

STANDARDS DOCUMENT

Aeronautical Facility Technician Licensing

4th Edition, June 2019 SD - AFTL

Published by:

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

www.caaf.org.f

Copyright © 2019 CAAF

STANDARDS DOCUMENT

Aeronautical Facility Technician Licensing

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

Copyright © 2024 CAAF

Copy number: Electronic Copy

This Standard Document is subject to the amendment service: b Yes o No

Copy Holder: MASTER COPY

Organisation: Civil Aviation Authority of Fiji

Date of Issue: 30 June 2019



Aeronautical Facility Technician Licensing

PREFACE

General

Fiji's National Aviation Law consists of a three tier 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 regulatory system represents Fiji's Primary Legislation System and Specific Operating Regulations to meet Critical Elements CE1 and CE2 of ICAO's Eight Critical Element of a safety oversight system.

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

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

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

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

Purpose

This Standards Document – Aeronautical Facility Technicians Licence is issued by the Civil Aviation Authority of Fiji pursuant to Regulation 53(3). This Document is intended for use by CAAF, applicants for, and holders of, an Aeronautical Facility Technician Licencing.

Change Notice

This Standards Document has been developed pursuant to the Authority's obligation to provide oversight on Air Navigation Services personnel licensing obligation to comply with standards notified by the Authority and is the means by which such notification is given.

THERESA LEVESTAM CHIEF EXECUTIVE

01 June 2022 i

Aeronautical Facility Technician Licensing

AMENDMENT RECORD

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

Amendment No.	Effective Date	Entered By	Date Entered	
1	01/09/09	CAAF	01/09/09	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Amendment No.	Effective Date	Entered By	Date Entered
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

From time to time the Authority will issue amendments to the requirements stipulated in this publication. This will be done in the form of 'Notice of Amendments' including an attachment 'Notification of Approval/Disapproval' of all or part of the proposed amendment.

The Amendments will also be accessible through CAAF website.

30 June 2019 ii

CONTENTS

PREFACE	i
Chapter 1 - Introduction	1
Chapter 2 – General	5
Chapter 3 – Aeronautical Facility Technician Trainee	15
Chapter 4 - Aeronautical Facility Technician Licence	17
Chapter 5 - Ratings	19
Chapter 6 – AFTL OJT Instructor Competency Certificate	20
Chapter 7 – AFTL Classroom Instructor Competency Certificate	21
Chapter 8 – AFTL Examiner Competency Certificate	23
Chapter 9 - APPENDICES	26
Appendix 9.1: Language Proficiency	26
Appendix 9.2: Licensing and rating application form – (For Aeronautical Telecommunications)	31
Appendix 9.3: Licensing and Rating Application Form – (For E&M Personnel)	33
Appendix 9.4: Medical Testing	35
Appendix 9.5 AFTL classroom instructor & examiner training – (CBTA)	42
Appendix 9.6 – Training Syllabus for Classroom Instructor and Examiner-(Traditional Method)	43
Part 1: AFTL Classroom Instructor competency course syllabus (Traditional Method)	43
Part 2 – AFTL Examiner course (Traditional Method)	46
Appendix 9.7: AFTL Examiner Testing –(CBTA)	50
Appendix 9.9: AFTL Examiner Competency Certificate – Performance Assessment	57
Appendix 9.10 Performance Assessment Guide	64



Aeronautical Facility Technician Licensing

Historical Summary of Amendments

Notes:

- 1.
- SD-AFTL replaces MRD 12 Aeronautical Facility Technician Licensing. Final Draft SD-AFTL 1st Edition dated July 2004 was circulated to stakeholders for comments. 2.
- Final Draft 4th Edition dated June 2019 was circulated to stakeholders for comments. 3.

Document	Source(s)	Subject	Effective Date
MRD 12 – 1 st Edition	CAAF	Minimum Requirements Document - Aeronautical Facility Technician Licensing	1 st April 2001
SD-AFTL – 1 st Edition	CAAF	Standards Document – Aeronautical Facility Technician Licensing	7 th July 2005
SD-AFTL –2 nd Edition	CAAF	Reformatting	14 th Dec 2007
SD-AFTL – 3 rd Edition	CAAF	Preface	16 Aug 2012
SD-AFTL 4 th Edition	CAAF	Preface Name change from ATEM to ANSP, Telecommunications to ANE Services. Definition — Inclusion of Aeronautical Facilities and Competency Based Training Assessment Facilities — Inclusion of ATM system, Digital Voice Logger, VCS, ILS/DME, Electronic Flight Strip, Explosive Trace Detector Medical Class 4 CBTA & Traditional -Classroom Instructor & Examiner Training Testing of Classroom Instructor & Examiner	30 June 2019

30 June 2019 ί۷



Aeronautical Facility Technician Licensing

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 air navigation engineering services 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 <u>AFT licence</u> 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 <u>validation</u> 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: This 12 monthly proficiency assessment 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.

30 June 2019 Page **1** of **67**

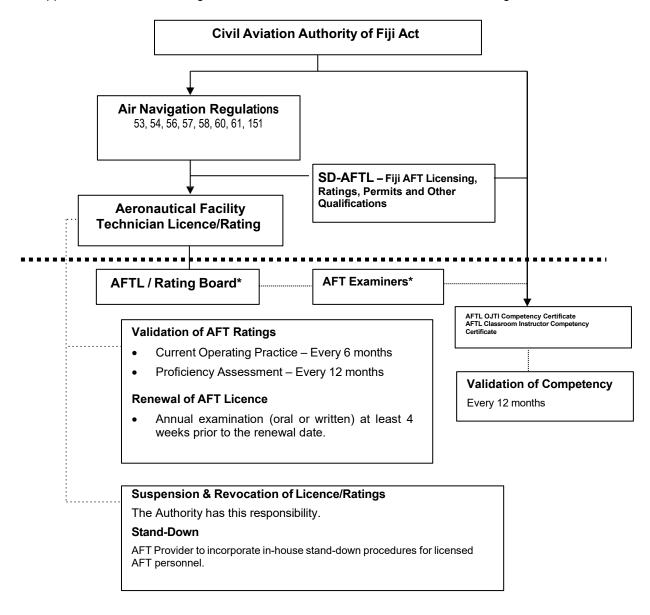
Aeronautical Facility Technician Licensing

ISO 9001:2015 Certified

(f)

Standard Document

- 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. The AFT Rating Board's role is to examine and certify whether the candidate has successfully completed the (g) appropriate training programme meeting the requirements of this SD-AFTL and that the Operational Manual of Air Navigation Engineering Services department / Electrical & Mechanical Services for convening a Licensing, Rating/Validation Board have been complied with.
- For issue and validation of ratings, the AFT Rating Board shall comprise of a Regulatory representative, an (h) 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.

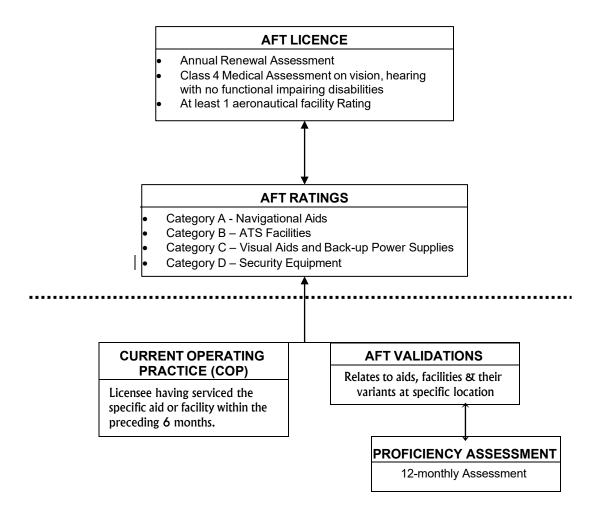


30 June 2019 Page 2 of 67

Aeronautical Facility Technician Licensing

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 a representative of the Authority and at least three approved persons with one member holding a valid rating for the facility.



1.4 Licence Format

- (a) 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).

