a rating or ratings; in extreme cases, lack of competence may lead to revocation of a licence.
  - (5) If fitness as a person to hold a licence is in doubt, the action will be related to the licence itself, including any associated authorisation or certification.
  - (6) If the licence is affected by the action taken, the licence holder may not provide any function related to the maintenance and operations of aeronautical facility services.
  - (7) If a rating or ratings are affected, the holder may carry out maintenance and operational function under supervision with regard

to the affected ratings and unsupervised service for the unaffected rating(s) in which he / she is competent.

**2.14****STAND-DOWN OF LICENSED TECHNICAL PERSONNEL BY PROVIDER OF AERONAUTICAL TELECOMMUNICATIONS / ELECTRICAL & MECHANICAL SERVICES (ATEMS)**

- (a) Notwithstanding any action the Authority may take, an aeronautical telecommunications/electrical & mechanical services (ATEMS) provider shall have in place appropriate stand-down procedures for licensed personnel who may be involved / implicated in an air safety incident or accident, failing the proficiency assessment or assessed to require re-training to maintain competency. The procedures should also take into consideration aspects mentioned under paragraph 2.14 (b) that may require such an aeronautical services provider to immediate stand-down the personnel involved.

*(Rationale: The provider of ATEMS may be the first to be notified or aware of an air safety occurrence or incident that may be attributed to technical personnel or facilities.)*

- (b) Where there is a stand-down of licensed personnel, the ATEMS provider shall inform the Authority [i.e. Radio Engineering Inspector (REI), Electrical and Mechanical Inspector (EMI) or Controller Ground Safety (CGS)] of its action with minimum delay.

- (c) The stand-down procedures are to safeguard-
- (1) Air operations;
  - (2) ATEMS system; and
  - (3) Personnel concerned.

*(Rationale: The stand-down is a precautionary procedure of a safety and quality system.)*

- (d) An ATEMS provider shall have in place appropriate procedures on the reinstatement of licensed ATEMS personnel following the stand-down on an air safety incident or accident; and
- (1) The uplifting of any stand-down shall not occur until the ATEMS provider has carried out a preliminary investigation into the occurrence and that there is absolutely no cause to continue with the stand-down. In any event, the provider of ATEMS shall submit a report on the findings from the preliminary investigation conducted; and
  - (2) Where there is cause to continue with stand-down following the outcome of the preliminary investigation, the uplifting of stand-down shall be subject to the final report of the incident investigation conducted by the ATEMS provider, the concurrence of the Controller Ground Safety and the requirements of paragraph (d) below.
- (e) Where there are deficiencies / shortcoming identified, an ATEMS provider shall-
- (1) Write to the officer concerned drawing attention to the findings including cautionary advice as may be appropriate and copy the correspondence to the Authority; and
  - (2) Forward to the Authority evidence of corrective measures taken (if any).

*(Rationale: This is an internal quality assurance process whereby the licensing Authority re-examines the "fit and proper person" aspect of the officer concerned and*



*that the ATEMS provider has properly addressed and mitigated the deficiencies/shortcomings [if any] in its findings.)*

## 2.15 GENERAL PRIVILEGES AND CONDITIONS

- (a) Regulation 54 (6), (7), - General privileges and conditions for issue and renewal of licences stipulate that a licence, granted or rendered valid under the Regulations is deemed to be suspended upon its occurrence if the holder:
  - (1) Suffers any personal injury involving incapacity to undertake the functions to which his/her licence/rating(s) relates to; or
  - (2) Suffers any illness involving incapacity to undertake those functions to which his/her licence relates.
- (b) Regulation 54 (8) requires a holder of an AFTL, upon pregnancy being confirmed, to cease exercising the privileges of the licence until the pregnancy has ended or terminated and that she has been medically examined by an approved medical authority (i.e. approved medical examiner) and pronounced fit to resume her functions under the licence.
- (c) Notwithstanding paragraph (e), Regulation 54 (8A) stipulates that a holder of an AFTL may continue to carry out her duties and functions under the licence and related ratings until the end of the second trimester of her pregnancy provided that she is medically examined by an approved medical authority and pronounced medically fit to exercise her functions for that such specified period.
- (d) Every holder of an AFTL shall inform the Authority in writing of such injury, illness or pregnancy, as soon as possible.

## 2.16 SIGNATURE OF THE LICENCE HOLDER

Pursuant to Regulation 60, on the issue of a licence to an applicant, the licence holder shall forthwith sign the licence in ink with his/her ordinary signature.

## 2.17 TRAINING AND COMPETENCY ASSESSMENT

- (a) An officer will not be granted a rating unless the technician has:
  - (1) Undergone a course of instruction and practical training specific to that facility or group of facilities; and
  - (2) Been assessed to be competent in the operation and maintenance of the facility by persons who are qualified to conduct such an assessment.
- (b) Where it is considered that the operation and maintenance of a type of facility is not technically complex, successful completion of practical training is nevertheless required.
- (c) Details of training requirements for each facility shall be documented and shall include the contents of DOC 7192-AN / 857 Part E-2; Air Traffic Safety Electronics Personnel (ATSEP) where applicable.
- (d) Procedures for conducting competency assessments shall be established.

## 2.18 VALIDATION AND REVALIDATION CRITERIA

An aeronautical telecommunication, electrical and mechanical services provider shall establish criteria and submit to the Authority for: -





- (1) Validating facility ratings;
- (2) Revalidation of invalid facility ratings

## **2.19 FOREIGN LICENCE/CERTIFICATE CONVERSION**

Applications from foreign personnel trained/qualified on aeronautical facility/equipment, and certificate holders of recognised aeronautical institutions, may be granted an AFTL with equivalent Rating(s) subject to any conditions that the Authority may prescribe.

## **2.20 COMPOSITION OF THE RATING BOARD**

- (a) Representation on the Rating Board shall consist of not less than three persons. At least one person shall be a holder of a valid rating for the facility.
- (b) The names, of persons nominated to be Rating Board members, must be acceptable to the Authority.

## **2.21 CONVENING LICENCE/RATING BOARDS**

- (a) Procedures and criteria for convening Rating Boards shall be established and documented.
- (b) Reports including results of oral/written examination conducted by the Licence / Rating Board shall be signed off by members of the Board and copied to the Authority.

## S5/ CHAPTER 3 - AERONAUTICAL FACILITY TECHNICIAN TRAINEE

### 3.1 APPLICABILITY

Subject to paragraph 3.1 (b), this chapter prescribes minimum requirements governing the –

- (1) Personnel undergoing on-the-job training for an aeronautical facility technician licence (AFTL); and
- (2) Privileges and limitations of such technical training.

### 3.2 ELIGIBILITY REQUIREMENTS

(a) To be eligible for on-the-job training for an aeronautical facility technician licence a person shall –

- (1) Be at least 17 years of age, fit and proper person; and
- (2) Meet requirements prescribed by paragraphs 2.4 (c) and (d); and
- (3) Have successfully completed a diploma course in radio telecommunications or electrical and mechanical engineering or equivalent qualification, acceptable to the Authority, as applicable; and
- (4) Have satisfactorily completed ab-initio training course relevant to the duties of an aeronautical facility technician, in the following subject areas:
  - (i) **Air law:** Rules and regulations on aeronautical facility technical personnel licensing, aeronautical equipment and facility; and
  - (ii) **Air navigation equipment:** Principles, use, and limitations of navigation equipment used by pilots and air traffic services; VOR / DME and ILS maintenance release procedures; and
  - (iii) **General knowledge:** Power supply and back-up systems, effect of unserviceable or withdrawal of navigation aids, and aircraft performances; and
  - (iv) **Human factors:** Human performance and limitations, with emphasis on cognitive telecommunications circuitry diagrams, record-keeping in the work place, fatigue, workload stressors in operations, equipment and workspace design, substance abuse and key issues in human communication; and
  - (v) **Meteorology:** Appreciation of meteorological and weather phenomena affecting flight operations and the serviceability of navigation facility; and
  - (vi) **Navigation:** Appreciation of air navigation principle and limitation;
  - (vii) **Operational procedures:** Appreciation of air traffic service procedures, working knowledge of communication, radiotelephony and phraseology procedures, and safety practices associated with flight; and

- (viii) **Language proficiency:** Minimum pre-operational level 3 as prescribed in Chapter 7 herein.
- (b) The training required to be completed by paragraph 3.2 (a) (4) shall be conducted by –
  - (1) An organisation responsible for air navigation service and certified by the Authority to conduct that training; or
  - (2) An aviation training organisation approved by the Authority where the certificate authorises the holder to conduct that training.

### 3.3 PRIVILEGES AND LIMITATIONS

An aeronautical facility technician trainee may perform aeronautical facility duties, while under the direct supervision of licensed aeronautical facility technician having successfully completed an approved OJTI course or an instructor course, for the purpose of obtaining practical experience in aeronautical facility to –

- (1) Qualify for the issue of an aeronautical facility technician licence, rating, or validation; or
- (2) Regain currency of an aeronautical facility technician licence, rating, or validation.

## S5/ CHAPTER 4 - AERONAUTICAL FACILITY TECHNICIAN LICENCE

### 4.1 APPLICABILITY

This chapter prescribes minimum requirements governing the –

- (1) Issue of aeronautical facility technician licence; and
- (2) Privileges and limitations of the licence.

### 4.2 ELIGIBILITY REQUIREMENTS

- (a) An applicant shall have met the following:
  - (1) At least 18 years of age;
  - (2) Fit and proper person.
  - (3) Requirements prescribed in paragraph 3.2 (a) (2) and (3);
  - (4) Eligible for a facility Rating prescribed in paragraph 5.2, as applicable; and.
- (b) The applicant shall demonstrate to approved examiner a level of knowledge appropriate to a holder of an Aeronautical Facility Technician's Licence, covering at least the following subjects: -
  - (1) The role and responsibilities of a licence holder, in providing support services for air navigation services (ANS) and air traffic services (ATS) and services associated with ATS/ANS in the Fiji;
  - (2) Air Navigation Regulations, and the standards and practices relevant to an aeronautical facility technician's licence holder;
  - (3) Air navigation and air traffic facilities, the usage of the facility within the air navigation system and limitations of such facilities;
- (c) The applicant should demonstrate to approve examiner a level of language proficiency appropriate to a holder of an Aeronautical Facility Technician's Licence.

### 4.3 PRIVILEGES AND LIMITATIONS

- (a) Subject to the validity of the endorsements included in the licence, the holder of an aeronautical facility technician licence may, in respect of aeronautical facilities, in accordance with the Air Navigation Regulations and the requirements notified by the Authority in this SD-AFTL certify fitness for use with respect to aeronautical facilities and remove and install operational facilities for the purpose of inspection, repairs, replacement and modification so approved.
- (b) The privileges of the holder of an Aeronautical Facility Technician's Licence may only be exercised if the:
  - (1) Person holds a current licence and current rating (includes COP) for the facility, at the location specified on the licence;
  - (2) Licence / rating are not suspended / revoked;
  - (3) Licence holder is familiar with and has updated him/herself regularly on all the relevant information relating to the maintenance of the particular facility, at the location, for which the licence holder is certifying the facility as fit for operational service;



- (4) Licence holder has no knowledge of, or has no reason to believe, that his / her physical or mental condition renders him/her temporarily or permanently unfit to safely carry out the functions to which the licence relates.

## S5/ CHAPTER 5 – RATINGS

### 5.1 APPLICABILITY

This chapter prescribes –

- (1) The issue and validation of ratings pertaining to the aeronautical facility technician licence for the provision of: -
  - (i) Aeronautical Telecommunications Services; and
  - (ii) Aeronautical Electrical and Mechanical Services; and
- (2) The privileges and limitations of these aeronautical facility Ratings.

### 5.2 ELIGIBILITY REQUIREMENTS

To be eligible for a rating and initial endorsement, an applicant shall, for each facility listed in paragraph 2.4 (b) being applied for: -

- (1) Undergo an approved training course for that facility;
- (2) Obtain a minimum of 70% in the written examination on the training course for that facility;
- (3) Undergo on-the-job training on the facility under the supervision of an approved OJT officer for that facility;
- (4) Be assessed as competent in the maintenance and operation of the facility during practical assessment conducted by his/her immediate OJT officer; and
- (5) Demonstrate to the satisfaction of an approved examiner a level of competency appropriate to a holder of that aeronautical facility rating;
- (6) Pass an oral assessment conducted by an approved Technical Licensing and Rating Board.

**NOTE:** *Personnel conducting oral and practical assessments must be acceptable to the Authority. Documented evidence of training and assessment will need to be provided in support any application for licence / rating.*

### 5.3 PRIVILEGES AND LIMITATIONS

- (a) Subject to paragraph 5.3 (b) below and the validity of the endorsements included in the aeronautical facility Rating, the holder of an aeronautical facility technician licence may, in accordance with the Air Navigation Regulations and the requirements notified by the Authority in this SD-AFTL, certify fitness for use with respect to those aeronautical facilities, and remove and install operational facilities for the purpose of inspection, repairs, replacement and modification so approved.
- (b) The privileges of the holder of an aeronautical facility Rating may only be exercised if the:
  - (1) Person holds a current licence and current rating (includes COP) for the facility, at the location specified on the licence;
  - (2) Licence or Rating is not suspended / revoked;
  - (3) Licensee meets currency of practice (COP) requirements; being familiar with and has updated him/herself regularly on all the relevant information relating to the maintenance of the



particular facility, at the location, for which the licence holder is certifying the facility as fit for operational service; and

- (4) Licensee has no knowledge of, or has no reason to believe, that his / her physical or mental condition renders himself/herself temporarily or permanently unfit to safely carry out the functions to which the licence and rating relates.

## **S5/ CHAPTER 6 - INSTRUCTOR COMPETENCY CERTIFICATE**

### **6.1 INTRODUCTION**

An Instructors Certification is required for persons providing theoretical instruction in specialised equipment courses or on-the-job training instruction, for candidates seeking a rating endorsement for that facility.

### **6.2 ELIGIBILITY REQUIREMENTS**

To be eligible an applicant shall have: -

- (1) An Aeronautical Facility Technician's Licence;
- (2) At least 1 year' experience exercising the rating privileges for the facility, when providing on-the-job training instructions;
- (3) Satisfactorily completed a training course in the theory and practice of instruction, conducted by a certified training institution.

### **6.3 PRIVILEGES AND LIMITATIONS**

The holder of an Instructor's certification is authorised to –

- (1) Instruct personnel on the theory of operation of a facility; and
- (2) Directly supervise personnel undergoing on-the-job training, provided that the person holds a current rating for the relevant facility.



## S5/ CHAPTER 7 – APPENDICES

### 7.1 LANGUAGE PROFICIENCY

- (a) **Aeronautical Facility Technician Licence Holders** - The minimum language proficiency to be achieved by qualified personnel for the provision air navigation services should be Operational Level 4 as specified in para 7.3 (a).
- (1) The evaluation of English language proficiency of the holder of an AFTL holder below the Expert level (level 6) should be formally evaluated at intervals in accordance with the individual's demonstrated proficiency level as follows:
- (i) Those demonstrating English language proficiency level at the Operational Level (level 4) should be evaluated at least once every 3 years;
  - (ii) Those demonstrating English language proficiency level at the Extended Level (level 5) should be evaluated at least once every 6 years; and
  - (iii) Formal evaluation is not required for those demonstrating English language proficiency levels at the Expert Level (level 6).
- (b) The evaluation of English language proficiency may be conducted during the proficiency assessment of the AFTL holders.
- (c) **Technical Trainees**: - The minimum language proficiency to be achieved by a technical trainee that is undergoing on-the-job training whilst under the direct supervision of a qualified licence holder for the provision air navigation services should be Pre-Operational Level 3 as specified in para 7.3 (b).
- (d) **Technical personnel operating within the Airside at Controlled Aerodromes**: - At aerodromes where an air traffic control clearance on to the manoeuvring area is through RTF communications, the minimum language proficiency to be achieved by such airside users should be Operational Level 4 as specified in para 7.3 (a) provided that such transmissions are made on the radio frequency designated for ground movement control.

### 7.2 REQUIREMENTS FOR PROFICIENCY IN LANGUAGES USED FOR RADIOTELEPHONY COMMUNICATIONS

- (a) General
- (1) The language proficiency requirements include the holistic descriptors in paragraph (b) and the Operational Level (Level 4) of the Language Proficiency Rating Scale in para 7.3. The language proficiency requirements are applicable to the use of both phraseologies and plain language
- (2) To meet the language proficiency requirements, an applicant for a licence or a licence holder should demonstrate, in a manner acceptable to the licensing authority, compliance with the holistic descriptors at paragraph (b) and with the Operational Level (Level 4) of the Language Proficiency Rating Scale herein.
- (b) Holistic descriptors
- Proficient speakers should:

- (i) Communicate effectively in voice-only (telephone radiotelephone) and in face-to-face situations;
- (ii) Communicate on common, concrete and work-related topics with accuracy and clarity;
- (iii) Use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;
- (iv) Handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and
- (v) Use a dialect or accent which is intelligible to the aeronautical community.