30 June 2019 Page **3** of **67**



Aeronautical Facility Technician Licensing

Intentionally Blank

30 June 2019 Page **4** of **67**



Aeronautical Facility Technician Licensing

Chapter 2 - General

2.1 Applicability

- (a) Pursuant to Regulation 53(3), SD-AFTL prescribes the licensing standards for the: -
 - 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) The Authority may deem fit to issue a trainee permit where it is determined that the applicant satisfies the requirement of an AFTL trainee permit specified in this SD-AFTL when the applicant meet the requirements specified in Chapter 3 of this SD-AFTL and are supervised by licensed personnel.
- (c) The Authority may deem fit for the following to be recorded in the AFT personnel licence under "Other Qualifications" where it is determined that the applicant satisfies the applicable requirements -
 - (1) AFTL On-the-Job-Training instructor (OJTI) Competency Certificate;
 - (2) AFTL Examiner Competency Certificate;
 - (3) AFTL Classroom Instructor Competency Certificate and
 - (4) Any other qualifications relevant to the licensing of air navigation services personnel.

2.2 Definitions

(a) 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;

Aeronautical services and facilities - means those services and facilities at an airport that are necessary for the operation and maintenance of civil aviation at the airport.

Air-Ground Communications means- means two-way communications between aircraft and stations on the surface of the earth:

ANES – means Air Navigation Engineering Services which includes Aeronautical telecommunication and/electrical and mechanical support for the provision of ANS at airports in Fiji. ANS provider - means a provider of air navigation 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

30 June 2019 Page **5** of **67**



Aeronautical Facility Technician Licensing

CBTA -means competency based training and assessment

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/herself 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;

30 June 2019 Page **6** of **67**

Standard Document

Aeronautical Facility Technician Licensing

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/ Distance Measuring Equipment
- (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) Air Traffic Management Systems -Controller Pilot Datalink Communications (CPDLC)/ADS/AIDC services

30 June 2019 Page **7** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- (v) Aeronautical Fixed Telecommunications Network (AFTN)/AMHS
- (vi) Aeronautical Telecommunications Network (ATN)/
- (vii) Direct Telephone Voice Communication
- (viii) Digital Voice Logger
- (ix) Electronic Flight Strip

(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)
- (v) Explosive Trace Detector
- (b) The Authority will periodically review the facility Rating requirements prescribed in paragraph 2.4
- (c) above incognisance of any new requirements due to new development in aeronautical facilities that may necessitate a review of rating requirements.
- (d) Persons providing specialised equipment courses shall be a holder of the AFTL Classroom Instructor Competency Certificate
- (e) Persons providing On-The-Job Training shall be a holder of the AFTL On-the-Job-Training Instructor (OJTI) Competency Certificate:
- (f) Persons who exercise the privileges of an AFTL examiner must hold an AFTL Examiner Competency Certificate issued under this SD-AFTL.

2.5 Exchange of qualifications

- (a) The qualifications and facility assessment examination criteria previously required by the Authority prior to 12th 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 GS400 or GS401 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

30 June 2019 Page **8** of **67**



Aeronautical Facility Technician Licensing

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 meeting the English Language Proficiency Level requirements, 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 4 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.
- (c) For other qualifications, the competency should be re-validated after every twelve months. The ANS provider is to establish a re-validation process for this purpose.

30 June 2019 Page **9** of **67**



Aeronautical Facility Technician Licensing

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.

2.11Personal 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: -
 - 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.

30 June 2019 Page **10** of **67**

Standard Document

Aeronautical Facility Technician Licensing

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, ratings, permits and other qualifications

- (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) <u>Provisional suspension</u>: 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) <u>Suspension</u>: 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.)
 - (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.

30 June 2019 Page **11** of **67**

Standard Document

Aeronautical Facility Technician Licensing

2.14 Stand-down of licensed technical personnel by provider of an air navigation engineering services (ANSP)

(a) Notwithstanding any action the Authority may take, an air navigation engineering services provider (ANSP) 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 ANSPS may 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 ANS provider shall inform the Authority [i.e. Air Navigation Services Inspector-CNS), Aerodrome Inspector-Electrical System Inspector (AI-ES) or Controller Ground Safety (CGS)] of its action with minimum delay.
- (c) The stand-down procedures are to safeguard-
 - (1) Air operations;
 - (2) ANS systems; and
 - (3) Personnel concerned.

(Rationale: The stand-down is a precautionary procedure of a safety and quality system.)

- (d) An ANS provider shall have in place appropriate procedures on the reinstatement of licensed ANS 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 ANS 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 ANS 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 ANS provider, the concurrence of the Controller Ground Safety and the requirements of paragraph (d) below.
- (e) Where there are deficiencies/shortcoming identified, an ANS 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 ANS 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 <u>deemed</u> 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

30 June 2019 Page **12** of **67**

Standard Document

Aeronautical Facility Technician Licensing

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.

2.16Signature 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) Training requirements for licensing is given in:
 - 1. ANR 53(Personnel Licensing),
 - 2. (ANR 145(B) Certification ATI
 - 3. SD-AFTL

Details of training requirements for each facility shall be documented and shall include the contents of

- (i) ICAO DOC 7192-AN/857 Part E-2; Air Traffic Safety Electronics Personnel (ATSEP) where applicable;
- (ii) ICAO Doc 9868 Procedures for Air Navigation Services Training, may be used.

The ICAO DOC 10057 AN/520 Manual on Air Traffic Safety Electronics Personnel Competency-based Training and Assessment should be used when the method of training employed uses the competency based training and assessment model

(d) Procedures for conducting competency assessments shall be established

2.18 Validation and revalidation criteria

An air navigation engineering 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)

30 June 2019 Page **13** of **67**



Aeronautical Facility Technician Licensing

subject to any conditions that the Authority may prescribe.

2.20Composition of the Rating Board

- (a) Representation on the Rating Board shall consist of a Regulatory representative and 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, is subject to the endorsement of the Authority.

2.21Convening 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.

30 June 2019 Page **14** of **67**



Aeronautical Facility Technician Licensing

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 with an English Language Proficiency Level 3 for the AFTL Trainee Permit; and
 - (2) Meet requirements prescribed by paragraphs 2.7; 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 using ICAO Doc 7192 AN/857 Part E2 Training Manual for Air Traffic Safety Electronics Personnel (ATSEP).:
 - (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 Appendix 9.1 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.

30 June 2019 Page **15** of **67**



Aeronautical Facility Technician Licensing

3.3 Privileges and limitations

- (a) 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
 - a. Regain currency of an aeronautical facility technician licence, rating, or validation.
- (b) Having successfully completed a CAAF approved systems facility/equipment training by the manufacturer or a holder of a AFTL Classroom Instructor Competency Certificate the trainee undergoes the OJT programme where the OJT instructor applies best practices in teaching techniques and coaching to increase the quality and efficiency of the OJT. The competencies are checked at defined points of the training by the examiner to compare with the final competency standard requirements detailed in the assessment plan. At the end of the 12-month period, the trainee is expected to achieve at least one AFTL rating. Renewal of the AFTL trainee permit is subjected to the approval of the Authority

30 June 2019 Page **16** of **67**



Aeronautical Facility Technician Licensing

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, found in
 - 1. ICAO Doc 7192 AN/857 Part E2 Training Manual for Air Traffic Safety Electronics Personnel (ATSEP),
 - 2. ICAO Doc 9868 Procedures for Air Navigation Services Training, where applicable

The ICAO Doc 10057 AN/520 Manual On-Air Traffic Safety Electronics Personnel Competency-based Training and Assessment should be used when the method of training employed uses the competency-based training and assessment model.

- (c) and to include: -
 - (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 approved examiner a level four of English 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:

30 June 2019 Page **17** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- (2) Licence/rating is 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.

30 June 2019 Page **18** of **67**



Aeronautical Facility Technician Licensing

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 technical support for air navigation services -
 - (i) In aeronautical telecommunication and/or
 - (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;
 - 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.