### 7.3 LANGUAGE PROFICIENCY RATING SCALE

Expert, Extended and Operational Levels



<b>LEVEL</b>	<b>PRONUNCIATION</b> <i>Assumes a dialect and / or accent intelligible to the aeronautical community.</i>	<b>STRUCTURE</b> <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	<b>VOCABULARY</b>	<b>FLUENCY</b>	<b>COMPREHENSION</b>	<b>INTERACTIONS</b>
<b>EXPERT 6</b>	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non- verbal cues and responds to them appropriately.



EXTENDED 5	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/ or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/ listener relationship effectively.
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OPERATIONAL 4	<p>Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.</p>	<p>Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.</p>	<p>Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.</p>	<p>Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.</p>	<p>Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.</p>	<p>Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.</p>
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- NOTE 1:** *The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication.*
- NOTE 2:** *Levels 1 through 3 (next page) describe Pre-elementary, Elementary, and Pre-operational levels of language proficiency, respectively, all of which describe a level of proficiency below the ICAO language proficiency requirement.*
- NOTE 3:** *Levels 5 and 6 describe Extended and Expert levels, at levels of proficiency more advanced than the minimum required Standard. As a whole, the scale will serve as benchmarks for training and testing, and in assisting candidates to attain the Operational Level (Level 4). Pre-operational, Elementary and Pre-elementary Levels*



LEVEL	<b>PRONUNCIATION</b> <i>Assumes a dialect and/or accent intelligible to the aeronautical community.</i>	<b>STRUCTURE</b> <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	<b>VOCABULARY</b>	<b>FLUENCY</b>	<b>COMPREHENSION</b>	<b>INTERACTIONS</b>
PRE-OPERATIONAL 3	<p>Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.</p>	<p>Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.</p>	<p>Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.</p>	<p>Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.</p>	<p>Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.</p>	<p>Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.</p>
ELEMENTARY 2	<p>Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.</p>	<p>Shows only limited control of a few simple memorized grammatical structures and sentence patterns.</p>	<p>Limited vocabulary range consisting only of isolated words and memorized phrases.</p>	<p>Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.</p>	<p>Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.</p>	<p>Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.</p>



PRE-ELEMENTARY 1	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.
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## 7.4 LICENSING AND RATING APPLICATION FORM

### AERONAUTICAL FACILITY TECHNICIAN'S LICENCE - APPLICATION & RENEWAL FORM

#### GS 400 (For telecommunication services personnel)

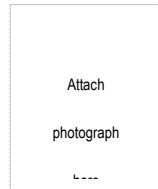
Complete application form (2 pages) and -

DME certification on ability to perceive correctly red/green/white colours and no mobility disability, hearing or speech defects that interfere with safety of duties.

**Initial issue of licence / rating** – Evidence that required training has been satisfactorily completed meeting MRD12-Aeronautical Facility Technician's Licence, certified Rating Board Examination Results and a passport size photograph.

**Renewal of Licence** – Provide results of licence re-validation examination.

**NOTE: Submit application 2 weeks in advance to allow time for processing.**



TO BE COMPLETED BY APPLICANT		
First Name	Middle Name	Surname
<b>Address:</b> <b>Phone No:</b> _____ <b>Nationality:</b> _____ <b>Country of Birth:</b> _____ <b>Date of Birth (d/m/y):</b> ..... / ..... / .....		<b>Licence Re-Validation or Rating Competency Results</b> Marks: _____% Pass/Fail * Date of Examination: <b>Employer's Name:</b>
<b>LICENCE APPLIED FOR -</b>		<b>RATINGS APPLIED FOR -</b>
<input type="checkbox"/> Aeronautical Facility Technician's Licence (AFTL)		<b>Navigation Aids:</b> <input type="checkbox"/> ILS <input type="checkbox"/> CVOR <input type="checkbox"/> DVOR <input type="checkbox"/> DME <input type="checkbox"/> NDB
<input type="checkbox"/> Aeronautical Facility Technician Trainee Permit		<b>Air Traffic Services Equipment:</b> <input type="checkbox"/> HF AG <input type="checkbox"/> VHF AG <input type="checkbox"/> ADS <input type="checkbox"/> CPDLC <input type="checkbox"/> ATIS <input type="checkbox"/> SELCAL <input type="checkbox"/> AFTN <input type="checkbox"/> DTVC <input type="checkbox"/> MCVR
<input type="checkbox"/> Aeronautical Station Operator Licence (ASOL) for <input type="checkbox"/> Airside Ops; <input type="checkbox"/> Test Transceivers		<b>Security Facilities:</b> <input type="checkbox"/> X-ray Baggage <input type="checkbox"/> CCTV <input type="checkbox"/> Metal Detector <input type="checkbox"/> Access Control <input type="checkbox"/> UHF TX/RX
<input type="checkbox"/> Licence Renewal No: <input type="checkbox"/> New Licence <input type="checkbox"/> Replacement of Licence No:		
Model of Equipment if Rating applied for (Model change requires revalidation): - ILS: DVOR: CVOR: ADS: CPDLC:   DME:   Others (specify):		
State any other aeronautical related qualifications and provide evidence for additions: - <input type="checkbox"/> OJTI <input type="checkbox"/> Instructor <input type="checkbox"/> Auditor course <input type="checkbox"/> Others (specify):		

The information solicited herein is required pursuant to Air Navigation Regulations 53, which provide for a fit and proper person test to be satisfied.	
(a) Have you previously had an application for an aviation document rejected or have you been the holder of an aviation document, which has been suspended or revoked (other than a licence that has been superseded by a replacement)? If "yes", please give details: -	<input type="checkbox"/> Yes <input type="checkbox"/> No
(b) Have you being subjected to a "stand-down" from solo technical duties. If "Yes", please give details: -	<input type="checkbox"/> Yes <input type="checkbox"/> No



(c) Have you been convicted in any court of law of any transport safety offence in the last five years or are you presently facing charges for a transport safety offence such as driving under the influence of alcohol or drug (including Kava)?	<input type="checkbox"/> Yes* <input type="checkbox"/> No
(d) Have you been convicted in any court on any criminal charge or are you presently facing charges for any criminal offence?	<input type="checkbox"/> Yes* <input type="checkbox"/> No
(e) Have you any history of physical or mental health or serious behavioural problems?	<input type="checkbox"/> Yes* <input type="checkbox"/> No
* If answering "Yes" to question c), d) or d) above, please provide details on separate sheets enclosed in a sealed envelope marked "Confidential, Controller of Ground Safety, Civil Aviation Authority of Fiji". Include name and licence applied for.	

<b>This Part to be completed if an Aeronautical Station Operator's Licence is being applied for airside operations or testing of radio transceivers.</b>
(1) Do you have physical disability that handicaps you from operating radio transceiver equipment? <input type="checkbox"/> Yes <input type="checkbox"/> No
(2) Are you free from any hearing defect? <input type="checkbox"/> Yes <input type="checkbox"/> No; Do you wear a hearing aid? <input type="checkbox"/> Yes <input type="checkbox"/> No
(3) Do you wear corrective lenses <input type="checkbox"/> Yes <input type="checkbox"/> No
(4) Are you able to correctly identify red and green light signals emitted from a signal lamp at a distance? <input type="checkbox"/> Yes <input type="checkbox"/> No
(5) Are you familiar with the surface movement & safety procedures applicable for the airport? <input type="checkbox"/> Yes <input type="checkbox"/> No
(6) Are you familiar with standard RTF procedures, phraseologies and the phonetic alphabet/number? <input type="checkbox"/> Yes <input type="checkbox"/> No

<b>Declaration</b>
I certify that the above information is correct that the enclosed copies of my personal documents are authentic and that the information provided is true and correct. I further authorise the Authority to use the information concerning me 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 Controller Ground Safety, Civil Aviation Authority of Fiji.
Applicant's Signature: _____ Date: ____ / ____ / 20__

BELOW IS FOR OFFICIAL USE ONLY					
Fees	Receipt No.	Receipt Date	Medical Results	Fit & Proper	Licence No:
			Y/N/Conditional	Y/N/C	
Remarks:					
Checked / Endorsed by: _____			..... / ..... / .....		
(Signature)			(Date)		
Approved by: _____			..... / ..... / .....		
(Signature)			(Date)		



**AERONAUTICAL FACILITY TECHNICIAN'S LICENCE - APPLICATION & RENEWAL FORM**

**GS 401(For electrical and mechanical services personnel)**

**Complete application form (2 pages) and -**

DME certification on ability to perceive correctly red / green / white colours and no mobility disability, hearing or speech defect that may interfere with safety of duties.

**Initial issue of licence/rating** – Evidence that required training has been satisfactorily completed meeting MRD12-Aeronautical Facility Technician's Licence, certified Rating Board Examination Results and a passport size photograph.

**Renewal of Licence** – Provide results of licence re-validation examination.

**NOTE: Submit application 2 weeks in advance to allow time for processing.**

Attach  
photograph  
here

<b>TO BE COMPLETED BY APPLICANT</b>		Tick <input type="checkbox"/> applicable box below.
First Name	Middle Name	Surname
<b>Address:</b>		<b>Licence Re-Validation or Rating Competency Results</b>
<b>Phone No:</b> _____		Marks: _____ %
<b>Nationality:</b> _____		Pass/Fail *
<b>Country of Birth:</b> _____		Date of Examination:
<b>Date of Birth (d/m/y):</b> ____ / ____ / ____		<b>Employer's Name:</b>
<b>LICENCE APPLIED FOR -</b>		<b>RATINGS APPLIED FOR -</b>
<input type="checkbox"/> Aeronautical Facility Technician's Licence (AFTL)	<input type="checkbox"/> PAPI <input type="checkbox"/> APP LTS	<input type="checkbox"/> Other Visual Aids
<input type="checkbox"/> Aeronautical Facility Technician Trainee Permit	<input type="checkbox"/> Standby Generator/Control System	
<input type="checkbox"/> Aeronautical Station Operator Licence (ASOL) for Airside Ops	<input type="checkbox"/> Aerobridge	
<input type="checkbox"/> Licence Renewal No:	<input type="checkbox"/> New Licence	<input type="checkbox"/> Replacement of Licence No:
Equipment model if applied for following: - PAPI:		
Standby Generator Plant/Control System:		
State qualifications and provide evidence if new addition: <input type="checkbox"/> Wire-man Licence		
<input type="checkbox"/> Ring Mains <input type="checkbox"/> High Voltage Certificate <input type="checkbox"/> Electrical Diploma <input type="checkbox"/> Others (specify):		

**The information solicited herein is required pursuant to Air Navigation Regulations 53, which provide for a fit and proper person test to be satisfied.**

(a) Have you previously had an application for an aviation document rejected or have you been the holder of an aviation document which has been suspended or revoked ( <i>other than a licence that has been superseded by a replacement</i> )? If "yes", please give details: -	<input type="checkbox"/> Yes <input type="checkbox"/> No
(b) Have you been subjected to a "stand-down" from solo technical duties? If "Yes", please give details:	<input type="checkbox"/> Yes <input type="checkbox"/> No
(c) Have you been convicted in any court of law of any transport safety offence in the last five years or are you presently facing charges for a transport safety offence such as driving under the influence of alcohol or drug (including Kava)?	<input type="checkbox"/> Yes* <input type="checkbox"/> No
(d) Have you been convicted in any court on any criminal charge or are you presently facing charges for any criminal offence?	<input type="checkbox"/> Yes* <input type="checkbox"/> No
(e) Have you any history of physical or mental health or serious behavioural problems?	<input type="checkbox"/> Yes*



<input type="checkbox"/> No
* If answering "Yes" to question c), d) or d) above, please provide details on separate sheets enclosed in a sealed envelope marked "Confidential, Controller of Ground Safety, Civil Aviation Authority of Fiji". Include name and licence applied for: -

<b>This Part to be completed if an Aeronautical Station Operator's Licence is being applied for airside operations.</b>	
1. Do you have physical disability that handicaps you from operating radio transceiver equipment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Are you free from any hearing defect?	<input type="checkbox"/> Yes <input type="checkbox"/> No;
3. Do you wear a hearing aid?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Do you wear corrective lenses	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Are you able to correctly identify red and green light signals emitted from a signal lamp at a distance?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Are you familiar with the surface movement & safety procedures applicable for the airport?	<input type="checkbox"/> Yes <input type="checkbox"/> No
7. Are you familiar with standard RTF procedures, phraseologies and the phonetic alphabet/number?	<input type="checkbox"/> Yes <input type="checkbox"/> No

<b>Declaration</b>
I certify that the above information is correct that the enclosed copies of my personal documents are authentic and that the information provided is true and correct. I further authorise the Authority to use the information concerning me 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 Controller Ground Safety, Civil Aviation Authority of Fiji.
Applicant's Signature: _____ Date: ____ / ____ / 20____

## SECTION 6 - AIR TRAFFIC SERVICE PERSONNEL LICENSING

### S6/ CHAPTER 1 INTRODUCTION

#### 1.1 GENERAL

- 1.1.1 Fiji, as a signatory to the International Civil Aviation Convention (Chicago Convention) makes every effort to comply with the standards and recommended practices (SARPs) published in the Annexes to the Convention. The Civil Aviation Act empowers the Civil Aviation Authority of Fiji to implement the Chicago Convention and this standards document is the Authority's implementation of those parts of Annex 1 - Personnel Licensing, which relate to the licensing of air traffic service personnel. The Ground Safety Department of the Civil Aviation Authority of Fiji is responsible for the licensing of air traffic service personnel in Fiji.
- 1.1.2 Fiji's licensing procedures differ from the ICAO Annex 1 SARPs in a number of respects:
- (a) The Fiji Air Navigation Regulations 53(2) have included additional licences to those published in Annex 1, these are:
    - a. Flight Information Service Officer licence
    - b. Aeronautical Facility Technician licence
  - (b) The Fiji Air Navigation Regulations 53(2) have included additional ratings to those published in Annex 1, these are:
    - a. VHF RTF Rating (Airport Airside Operations)
    - b. VHF/HF RTF Rating (Fiji Domestic Airspace)
    - c. HF RTF & Air-ground Operations Rating (Nadi Flight Information Region)
    - d. Aerodrome Flight Information Service Rating (Fiji Domestic Aerodrome)
    - e. Domestic Flight Information Service Rating (Fiji Domestic Airspace)
    - f. Nadi Flight Information Service Rating (Nadi Flight Information Region)
  - (b) A Permit is required for personnel undergoing training for an air traffic controller or a flight information service officer licence.
  - (c) Other qualifications such as ATS OJTI, ATS Instructor, and ATS Examiner etc. considered relevant to air traffic services may be recorded in a licence, however, the onus is upon the holder of the licence to be current on practice and for the ATS provider to validate competency.

#### 1.2. PURPOSE

- 1.2.1. This document details the standards and recommended practices pertaining to air traffic service permits, licences, ratings and other endorsements, including the conditions, privileges and limitations associated with those permits, licences and ratings.
- 1.2.2. The document also details the administrative process for the issue and renewal of such permits, licences, ratings and endorsements. It should also be used as guidance for those personnel undertaking duties in an air traffic services environment but who are not required to hold an air traffic service licence., e.g. ATS assistants and Flight data officers, and may be taken as an indication of the standards expected to be met.

#### 1.3. COMPLIANCE WITH STATUTORY REQUIREMENTS

- 1.3.1. The issue of air traffic service licence signifies that the holder is considered competent to secure the safe operation of air traffic services. It does not in any way relieve the holder of the licence of the responsibility for compliance with statutory requirements and for the safe conduct of air traffic services.

1.3.2. International agreements and Fiji legislation are generally based on the concept that the ultimate responsibility for the safety of air traffic service operations rests with the licence holder. The issue of a licence by the CAAF in that connection does not entail any departure from this general principle.

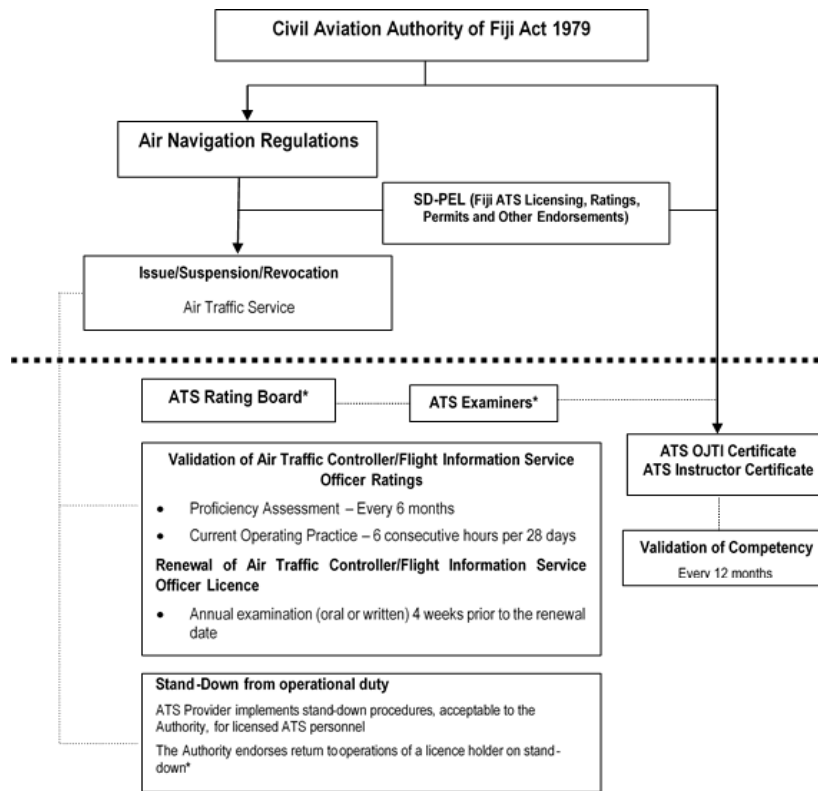
1.3.3. The Authority regulates by licensing the air traffic service personnel and requiring the ATS provider to have in place appropriate processes and procedures to ensure that its employees meet the minimum requirements as specified in this document.