30 June 2019 Page **19** of **67**



Aeronautical Facility Technician Licensing

Chapter 6 – AFTL OJT Instructor Competency Certificate

6.1 Introduction

An AFTL OJT Instructors Certification is required for persons providing 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 2 years' experience exercising the rating privileges for the facility, providing assistance with 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

- (a) The holder of an Instructor's certification is authorised to -
 - (1) Instruct the Trainee personnel for OJT; and
 - (2) Directly supervise personnel undergoing on-the-job training, provided that the person holds a current rating for the relevant facility.
- (b) Subject to paragraph (c) below, to exercise the privileges of an AFTL OJT Instructors Competency Certificate the holder shall –
 - (1) Holds a current AFTL with a current rating and validation for the relevant facility; and
 - (2) Do so within an approved maintenance organisation approved by the Authority; and
 - (3) Assess for, and recommend the rating assessment and validations for the candidate-

Within the immediately preceding 12 months have demonstrated to the holder of an AFTL Examiner Competency 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.

30 June 2019 Page **20** of **67**

Aeronautical Facility Technician Licensing

Chapter 7 - AFTL Classroom Instructor Competency Certificate

7.1 Introduction

- (a) The AFTL Classroom Instructor Competency Certificate is required for persons instructing personnel on the theory of operation of a facility in a classroom and may conduct practical demonstrations instructions on the facility for candidates seeking a formal specialised equipment training before undergoing OJT and facility rating assessment.
- (b) In consideration of supplier/manufacturer training, prior to the training,
 - (i) the ANSP must apply to the Authority for the course approval and furnish the requirements stated in 7.3(d) and:
 - (ii) Provide the supplier/manufacturer instructor's credentials with the necessary qualifications on the subject and facility/equipment, and has conducted similar training as a classroom and OJT instructor.

7.2 Eligibility requirements

To be eligible an applicant shall have: -

- (1) An Aeronautical Facility Technician's Licence;
- (2) At least 8 years' experience exercising the rating privileges for the specific facility for which the AFTL Classroom Instructor Competency Certificate is sought.
- (3) At least 3 years as an approved examiner of the facility.
- (4) Satisfactorily completed a training course in the theory and practice of instruction, conducted by a certified training institution and/or successfully completed the trainers training by the facility manufacturer or supplier
- (5) Has been certified as "Level 6" proficient on the ICAO Language Proficiency scale
- (6) have successfully completed training and examinations in the relevant subjects, conducted by
 - (a) an organization responsible for the support of air traffic services and air navigation services approved by the Authority: or
 - (b) An aviation training organization approved by the Authority under regulation 145 B of the Air Navigation Regulations where the certificate authorizes the holder to conduct the training or the Authority.

7.3 Privileges and limitations

- (a) The holder of the AFTL Classroom Instructor Competency Certificate is authorised to -
- (1) Instruct personnel on the theory of operation of a facility in a classroom; and
- (2) Instruct practical demonstration of the facility for which he is licenced on
- (3) Directly supervise personnel undergoing on-the-job training, provided that the person holds a current rating for the relevant facility.
- (4) Assess for, and recommend the candidate to undergo the OJT program for the facility before the rating assessment for the issue of the AFT Licence.
- (b) Subject to paragraph (c) below, to exercise the privileges of an AFTL OJT Instructors Competency Certificate the holder shall
 - (1) Hold a current AFTL with a current rating and validation for the relevant facility; and
 - (2) Do so within an approved maintenance organisation approved by the Authority; and
 - (3) Assess for, and recommend the rating assessment and validations for the candidate-

30 June 2019 Page **21** of **67**

Standard Document

Aeronautical Facility Technician Licensing

Within the immediately preceding 12 months have demonstrated to the holder of an AFTL Examiner Competency 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.

- (c) Where the holder of an AFTL Classroom Instructor Competency Certificate is not exercising the privilege of providing support for the aeronautical facilities, the holder is not required to hold a current medical certificate.
- (d) The holder of the AFTL Classroom Instructor Competency Certificate is required to apply for the approval of the training courses and assessments for air navigation service training and assessment (Ref SD-ATI Subpart D and G) for licensed facilities. The course approval requirements include:
 - (1) Personnel to conduct trainer has the qualifications and experience, greater than the level of qualification being taught on the subject
 - (2) Facilities and Resources appropriate for the course
 - (3) Documented procedures for conducting the training
 - (4) Procedures to identify, obtain, store and maintain the necessary training and assessment records
 - (5) Training Plan (curriculum)-on the training objectives, scope, syllabus, contents and level of the training with clearly defined competencies for the role of participant as defined in the job description with established clear performance criteria for the task; and the training sequences to be conducted to achieve the training objectives;
 - i. The competency elements to be included in a training sequence;
 - ii. the order in which the sequences will be presented;
 - iii. the approximate time for each sequence;
 - iv. the briefings to be conducted;
 - v. the aeronautical knowledge training achieved before each sequence; and
 - (6) Quality of the Training to meet the standards of competency specified in the ICAO Doc 7192, Doc 10057 and Doc 9868
 - (7) Assessment Plan to detail how evidence of competence will be gathered (examinations, assessments, competencies, conditions, standards, what evidence, when and how)
- (e) Training records shall be retained and at the completion of the training, a copy is to be submitted to the Authority. These records shall include:
 - i. The student's training progress in accordance with the training plan.
 - ii. Attendance register
 - iii. Training timetable
 - iv. Training report by the training instructor
 - v. Training certificates

30 June 2019 Page **22** of **67**



Aeronautical Facility Technician Licensing

Chapter 8 - AFTL Examiner Competency Certificate

8.1 Applicability

This chapter prescribes minimum requirements governing –

- (a) the issue of AFTL Examiner Competency Certificates; and
- (b) The privileges and limitations of those competency certificates.

8.2 Eligibility requirements

- (1) To be eligible for an AFTL Examiner Competency Certificate a person shall
 - (a) hold a valid AFTL facility rating for which the examiner competency certificate is being sought; and
 - (b) have at least 5 years' experience exercising the privileges of that specific rating; and
 - (c) has been certified as "Level 6" proficient on the ICAO Language Proficiency scale; and
 - (d) have successfully completed training and examinations in the relevant subjects, conducted by
 - I. an organization responsible for the support of air traffic services and air navigation services approved by the Authority; or
 - II. An aviation training organization approved by the Authority under regulation 145 B of the Air Navigation Regulations where the certificate authorizes the holder to conduct the training.
 - III. The Authority.

A guideline on a Classroom Instructor and Examiner Training is provided in Appendix 9.5, Part 2(CBTA method) and Appendix 9.6, Part 2(Traditional method)

It is acceptable that the examination is set and marked by the ANR 145 (B) organization, and moderated by CAAF's testing officer. In these circumstances, CAAF shall be provided with the candidate's course report and marked examination papers and the model answers, and

(e) have demonstrated (in accordance with requirements as stated in this Standard Document), to the
Authority's testing officer, the ability to perform the duties of an AFTL examiner;
 [A practical examination using the Procedures for AFTL and the Performance Assessment guide in Appendix
9.10 of this document meets this criterion.]

[The test environment is required to be acceptable to the Authority's testing officer]; and

- f) Have demonstrated to a CAAF approved Interview Panel, mastery of knowledge required for the execution of the duties of an aeronautical facility technician licence Examiner.
- (2) Under special circumstances, the Authority may issue an AFTL 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 8.3 under the Authority, is deemed to meet the eligibility requirements of paragraph (1) above.