**1.4. LICENSING HIERARCHY AND PROCESSES**

1.4.1 The diagram under paragraph 1.4.3 shows the hierarchy applicable to air traffic service personnel licensing.

1.4.2 Whilst the Authority issues the ATS licence, the ATS provider has the responsibility for having in place appropriate documented processes and procedures in support of the regulatory licensing requirements. In the diagram below, the horizontal dotted line (in bold) shows the interface between the Authority and the ATS provider. However, the composition of the ATS Rating Board\*, endorsement of ATS Examiners\* and return to operational duty after a stand-down\* are subject to the endorsement of the Authority.

1.4.3



1.4.4. An ATC licence cannot be issued unless it includes at least one rating and one validation under that licence. For licence renewal, an oral or written examination is to be undertaken with the Authority within 28 days prior to the renewal date. The questions for this licence renewal examination shall be uplifted from the Authority’s database of questions on ATS standards and procedures. This question database shall be reviewed at least annually to ensure currency of the subject matter.

1.4.5. An ATC rating cannot be granted unless it includes at least one validation of an actual operating position or location.



1.4.6. An ATC validation remains current if the person is in current operating practice (COP) and satisfies the requirements of a proficiency assessment conducted every 6 months.

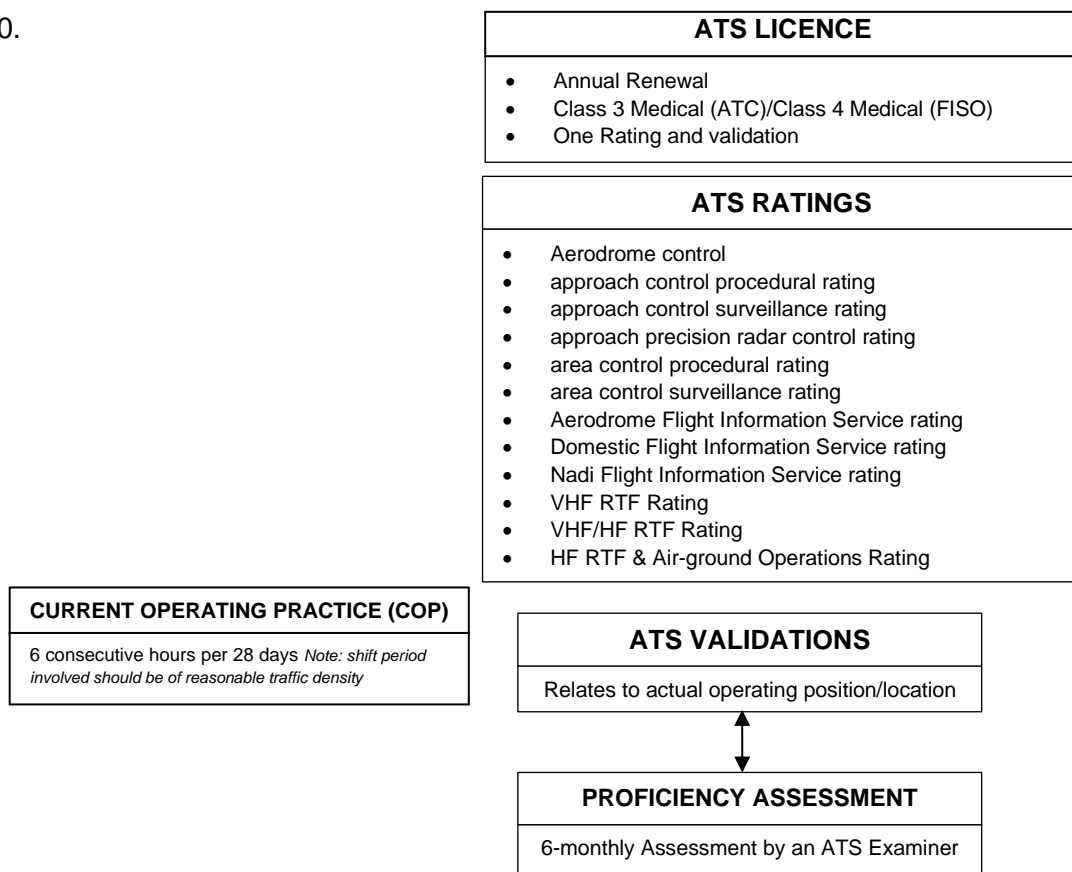
*Note - These 6 monthly proficiency assessments relate to the licence holder's application of the ATS standards and procedures whilst on-the-job. The ATC licence renewal examination in paragraph 1.4.4 serves the purpose of a refresher test on the licence holder's knowledge on air traffic service standards, procedures and practices and any subsequent changes to these.*

1.4.7. The air traffic service provider (ATSP) responsible for the provision of air traffic service in Fiji shall nominate suitable ATS personnel considered competent to be members of the ATS Rating Board and/or to be appointed as ATS Examiners.

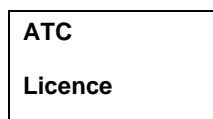
1.4.8. The ATS Rating Board's role is to examine and certify whether the candidate has successfully completed the approved training programme, meeting the requirements of this document, and that he/she is competent to be issued with a licence, rating or validation under these standards.

1.4.9. The ATS Rating Board shall comprise of a Regulatory representative, an approved senior ATS Provider person to be the chairperson, and two members consisting of the approved standards/training ATS officer and an operational controller with relevant ratings valid for the operating position for which the rating board has been convened.

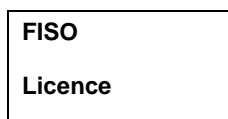
1.4.10.



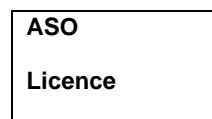
**AIR TRAFFIC SERVICE LICENCES**



ATC Ratings



FISO Ratings



ASOL Ratings



- Aerodrome control
- approach control procedural rating
- approach control surveillance rating
- approach precision radar control rating
- area control procedural rating
- Aerodrome Flight Information Service rating
- Domestic Flight Information Service rating
- Nadi Flight Information Service rating
- VHF RTF Rating
- VHF/HF RTF Rating
- HF RTF & Air-ground Operations Rating

#### **AIR TRAFFIC SERVICE TRAINING PERMITS**

- ATC Trainee's Permit
- FISO Trainee's Permit

#### **OTHER AIR TRAFFIC SERVICE QUALIFICATIONS/ENDORSEMENTS**

- ATS Instructor Competency Certificate
- ATS Examiner Competency Certificate
- English Language Proficiency Level
- English Language Proficiency Examiner



## **S6/ CHAPTER 2 – GENERAL**

### **2.1 APPLICABILITY**

This section prescribes the standards for –

- (1) The issue of air traffic service permits, licences and ratings;
  - (2) The conditions under which those permits, licences and ratings are necessary;
  - (3) The privileges and limitations of those permits, licences and ratings; and
  - (4) Other qualifications as part of the personnel licensing system; and
- The medical assessment requirements for air traffic service personnel.

### **2.2 DEFINITIONS**

Definitions pertaining to this section are contained in Section 1 Chapter1 of this SD.

### **2.3 REQUIREMENT FOR LICENCE, RATINGS, PERMITS AND OTHER QUALIFICATIONS**

- (a) Each person who provides an air traffic service within Fiji's designated airspace may only provide that service within an organisation operating under the authority of an air traffic service provider certificate issued under Air Navigation Regulation 145A and must hold -
  - (1) an appropriate and current air traffic service licence issued under this SD-PEL; and
  - (2) an appropriate current rating issued and validated under this SD-PEL.
- (b) Each person who exercises the privileges of an air traffic control trainee or flight information service trainee must hold the respective trainee's permit issued under this SD-PEL.
- (c) Each person who exercises the privileges of an air traffic service instructor must hold an air traffic service instructor competency certificate issued under this SD-PEL.
- (d) Each person who exercises the privileges of an air traffic service examiner must hold an air traffic service examiner certificate issued under this SD-PEL.

## 2.4 LICENCES, RATINGS, PERMITS AND OTHER QUALIFICATIONS

- (a) Regulation 53(2) paragraphs (p) to (z) and (aa) to (hh) stipulates the licences and ratings of personnel employed for the provision air traffic services:
- (1) Air Traffic Controller licence
  - (2) Flight Information Service Officer licence
  - (3) Aeronautical Station Operator licence
  - (4) Aerodrome Control Rating
  - (5) Approach Control Procedural Rating
  - (6) Approach Control Surveillance Rating
  - (7) Approach Precision Radar Control Rating
  - (8) Area Control Procedural Rating
  - (9) Area Control Surveillance Rating
  - (10) VHF RTF Rating (Airport Airside Operations)
  - (11) VHF/HF RTF Rating (Fiji Domestic Airspace)
  - (12) HF RTF & Air-ground Operations Rating (Nadi Flight Information Region)
  - (13) Aerodrome Flight Information Service Rating (Fiji Domestic Aerodrome)
  - (14) Domestic Flight Information Service Rating (Fiji Domestic Airspace)
  - (15) Nadi Flight Information Service Rating (Nadi Flight Information Region)
- (b) The Authority may issue a trainee permit where it is determined that the applicant satisfies the requirement of an air traffic service trainee (ATC/FIS) permit specified in this SD-PEL.
- (c) The Authority may issue the following to be recorded in the ATS personnel licence under “Other Qualifications” where it is determined that the applicant satisfies the applicable requirements –
- (1) Air traffic service instructor certificate;
  - (2) Air traffic service examiner certificate; and
  - (3) Any other qualifications relevant to the licensing of ATS personnel.

## 2.5 RESERVED

## 2.6 APPLICATION FOR LICENCES, RATINGS, PERMITS AND OTHER QUALIFICATIONS

- (a) Each applicant for the grant of an air traffic service licence, an air traffic service instructor certificate, an air traffic service examiner certificate, or for the endorsement of any other ratings or recording of other qualifications on that licence, shall complete the appropriate form, attach the evidence required by this SD-PEL and submit it to the Authority.
- (b) Applicant should allow 10 working days for their application to be processed and to include payment of the appropriate application fee prescribed by regulations made under the Act.

## 2.7 ISSUE OF LICENCES, RATINGS, PERMITS AND OTHER QUALIFICATIONS

The Authority may grant or renew the licences, ratings, permits and record other qualifications under Regulations 53(2) provided that it is satisfied that –

- (1) The applicant is a fit and proper person; and
- (2) The applicant is at least 18 years of age for permits and at least 21 years of age for licences; and
- (3) The applicant is physically and mentally fit and meeting the medical requirements applicable; and
- (4) The applicant has sufficient ability in reading, writing, speaking, and understanding the English language\* to enable the applicant to carry out their responsibilities as the holder of that licence or rating(s); and

- (5) The applicant complies with all of the eligibility requirements specified in the SD-PEL for that licence or rating(s); and
- (6) The granting of the licence or rating is not contrary to the interests of aviation safety.

(\*See also para 2.14 and Appendix D – Language Proficiency Rating)

## **2.8 DURATION OF LICENCES, RATINGS, PERMITS AND OTHER QUALIFICATIONS**

- (a) Except as provided in paragraph (b), a licence, rating or permit issued under this SD-PEL shall be valid for a period not exceeding 12 months unless it is suspended or revoked in accordance with the Air Navigation Regulations.
- (b) The Chief Executive may, where considered necessary, issue a temporary licence or rating.
- (c) For other qualifications, the competency shall be re-validated after every twelve months. The ATS provider is to establish a re-validation process for this purpose.

## **2.9 EXAMINATIONS**

- (a) A candidate for an examination under this SD-PEL shall –
  - (1) Produce written proof of their identity; and
  - (2) Except where a particular examination requires a higher pass mark, gain at least 70% of the possible marks in order to pass.
- (b) An approved organisation conducting any examination required under this SD-PEL shall identify any knowledge deficiencies exhibited by each candidate, and shall ensure those deficiencies are corrected before issuing any examination pass credit.

## **2.10 CHEATING OR OTHER UNAUTHORISED CONDUCT**

- (a) During any examination under this SD-PEL, no person shall, unless authorised by the conducting officer –
  - (1) Copy from another person; or
  - (2) Refer to any source of information; or
  - (3) Communicate in any way with anyone other than the conducting officer; or
  - (4) Take an examination on behalf of anyone else; or
  - (5) Remove material from the examination; or
  - (6) Record any examination by electronic means.
- (b) Any person who performs any of the acts specified in paragraph (a) shall be liable to all or any of the following:
  - (1) Failure in that subject:
  - (2) Disqualification of all or any subjects already passed:
  - (3) Debarment from sitting further examinations for up to 12 months:
  - (4) Suspension or revocation of any licence, certificate, or rating issued to that person under this or any other SD.

## **2.11 AIR TRAFFIC SERVICE RECORD – PERSONAL LOGBOOK**

- (a) Pursuant to Air Navigation Regulation No. 124 (2)–Personal Logbook; every holder of an air traffic controller or Flight Information Service Officer’s licence and every person engaged for the purpose of qualifying for the grant or renewal of an air traffic controller/flight information officer licence shall keep a personal air traffic service logbook showing the holder’s name, address and any particulars of the licence, to act as air traffic service personnel and shall record therein the following –

- (1) The name and address of his employer;
- (2) Particulars of all hours working as an air traffic controller or while qualifying for the grant or renewal of an air traffic controller/flight information service officer licence under these regulations, as the case may be, including –
  - a. The date, duration and venues of each shift;
  - b. The capacity in which the holder acted; and
  - c. Particulars of any test or examination under taken during the shift.
  - d. Periodically have the new entries authenticated by his / her superior officer; and
- (b) Before submitting their record in support of any application for a licence or rating, sign below the last entry to certify the correctness of the entries
- (c) The format in a book form may be used to record the duty times, refer Appendix B of this section.

## 2.12 AIR TRAFFIC SERVICE - CREDITING OF TIME

- (a) Subject to paragraph (b), the holder of a current air traffic controller's licence shall be entitled to be credited with the total air traffic service time during which they are carrying out the duties of an air traffic controller's licence (including OJTI), or air traffic service examiner.
- (b) A person exercising the privileges of a licence or rating issued under this SD-PEL, while not complying with any applicable requirement of this SD-PEL shall not credit that time for any purpose under this SD-PEL.

## 2.13 SUSPENSION AND REVOCATION OF LICENCE, RATINGS, PERMITS AND OTHER QUALIFICATIONS

### 2.13.1 GENERAL

- (a) This section is pursuant to Regulations 151 (3), (4) and (5) and prescribes the grounds for
  - (i) Suspension; and
  - (ii) Revocation ofpersonnel air traffic service licences, ratings, permits and other qualifications.
- (b) For the purpose of clarity, the mechanism used by the Authority is defined as follows:
  - (1) **Provisional suspension:** a temporary measure which places a licence, or its associated(s), in abeyance pending inquiry or investigation into the case.

*Note. There may or may not be conditions set whereby the licence holder may seek withdrawal of the provisional suspension.*
  - (2) **Suspension:** the act of placing a licence, or its associated rating(s), in abeyance, with conditions set whereby the licence holder may seek withdrawal of the suspension.
  - (3) **Revocation:** the act of withdrawing a licence, or its associated rating(s).
- (c) The Authority may use any of the mechanisms described in (b) above.

### 2.13.2 GROUNDS FOR SUSPENSION AND REVOCATION

- (a) The grounds that may lead to suspension and revocation of an air traffic service licence or rating(s) are –

- (1) Deficiency in, or doubts about, competence to provide an air traffic control or flight information service.

*(Examples: A controller who has a series of incidents and has not responded to unit re-training; or a controller who, having undergone unit re-training, persist in unsafe controlling techniques and/or not complying with ATS requirements. Where a controller concerned cannot accept his/her shortcomings or considered will not be competent regardless of any re-training to provide safe ATS service in a particular rating or any ratings, this may become grounds for revocation.)*

- (2) Doubts about whether an individual is a fit person to hold a licence, in which safety regulatory will usually be concerned with judgements about attitude (character or behaviour), such as integrity, reliability and self-control.