30 June 2019 Page **23** of **67**

Standard Document

Aeronautical Facility Technician Licensing

8.3 Privileges and limitations

- (1) Notwithstanding paragraph 8.2, a holder of an AFTL Examiner Competency Certificate is authorized to -
 - (a) conduct written, oral, and practical tests for the issue or continued currency of aeronautical facility technician licence; and
 - (b) Conduct written, oral, and practical tests for the issue or continued currency of AFTL Instructor Competency Certificate.
 - (c) Conduct oral and practice tests for the issue of Language Proficiency Certificates to other Air Navigation Service staff, on behalf of the Authority.
- (2) Subject to paragraph (c), to exercise the privileges of an approved aeronautical facility technician licence examiner competency certificate, the holder shall
 - (a) hold a current aeronautical facility technician licence with a rating for the relevant service; and
 - (b) conduct the examining within -
 - (i) An air navigation service provider approved by the Authority; or
 - (ii) An aviation training organization approved by the Authority; and
 - (c) Within the immediately preceding 12 months, have demonstrated to the Authority testing officer the ability to perform the duties of an aeronautical facility technician examiner.
- (3) Individual examiner ratings will be limited to certain privileges depending on the specific ratings type held, and the level of operational awareness as determined by the Authority.
- (4) Validity of the AFTL Examiner Competency Certificate shall be 1 year from the date of assessment by the Authority's testing officer.

30 June 2019 Page **24** of **67**



Aeronautical Facility Technician Licensing

Intentionally Blank

30 June 2019 Page **25** of **67**



Aeronautical Facility Technician Licensing

Chapter 9 - APPENDICES

Appendix 9.1: Language Proficiency

- (a) <u>Aeronautical Facility Technician Licence Holders -</u> The minimum language proficiency to be achieved by qualified personnel for the provision of air navigation services should be **Operational Level 4**
- (b) 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 <u>evaluated at least once every 6 years;</u> and
 - (iii) Formal evaluation is not required for those demonstrating English language proficiency level at the Expert Level (level 6).
- (c) The evaluation of English language proficiency may be conducted during the proficiency assessment of the AFTL holders.
- (d) <u>AFTL Trainee Permit Holders: -</u> 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**
- (e) <u>AFTL Classroom Instructor Competency Certificate Holders</u> The minimum language proficiency to be achieved by qualified personnel for the provision of air navigation services should be **Operational Level 6**.
- (f) <u>AFTL Examiner Competency Certificate Holders -</u> The minimum language proficiency to be achieved by qualified personnel for the provision of air navigation services should be **Operational Level 6.**
- (g) <u>Technical personnel operating within the Airside at Controlled Aerodromes</u>: 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 shall be holders of the Aeronautical Station Officers Licence and required to have English Language Proficiency Level of **Operational Level 4.**
- (h) Requirements for Proficiency In Languages Used For Radiotelephony Communications

(1) General

- (i) 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
- (ii) 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.

(2) 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;

30 June 2019 Page **26** of **67**



Aeronautical Facility Technician Licensing

- (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.

(I) Language Proficiency Rating Scale

(1) Expert, Extended and Operational Levels

TEVEL	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
Expert 6	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.

30 June 2019 Page **27** of **67**



Aeronautical Facility Technician Licensing

Operational 4	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 communicatio n. 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 ever when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking confirming, or clarifying.
---------------	---	---	--	--	--	---

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).

30 June 2019 Page **28** of **67**



Aeronautical Facility Technician Licensing

TEVEL	PRONUNCIATION Assumes a dialect and/ or accent intelligible to the aeronautical community.	STRUCTURE Relevant grammatical structures and sentence patterns are determined by language	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Pre-operational 3	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	appropriate to the task. Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	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.	Produces stretches of language, but phrasing and pausing are often inappropri ate. Hesitation s or slowness in language processin g may prevent effective communic ation. Fillers are sometime s distracting .	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.	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.
Elementary 2	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually 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, memorize d utterances with frequent pausing and a distracting use of fillers to search for expressio ns 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.
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.

(2) Pre- operational, Elementary and Pre- elementary Levels

30 June 2019 Page **29** of **67**



Aeronautical Facility Technician Licensing

Intentionally Blank

30 June 2019 Page **30** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.2: <u>Licensing and rating application form</u> – (For Aeronautical Telecommunications)

GS 400 -AERONAUTICAL FACILITY TECHNICIAN'S LICENCE - APPLICATION & RENEWAL FORM

Complete application form (2 pages) and -

(a) DME certification on ability to perceive correctly red, green, white colours and no mobility disability, hearing or speech defect that interfere with safety of duties.

Attach Passport

size Photograph of applicant (signed at back of photo) .

(b) <u>Initial issue of licence/rating</u> – Evidence that required training has been satisfactorily completed meeting Standards Document-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 APPLICA	ANT	Tick applicable	le box below 🗹	* Delete as applicable	
First Name	Middle		e Name	Sumame	
			1		
Address:			1	lidation or Rating Competency Re	sults
			Marks:	. %	
Phone No. Work: F	Resident	t:	Pass/Fail *		
Nationality	Male	Date of Examination: e* / Female*		nination:	
Birth Date			Employer:		
LICENCE APPLIED FOR	New	☐ Renewa	al* / Replacemen	nt" Licence No:	
Aeronautical Facility Technician's	Licence	(AFTL)	☐ Aeronautica	al Facility Technician Trainee Permit	
Aeronautical Station Operator Lic Airside Ops", Test Transceivers"			(Complete o	details required on Ratings over the p	page)
The information solicited herein	is requ	ired pursua	nt to Air Naviga	tion Regulations 53, which pro	vide for a
fit and proper person test to be s	atisfied	d.			
(a) Have you previously had an application for an aviation document rejected or have you been the holder of an aviation document that has been suspended or revoked (other than a licence that has been superseded by a replacement)? If "yes", please give details: □ Yes □ No					
(b) Have you being subjected to a "stand-down" from solo technical duties. If "Yes", please give details: -				☐ Yes ☐ No	
				☐ Yes¹ ☐ No	
(d) Have you been convicted in any court on any criminal charge or are you presently facing charges for any criminal offence?			☐ Yes¹ ☐ No		
(e) Have you any history of physical or mental health or serious behavioral problems?				☐ Yes¹ ☐ No	
If answering "Yes" to question c), d) or e) above, please provide details on separate sheets enclosed in a sealed envelopment of the confidential of the confidential of the confidence applied for. If answering "Yes" to question c), d) or e) above, please provide details on separate sheets enclosed in a sealed envelopment of the confidential of the confid					

30 June 2019 Page **31** of **67**



Aeronautical Facility Technician Licensing

	This Part to be completed if an Aeronautical Station Operator's Licence is being applied for airside operations or testing of radio transceivers. (Applicant must be meet ASOL requirements as per SD-ATSPL)								
1.	1. Do you have any physical disability that handicaps you from operating radio transceiver equipment?								
2.	Do you have	any hearing defe	t? 🗆 Yes	. □ No		Do you w	ear a hearing aid?		Yes 🗆 No
3.	Do you wear	corrective lenses	☐ Yes	□ No					
4.	Are you able	to correctly identi	fy red and greer	light signals	emit	ted from a s	signal lamp at a distan	ce?	Yes 🛮 No
5.	5. Are you familiar with the surface movement & safety procedures applicable for the airport?								
6.	Are you famil	iar with standard	RTF procedures	, phraseolog	ies ar	nd the phon	etic alphabet/number?	· □	Yes 🗆 No
Ra	Ratings Applied for Navigation Aids Air Traffic Services Additional Ratings								
Equ	ipment:	Model	Site	Date Assessed	Equ	ipment:	Model	Site	Date Assessed
	ILS	J.		Assessed		HF			Assessed
	VOR					VHF			
	DME					ATIS			
	NDB					AFTN			
	vccs					ADS			
	MUX					CPDLC			
	MCVR					AIDC			
	ERA-ADS-B					DVL			
	SECURITY								
		ted qualification				lit/Lead Au		d Examine	
	OJT Instructor (Specify)	Specify facility)							
I ce info atta Aut	Declaration 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 Authority.								
Арр	olicant's Signat	ture:					<u>Date</u> :/_		-
BE	LOW IS FOR	OFFICIAL USE	ONLY						
	Fees	Receipt No.	Receipt Date			Results	Fit & Proper	Lic	cence No:
App	olication receiv	ed and checked:		Y/N	I/C (Cd	onditional)	Y/N/C (Licensing Office	r Signature	e/Date)
End	lorsing Inspect	orate Officer:							
App	proving Officer							(Sig	gnature/Date)
								(Sig	gnature/Date)