*(Examples: "Fit person" becomes an issue where a controller knowingly puts an aircraft at risk by his own actions or through inaction. The "fit person" grounds include disregard of procedures, negligence, recklessness and substance abuse (drugs [including kava], alcohol). A conviction for any offence relating to alcohol or drugs, including a refusal to submit to any lawful test for alcohol or drugs, shall be relevant for determining whether a person is or remains fit and proper to hold a licence. Such conviction may result in a refusal to grant/renew a licence, or suspension or revocation of the licence. See also para. 2.10)*

- (3) Inability to meet the appropriate medical standards.

- (b) Where competence is deficient or in doubt, the action taken will normally be in regard to a rating or ratings; in extreme cases, lack of competence may lead to revocation of a licence.
- (c) If fitness as a person to hold a licence is in doubt, the action will be related to the licence itself, including any associated authorisation or certification.
- (d) If the licence is affected by the action taken, the licence holder may not provide an air traffic control service or flight information service.
- (e) If a rating or ratings are affected, the holder may provide a supervised air traffic control service with regard to the affected ratings and unsupervised service for the unaffected rating(s) in which he / she is competent.

### **2.13.3 STAND – DOWN PROCEDURES FOR LICENSED ATS PERSONNEL BY ATS PROVIDER**

- (a) Notwithstanding any action the Authority may take, the provider of ATS shall have in place appropriate stand-down procedures for licensed personnel who may be involved in an air safety incident or accident. The procedures should also take into consideration aspects mentioned under paragraph 2.13.2 that may require the ATS Provider to immediate stand-down the personnel involved.

*(Rationale: The provider of air traffic service is most likely the first to be notified or aware of an air safety occurrence or incident.)*

- (b) Where there is a stand-down of licensed ATS personnel, the ATS Provider shall inform the Authority ANS Inspector ATM (ANSI-ATM) of its action with minimum delay.
- (c) The stand-down procedures are to safeguard-
  - (1) Air operations; and
  - (2) Air traffic service system and the personnel concerned.

*(Rationale: Depending on the individual make-up, the seriousness and other factors, an air safety incident or accident may result in the personnel concerned experiencing post-traumatic syndrome. The symptoms of which may be immediately obvious or latent. The stand-down is therefore a precautionary procedure of a safety and quality system.)*

#### **2.13.4 REINSTATEMENT OF LICENSED ATS PERSONNEL FOLLOWING STAND-DOWN**

- (a) Notwithstanding any action the Authority may take, the provider of ATS shall have in place appropriate procedures on the reinstatement of licensed ATS personnel following the stand-down as per paragraph 2.13.3; and
- (1) The uplifting of any stand-down shall not occur until the provider of ATS has carried out a preliminary investigation into the occurrence and that there is absolutely no cause to continue with the stand-down. In any event, the provider of ATS shall submit a report on the findings from the preliminary investigation conducted; and
  - (2) Where there is cause to continue with stand-down following the outcome of the preliminary investigation, the uplifting of stand-down shall be subject to the final report of the incident investigation conducted by the ATS Provider, the concurrence of the Authority and the requirements of paragraph (b) below.
- (b) Where there are deficiencies / shortcoming identified, the ATS Provider shall-
- (1) Write to the officer concerned drawing attention to the findings including cautionary advice as may be appropriate and copy the correspondence to the Authority; and
  - (2) Forward to the Authority evidence of corrective measures taken (if any).

*(Rationale: This is an internal quality assurance process whereby the licensing Authority re-examines the "fit and proper person" aspect of the officer concerned and that the ATS Provider has properly addressed and mitigated the deficiencies/shortcomings [if any] in its findings.)*

### **2.14 LANGUAGE PROFICIENCY**

#### **2.14.1 AIR TRAFFIC CONTROLLERS AND FLIGHT INFORMATION SERVICE OFFICERS**

2.14.1.1 The minimum language proficiency to be achieved by qualified personnel for the provision air traffic services shall be Operational Level 4 as specified in Appendix D.

2.14.1.2 The evaluation of English language proficiency of the holder of a controller's licence below the Expert level (level shall be formally evaluated at intervals in accordance with the individual's demonstrated proficiency level as follows:

- (a) Those demonstrating English language proficiency level at the Operational Level (level 4) shall be evaluated at least once every 3 years;
- (b) Those demonstrating English language proficiency level at the Extended Level (level 5) shall be evaluated at least once every 6 years; and
- (c) Formal evaluation is not required for those demonstrating English language proficiency levels at the Expert Level (level 6).

2.14.1.3 The evaluation of English language proficiency may be conducted with the proficiency assessment of controllers.

## 2.14.2 CONTROLLER TRAINEES AND FIS TRAINEES

2.14.2.1 The minimum language proficiency to be achieved by a trainee that is undergoing on-the-job training whilst under the direct supervision of a qualified licence holder for the provision air traffic services shall be Pre-Operational Level 4 as specified in Appendix D.

## 2.14.3 OTHER AIRSIDE USERS AT CONTROLLED AERODROMES

2.14.3.1 At aerodromes where an air traffic control clearance on to the manoeuvring area is through RTF communications, the minimum language proficiency to be achieved by such other airside users shall be Pre-Operational Level 4 as specified in Appendix D provided that such transmissions are made on the radio frequency designated for ground movement control.

## 2.15 VALIDATION OF FOREIGN LICENCE

2.15.1 An Air Traffic Service Licence issued by another ICAO Contracting state may be rendered valid by the Authority as an alternative to issuance of its own licence. This will be done on a case by case basis.

**Note.** Annex 1 defines the validation of a foreign licence as “the action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence”.

2.15.2 Validity of the foreign licence shall be established by suitable authorization to be carried with that foreign licence accepting it as the equivalent of a Fiji licence.

2.15.3 The authorization issued may be limited to specific privileges, and where this is the case, the authorization shall specify the privileges of the foreign licence which are to be accepted as its equivalent. The validity of the authorization shall not extend beyond the period of validity of the foreign licence. The authorization ceases to be valid if the foreign licence upon which it was issued becomes invalid, is revoked or suspended.

2.15.4 The Authority shall confirm the validity of the foreign licence prior to issuing an authorization for use in air traffic service operations.

2.15.5 The Authority shall ensure that all applicable national and ICAO requirements have been met prior to the validation of the foreign licence.

2.15.6 The requirements and procedures for the validation of a foreign ATS licence is detailed in Appendix G to this section.



## S6/ CHAPTER 3 – MEDICAL

[Pursuant to Air Navigation Regulations No. 56 (4) – Medical standards]

### 3.1 REQUIREMENTS

(a) The holder of an air traffic control trainee permit/air traffic controllers licence or flight information service officer trainee permit/flight information service officer licence shall not exercise the privileges of that licence or permit unless he/she –

(1) for an air traffic control trainee permit or air traffic controllers licence holds a current Class 3 medical certificate issued in pursuance of Air Navigation Regulations No. 56 and meeting the Class 3 medical assessment requirements in the SD-Medical Standards, Tests and Certification and ICAO Annex 1 to the Convention on International Civil Aviation; and

(2) for the initial issue of a flight information service officer trainee permit/flight information service officer licence a current Class 3 medical certificate issued in pursuance of Air Navigation Regulations No. 56 and meeting the Class 3 medical assessment requirements in the SD-Medical; and

(3) for subsequent issues (renewals) of a flight information service officer licence a current Class 4 medical certificate issued in pursuance of Air Navigation Regulations No. 56 and meeting the Class 4 medical assessment requirements in the SD-Medical; and

(4) Complies with all medical endorsements on that medical certificate.

(b) The holder of an air traffic control trainee's permit, air traffic controller's licence, flight information service trainee's permit, flight information service officer's licence or aeronautical station operator's licence shall not exercise the privileges of that licence and the related ratings or permit at any time –

(1) When he / she is aware of any decrease in his/her medical fitness which may render him/her unable to safely and properly exercises these privileges; or during any period in which his/her medical fitness has, from any cause, decreased to an extent that will have prevented the issue or renewal of his/her Medical Assessment; or

(2) After –

- (i) Any medical procedure which involves the holder being subjected to general anaesthesia; or
- (ii) Other major surgery; until assessed fit again by an Approved Medical Examiner (AME); or

(3) In the case of pregnancy, a female holder of an air traffic controller's licence, flight information service officer's licence or aeronautical station operator's licence and related ratings or training permits-

(i) Shall cease to exercise the privileges of the licence/permit until the pregnancy has ended or terminated and that she has been medically examined by an



- approved medical authority and pronounced fit to resume her functions under the licence; or
- (ii) May continue to carry out her duties and functions under the licence and related ratings or training permit until the end of the second trimester of her pregnancy provided that she is medically examined by an approved medical authority and pronounced medically fit to exercise her functions for that such specified period.
- (c) The holders of licences and related ratings or training permits specified in this SD-PEL, shall not-
- (i) Exercise the privileges of the licences and related ratings or training permits while under the influence of any psychoactive substance which may render them unable to safely and properly exercise the privileges; and
- (ii) At any time engage in any problematic use of psychoactive substances.
- (d) Each person who exercises the privileges of licences and related ratings or training permits specified in this SD-PEL shall, on demand by the Chief Executive or by an employee of the Authority duly authorised by the Chief Executive, or by any sworn member of the Police –
- (i) Produce a current record of the medical examination; and
- (ii) On further demand by any such person surrender such medical examination record to that person.
- (d) Except as required under para. 3.2(a)(b), holders of air traffic controller's licence and related ratings or training permits shall have their Class 3 Medical Assessment renewed at intervals:
- (i) not exceeding 48 months; and
- (ii) on reaching the age of 40, the intervals shall be reduced to 24 months, and
- (iii) on reaching the age of 60, the intervals shall be reduced to 12 months
- (e) Except as required under para. 3.2(a)(b), holders of flight information officer's licence and related ratings or training permits shall have their Class 4 Medical Assessment renewed at intervals:
- (i) not exceeding 48 months; and
- (ii) on reaching the age of 40, the intervals shall be reduced to 24 months, and
- (iii) on reaching the age of 60, the intervals shall be reduced to 12 months
- (f) The holder of an aeronautical station operator licence shall not exercise the privileges of that licence unless he/she –
- (i) Is able to perceive correctly red/green/white colours; and
- (ii) Has no mobility disability, hearing or speech defect that interfere with the safe performance of duties.

*Note. In terms of career progression towards obtaining air traffic controller's licence, an applicant must fully meet Class 3 medical assessment standards.*

### **3.2 EXAMINATION FOR CONTINUED FITNESS OR PROFICIENCY**

- (a) The holder of a licence or rating shall, within such period as the Chief Executive determines, undergo such medical or other examination or test as the Chief Executive considers necessary to demonstrate their continued fitness or proficiency in the capacity for which the licence or rating is held.
- (b) A person who undergoes a medical or other examination or test under paragraph (a) and who fails to comply with the requirements prescribed for the grant of the licence or rating held shall not exercise the privileges of that licence or rating.

### **3.3 MEDICAL ASSESSMENT**

- i. Fiji standards and guidance material for aviation medicals is published separately in the Standards Document - Medical Standards, Tests and Certification. Additional guidance is contained in the ICAO Manual of Civil Aviation Medicine (ICAO Doc 8984).
- 3.3.2 The standards cannot, on their own, be sufficiently detailed to cover all possible individual situations. Of necessity many decisions relating to the evaluation of medical fitness must be left to the judgement and discretion of the individual designated medical assessor. The evaluation must, therefore, be based on a medical examination conducted throughout in accordance with the high standards of medical practice. Due regard must be given to the privileges granted by the licence applied for or held by the applicant for the medical assessment, and the conditions under which the licence holder is going to exercise those privileges in carrying out assigned duties.
- 3.3.3 The applicant for a medical assessment shall provide the medical assessor with a personally certified statement of medical facts concerning personal, familial and hereditary history. The applicant shall be made aware of the necessity for giving a statement that is as complete and accurate as the applicant's knowledge permits, and any false statement shall be reported to the Authority for such action as may be considered appropriate.
- 3.3.5 The medical assessor shall report to the Licensing Authority any individual case where, in the assessor's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to aviation safety.
- 3.3.6 The requirements to be met for the renewal of a medical assessment are the same as those for the initial assessment except where otherwise specifically stated.

### **3.4 REQUIREMENTS FOR MEDICAL ASSESSMENTS**

The requirements for medical assessments is contained in the Standards Document - Medical Standards, Tests and Certification.

## S6/ CHAPTER 4 - AIR TRAFFIC CONTROL TRAINEE'S PERMIT

### 4.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (1) The issue of air traffic control trainee permit; and
- (2) The privileges and limitations of the permit.

### 4.2 ELIGIBILITY REQUIREMENTS

(a) To be eligible for an air traffic control trainee's permit a person shall –

- (1) Be at least 18 years of age, fit and proper person; and
- (2) Hold a current Class 3 medical certificate issued under SD- Medical Standards, Tests and Certification; and
- (3) have at least 5 hours experience on the flight deck of an aircraft in controlled air space; and
- (4) Have satisfactorily completed a training course relevant to the duties of an air traffic controller, in the following subject areas:
  - (i) *Air law*: Rules and regulations; and
  - (ii) *Air traffic control equipment*: Principles, use, and limitations of equipment used in air traffic control; and
  - (iii) *General aircraft knowledge*: Principles of flight; principles of operation and functioning of aircraft, power-plants and systems; aircraft performances; and
  - (iv) *Human factors*: Human performance and limitations, with emphasis on cognitive maps, the role of imagery in their work, fatigue, workload stressors in ATC operations, equipment and workspace design, and key issues in human communication; and
  - (v) *Meteorology*: Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry; and
  - (vi) *Navigation*: Principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids;
  - (vii) *Operational procedures*: Air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency) and use of the relevant aeronautical documentation; safety practices associated with flight; and
  - (viii) Language proficiency: Minimum pre-operational level 4 as described in Appendix D herein.

(b) The training required to be completed by paragraph (a)(4) shall be conducted by –

- (1) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
- (2) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training.



### 4.3 PRIVILEGES AND LIMITATIONS

- (a) An air traffic control trainee's permit authorises the holder to perform air traffic control duties, while under the direct supervision of the holder of a current air traffic control licence endorsed with an air traffic service instructor competency certificate, for the purpose of obtaining practical experience in air traffic control duties to –
- (1) Qualify for the issue of an air traffic controller's licence, rating, or validation; or
  - (2) Regain currency of an air traffic controller's licence, rating, or validation.



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## S6/ CHAPTER 5 - AIR TRAFFIC CONTROLLER'S LICENCE

### 5.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (a) The issue of air traffic controller's licence; and
- (b) The privileges and limitations of this licence.

### 5.2 ELIGIBILITY REQUIREMENTS

(a) To be eligible for an air traffic controller's licence a person shall –

- (1) Hold a current air traffic control trainee permit issued under this SD - PEL, or a current air traffic controller's licence issued by a foreign contracting State to the Convention; and
- (2) Be at least 21 years of age, fit and proper person;
- (3) hold a current Class 3 medical certificate issued under SD - Medical Standards, Tests and Certification; and
- (4) Have at least –
  - (i) Three months experience exercising the privileges of an air traffic trainee permit issued under this SD-PEL; or
  - (ii) Two years of experience, within the State of issue, exercising the privileges of an air traffic controller's licence issued by a foreign contracting State to the Convention; and
- (6) Have at least 10 hours experience on the flight deck of an aircraft in controlled airspace; and
- (7) Have passed examinations relevant to the duties of an air traffic controller, in the following subject areas:
  - (i) **Air law:** Rules and regulations; and
  - (ii) **Air traffic control equipment:** Principles, use, and limitations of equipment used in air traffic control; and
  - (iii) **General aircraft knowledge:** Principles of flight; principles of operation and functioning of aircraft, power plants and systems; aircraft performances; and
  - (iv) **Human factors:** Human performance and limitations with emphasis on cognitive maps, the role of imagery in their work, fatigue, workload stresses in ATC operations, equipment and workspace design, and key issues in human communication; and
  - (v) **Meteorology:** Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry; and



- (vi) **Navigation:** Principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids;
  - (vii) **Operational procedures:** Air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight; and
  - (viii) **Language proficiency:** Minimum operational level 4 as described in Appendix D to this section.
- (8) Have met the training, experience, and assessment requirements for at least one air traffic controller's rating issued under Chapter 6 of this section; and
  - (9) Have demonstrated to the holder of an air traffic service examiner competency certificate the ability to perform competently the duties of an air traffic controller.
- (b) The holder of a current air traffic controller's licence issued by a foreign contracting State to the Convention is deemed to have passed the examinations required by paragraph (a)(7) in general aircraft knowledge, meteorology, and navigation.
  - (c) The examinations required to be completed by paragraph (a)(7) shall be conducted by –
    - (1) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct those examinations; or; or
    - (2) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct those examinations.

### 5.3 PRIVILEGES

An air traffic controller's licence authorises the holder to exercise the privileges of –

- (1) An air traffic control trainee permit; and
- (2) A flight information service officer licence; and
- (3) Any current air traffic controller's ratings and validations held.

### 5.4 RECENT EXPERIENCE REQUIREMENTS

Where the privileges of an air traffic controller's licence issued under this SD-PEL have not been exercised within the immediately preceding 5 years, the licence holder shall-

- (1) Meet the requirements of 5.2(a) (9);
- (2) Attend and pass a refresher course and passed examinations in the subject areas specified in 5.2(a) (7), before the privileges of that licence may be exercised again.

## S6/ CHAPTER 6 - AIR TRAFFIC CONTROLLER'S RATINGS

### 6.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (1) The issue of validation of the following air traffic controller's ratings –
  - (a) Aerodrome Control Rating
  - (b) Approach Control Procedural Rating
  - (c) Approach Control Surveillance Rating
  - (d) Approach Precision Radar Control Rating
  - (e) Area Control Procedural Rating
  - (f) Area Control Surveillance Rating; and
- (2) The privileges and limitations of those ratings.

### 6.2 ELIGIBILITY REQUIREMENTS

- (a) To be eligible for air traffic controller's rating and an initial validation of that rating a person shall –
  - (1) Hold an air traffic controller's licence; and
  - (2) Have satisfactorily completed a training course relevant to the rating and validation, in the following subject areas –
    - (i) Aerodrome control rating: aerodrome layout; physical characteristics and visual aids, airspace structure; applicable standards, rules, procedures and source of information; air navigation facilities; air traffic control equipment and use; terrain and prominent landmarks; characteristics of air traffic; weather phenomena; emergency and search and rescue plans;
    - (ii) Approach control and area control procedural ratings: airspace structure; applicable standards, rules, procedures and source of information; air navigation facilities; air traffic control equipment and its use; terrain and prominent landmarks; characteristics of air traffic and traffic flow; weather phenomena; emergency and search and rescue plans;
    - (iii) Approach control surveillance and area control surveillance ratings; as for subparagraph (ii) in so far as they affect the area of responsibility, and principles, uses and limitations of automatic dependant surveillance (ADS) and other surveillance systems and associated equipment; procedures for the provision of approach or area control surveillance services, as appropriate, including procedures for ensuring appropriate terrain clearance; and
  - (3) Have completed the following applicable experience under the direct supervision of an appropriately rated controller who has successfully completed an air traffic service OJTI course:

- (i) Aerodrome control rating: an aerodrome control service, for at least 90 hours or one month, whichever is the greater, at the aerodrome for which the rating is sought:
  - (ii) Approach control procedural, area control procedural, approach control surveillance and area control surveillance ratings: the control service for which the rating is sought, for at least 180 hours or three months, whichever is the greater, providing the service at the unit for which the rating is sought; and
- (4) Have completed the training and passed examinations relevant to the privileges of the rating, in the subject areas specified in paragraph (a) (2), conducted by –
- (i) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
  - (ii) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training.
- (5) Have demonstrated to the holder of the applicable air traffic service examiner certificate, the skill, judgement, and performance to provide a safe, orderly, and expeditious control service, at the unit for which the rating is sought.
- (b) To be eligible for validation of existing air traffic controller's rating for an additional location a person shall have –
- (1) Completed the training and passed examinations required by paragraph (a) (2) for the additional location; and
  - (2) Complied with the requirement of paragraph (a) (5) for the additional location.
- (c) Where the application for a rating is to meet paragraph 5.2 (a) (5) (i) and (7) eligibility requirements for an initial issue of an air traffic controller's licence, the experience required in paragraph 6.2 (a) (3) shall be completed within the 6-month period from the date of commencement, unless otherwise approved by the Authority. In any event, the date of commencement of the on the job training shall be no later than 28 days on successful completion of the applicable ATS training course for the particular rating. Where two ATS courses are conducted consecutively, the date of commencement shall be at the completion of both courses provided the duration of break (if any) between courses is no more than a week.

### **6.3 ISSUE**

- (a) When the approved air traffic service examiner is satisfied that the requirements of 6.2(a) for an air traffic controller rating or for additional validation of an air traffic controller rating have been met, the approved air traffic service instructor shall complete and sign the appropriate form and submit it to the Authority.
- (b) Upon application to the Chief Executive and payment of the applicable fee, the holder of an air traffic controller licence may have the rating endorsed on their licence.

### **6.4 PRIVILEGES AND LIMITATIONS**

- (a) Subject to paragraph (b), the following air traffic controller ratings authorise the holder to exercise the corresponding privileges –



- (1) Aerodrome control rating: to provide aerodrome control service at the aerodrome or aerodromes for which the rating is validated;
  - (2) Approach control procedural rating: to provide approach control service for the aerodrome or aerodromes for which the rating is validated;
  - (3) Area control procedural rating: to provide area control service within the control area or areas for which the rating is validated;
  - (4) Approach control surveillance rating: to provide approach control service with the use of applicable ATS surveillance systems, for the aerodrome or aerodromes for which the rating is validated;
  - (5) Area control surveillance rating; to provide area control service with the use of applicable surveillance systems, within the control area or areas for which the rating is validated
- (b) Before exercising the privileges of a rating, the holder shall be familiar with all current information relevant to that rating.

## **6.5 RECENT EXPERIENCE REQUIREMENTS**

- (a) Where the privileges of an air traffic controller's rating or validation issued under this chapter have not been exercised, without direct supervision, for at least 6 hours of operational duty during a single shift, within the immediately preceding 28 days, the holder shall demonstrate ability to perform unsupervised duty and currency in knowledge relevant to that rating to the satisfaction of a holder of an air traffic service instructor competency certificate, before the privileges of that rating or validation may be exercised again.
- (b) Where the privileges of an air traffic controller's rating or validation issued under this chapter have not been exercised within the immediately preceding 6 months, the holder shall meet the requirements of 6.2 (a)(4) and (5) before the privileges of that rating or validation may be exercised again.

## S6/ CHAPTER 7 - FLIGHT INFORMATION SERVICE TRAINEE PERMIT

### 7.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (a) The issue of flight information service trainee permit; and
- (b) The privileges and limitations of this permit

### 7.2 ELIGIBILITY REQUIREMENTS

(a) To be eligible for a flight information service trainee permit a person shall –

- (1) Be at least 18 years of age, a fit and proper person;
  - (2) Hold a current Class 3 medical certificate issued under SD- Medical Standards, Tests and Certification; and
  - (3) Have at least 5 hours experience on the flight deck of an aircraft; and
  - (4) Have satisfactorily completed a training course relevant to the duties of a flight information service officer, in the following subject areas:
    - (i) **Air traffic service general knowledge:** ICAO Circular AR 211-AN /128 Aerodrome Flight Information Service, Manual of ATS, airspace and air traffic services provided within Fiji and Nadi FIR airspace; and
    - (ii) **Operational procedures:** Radiotelephone procedures; phraseology; telecommunication network; and
    - (iii) **Air Law:** Rules and regulations; and
    - (iv) **Human factors:** Human performance and limitations, work fatigue, workload stressors in ATS operations, equipment and workspace design, and key issues in human communication; and
    - (v) **Meteorology:** Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry; and
    - (vi) **Navigation:** Principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids;
    - (vii) **Telecommunication equipment:** Principles, use and limitations of telecommunications equipment in an aeronautical station; and
    - (viii) **Language proficiency:** Minimum Operational level 4 as described in Appendix D
- (b) The training required to be completed by paragraph (a) (4) shall be conducted by –
- (1) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
  - (2) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training.



### **7.3 PRIVILEGES AND LIMITATIONS**

A flight information service trainee permit authorises the holder to perform flight information service duties, while under the direct supervision of the holder of a current flight information service officer licence, endorsed with an air traffic service instructor competency certificate, for the purpose of obtaining practical experience in flight information service duties to –

- (1) Qualify for the issue of a flight information service officer licence at a unit or location; or
- (2) Regain currency of a flight information service officer licence.

## S6/ CHAPTER 8 - FLIGHT INFORMATION SERVICE OFFICER LICENCE

### 8.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (a) The issue of a flight information service officer licence; and
- (b) The privileges and limitations of this licence

### 8.2 ELIGIBILITY REQUIREMENTS

(1) To be eligible for a flight information service officer licence a person shall –

- (a) At least be 18 years of age, a fit and proper person;
- (b) Hold, for initial issue, a current Class 3 medical certificate issued under SD - Medical Standards, Tests and Certification; and
- (c) Hold a current flight information service trainee's permit issued under this chapter; and
- (d) Hold a current aeronautical station operator's licence; and
- (e) Have at least 2 months experience exercising the privileges of the flight information service trainee's permit; and
- (f) Have at least 10 hours experience on the flight deck of an aircraft; and
- (g) Have passed examinations relevant to the duties of a flight information service officer, in the following subject areas:
  - (i) Air traffic service general knowledge: ICAO Circular AR 211-AN/128 Aerodrome Flight Information Service, Manual of ATS, airspace and air traffic services provided within Fiji and Nadi FIR airspace; and
  - (ii) Operational procedures: Radiotelephone procedures; phraseology; telecommunication network; and
  - (iii) Air Law: Rules and regulations; and
  - (iv) Human factors: Human performance and limitations, work fatigue, workload stressors in ATS operations, equipment and workspace design, and key issues in human communication; and
  - (v) Meteorology: Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;
  - (vi) Navigation: Principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids;
  - (vii) Telecommunication equipment: Principles, use and limitations of telecommunications equipment in an aeronautical station; and
  - (viii) Language proficiency: Minimum operational level 3 as described in Appendix D herein.
- (h) have met the training and assessment requirements of at least one flight information service officer's rating issued under Chapter 9 and
- (i) Have demonstrated to the holder of an air traffic service examiner competency certificate the ability to perform competently the duties of a flight information service officer, including –
  - (i) Operating the telecommunication equipment in use at the unit for which the rating is sought; and
  - (ii) Transmitting and receiving radiotelephony messages with efficiency and accuracy.

(2) The examinations required to be passed by paragraph 8.2 (1) (g) shall be conducted by –



- (1) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
- (2) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training.

### **8.3 PRIVILEGES AND LIMITATIONS**

- (1) Subject to paragraph (2) below, a flight information service officer's licence authorises the holder to exercise the privileges of –
  - (a) An aeronautical station operator licence; and
  - (b) A flight information service trainee permit; and
  - (c) Any current flight information service ratings and validations held.
- (2) Before exercising the privileges of the licence, the holder shall be familiar with all relevant and current information regarding the types of equipment and operating procedures used at the aeronautical station for which the licence holder holds a validated rating.

## **S6/ CHAPTER 9 - FLIGHT INFORMATION SERVICE OFFICER'S RATINGS**

### **9.1 APPLICABILITY**

This chapter prescribes minimum requirements governing –

- (a) The issue of the following flight information service officer's ratings –
  - (a) Aerodrome Flight Information Service Rating (Fiji Domestic Aerodrome)
  - (b) Domestic Flight Information Service Rating (Fiji Domestic Airspace)
  - (c) Nadi Flight Information Service Rating (Nadi Flight Information Region), and
- (b) The privileges and limitations of those ratings.

### **9.2 ELIGIBILITY REQUIREMENTS**

To be eligible for flight information service officer's rating and an initial validation of that rating, or for an additional validation, a person shall –

- (a) Hold a flight information service officer's licence; and
- (b) Have satisfactorily completed a training course relevant to the rating and validation conducted by –
  - (i) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
  - (ii) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training;
- (c) Have demonstrated to the holder of the applicable air traffic service examiner certificate the required skill, judgement, and performance to provide the flight service at the unit for which the rating is sought.

### **9.3 ISSUE**

- (a) When an approved air traffic service examiner is satisfied that the requirements of 9.2 for a flight information service officer's rating have been met, the approved air traffic service instructor shall complete the appropriate report form and submit it to the Authority.
- (b) Upon application to the Chief Executive and payment of the applicable fee, the holder of a flight information service officer licence may have the rating endorsed on their licence.

## 9.4 PRIVILEGES AND LIMITATIONS

- (a) Subject to paragraph (b), the following flight information service officer ratings authorise the holder to exercise the corresponding privileges –
- (1) Oceanic flight information service rating: to provide flight information service within the Nadi Oceanic Airspace Class G for which the rating is validated.
  - (2) Aerodrome flight information rating: to provide flight information service for the aerodrome or aerodromes for which the rating is validated.
  - (3) Domestic flight information rating: to provide flight information service within Fiji Domestic Class G airspace for which the rating is validated.
- (b) Before exercising the privileges of a rating, the holder shall be familiar with all current information relevant to that rating.

## 9.5 RECENT EXPERIENCE REQUIREMENTS

- (a) Where the privileges of a flight information service officer's rating or validation issued under this chapter have not been exercised, without direct supervision, for at least 6 hours of operational duty during a single shift, within the immediately preceding 28 days, the holder shall demonstrate his/her ability to perform unsupervised duty and on currency in knowledge to the satisfaction of a holder of an air traffic service instructor competency certificate, before the privileges of that rating or validation may be exercised again.
- (b) Where the privileges of a flight information service officer's rating or validation issued under this chapter have not been exercised within the immediately preceding 6 months, the holder shall meet the requirements of 9.2 (b) and (c) before the privileges of that rating or validation may be exercised again.

## **S6/ CHAPTER 10 - AERONAUTICAL STATION OPERATOR'S LICENCE**

### **10.1 APPLICABILITY**

- (1) This chapter prescribes minimum requirements governing –
  - (a) The issue of aeronautical station operator's licence; and
  - (b) The privileges and limitations of this licence.
- (2) The purpose of the aeronautical station operator's licence is to ensure personnel are trained to operate radio transceivers in the aeronautical mobile band designated for the provision of air traffic services. Airline and those other personnel that operate radio transceivers on frequencies exclusively assigned for their specific fleet operations are not governed by this licensing requirement.

### **10.2 ELIGIBILITY REQUIREMENTS**

To be eligible for an aeronautical station operator's licence, a person shall –

- (a) At least be 18 years of age, a fit and proper person; and
- (b) Have satisfactorily completed a training course and passed examinations in aeronautical radiotelephone practices and procedures, aerodrome surface movement and safety procedures including a written examination, conducted by –
  - (i) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
  - (ii) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training;
- (c) Have demonstrated to the holder of an air traffic service instructor competency certificate, -
  - (i) Correct manipulation and adjustment of the controls of aeronautical radiotelephone equipment;
  - (ii) The application of the phonetic alphabet, and to transmit and receive oral messages competently and in accordance with the current procedures; and
  - (iii) Language proficiency: Operational level 4 as described in Appendix D except for pre-operational level 3 applicable only to airside users restricted to communicate on the designated ground movement frequency at controlled aerodromes to obtain clearance from ATS.

### **10.3 ISSUE**

- (1) When the holder of an appropriate air traffic service instructor competency certificate is satisfied that the requirements of 10.2 relevant for an aeronautical station operator's licence have been complied with, the instructor shall certify that the required process has been completed for the issue of the relevant licence.
- (2) Upon application to the Chief Executive and payment of the applicable fee, an aeronautical station operator's licence may be issued.





## 10.4 PRIVILEGES AND LIMITATIONS

- (1) Subject to paragraphs (2) and (3) below, an aeronautical station operator licence authorises the holder to operate aeronautical station, or mobile surface station that operates on frequencies allocated to the aeronautical mobile service where the transmitter –
  - (a) requires only the use of simple external controls;
  - (b) Automatically maintains the stability of the radiated frequencies.
- (2) Where an aeronautical station operator licence is endorsed to include the supervision of personnel to gain practical radiotelephony experience to qualify for a licence, the holder of the licence is required to monitor the radio transmissions and ensure that any air traffic services instructions are properly carried out.
- (3) An aeronautical station operator licence may be endorsed with following limitations: -
  - (a) HF RTF & Air-ground Operations Rating (Nadi Flight Information Region)
  - (b) VHF/HF RTF Rating (Fiji Domestic Airspace)
  - (c) VHF RTF Rating (Airport Airside Operations). At airports on the frequency designated for ground movement control.

## S6/ CHAPTER 11 - AIR TRAFFIC SERVICE INSTRUCTOR COMPETENCY CERTIFICATE

### 11.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (a) The issue of air traffic service instructor competency; and
- (b) The privileges and limitations of the competency.

### 11.2 ELIGIBILITY REQUIREMENTS

- (1) To be eligible for an air traffic service instructor competency certificate a person shall –
  - (a) Hold an air traffic service licence;
  - (b) Have at least 2 years of experience exercising the privileges of an air traffic controller or flight information service licence; and
  - (c) Have satisfactorily completed a training course in the theory and practice of instruction conducted by –
    - (i) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
    - (ii) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training.
  - (d) Have satisfactorily demonstrated the ability to exercise the privileges of an air traffic service Instructor by passing an examination and a practical test that are acceptable to the Authority.
- (2) The examination and test required to be demonstrated by (1) (d) shall be conducted by –
  - (i) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct those assessments; or
  - (ii) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct those assessments.
- (3) A person who at the time the Civil Aviation Reform Act (1999) comes into effect is exercising the privileges, equivalent to those of 11.3 under the approval of the Authority, is deemed to meet the eligibility requirements of paragraph 11.2 (1).