30 June 2019 Page **32** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.3: Licensing and Rating Application Form – (For E&M Personnel) GS 401(For electrical and mechanical services personnel)

Complete application form (2 pages) and

- (a) DME certification on ability to perceive correctly red, green, white colours and no mobility disability, hearing or speech defect that interfere with safety of duties.
- (b) <u>Initial issue of licence/rating</u> 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	(Tick applicable (*Delete as applic		ox 🗹 below)			2cmx2.5cm
First Name	Mi	ddle N	lame		Surname	
Address:		М	ence Re-Validation	-		
Phone No:(Res.)	(VVk)	-	ass/Fail * ate of Examination:			
Country of Birth:						
Date of Birth (d/m/y)://		Em	ployer's Name:			
LICENCE APPLIED FOR -		RA	TINGS APPLIED	FOR -		
■ Aeronautical Facility Technician's Licen	ice (AFTL)	0	PAPI	□ AF	PP LTS	
		0	Other Visual Aids			
■ Aeronautical Facility Technician Traine	e Permit	0	Standby Generato	r/Control Syste	em	
Aeronautical Station Operator Licent Airside Ops	ce (ASOL) for	0	Aerobridge			
■ New Licence ■ Renewal / Rep	lacement of Lice	nce N	lo:			
Equipment model if applied for following: -	PAPI:					
Standby Generator Plant/Control System:		_				
State qualifications and provide evidence if ne High Voltage Certificate		_	Wire-man Licence Others (specify):	☐ Ring I	Mains	
The information solicited herein is req a fit and proper person test to be satis		t to	Air Navigation Re	egulations 5	3, which	provide for
(a) Have you previously had an application for holder of an aviation document that has has been superseded by a replacement)? If "yes", please give details: -					□Yes	□No
(b) Have you being subjected to a "stand-dow If "Yes", please give details: -	n" from solo tech	nical	duties?		□Yes	□No

30 June 2019 Page **33** of **67**



Aeronautical Facility Technician Licensing

(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)?						
	(d) Have you been convicted in any court on any criminal charge or are you presently facing charges \(\sigma^* \subseteq \No\) for any criminal offence?					
(e) Have you any history of physical or mental health or serious behavioral problems? □ Yes** □ No						
			ease provide details on sep ivil Aviation Authority of Fiji			
	This Part to be completed if an Aeronautical Station Operator's Licence is being applied for airside operations. (Applicant must meet ASOL requirements as per SD-ATSPL)					
Do you have	ve any physical disal	cility that handicaps	you from operating radio to	ransceiver equipment	!? □Yes □No	
2. Do you hav	ve any hearing defec	t? □Yes [I No; Do you w	ear a hearing aid?	□Yes □No	
3. Do you we	ar corrective lenses	□ Yes 【	1 No			
4. Are you ab	le to correctly identif	y red and green lig	ht signals emitted from a sig	gnal lamp at a distand	e? 🛮 Yes 🗖 No	
5. Are you far	miliar with the surfac	e movement & safe	ty procedures applicable fo	r the airport?	□Yes □No	
6. Are you far	miliar with standard i	RTF procedures, ph	raseologies and the phone	tic alphabet/number?	Yes No	
I certify that the and that the concerning me authorise such out as lawfully I consent to the	Declaration 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 Authority. Applicant's Signature:					
BELOW IS FO	OR OFFICIAL USE	ONLY				
Fees	Receipt No.	Receipt Date	Medical Results Y/N/Conditional	Fit & Proper Y/N/C	Licence No:	
Charlesd by Licensins Officer (Cicentum (Date)						
	Checked by Licensing Officer: / (Signature/Date)					
Endorsed by: (Signature/Date) Approved by: (Signature/Date)						

30 June 2019 Page **34** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.4: Medical Testing

This appendix contains the ICAO Medical Standards as adopted by Fiji for licences, permits and other approvals outside those recognised by ICAO.

An applicant for any class of Medical Certificate must be free from:

- (i) Any abnormality, congenital or acquired; or
- (ii) Any active, latent, acute or chronic disability; or
- (iii) Any wound, injury or sequelae from operation; or
- (iv) Any effect or side-effect of any prescribed or non- prescribed therapeutic, diagnostic or preventative medication taken:

Such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of functions and duties.

NOTE: Use of herbal medication and alternative treatment modalities requires particular attention to possible side-effects.

- 1.1 General visual acuity test requirements (a) the varying methods that can be used for the measurement of visual acuity could well to lead to differing evaluations. To achieve uniformity, therefore, equivalence in the methods of evaluation is to be obtained by adoption of the following tests of visual acuity:
 - (i) Visual acuity tests conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60 cd/m2).
 - (ii) Visual acuity measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.
- 1.2 General colour perception requirements (a) The Authority has established the following standards for the use of methods of examination as will ensure reliable testing of colour perception:
 - (i) The applicant must demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.
 - (ii) In the case of the Class 4 Medical Standard the applicant must be assessed against the full spectrum of colours, not just those used in aviation lights. Modern equipment uses display screens with images of a variety of colours and its components include wires and other material of a variety of colours. The ability to be able to correctly identify the colour of a display item or an electrical wire or other component is necessary to ensure an adequate level of aviation safety.
 - (ii) The applicant must correctly identify a series of pseudoisochromatic plates in day-light or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE).
- (b) An applicant failing to obtain a satisfactory result in such a test must be assessed as unfit unless able to readily distinguish the colours used in air navigation, including the servicing of equipment necessary for ensuring the safety of aircraft operations and, when relevant, correctly identify aviation coloured lights and equipment. Applicants who fail to meet these criteria must be assessed as unfit except for Class 2 assessment which may be assessed as fit with the following licence condition endorsed "valid daytime only".

NOTE: Guidance on suitable methods of assessing colour vision is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). ICAO recommends that sunglasses worn during the exercise of the privileges of the licence, permit or rating held should be non-polarizing and of a neutral grey tint.

30 June 2019 Page **35** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- 1.3 General hearing test requirements (a) the following standards have been established for the use of methods of examination as will ensure reliable testing of hearing:
 - (i) Applicants must demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.
 - (ii) Applicants for Class 1 Medical Certificate will be tested by pure-tone audiometry, using calibrated audiometry equipment or other methods providing equivalent results, at first issue of the Assessment, not less than once every five years up to the age of 40 years, and thereafter not less than once every two years.
 - (iii) Applicants for Class 2 Medical Certificate will be tested by pure-tone audiometry using calibrated audiometry equipment, at first issue of the Assessment and, after the age of 50 years, not less than once every two years. Alternatively, other methods providing equivalent results may be used.
 - (iv) Applicants for Class 3 Medical Certificate will be tested by pure-tone audiometry using calibrated audiometry equipment, at first issue of the Assessment, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years. Alternatively, other methods providing equivalent results may be used.
 - (iv) Applicants for Class 4 Medical Certificate will be tested by pure-tone audiometry using calibrated audiometry equipment, at first issue of the Assessment, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years. Alternatively, other methods providing equivalent results may be used.
- (b) At medical examinations, other than those mentioned in (a)(ii), (iii) and (iv) above, where audiometry is not performed, applicants must be tested in a quiet room by whispered and spoken voice test NOTE: The reference zero for calibration of pure-tone audiometers is that of the pertinent Standards of the current edition of the Audiometric Test Methods, published by the International Organization for Standardization (ISO).

NOTE: For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB (A).

NOTE: For the purposes of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1m from the point of output (lower lip of the speaker) is c. 60 dB (A) and that of a whispered voice c. 45 dB (A). At 2m from the speaker, the sound level is 6 dB (A) lower.

NOTE: Guidance on assessment of applicants who use hearing aids is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).

NOTE: Attention is called to requirements for applicants for or holders of a private pilot licence to meet Class 1 audio requirements if they also hold or are applying for an instrument rating

Fiji Class 4 Medical Assessment

1.0 Class 4 Visual requirements

The medical examination will be based on the following requirements.