### 11.3 PRIVILEGES AND LIMITATIONS

- (1) Subject to paragraph (2) below, the holder of an air traffic service instructor competency certificate is authorised to –
  - (a) Instruct air traffic service personnel; and
  - (b) Directly supervise air traffic service personnel under training, or regaining currency, who are performing air traffic service duties; and
  - (c) Assess for, and recommend the issue/renewal of air traffic service licence, ratings and validations.
- (2) Subject to paragraph (3) below, to exercise the privileges of an air traffic service instructor competency certificate the holder shall –



- (a) Hold a current air traffic service licence with a current rating and validation for the relevant service; and
  - (b) Do so within an air traffic service organisation approved by the Authority; and
  - (c) To assess for, and recommend the issue/renewal of air traffic service licences, air traffic service ratings and validations; and
  - (d) Within the immediately preceding 24 months have demonstrated to the holder of an air traffic service examiner certificate the ability to exercise those privileges by passing an examination and a practical test based on the exercise of those privileges of the certificate.
- (3) Where the holder of an air traffic service instructor competency certificate is not exercising the privilege of providing an air traffic service, the holder is not required to hold a current medical certificate.

## S6/ CHAPTER 12 - AIR TRAFFIC SERVICE EXAMINER COMPETENCY CERTIFICATE

### 12.1 APPLICABILITY

This chapter prescribes minimum requirements governing –

- (a) The issue of air traffic service examiner competency certificates; and
- (b) The privileges and limitations of those competency certificates.

### 12.2 ELIGIBILITY REQUIREMENTS

- (1) To be eligible for an air traffic service examiner competency certificate a person shall –
  - (a) Hold a valid air traffic service license in the operating position for which the Examiner Competency Certificate is being sought; and
  - (b) Have at least 5 years of experience exercising the privileges of that license in the operating position; and
  - (c) Has been certified as “Level 6” proficient on the ICAO Language Proficiency scale; and
  - (d) Has successfully completed training and examinations in the relevant subjects, conducted by:
    - (i) The holder of an air traffic service provider certificate issued under ANR 145A, where the certificate authorises the holder to conduct that training; or
    - (ii) An aviation training institution certified by the Authority under ANR 145B where the certificate authorises the holder to conduct that training

*\*\*Note; Syllabus contained in Appendix E of this document is given as a guideline.*

*It is acceptable that the examination is set and marked by the ANR 145B organization, and moderated by CAAF’s testing officer. In these circumstances, CAAF would be provided with the candidate’s course report and marked examination papers and the model answers.*

- (e) Have demonstrated to the Authority’s testing officer, the ability to perform the duties of an air traffic service examiner;

*\*\*Note; A practical examination using the Procedures for ATS Examiner in Appendix F and the Performance Assessment guide in Appendix G of this document meets this criterion.*

*The test environment is required to be acceptable to the Authority’s testing officer.*

- (f) Have demonstrated to a CAAF approved Interview Panel, mastery of knowledge required for the execution of the duties of an Air Traffic Services (ATS) Examiner.
- (2) Under special circumstances, the Authority may issue an ATS Examiner Certificate to a person, based on their years of experience, employment or relevant familiarization that allows the examiner to maintain an adequate level of operational awareness as determined by the Authority.
- (3) A person who at the time the Civil Aviation Reform Act (1999) comes into effect is exercising privileges equivalent to those of 12.3 under the Authority, is deemed to meet the eligibility requirements of paragraph (1) above.

### 12.3 PRIVILEGES AND LIMITATIONS



- (1) Notwithstanding paragraph 12.2, a holder of an air traffic service examiner competency certificate is authorized to –
  - (a) Conduct written, oral, and practical tests for the issue or continued currency of air traffic service licences; and
  - (b) Conduct written, oral, and practical tests for the issue or continued currency of air traffic service instructor competency certificate.
  - (c) Conduct oral and practice tests for the issue of Language Proficiency Certificates to other ATM staff, on behalf of the Authority.
  
- (2) Subject to paragraph (c), to exercise the privileges of an approved air traffic service examiner competency certificate, the holder shall –
  - (a) Hold a current air traffic service licence with a rating for the relevant service; and
  - (b) Conduct the examining within –
    - (i) An air traffic service organisation approved by the Authority; or
    - (ii) An aviation training organisation approved by the Authority; and
  - (c) Within the immediately preceding 24 months, have demonstrated to the Authority testing officer the ability to perform the duties of an air traffic service examiner.
  
- (3) Individual examiner ratings will be limited to certain privileges depending on the ratings held, and the level of operational awareness as determined by the Authority.
  
- (4) Validity of the ATS Examiner Competency Certificate shall be 2 years from the date of assessment by the Authority's testing officer.



**S6/-APPENDIX A: RECORDING OF DUTY TIMES**

(Pursuant to ANR No.124 (2) – Personal log books)

Air traffic service personnel should use the format below.

The following abbreviations may be used to record the details: -

- |                                  |                        |
|----------------------------------|------------------------|
| ADC = Aerodrome Control          | H: M = Hours & Minutes |
| APC = Approach Control           | FN = Nadi              |
| OAC = Oceanic Area Control       | NA = Nausori           |
| FIS = Flight Information Service | NL = Labasa            |
| FS = Flight Service              | NS = Savusavu          |
| UT = Under Training              | NM = Matei             |
| I = Instructing                  | NR = Rotuma            |
| D/M/Y = Day/Month/Year           |                        |

Examples of entries are provided below.

Nadi aerodrome control J Mitchell  
Under Training

Nam: Martin Smith

D/M/Y	Details	Hr.: Min	D/M/Y	Details	Hr.: Min
8/3/01	FN ADC / J Mitchell UT	7:30			
9/3/01	FN APC	6.00			
11/3/01	FN AD	5.00			

Page Total: 18:30      Total Brought Forward: 0:00      Progressive Total: 18:30

I certify that the information entered herein is correct.

\_\_\_\_\_ Signature of Officer      Date: ..... / ..... / .....

\_\_\_\_\_ Signature of Superior Officer / Name & Title      Date: ..... / ..... / .....

## S6/ APPENDIX B – AIR TRAFFIC CONTROLLER AND MEDICAL

1. Air traffic control officers in Fiji operate under an Air Traffic Controller's Licence issued by the Authority. Controllers are required to meet the training, skills, experience, qualifications and medical standards in compliance with ICAO Annex 1 to the Convention on International Civil Aviation.
2. Air traffic control officers, like pilots, are required to have a basic educational qualification to an acceptable standard. Prior to undertaking solo duties, they undergo a formal course of instruction, undertake control work in simulated conditions and undergo a period of dual on-the-job training with a qualified officer. The duty controller has the sole responsibility for discharging air traffic controlling functions safely and properly. Accordingly, if the presence of another controller is considered as precautionary requirement on medical grounds, the applicant is medically unfit for solo watch-keeping duties.
3. Air traffic control officers may receive 'Ratings' for various units/airports or areas of responsibility. These include Aerodrome Control, Approach Control, Area Control and Radar Control Ratings. With the evolutionary development of Automatic Dependent Surveillance (ADS) for air traffic service applications, there is also provision made for Satellite Based Ratings (SBS) in Approach Control and Area Control.
4. The objectives of an air traffic control service are to prevent collisions between aircraft in the air, between aircraft and vehicles/persons on the ground and to expedite and maintain an orderly flow of air traffic. The methods applied in achieving these objectives are dependent upon the location of the aircraft and the area of responsibility of the air traffic control unit. In nearly all cases the primary method used is radio communications between the pilot and the air traffic control officer concerned. In the case of aircraft and persons/vehicles on the airport and aircraft in the vicinity of the airport, any radio communication is supplemented by visual observations by the air traffic control officer. The radio communications with aircraft arriving or departing from an airport or aircraft enroute is supplemented by information from controller-pilot data link communication (CPDLC), automatic dependent surveillance (ADS) and radar. Information exchanged between air traffic control units or officers may be undertaken using telephones, intercom and/or the aeronautical fixed telecommunication network (AFTN).
5. In providing the necessary separation between aircraft (and vehicles/persons in the airport), the air traffic control officer has to evaluate the information received (by radio [data/voice], AFTN, telephone, visual, ADS, radar, etc.) and issue appropriate instructions and clearances. In addition, the air traffic control officer is required to provide pilots with information on the weather, navigational aids and other conditions on a routine basis and also undertake duties relating to aircraft emergencies.
6. In view of their vital job in maintaining separation between aircraft flying at speeds 500 knots or more, air traffic control officers need to be alert, efficient and in peak physical and mental health. Flight safety could be compromised if he/she is in subtotal health, either physically or emotionally. In such conditions he/she is more likely to be affected by the stresses involved and could make errors of judgement. It is therefore, very important that Approved Medical Examiners attach importance not only to the applicant's physical state but also carefully appraise and report on their mental and emotional health. Approved Medical Examiners wishing to obtain first-hand knowledge of the working conditions and duties of air traffic control officers are encouraged to visit the air traffic control units at either Nadi or Nausori.
7. The holder of a Licence shall not be entitled to perform any of the functions to which the Licence/Rating relates, if he/she knows or has reason to believe that his/her physical or mental condition renders him/her temporarily or permanently unfit to perform such function.

The onus is upon the licence holder to cease exercising the privileges of the Licence during any period-



- In which the medical fitness has from any cause decreased to an extent that render the licence holder from safely and competently exercise these privileges; and
- When such holder is aware of any decrease in medical fitness, which may render the holder unable to meet the medical requirements for the issue or renewal of the Licence or render the licence holder from safely and competently exercise these privileges.
- Decrease of medical fitness includes the effect of diseases, injury, alcohol, or drugs (including kava). This will apply if it renders the holder incapable of meeting the requirements for the issue or renewal of the Licence or renders the licence holder from safely and competently exercising the privileges of the licence.
- If such a situation eventuates, the licence holders have an obligation to immediately inform his/her superior officer who is expected to take action to mitigate the circumstances.



## **S6/APPENDIX C – REQUIREMENTS FOR LANGUAGE PROFICIENCY FOR RADIOTELEPHONY COMMUNICATIONS**

### **1.0 GENERAL**

*Note. The language proficiency requirements include the holistic descriptors in paragraph 2 and the Operational Level (Level 4) of the Language Proficiency Rating Scale in this Appendix. The language proficiency requirements are applicable to the use of both phraseologies and plain language to meet the language proficiency requirements, an applicant for a license or a license holder shall demonstrate, in a manner acceptable to the licensing authority, compliance with the holistic descriptors at paragraph 2 and with the Operational Level (Level 4) of the Language Proficiency Rating Scale herein.*

### **2.0 HOLISTIC DESCRIPTORS PROFICIENT SPEAKERS SHALL:**

- (a) Communicate effectively in voice-only (telephone radiotelephone) and in face-to-face situations;
- (b) Communicate on common, concrete and work-related topics with accuracy and clarity;
- (c) Use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;
- (d) Handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and
- (e) Use a dialect or accent which is intelligible to the aeronautical community.

### 3.0 LANGUAGE PROFICIENCY RATING SCALE

LEVEL	<p><b>PRONUNCIATION</b> Assumes a dialect and/ or accent intelligible to the aeronautical community.</p>	<p><b>STRUCTURE</b> Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</p>	<p><b>VOCABULARY</b></p>	<p><b>FLUENCY</b></p>	<p><b>COMPREHENSION</b></p>	<p><b>INTERACTIONS</b></p>
<p><b>6 EXPERTS</b></p>	<p>Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.</p>	<p>Both basic and complex grammatical structures and sentence patterns are consistently well controlled.</p>	<p>Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.</p>	<p>Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.</p>	<p>Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.</p>	<p>Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.</p>
<p><b>5 EXTENDED</b></p>	<p>Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.</p>	<p>Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.</p>	<p>Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometime idiomatic.</p>	<p>Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors</p>	<p>Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and / or accent) or registers.</p>	<p>Responses are immediate, appropriate, and informative. Manages the speaker / listener relationship effectively.</p>

<b>4 OPERATIONAL</b>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produce stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible from an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.
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NOTE. 1: The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication.

NOTE. 2: Levels 1 through 3 (next page) describe Pre-elementary, Elementary, and Pre-operational levels of language proficiency, respectively, all of which describe a level of proficiency below the ICAO language proficiency requirement.

NOTE. 3: Levels 5 and 6 describe Extended and Expert levels, at levels of proficiency more advanced than the minimum required Standard. As a whole, the scale will serve as benchmarks for training and testing, and in assisting candidates to attain the Operational Level (Level 4).

<b>LEVEL</b>	<b>PRONUNCIATION</b> Assumes a dialect and/ or accent intelligible to the aeronautical community.	<b>STRUCTURE</b> Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.	<b>VOCABULARY</b>	<b>FLUENCY</b>	<b>COMPREHENSION</b>	<b>INTERACTIONS</b>
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3. PRE-OPERATIONAL	<p>Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.</p>	<p>Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.</p>	<p>Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, often unable to but range is limited and the word choice often inappropriate. Is paraphrase successfully when lacking vocabulary.</p>	<p>Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or communication. slowness in language processing may prevent effective Fillers are sometimes distracting.</p>	<p>Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is May fail to understand sufficiently intelligible for an international community of users. A linguistic or situational complication or an unexpected turn of events.</p>	<p>Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with Generally inadequate reasonable ease on familiar topics and in predictable situations. When dealing with an unexpected turn of events.</p>
2 ELEMENTARY	<p>Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.</p>	<p>Shows only limited control of a few simple memorized grammatical structures and sentence patterns.</p>	<p>Limited vocabulary range consisting only of isolated words and memorized phrases.</p>	<p>Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.</p>	<p>Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.</p>	<p>Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.</p>
1 PRE-ELEMENTARY	<p>Performs at a level below the Elementary level.</p>	<p>Performs at a level below the Elementary level.</p>	<p>Performs at a level below the Elementary level.</p>	<p>Performs at a level below the Elementary level.</p>	<p>Performs at a level below the Elementary level.</p>	<p>Performs at a level below the Elementary level.</p>

## S6/ APPENDIX D: SYLLABUS

This appendix details the minimum syllabus requirements for the following: -

Part 1 – ATS Instructor (OJTI) course

Part 2 – ATS Examiner course

**Note.** A pre-requisite of the ATS Examiner course, is that the candidate must have completed and passed the ATS Instructor (OJTI) course.

### PART 1 – ATS INSTRUCTOR (OJTI) SYLLABUS

TOPIC	EXAMPLES
<b>LEARNING THEORY</b>	
How is the human brain involved in learning?	<ul style="list-style-type: none"> <li>• Cogitation and problem solving</li> <li>• -Cortex, Reaction and Automatic</li> <li>• Responses -Limbus</li> </ul>
What is intelligence and how is it applied in learning?	<ul style="list-style-type: none"> <li>• Theory of multiple learning styles</li> </ul>
How can an instructor exploit the 7 "intelligence's" or learning styles?	<ul style="list-style-type: none"> <li>• Logical / Sequential / Mathematical Linguistic / Verbal</li> <li>• Visual / Spatial Physical Kinesthetic / Physical / Musical / Audio</li> <li>• Interpersonal / Social Skills</li> <li>• Intrapersonal / Self-Management</li> </ul>
What characterizes an adult learner? How they are best motivated?	
What makes a good instructor	<ul style="list-style-type: none"> <li>• Lesson prepared</li> <li>• Learning outcome provided</li> <li>• Provide a motivator</li> <li>• Keep trainee engaged</li> <li>• Teach to learning style etc.</li> </ul>
Lesson prepared Learning outcome provided Provide a motivator Keep trainee engaged Teach to learning style etc.	
How does the mind work in learning and remembering, and How does stress affect that process?	<ul style="list-style-type: none"> <li>• Effects of stress on recall and ability to carry out operational tasks.</li> </ul>
What stressors can affect the learner and What can an instructor do to alleviate the problem?	
What communication styles are there, and How can these affect the relationship between the instructor and the trainee?	
What can lead to conflict between the instructor and the trainee, and What can be done to remedy this?	
<b>ATS TRAINING PROCESSES</b>	
What is the role of a Training Plan, and What information and guidance does it contain for the instructor?	<ul style="list-style-type: none"> <li>• Ensures training policy and objectives are effectively applied and achieved</li> <li>• Defines responsibilities Planning and conduct of training Standard</li> </ul>