- 1.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.
- 1.2 Distant visual acuity with or without correction must be 6/9 or better in each eye separately, and binocular visual acuity must be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

30 June 2019 Page **36** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- a) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
- b) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

NOTE: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

- 1.2.1 Applicants may use contact lenses to meet this requirement provided that:
 - a) The lenses are monofocal and non-tinted;
 - b) The lenses are well tolerated; and
 - c) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

NOTE: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

1.2.2 Applicants with a large refractive error must use contact lenses or high-index spectacle lenses.

NOTE: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

- 1.2.3 Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 will be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years
- NOTE: The purpose of the required ophthalmic examination is (1) to ascertain normal vision performance, and (2) to identify any significant pathology.
- NOTE: Guidance on the assessment of monocular applicants under the provisions contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).
 - 1.3 Applicants who have undergone surgery affecting the refractive status of the eye will be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
 - 1.4 The applicant must have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with 1.2; if no such correction is prescribed, a pair of spectacles for near use must be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant must demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

NOTE: N5 and N14 refer to the size of typeface used. For further details, see the ICAO Manual of Civil Aviation Medicine (Doc 8984).

NOTE: An applicant who needs near correction to meet the requirement will require "look-over", bifocal or multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain working conditions. However, it should be realized that single-vision near correction significantly reduces distant visual acuity.

30 June 2019 Page **37** of **67**

Standard Document

Aeronautical Facility Technician Licensing

NOTE: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform.

- 1.4.1 When near correction is required in accordance with this paragraph, a second pair of near- correction spectacles must be kept available for immediate use.
- 1.5 The applicant must have normal fields of vision.
- 1.6 The applicant must have normal binocular function.
- 1.6.1 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.0 Class 4 Hearing requirements

- 2.1 The applicant, when tested on a pure-tone audiometer must not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1,000 or 2,000 Hz, or more than 50 dB at 3,000 Hz.
- 2.1.1 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 their typical working environment.
- NOTE: The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.
- NOTE: In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.
- 2.1.2 Alternatively, a practical hearing test conducted in a normal working environment representative of the one for which the applicant's licence and ratings are valid may be used.
- 3.0 Period of Validity of Medical Assessments
- 3.1 Maximum period of medical assessment validity
- 3.1.1 The table below sets out the maximum periods of validity in months of various forms of approval.

Licence, Permit or Rating	Medical Assessment	Period of Validity of Medical Assessment (months)		
	Class	Under 40 years of age	Over 40 years of age	Over 60 years of age
Aeronautical Facility Technician Licence	4	48	24	12

3.2 Reduction of Maximum Validity Period

- 3.2.1 Where an Approved Medical Authority has doubt about the fitness of the applicant or an aspect of fitness during the medical assessment, the Approved Medical Authority will refer the results of the assessment to the Authority for review by the Authority's Medical Board of Assessors.
- NOTE: Where there is doubt about the fitness of the applicant, the detachable medical slip will not be provided to the applicant.

30 June 2019 Page **38** of **67**

Standard Document

Aeronautical Facility Technician Licensing

3.2.2 Reduction of period of validity of a medical assessment may be imposed by the Authority's Medical Assessor when clinically indicated.

3.3 Decrease in medical fitness

- 3.3.1 Licence, permit or rating holders must not exercise the privileges of their licence, permit or related ratings at any time when they are aware of any decrease in their medical fitness that might render them unable to safely exercise those privileges. Furthermore, the holder and the operator must without undue delay seek the advice of the Authority or its designated representative, or Approved Medical Authority when becoming aware of:
 - (i) Hospital admission for more than 12 hours; or
 - (ii) Surgical operation or invasive procedure; or
 - (iii) The regular use of medication; or
 - (iv) The regular use of correcting lenses.
- 3.3.2 Every holder of a Medical Certificate issued in accordance with Air Navigation Regulations (1981) and this Standards Document who:
 - (i) suffers any significant personal injury involving incapacity to undertake the privileges and functions authorised by the licence and rating; or
 - (ii) Suffers any illness involving incapacity to undertake those privileges and functions throughout a period of 20 days or more;

Must inform the Authority in writing of such injury or, in the case of illness, as soon as the period of 20 days has elapsed. The Medical Certificate will be deemed to be suspended upon the occurrence of such period of illness and in the case of injury or illness the suspension will not be lifted until the holder has been medically examined and pronounced fit to resume the privileges and functions of their licence, permit or ratings or upon the Authority exempting, subject to such conditions as it thinks fit, the holder from the requirement of a medical examination.

3.3 Additional medical examination

3.3.1 Where the Authority has reasonable doubt about the continuing fitness of the holder of a medical assessment, the Authority may require the holder to submit to further examination, investigation or tests. The reports will be forwarded to the Authority for review by the medical board of assessors.

3.4 Licence Holders aged 60 years or more

- 3.4.1 The holder of a pilot licence who has attained the age between 60 and 65 years must not act as pilot in command of an aircraft engaged in international commercial air transport operations except as a member of a multi-pilot crew and provided that there is another flight crew member who has not attained age 60.
- 3.4.2 The holder of a pilot licence who has attained the age of 65 years and over can only act as a co-pilot of an aircraft engaged in international commercial air transport operations provided the pilot in command has not attained age 60

4.0 Use of medication and or drugs

(a) The use of any prescription or non-prescription medication or drug, including those used for the treatment of a disease or disorder, will be considered disqualifying unless the drug has been demonstrated, to the satisfaction of the Authority, to be generally compatible with the safe exercise of the privileges of the licence, permit or rating and the individual has developed no significant side effects after an adequate period of observation.

30 June 2019 Page **39** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- (b) All procedures requiring the use of a general or spinal anaesthetic will be disqualifying for at least 7 days.
- (c) All procedures requiring local or regional anaesthetic will be disqualifying for at least 48 hours.

4.1 Use of psychoactive substances

- 4.1.1 Holders of licences must not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance (including kava) which might render them unable to safely and properly exercise these privileges.
- 4.1.2 Holders of licences must not engage in any problematic use of substances.
- 4.1.3 All licence holders who engage in any kind of problematic use of substances will be 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 jeopardise safety.
- 4.1.4. Applicants for medical assessments must undergo blood and urine tests for the purpose of identifying problematic use of substances at intervals as determined by the Approved Medical Authority.

(ICAO Doc 9654) is the basis for 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.

5.0 Additional or Supplementary Medical Information

5.1 Visual Correction Required

5.1.1 When the applicant or holder requires visual correction in order to meet the visual standard, the following will be endorsed onto the medical certificate: "Correcting lenses when worn for aviation purposes shall permit the licence or permit holder to meet the visual requirements at all distances. No more than one pair of spectacles shall be used to meet the requirements. A spare set of similarly correcting spectacles shall be readily available when the licence or permit holder is exercising the privileges of the licence or permit"

5.2 **Special Examinations**

- 5.2.1 Special examinations may be required from time to time at the discretion of the Approved Medical Authority or Authority's Medical Assessor. These examinations may include but are not limited to:
 - Chest x-ray
 - Electroencephalogram
 - Haemoglobin
 - Electrocardiogram
 - Audiogram
 - Extended otorhino-laryngological examination
 - Extended ophthalmological examination
 - Lipid profile
 - Pulmonary function tests

30 June 2019 Page **40** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- Urinalysis
- Colour vision
- Treadmill
- · Any other examination as required by the Authority
- 5.2.2 When a special examination is required, the requirement is endorsed on the Medical Certificate issued by the Authority.

5.3 Accredited Medical Conclusion

5.3.1 An Accredited Medical Conclusion is a conclusion reached by the Authority's Medical Board of Assessors and selected expert(s), who are acceptable to the Authority to consider the case of a particular applicant. The purpose of the Accredited Medical Conclusion is to determine whether, despite not meeting the medical standards, the applicant's condition is such that it is not likely to jeopardise aviation safety. —

5.4 Medical Board of Assessors

- 5.4.1 The Authority may appoint a Medical Board of Assessors to review or make assessments on cases that are unable to be satisfactorily resolved by an individual Approved Medical Authority or for circumstances as determined by the Authority including accredited medical conclusions.
- 5.4.2 The Medical Board of Assessors will include the medical assessor and two or more Approved Medical Authority on the Medical Board of Assessors acting on behalf of the Authority in all aspects of the Authority's responsibilities as specified in this document. It is desirable that at least one Board member has specialist experience in the area under consideration. The board will include an observer from the appropriate CAAF Department.
- 5.4.3 The chairperson for the Medical Board of Assessors will be appointed by the Authority.