	<ul style="list-style-type: none"> <li>• criterionbased framework Best practice Function Process control Process template Curriculum development etc.</li> </ul>
<p>What are the responsibilities of:</p> <ol style="list-style-type: none"> <li>1. The Standards and Academy Managers</li> <li>2. The Instructor (CAA)</li> <li>3. The Instructor (OJTI)</li> <li>4. The Examiner</li> <li>5. CAAF</li> </ol>	<ul style="list-style-type: none"> <li>• Specific responsibilities of positions / organisations, and How they relate to other positions / organisations in terms of support accountability etc.</li> </ul>
<p>What are the stages and phases currently used in the ANR 145(B) organization to describe the training process and what is their rationale?</p>	<ul style="list-style-type: none"> <li>• Phases of OJT training</li> </ul>
<p>What is the purpose of an? Individual Training Plan, and How is it constructed?</p>	<ul style="list-style-type: none"> <li>• Record of recognized prior learning, Preferred learning style Training checklist from the course syllabus, Training roster Learning priorities etc.</li> </ul>
<p>How are curriculum and Syllabus documents constructed and followed?</p>	<ul style="list-style-type: none"> <li>• Curriculum, and syllabus development / design</li> <li>• Determining pre-requisites</li> <li>• Constructing elements of competence</li> <li>• Determining performance criteria</li> <li>• Deriving the syllabus from the curriculum.</li> </ul>
<p>What is the Assessment process followed by the ANR 145 (B) organisation?</p>	<ul style="list-style-type: none"> <li>• Types of evidence required to determine if someone has met the performance criteria</li> <li>• Assessment activities Nature of the assessment</li> </ul>
<p>What is the Moderation process followed by the ANR 145(B) organisation?</p>	<ul style="list-style-type: none"> <li>• Scrutiny by an objective third party</li> </ul>
<p>What is the Feedback process followed by the ANR 145(B) organisation?</p>	<ul style="list-style-type: none"> <li>• Feedback during the design preparation and delivery</li> <li>• phases of training</li> </ul>
<p>What is the Intervention process followed by the ANR 145(B) organisation?</p>	<ul style="list-style-type: none"> <li>• Mechanism for dealing with training problems</li> </ul>
<p>What support for the new trainee, peripheral to the actual on-job training, can the instructor normally be expected to provide?</p>	
<p>What is the ANR 145(B) organization's Learning Model?</p>	<ul style="list-style-type: none"> <li>• Teacher Learner Learning environment— Lesson Self access Delivery style Maximal control Minimal control</li> </ul>
<p>How should a one-on-one On-the-Job "lesson" be constructed?</p>	
<p>How should a series of? On- the-Job 1essons be Constructed to meet the learning needs and styles of a trainee?</p>	
<p>What makes a lesson effective (on position or during a debrief?)</p>	
<p>What training strategies can be applied in the opportunistic, variable and sometimes unpredictable</p>	<ul style="list-style-type: none"> <li>• Individual training plan</li> <li>• Training expectations graph</li> <li>• Record of training chart etc.</li> </ul>

ATS training environment so that progress can be planned, made and measured?	
What intervention strategies are appropriate?	<ul style="list-style-type: none"> <li>• Typical problem area</li> <li>• Likely intervention agent</li> <li>• Likely or required process Discretionary and mandatory</li> <li>• intervention</li> </ul>
What training tools can be Utilized in ATS training?	
How should pre-session briefings and post-session De-briefings are implemented?	<ul style="list-style-type: none"> <li>• Communicating with the trainee e.g. providing appropriate feedback, listening.</li> </ul>
<b>ASSESSMENT AND REPORTING</b>	
What is assessment and how can it be carried out so as to be fair, consistent and reliable?	<ul style="list-style-type: none"> <li>• Application Method of use</li> <li>• Error system— Critical Major</li> <li>• Minor Affective factors</li> <li>• Knowledge testing Practical</li> <li>• testing Assessment criteria</li> </ul>
What makes a good test, whether written, oral or practical?	
What training documentation is employed by the ANR 145(B) organisation, and What responsibilities does the instructor have with regard to its consultation or completion?	<ul style="list-style-type: none"> <li>• Use of— Standard forms Training reports Assessment reports</li> </ul>
How can training progress and achievement be properly described?	<ul style="list-style-type: none"> <li>• Training reports</li> </ul>
<b>ASSESSMENT PROCESS</b>	
Aviation Law and Procedures	<ul style="list-style-type: none"> <li>• ANR 53</li> <li>• ANR 145 (A) (B) certificated</li> <li>• Organization's training</li> <li>• procedures and operational</li> <li>• procedures</li> </ul>
Qualities of a good examiner	<ul style="list-style-type: none"> <li>• Calm</li> <li>• Patient</li> <li>• Consistent</li> <li>• Qualified</li> <li>• Empathetic</li> <li>• Objective</li> <li>• Fair</li> <li>• Good Communicator</li> <li>• Observant</li> <li>• Sound Judgment etc.</li> </ul>
What are the eligibility requirements for ATS Examiners?	<ul style="list-style-type: none"> <li>• Five years of experience</li> </ul>
What is an ATS Examiner responsible for?	<ul style="list-style-type: none"> <li>• Testing for the issue of</li> <li>• certificates and Ratings</li> </ul>



## S6/ APPENDIX E: PROCEDURES - ATS EXAMINER TESTING

The overall objective, and the degree, of testing is to provide adequate confidence, to the Chief Executive of the CAAF, that ATS Examiners will act in the overall interest of safety when conducting their duties.

### PRINCIPLES OF TESTING

Testing is the process of defining, observing and measuring a candidate's performance during a test.

The basic principles of testing should test competence not test ability.

- (a) Testing must assess knowledge and skill level and not the ability to pass a test.
- (b) The measurement of achievement must be relevant to the defined standards and not an end in itself.
- (c) Standards set should be reasonable when set against the kind of skill or information necessary to the performance of a job or part-job.
- (d) Tests must be pertinent to the kind of skill and knowledge being assessed so that a candidate's competence is what is being determined and not their ability to memorise lists over the short-term or write clever exam answers or survive the artificial stress of a test environment.

The test has been designed to minimise the degree of subjectivity although the testing officer will still have to exercise judgement where factors may affect the test environment e.g. live versus simulated.

### TESTING OFFICER RESPONSIBILITY AND SCOPE

The testing officer who conducts the test is responsible for determining that the candidate meets the standards outlined in each performance criteria.

For each performance criteria that requires a good working or mastery knowledge / skill, the testing officer will:

- (a) Orally question the candidate on those elements; and/or
- (b) Ask the candidate to perform the skill elements in a simulated or live environment; and/or
- (c) Moderate the written/oral examination conducted by the service provider; and/or
- (d) Observe the candidates in a seminar/workshop environment; and/or
- (e) Use other methods as determined by the Controller Ground Safety.

Oral questions may be used at any time during the test. Discretion will be used in the live environment, in order that the candidate is not distracted from the supervision of an air traffic service.

The scope of authority of the Authority's testing officer includes issue of ATS Examiner Competency Certificates and renewal of such certificates.

### TESTING CYCLE

The testing process is considered to be a five-stage cycle; Objective, standards, performance, measurement, conclusion.

### OBJECTIVE

The first stage is to determine the objectives. Since it would be meaningless to evaluate the candidate's behaviour without considering what that behaviour should be, the process of testing should begin with clearly defined objectives.

### STANDARDS



To be proficient in evaluating a candidate's performance during a test, the testing officer must be completely familiar with the Competence and Performance requirements for each exercise assessed.

## PERFORMANCE

During the test, the testing officer observes the candidate's performance in response to situations presented.

## MEASUREMENT

The testing officer measures the performance, compares it to the applicable standard and determines the assessment.

## CONCLUSION

Based on the conclusions of the testing officer, a mark is awarded to the candidate. However, to be useful, the conclusions must be presented in such a way that the information is clearly understood and easily accessible to supervisors, and candidates. When a candidate commits major errors during the performance of an exercise or fails to meet the required standard, the testing officer must state the nature of the problem(s), in writing, in the Remarks box on the Performance Assessment Report.

## CHARACTERISTICS OF TESTING

A test may become useless if certain criteria are not respected. The following five characteristics, if used carefully when conducting a test, will result in an accurate and effective form of evaluation.

### RELIABILITY

Reliability ensures consistent results. As applied to the test, this would mean that two identical performances should result in the same test result.

Human factors can have a significant effect on test reliability. Some of these factors are:

- (a) Fatigue..... (Sufficient sleep or rest prior to the test)
- (b) Emotions..... (Work or home personal problems)
- (c) State of health..... (Cold or flu etc.)
- (d) Time of day..... (Very early in the morning etc.)
- (e) Distractions..... (Noise, interruptions etc.)

Testing officers should be conscious of these factors and attempt to reduce as many variables as possible. The testing officer may accept some of these factors as a reason for some lack of smoothness in the candidate's performance, but never as a compromise for attaining the minimum standards. The testing officer should also be aware that his or her ability to accurately assess the candidate's performance could be affected by these same factors.

### VALIDITY

Tests are valid if they measure what they are supposed to measure and nothing else. In terms of the test, assessment for ATS exercises must remain within the bounds of the appropriate test standards. The scope of the test must be such that when candidates pass, they have met the required standards for the issue of the examiner competency certificate.

### COMPREHENSIVE

A test is comprehensive if it contains a sample of all course material and measures each area of skill and knowledge required to ensure the standard is met.

### OBJECTIVITY

Objectivity ensures the testing officer's personal opinions will not affect the outcome or assessment of the test. In order to achieve the highest possible degree of objectivity, the testing officer should record observations to eliminate errors and assist recall in determining that a candidate has met the performance criteria.

Tests are marked to some degree on a subjective basis. Subjective assessments will be more valid if the testing officer has sound and adequate background knowledge of the testing process, and the expertise to accurately assess test applicants.

### **Testing errors**

In order to test effectively, the testing officer requires not only a sound knowledge of the characteristics of testing but also a firm understanding of the possible errors that can occur throughout the testing process. Errors in testing fall into several categories. The most frequent errors are as follows:

#### **Personal bias error**

Errors of personal bias are indicated by a tendency of a testing officer to rate candidates or a particular group of candidates—

All the same; all as average or, all as great at the high end of the scale or, all as poor at the low end of the scale.

#### **Central tendency errors**

These are indicated by a tendency to rate all or most candidates as average. The testing officer really "feels" that the performance of most candidates is not as good as it should be and therefore underscores a candidate's good performance. On the other hand, the testing officer is reluctant to cope with the possible emotional response of a candidate. This results in padded or inflated assessments of poor performance thus both candidates are awarded an average assessment. This error may also occur because a testing officer does not want to think (put effort into making a decision).

#### **Generosity Errors**

These are indicated by a tendency to rate all individuals at the high end of the scale and are probably the most common type of personal bias. This could be caused by a testing officer's desire to be known always as a nice person.

#### **Severity Errors.**

In this case, all or most candidates are graded at the low end of the scale. Testing officers may feel that the published test standards are too low and score the test against their own set of standards. This type of testing officer feels that few people perform as well as they can.

#### **Logical error**

This error occurs when a testing officer assumes that a high degree of ability in one area means a similar degree of competence in another. This is especially true if the two items being assessed are similar or related. A pass on one or two exercises does not mean the candidate is so qualified on all exercises. The full test must be completed and marked.

#### **Halo effect**

This error occurs when a testing officer's impression of a candidate is allowed to influence the assessment of performance. Halo error can result in rating an applicant too high or too low.

One form of halo error is the Error of leniency - leniency has its source in a testing officer's likes, dislikes, opinions, prejudices, moods and political or community influence of people. For example, when testing a friend, acquaintance, or high-profile individual, a testing officer may give an undeserved 'pass' or, conversely the Error of Stereotype. As with the error of leniency, the error of stereotype has its source in likes, dislikes, opinions, prejudices, etc. In this case however, a testing officer may allow personal opinion to influence the assessment of the candidate and award an undeserved 'fail'.

### **Error of narrow criterion**

This error may occur when a testing officer has a group of candidates to test. The testing officer may, under this condition, rate each applicant against the others within the group instead of against the standards. If the group to be tested is above average, a candidate who is of average ability may be awarded an undeserved 'fail'. If the group of candidates to be tested is below average, then a candidate who performs the best within this group may be awarded an undeserved 'pass'.

### **Error of delayed grading**

Should a delay occur in awarding the assessment for an exercise, there might be a tendency to award an average result due to the lack of information and/or poor recall. By not making an assessment immediately after the event, testing officers may award assessments based upon an overall impression of the test. This results in an erroneous assessment and a test report, which is of little value.

### **Standards error**

All the errors we have discussed result in a standards error. However, if a testing officer is not thoroughly familiar with established standards, as outlined in the applicable test standards, it is virtually impossible to conduct a test to that standard.

While these errors are presented here on paper in a clear and obvious way, under testing conditions this is not always so. Normally it is a combination of two or more of the errors and clear and obvious is not an apparent trait. Therefore, testing officers must be aware of these potential errors and consciously prevent such errors from entering, in any degree, into the tests they conduct to ensure the validity of the test and the result they award.

## **CONDUCTING THE TEST**

### **Test standard**

The CAAF's "ATS Examiners Competency Certificate – Assessment Guide" specify the areas in which knowledge and skill must be demonstrated by the candidate before an examiner competency certificate is issued/renewed.

Acceptable / unacceptable knowledge/skill of performance criteria is described in the Assessment Guide (Appendix G).

If in the judgement of the testing officer, the candidate does not meet the minimum standard of any performance criteria, then the test is failed. It is not CAAF's policy to issue a partial pass. If a candidate fails to demonstrate proficiency in an area, then the test is failed and a complete retest is conducted. (The testing process is a sampling process therefore it is not appropriate to issue a partial pass, but rather to take another complete sample to provide the appropriate level of confidence.)

The testing officer or candidate may discontinue the test at any time after the failure of critical performance criteria makes the candidate ineligible to pass the test.

Any action, or lack of action, by the candidate, which requires corrective intervention by the testing officer to maintain safe operations, may be disqualifying.

It is vitally important that the candidate uses proper scanning techniques in a practical assessment.

Ineffective performance will be disqualifying.

Unsatisfactory performance in any test item will result in the candidate being advised of the failure aspects and the further training believed necessary before a further test may be undertaken.

Recording unsatisfactory performance. When performance criteria are unsatisfactory the testing officer must record it on the test report against the specific performance criteria.

The test will ensure that skill and knowledge are demonstrated in the relevant performance areas. The examiner test process is designed to show a link between the theory of assessing and the practical of assessing candidates for licenses/ratings where skills are to be demonstrated.

The assessment will consist of the briefing of the candidate, observing the assessment, the debrief and the administration process (form filling) including a review of the candidates training documentation. There may be supplementary oral questions to ascertain that the examiner is competent.

An examiner competency certificate will not normally be issued / renewed if the examiner training theory course contained in the ANR 145 (B)'s exposition or Appendix E has not been completed. In exceptional cases this may be allowed provided the individual already holds an instructor and an examiner competency certificate, and can demonstrate proficiency to the CAAF's testing officer. In these circumstances' limitations may be imposed in terms of completing the required training within a defined period.

Open and closed book testing is acceptable for examiner tests. The candidate for an examiner competency certificate will normally be allowed access to all documentation that would normally be used as reference material during an assessment.

<b>Performance</b>	<b>Grade / Percentage equivalent</b>
<i>Demonstrate a Mastery Knowledge</i>	<i>Equates to a thorough understanding as determined by the assessor with, if applicable, an agreed minimum pass mark of between 95% and 100%</i>
<i>Demonstrate a Good Working Knowledge</i>	<i>Equates to a minimum pass mark of 80%</i>

## PRACTICAL ASSESSMENT PROCESS

To ensure that the assessment is effective the testing officer must:

- Ensure the environment is as close as possible to the real-life work situation.
- Focus on the assessment task.
- Establish a non-threatening and supportive atmosphere.
- Communicate clearly to the candidate.
- Listen effectively.
- Question effectively.
- Provide clear and constructive feedback.
- Assess consistently.

## SKILLS ARE ASSESSED BY:

- Direct observation of practical task
- Direct observation of simulated task
- Indirect evidence of competence
- Examination of Course reports, Periodic Training reports, Training Assessment reports, Proficiency Assessment reports (in the case of renewals)

## COMMUNICATION WITH THE CANDIDATE

Before the assessment commences the testing, officer will brief the candidate on:

- What is to be assessed
- How it will be done
- Who will do the assessment?
- How long it will take
- When it will take place
- When the results will be known
- What will happen if any part of the assessment is assessed to be not competent
- How any special needs will be met?

- (i) What will happen to the results?
- (j) Who will see them?
- (k) What happens next

## DEALING WITH THE CANDIDATE ON THE DAY

The following should be taken into consideration:

- (a) Treat the candidate with respect
- (b) Reduce stress
- (c) Interaction with the candidate
- (d) The spacing between the assessor and the candidate
- (e) The position of the assessor
- (f) Cultural considerations

## TEST ENVIRONMENT

The test should be conducted at a mutually agreed environment that allows a CAAF Testing Officer to meet the requirements of the examination. The following are considered to be a suitable environment:

- (a) Classroom
- (b) Simulated
- (c) Live

## ACCESS TO HEADSETS MAY BE REQUIRED.

The preferred test environment would be a 'simulated' environment where traffic and errors could be introduced to provide suitable opportunities for the examiner to demonstrate skills. As this is not always possible, a 'live' environment would be acceptable, but the limitation could mean reduced opportunities for the examiner to demonstrate skills and increased test duration. The candidate does not have to be undergoing a formal assessment although preference is for during an actual formal assessment, i.e. during a Proficiency Assessment (PA).