30 June 2019 Page **41** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.5 AFTL classroom instructor & examiner training - (CBTA)

This is a guideline on a competency based and assessment training syllabus used for AFTL Classroom instructor and examiner, and adopted from the following ICAO Docs

- ICAO Doc 10057 AN/520 Manual on Air Traffic Safety Electronics Personnel Competency-based Training and Assessment
- 2. ICAO Doc 9868 PANS Training Second Edition, 2016

The competency-based training and assessment programme is recommended to be used.

The Transition from the traditional to the competency-based training programme, is to use the existing training programme (ab initio or equivalent) as a reference and then progressively implement the new competency-based training programme for ATSEP model, using the Manual on Competency- based Training of Air Traffic Safety Electronics Personnel (Doc 10057).

30 June 2019 Page **42** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.6 – <u>Training Syllabus for Classroom Instructor and</u> Examiner-(Traditional Method)

The training syllabus based on the requirements of the Standards Document SD-AFTL and ICAO Docs

1. ICAO Doc 7192 - AN/857 Part E2 - Training Manual for Air Traffic Safety Electronics Personnel (ATSEP),

There are two parts:

Part 1 – AFTL Classroom Instructor competency course syllabus (traditional model)

Part 2 – AFTL Examiner course syllabus (traditional model)

Part 1: AFTL Classroom Instructor competency course syllabus (Traditional Method)

Note: As a Pre-requisite to the AFTL Examiner course, the candidate must have completed and passed the AFTL Instructor (OJTI) course.

TOPIC	EXAMPLES	REMARKS
LEARNING THEORY		
How is the human brain Involved in learning?	Cogitation and problem solving Cortex, Reaction and Automatic Responses Limbus	
How is it applied in Learning?	Theory of multiple learning styles	
How can an instructor exploit the 7 intelligence's" or learning" Styles	Logical/Sequential/Mathematic Al Linguistic/Verbal Visual/Spatial Physical Kinaesthetic/Physical Musical/Audio Interpersonal/Social Skills Intrapersonal/Self-Management	
What characterizes an Adult learner?		
How they are best Motivated?		
What makes a good instructor	Lesson prepared Learning outcome provided Provide a motivator Keep trainee engaged Teach to learning style etc.	
Lesson prepared Learning outcome provided Provide a motivator Keep trainee engaged Teach to learning style etc.		
STRESS ANDLEARNING		
How does the mind work	Effects of stress on recall and	

30 June 2019 Page **43** of **67**



Aeronautical Facility Technician Licensing

	1	
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?		
AFTL TRAINING		
PROCESSES		
What is the role of a Training Plan, and What information and guidance does it contain for the instructor?	Ensures training policy and Objectives are effectively applied and achieved Defines responsibilities Planning and conduct of training Standard criterion based framework Best practice Function Process template control Process Curriculum development etc.	
What are the responsibilities of: 1. The Standards and Academy Managers 2. The Instructor (CAA) 3. The Instructor (OJTI) 4. The Examiner 5. CAAF What are the stages and phases currently used in the ANR 145(B) organization to describe the training process and what is their rationale?	Specific responsibilities of positions/organisations, and How they relate to other positions/organisations in terms of support, accountability etc.	
	Phases of OJT training	
What is the purpose of an Individual Training Plan, and How is it constructed?	Record of recognized prior learning, Preferred learning style Training checklist from the course syllabus, Training roster Learning priorities etc.	
How are curriculum and Syllabus documents constructed and followed?	Curriculum, and syllabus development/design Determining pre-requisites Constructing elements of	

30 June 2019 Page **44** of **67**



Aeronautical Facility Technician Licensing

	competence Determining performance criteria Deriving the syllabus from the curriculum	
What is the Assessment process followed by the ANR 145 (B) organisation?	Types of evidence required to determine if someone has met the performance criteria Assessment activities Nature of the assessment	
What is the Moderation process followed by the ANR 145(B) organisation?	Scrutiny by an objective third Party	
What is the Feedback process followed by the ANR 145(B) organisation?	Feedback during the design preparation and delivery phases of training	
What is the Intervention process followed by the ANR 145(B) organisation?	Mechanism for dealing with training problems	
What support for the new trainee, peripheral to the actual on-job training, can the instructor normally be expected to provide?		
INSTRUCTIONAL		
TECHNIQUES		
What is the ANR 145(B) organisation's Learning Model?	Teacher Learner Learning environment— Lesson Self access Delivery style Maximal control Minimal control	
How should a one-on-one On-the-Job "lesson" be constructed?		
How should a series of On- the-Job 1essons be Constructed to meet the learning needs and styles of a trainee?		
What makes a lesson (whether on position or during a debrief) effective?		
What training strategies can be applied in the opportunistic, variable and sometimes unpredictable ANS training environment so that progress can be planned, made and measured?	Individual training plan Training expectations graph Record of training chart etc.	
What intervention strategies are Appropriate?	Typical problem area Likely intervention agent Likely or required process	
	Discretionary and mandatory Intervention	
What training tools can be Utilised in ANS training?		
How should pre-session briefings and post-session riefings are implemented?	Communicating with the trainee e.g. providing appropriate feedback,	

30 June 2019 Page **45** of **67**



Aeronautical Facility Technician Licensing

	Listening.	
ASSESSMENT AND REPORTING		
What is assessment and How can it be carried out so as to be fair, consistent and reliable?	Application Method of use Error system— Critical Major Minor Affective factors Knowledge testing Practical testing Assessment criteria	
What makes a good test, whether written, oral or Practical?		
What training Documentation is Employed by the AN 145(B) organisation, and What responsibilities does the instructor have with regard to its consultation or completion?	Use of— Standard forms Training reports Assessment Reports	
How can training progress and achievement be properly described?	Training reports	

Part 2 – <u>AFTL Examiner course (Traditional Method)</u>

TOPIC	EXAMPLES	REMARKS
ASSESSMENT & MODERATION		
The purpose of an Assessment	Measure ability to perform the job to a specified level Test of knowledge and/or skills	
Assessment principles	Validity Adequacy Reliability Efficiency Feedback	
Validity	Must be valid in that it assesses what it sets out to assess and only what it sets out to assess	
Adequacy/Sufficiency of evidence	Evidence gained must be adequate to prove the candidate meets the performance criteria	
Must produce the same results on different occasions with		
different assessors		
Avoiding unnecessary duplication and length		
Equal opportunity		
Results should be made promptly and provide the		

30 June 2019 Page **46** of **67**



Aeronautical Facility Technician Licensing

candidate with an accurate Report	
To assess knowledge/skills of rules/procedures Assessment Strategy	
Purpose Advantages Disadvantages	
Purpose Advantages	
Disadvantages	
Purpose Advantages Disadvantages	
Number of observations Length Allowable variances	
Keeping the assessment current, fair, valid and objective	
Relevant to syllabus Test environment Questioning techniques	
Test environment Knowledge of what is being assessed Performance criteria	
Administration	
How stress can affect performance Ways to minimize and reduce stress	
Logbooks Assessments forms Training reports CAAF application forms	
Two years' experience	
Instruct Assess	

30 June 2019 Page **47** of **67**



Aeronautical Facility Technician Licensing

Managing the assessment process	T	
	Issue ratings Assessment strategy Requirements Clarity Costs and safety benefits Relationship to the assessment process Applicability to the work area of Safety & Quality assurance procedures - review	
Designing assessment activities	Designing activities for the collection of evidence performance - Observation Simulations Skills tests Examination of products Attestation Number of observations Length	
Moderating assessments	Allowable variances Judgment statements Feedback Reviews Type of moderation Verification of assessment Consistency of assessment Administration	
TOPIC	EXAMPLES	REMARKS
Assessment process		
Aviation Law and Procedures	ANR ANR 145 (A) (B) certificated organisation's training procedures and operational procedures	
Qualities of a good examiner	Calm Patient Consistent Qualified Empathetic Objective Fair Good Communicator Observant Sound Judgment etc	

30 June 2019 Page **48** of **67**



Aeronautical Facility Technician Licensing

What are the eligibility requirements for Examiners?	Five years' experience	
What is an AFTL Examiner Responsible for?	Testing for the issue of certificates and Ratings	

30 June 2019 Page **49** of **67**



Standard DocumentAeronautical Facility Technician Licensing

Appendix 9.7: <u>AFTL Examiner Testing –(CBTA)</u>

Reserved

30 June 2019 Page **50** of **67**

Aeronautical Facility Technician Licensing

Appendix 9.8: AFTL Examiner Testing (Traditional)-

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 AFTL 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.