## TEST DOCUMENTATION

Where appropriate, the following documentation will be completed for an examiner test:-

### Prior to the assessment:

GS200 form – ATS Personnel Licensing Application filled by the applicant and submitted to the Authority

### After the assessment:

- ATS Examiner Competency Certificate – Performance Assessment form ATS Examiner
- Competency Certificate – Endorsement form
- ATS Licence / Competency Certificate Checklist

## S6/ APPENDIX F: ATS EXAMINER COMPETENCY CERTIFICATE

### PERFORMANCE ASSESSMENT

#### ASSESSMENT GUIDE

Candidate Name: \_\_\_\_\_ Position: \_\_\_\_\_

Examiner: \_\_\_\_\_ Location: \_\_\_\_\_

Assessment Date: \_\_\_\_\_ Duration of Observation: \_\_\_\_\_

The overall objective, and the degree of testing, is to provide adequate confidence, to the CE CAAF that ATS Examiners will act in the overall interest of safety when conducting their duties.

Examiner Comments:

Examiner Signature: \_\_\_\_\_ Licence Number: \_\_\_\_\_

Candidate Comments:

Candidate Signature: \_\_\_\_\_

*The candidate may have access to appropriate reference material during this assessment.*

**Use only:**

Part A for Classroom environment. (Conducted by the ANR 145 B organization and moderated by CAAF)

Part B for Practical test on the job. (Conducted by CAAF's testing officer)

## PART A

**Competence:** A general knowledge of the principles of Assessment and Moderation are demonstrated.

<b>Performance: The purpose and principles of various types of assessment are explained.</b>	<b>Yes / No / NA</b>
What is the purpose of an Assessment?	
Where do you find the performance criteria?	
What do the following assessment principles mean? Validity, Adequacy, Reliability, Efficiency, Feedback.	
<b>Remarks:</b>	
<b>Performance: Know the purpose of oral, written and practical assessments.</b>	<b>Yes / No / NA</b>
<b>Performance: The advantages and disadvantages of the different types of assessment are explained.</b>	
What is the purpose of a knowledge assessment?	
What are the advantages of written over oral knowledge assessments?	
What are the advantages of oral over written knowledge assessments?	
What are the advantages and disadvantages of knowledge assessments?	
What is the purpose of a practical assessment?	
What are the advantages and disadvantages of practical assessments?	
<b>Remarks:</b>	
<b>Performance: Demonstrate knowledge of the purpose and process of moderation.</b>	<b>Yes / No / NA</b>
What is the purpose of moderation of an assessment?	
How are assessments moderated?	
Where do you find the moderation process for an assessment?	
What are the roles of an Agent/Moderator/Arbitrator in assessments?	
<b>Remarks:</b>	

**Competence:** Assess staff for the issue of ATS ratings, validations and certificates of competency.

<b>Performance: A good working knowledge of how instructors are required to prepare written, visual and practical training aids and can prepare an individual training plan is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated how to prepare an individual training plan.	

Demonstrated knowledge of how to prepare training aids (examples of aids that can be used and in what situation)	
<b>Remarks:</b>	

<b>Performance: Good working knowledge and skills in preparing and conducting written and oral examinations, in accordance with Training and Operational Procedures, Standard Documents and the ANR, is demonstrated</b>	<b>Yes / No / NA</b>
Demonstrated skills in designing a knowledge assessment. (Knowledge of relevant rules and documents.)	
Demonstrated skills in conducting a knowledge assessment. (Questioning.)	
Demonstrated skills in managing assessment stress	
Demonstrated skills in logbook assessment	
Demonstrated skills in briefing	
Demonstrated skills in debriefing	
<b>Remarks:</b>	

<b>Performance: Good working knowledge and skills in preparing and conducting practical examinations, in accordance with the Training and Operational procedures, Standard Documents and the ANR, is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated skills in designing a practical assessment (practical knowledge of relevant rules and documents)	
Demonstrated skills in conducting a practical assessment	
Demonstrated skills in managing assessment stress	
Demonstrated skills in logbook assessment	
Demonstrated skills in briefing	
Demonstrated skills in debriefing	
<b>Remarks:</b>	

**Competence:** Assess ATS staff for the issue ATS instructor (OJT) Ratings

<b>Performance: A good working knowledge of how instructors are required to conduct one-on-one theoretical and practical training sessions, taking into account the trainee's particular learning style, is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated a working knowledge of how instructors are required to conduct one-on-one <b>theoretical</b> training sessions, taking into account the trainee's particular learning style	



Demonstrated a working knowledge of how instructors are required to conduct one-on-one <b>practical</b> training sessions, taking into account the trainee's particular learning style	
<b>Remarks:</b>	
<b>Performance: A good working knowledge of how instructors are required to conduct one-on-one briefing and debriefing sessions is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated knowledge of how instructors are required to conduct one-on-one briefing and debriefing sessions	
<b>Remarks:</b>	
<b>Performance: A good working knowledge of how to reduce stress before and during an assessment is demonstrated</b>	<b>Yes / No / NA</b>
Is aware of how stress can affect the performance of the candidate.	
Knows how to reduce stress in the candidate before and during knowledge and practical assessments.	
<b>Remarks:</b>	
<b>Performance: A good working knowledge of how instructors are to write and complete training reports and records is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated knowledge of how instructors are to write and complete training reports and records.	
<b>Remarks:</b>	
<b>Performance: A good working knowledge of when and how to initiate Training Interventions is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated a knowledge of when and how to initiate Training Interventions.	
<b>Remarks:</b>	

**Competence:** Assess the ability of ATS instructors to issue Ratings and Validations.

<b>Performance: A good working knowledge and skill of how to assess that instructor know how to prepare written, oral and practical assessments is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated skills in assessing assessment preparation.	
<b>Remarks:</b>	

<b>Performance: A good working knowledge and skill of how to assess that instructors know how to conduct written, oral and practical assessments in accordance with the Training procedures, Operational procedures, Standard Documents and the ANR, is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrated skills in assessing the assessment process for knowledge and practical assessments.	
<b>Remarks:</b>	
<b>Performance: A good working knowledge and skill of how to assess that instructor know how to complete assessment documentation as required by the ANR 145(A) organization and CAAF.</b>	<b>Yes / No / NA</b>
Demonstrated knowledge/skill in completing required assessment documentation	
<b>Remarks:</b>	

**Competence:** Complete the administration requirements for the issue of ATS ratings, validations and certificates of competency.

<b>Performance: A mastery knowledge and skill of how to complete assessment and licensing documentation as required by Operational procedures, Training procedures, Standard Documents and the ANR is demonstrated.</b>	<b>Yes / No / NA</b>
Demonstrate how to complete the relevant logbook entries.	
Know which forms contained in Operational procedures, training procedures and Standard Documents are required to be completed for the relevant qualifications.	
Demonstrate how to complete the relevant forms contained in Operational procedures, Training procedures and Standard Documents.	
Know how to complete the Administration processes as per the Standards Documents	
<b>Remarks:</b>	

**Competence:** Describe the privileges and responsibilities of an ATS Examiner Competency Certificate.

<b>Performance: A mastery knowledge of the of the privileges and responsibilities of an ATS Examiner as prescribed in SD-PEL Chapter 12, Operational procedures and the Training procedures is demonstrated.</b>	<b>Yes / No / NA</b>
Know the privileges and responsibilities of the ATS Examiner qualification as it applies to this candidate.	
Know the minimum qualifications required for an ATS Examiner to be able to issue ratings, and validations.	
<b>Remarks:</b>	

**Competence:** Have a mastery knowledge and skill of how to assess staff for the issue of ATS licences against performance criteria.

<b>Performance: Demonstrate a mastery knowledge and skill in comparing performance against performance limits.</b>	<b>Yes / No / NA</b>	
Critical Area: (✓ where applicable)	PASS	FAIL
Demonstrated ability to detect critical or major errors e.g. knowledge of mandatory fail aspects		
Demonstrated ability to detect minor errors		
Demonstrated ability to assess affective factors		
<b>Remarks:</b>		

**Competence:** Have mastery knowledge and skills of how to act in the overall interest of safety.

<b>Performance: Demonstrate mastery knowledge and skills of how to act in the overall interest of Safety when conducting examinations.</b>	<b>Yes / No / NA</b>
Demonstrated knowledge and skills in proactively reporting and dealing with safety incidents, defects etc.	
Demonstrated knowledge and skills in cooperation, teamwork and a safety attitude.	
Demonstrated knowledge and skills in anticipation of safety issues prior to them becoming a problem e.g. judgement.	
Demonstrated knowledge and skills in scanning.	
Demonstrated knowledge and skills in organisation and efficiency.	
<b>Remarks:</b>	

## ASSESSMENT TECHNIQUE GUIDANCE MATERIAL

The following is provided as guidance for CAAF's Testing Officers' assessing for ATS Examiner Competency Certificate during practical tests.

### ASSESSMENT CHECKLIST

PERFORMANCE CRITERIA	YES / NO / NA / COMMENTS
<b>Preparation:</b> Things that the Examiner could/should do before the controller / flight service operator assessment	
Familiarized him / herself with the assessment documentation and procedures as required by Operational procedures (e.g. a Manual of Air Traffic Services), Training Procedures (e.g. Training Plans) and Unit Procedures (e.g. Local Unit Orders).	
Previously checked the controller / flight service operator's Training File - Was the previous Assessment busy or light traffic, runway in use, deficiencies noted	
Obtaining information from other sources as to the controller / flight service operator's abilities	
Advise others that may be affected by the assessment that it is going to take place and any special requirements that you may have of them.	
Ready to commence assessment on time.	
Correct forms at hand.	

PERFORMANCE CRITERIA	YES / NO / NA / COMMENTS
<b>The Pre-brief:</b> Things that the Examiner could/should cover during the briefing of the controller / flight service operator.	
Pre-brief conducted in an appropriate environment.	
Purpose/Type of assessment explained. Anything special that will be expected of the controller/flight service operator during the assessment is explained.	
Stress reduction techniques used	
Advising that there will be note taking - positive areas and negative areas identified as improvement opportunities.	
Normal rostered breaks taken – variations.	
How long the assessment will be - sufficient time to gain sufficient evidence of competency.	
Emphasis on safety rather than expedition explained.	
Controller / flight service operator asking questions during the assessment.	
Is the controller / flight service operator ready for the assessment?	

PERFORMANCE CRITERIA	YES / NO / NA / COMMENTS
Any special needs?	
Controller / flight service operator self-briefing (NOTAM etc.).	
Did the Examiner observe the controller/flight service operator/flight service operator's self-brief	
Did the Examiner do a self-brief?	
Hand – over.	
Observation of the controller/flight service operator taking-over watch	
Did the Examiner understand the traffic situation and other significant information	
Comments noted about the hand-over	
Observation of the controlling / flight service.	
Suitably positioned to accurately and fully observe the controller / flight service operator's performance.	
Suitably positioned to adequately monitor the traffic situation and take-over if required (during assessment etc.).	
PERFORMANCE CRITERIA	YES / NO / NA / COMMENTS
Headset on at all times.	
Watching the controller/flight service operator's performance at all times.	
Examiner's reactions to distractions - assessment not degraded by distractions.	
Note – taking.	
Adequate note - taking throughout the assessment.	
All notable events recorded during the assessment.	
Recording of phraseology check - noting any incorrect phraseologies used.	
Interaction Examiner / Controller / flight service operator.	
Not interfering with controller / flight service operator's performance.	
Not asking questions at inappropriate times.	
Pertinent questions asked at appropriate times.	
PERFORMANCE CRITERIA	YES / NO / NA / COMMENTS
Provided a non-threatening environment and supportive atmosphere	

Communicated clearly with the candidate	
Stress Reduction Techniques.	
Appropriate techniques used throughout assessment.	
Seating position - suitable to observe but without adding stress / interfering with controller / flight service operator.	
Manner of speech / relaxed tone of voice used.	
Helping controller / flight service operator where appropriate.	
De – brief.	
De-brief conducted in an appropriate environment.	
Immediate indication of the controller / flight service operator's performance.	
Opportunity given for progressive de-briefs (during breaks).	
<b>PERFORMANCE CRITERIA</b>	<b>YES / NO / NA / COMMENTS</b>
Discussion about points recorded in assessment form.	
Immediate indication of the controller / flight service operator's performance.	
Opportunity given for progressive de-briefs (during breaks).	
Discussion about points recorded in assessment form.	
Listening to and trying to understand controller / flight service operator's point of view.	
Advice/educative comments made.	
Comments are clear and to the point.	
Opportunity given for discussion and / or questions by the controller / flight service operator regarding any aspects of controlling / flight service.	
<b>PERFORMANCE CRITERIA</b>	<b>YES / NO / NA / COMMENTS</b>
Report Writing	
Accurate record of events.	
All significant errors recorded along with comments on good performance.	
Legible handwriting.	
Understandable.	
Constructive and positive phrasing of report.	
Written evidence that substantiates Pass / Fail.	
Primary Comments are a summary of report.	

'Theory' questions and answers (correct and given) written on report.	
Opportunity given for controller / flight service operator to read and analyse written comments and write comments.	
<b>Documentation</b>	
Report correctly filled out - all appropriate sections completed.	
All other applicable forms/reports actioned.	
Report signed by assessor and controller / flight service operator.	
Report and applicable forms forwarded to correct.	
<b>PERFORMANCE CRITERIA</b>	<b>YES / NO / NA / COMMENTS</b>
Place Log Book correctly signed.	
<b>Assessment Techniques</b>	
Assessment was Valid in that it assessed what it set out to assess.	
Assessment was Adequate in that that sufficient evidence was obtained.	
Assessment was Reliable in that it followed commonly used techniques and is likely to produce same results on different occasions.	
Assessment was Efficient - avoiding unnecessary duplication and length - resources not wasted.	
Assessment provided feedback to candidate.	
<b>General:</b>	
Assessment carried out in accordance with applicable procedures and rules - assessor familiar with procedures. (i.e. acceptable knowledge of training procedures).	
Examiner's 'controller/flight service operator' knowledge acceptable (i.e. acceptable knowledge of operational procedures - air traffic control separation standards, flight information standards)	
Examiner's Personal Logbook up-to-date	
<b>Comments:</b>	



<b>DOCUMENT COMPLIANCE CHECK</b>	
<b>DOCUMENTS CHECKED</b>	<b>YES / NO / NA</b>
Licence of candidate	
Logbook of candidate	
Last operational assessment of the candidate e.g. Proficiency Assessment (PA)	
Previous assessments conducted by the candidate e.g. examination papers, completed assessments, training checks	
Of those assessments conducted percentage of 'passes' (% in previous 12 months)	
Meets the requirements of SD-PEL Section 6 Chapter 12	

## S6/ APPENDIX G – VALIDATION OF FOREIGN ATS LICENSE – VALIDATION CERTIFICATE

Holders of ATS licences issued by other ICAO Contracting States who are required to undertake ATS responsibilities in Fiji domestic or international airspace without being in possession of an appropriate Fiji licence may apply for a validation certificate of their foreign ATS licence.

### G1. Conditions and Limitations

Application for the validation of a foreign ATS Licence is submitted to the Authority using the appropriate CAAF Form (Form PL 101A).

Applicants applying for the validation of a foreign ATS Licence will be required to pass examinations on Air Law, ATC Equipment, Operational Procedures and Local Procedures pertaining to the operational position at which the ATS Licence will be used.

1. The authorization issued is a concession granted for first of type ratings.
2. An authorization may be issued for a period of up to 6 months and renewed for a further 6 months if required.
3. The Authority may impose limitations on the authorization to safeguard the credibility of its ATS licensing process while ensuring safety of aircraft operations. Such limitations can be in specific rating areas considered as *first of type ratings* e.g. Approach control surveillance and/or Area control surveillance ratings planned for implementation in 2020-2021.

### G2. Process

On receipt of an application for the validation of a foreign ATS Licence, the Licensing Officer shall:

- A. Check that the application form is complete and accurate.
- B. Check and verify evidence of particulars entered on the application form such as licence copies, logbooks, medical certificates, etc.
- C. Check that applicant has given approval for verification of details from the issuing (regulatory) Authority.
- D. Check with the issuing (regulatory) Authority that the applicant's licence details are correct. Without this verification an authorization will not be issued by the Authority. This will normally require:
  - (1) Faxing or emailing the issuing Authority the applicant's approval for their details to be verified with CAAF: and
  - (2) Receiving from the issuing (regulatory) Authority confirmation of the details provided by the applicant.
- E. Application is passed to ANSI ATM to carry out additional actions: -
  - (1) Ensure the applicant holds the ATS rating(s) requested for in the application.
  - (2) Conduct the examination as required by G1. paragraph 2
  - (3) Once the examination has been successfully completed, endorse the form and pass back to the Licensing Officer
- F. Print authorization and enter details in the database.
- G. Forward the application with the authorization to SPELI for endorsement.

- H. Make photocopies and file all the documents in the respective files for records.
- I. Release the authorization to the applicant.