30 June 2019 Page **51** of **67**



Aeronautical Facility Technician Licensing

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:

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 ANS 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.

30 June 2019 Page **52** of **67**



Aeronautical Facility Technician Licensing

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 a 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 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 are indicated by a tendency to rate all individuals at the high end of the scale and is 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'.

30 June 2019 Page **53** of **67**



Aeronautical Facility Technician Licensing

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 "AFTL Examiners Competency Certificate – Assessment Guide" specify the areas in which knowledge and skill must be demonstrated by the candidate before an AFTL Examiner Competency Certificate is issued/renewed.

Acceptable/unacceptable knowledge/skill of performance criteria is described in the Assessment Guide (Appendix 9.8).

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.

30 June 2019 Page **54** of **67**

Standard Document

Aeronautical Facility Technician Licensing

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 AFTL 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 9.7 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 AFTL Examiner Competency Certificate will normally be allowed access to all documentation that would normally be used as reference material during an assessment.

Performance	Grade/Percentage equivalent
Demonstrate a Mastery Knowledge	Equates to a thorough understanding as determined by the assessor with, if applicable, an agreed minimum pass mark of between 95% and 100%
Demonstrate a Good Working Knowledge	Equates to a minimum pass mark of 80%

Practical assessment process

To ensure that the assessment is effective the testing officer must:

- a) Ensure the environment is as close as possible to the real life work situation.
- b) Focus on the assessment task.
- c) Establish a non-threatening and supportive atmosphere.
- d) Communicate clearly to the candidate.
- e) Listen effectively.
- f) Question effectively.
- g) Provide clear and constructive feedback.
- h) Assess consistently.

Skills are assessed by:

- a) Direct observation of practical task
- b) Direct observation of simulated task
- c) Indirect evidence of competence
- d) 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:

- a) What is to be assessed
- b) How it will be done
- c) Who will do the assessment

30 June 2019 Page **55** of **67**

Standard Document

Aeronautical Facility Technician Licensing

- d) How long it will take
- e) When it will take place
- f) When the results will be known
- g) What will happen if any part of the assessment is assessed to be not competent
- h) 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

Test documentation

Where appropriate, the following documentation will be completed for an examiner test-: Prior to the assessment:

GS400 form – AFTL Personnel Licensing Application filled by the applicant and submitted to the Authority After the assessment:

AFTL Examiner Competency Certificate - Performance Assessment form

AFTL Examiner Competency Certificate – Endorsement form

AFTL Licence/Competency Certificate Checklist

30 June 2019 Page **56** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.9: AFTL Examiner Competency Certificate – Performance Assessment

Assessment Guide

Candidate Name:	Position:	
Examiner:	Location:	
Assessment Date:	Duration of Observation:	
The overall objective, and the degree of Examiners will act in the overall interest of	testing, is to provide adequate confidence, to the CEO of safety when conducting their duties.	CAAF that AFTL
Examiner Comments		
Examiner Signature:	Licence Number:	
Candidate Comments:		
Candidate Signature:		
The candidate may have access to appropriate Use only:	e reference material during this assessment.	
	ucted by the ANR 145 B organization and moderated by CA	AAF) Part

30 June 2019 Page **57** of **67**



Aeronautical Facility Technician Licensing

PART A

Competence: A general knowledge of the principles of Assessment and Moderation are demonstrated.

Performance: The purpose and principles of various types of assessment are explained.	Yes/No/NA
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.	
Remarks:	
	•

Performance: Know the purpose of oral, written and practical assessments. Performance: The advantages and disadvantages of the different types of assessment are explained.	Yes/No/NA
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?	
Remarks:	

Performance: Demonstrate knowledge of the purpose and process of moderation.	
	Yes/No/NA
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?	
Remarks:	•

Competence: Assess staff for the issue of AFTL ratings, validations and certificates of competency.

30 June 2019 Page **58** of **67**



Aeronautical Facility Technician Licensing

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.	,
demonstrated.	Yes/No/NA
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)	
Remarks:	
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	
	Yes/No/NA
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	
Remarks:	
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.	
	Yes/No/NA
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	
Remarks:	

30 June 2019 Page **59** of **67**



Aeronautical Facility Technician Licensing

Competence: Assess ANS staff for the issue AFTL Classroom Instructor Competency Ratings

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.	Yes/No/NA
Demonstrated a working knowledge of how instructors are required to conduct one- on-one theoretical 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 practical training sessions, taking into account the trainee's particular learning style	
Remarks:	
Performance: A good working knowledge of how instructors are required to conduct one-on- one briefing and debriefing sessions is demonstrated.	Yes/No/NA
Demonstrated knowledge of how instructors are required to conduct one-on-one briefing and debriefing sessions	
Remarks:	
Performance: A good working knowledge of how to reduce stress before and during an assessment is demonstrated	Yes/No/NA
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	
Remarks:	
Performance: A good working knowledge of when and how to initiate Training Interventions is demonstrated.	Yes/No/NA
Demonstrated a knowledge of when and how to initiate Training Interventions	
Remarks:	

30 June 2019 Page **60** of **67**



Aeronautical Facility Technician Licensing

Performance: A good working knowledge and skill of how to	Yes/No/NA
assess that instructors know how to prepare written, oral and	
practical assessments is	
demonstrated.	
Demonstrated skills in assessing assessment preparation	
Remarks:	
	h
Performance: A good working knowledge of how instructors are to	Yes/No/NA
write and complete training reports and records is demonstrated.	
Demonstrated transition of how instructors are to write and complete training you and	
Demonstrated knowledge of how instructors are to write and complete training reports and records	
records	
Remarks:	
competence: Assess the ability of AFTL instructors to issue Ratings and Validations	
Competence: Assess the ability of AFTL instructors to issue Ratings and Validations Performance: A good working knowledge and skill of how to assess that	
Performance : A good working knowledge and skill of how to assess that	Yes/No/NA
Performance : A good working knowledge and skill of how to assess that instructors know	Yes/No/NA
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	Yes/No/NA
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,	Yes/No/NA
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	Yes/No/NA
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.	Yes/No/NA
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,	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical assessments	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical assessments	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical assessments	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical assessments	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical assessments Remarks:	Yes/No/NA
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. Demonstrated skills in assessing the assessment process for knowledge and practical assessments	Yes/No/NA

Performance: A good working knowledge and skill of how to assess that instructors know how to complete assessment documentation as required by the ANR 145(A) organization and CAAF.	Yes/No/NA
Demonstrated knowledge/skill in completing required	
assessment documentation	
Remarks:	

Competence: Complete the administration requirements for the issue of AFTL ratings, validations and certificates of competency

30 June 2019 Page **61** of **67**



Aeronautical Facility Technician Licensing

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.	Yes/No/NA
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	
Remarks:	

Competence: Describe the privileges and responsibilities of an AFTL Examiner Competency Certificate

Performance : A mastery knowledge of the of the privileges and responsibilities of an AFTL Examiner as prescribed in SD-AFTL Chapter8	Yes/No/NA
Know the privileges and responsibilities of the AFTL Examiner qualification as it applies to this candidate	
Know the minimum qualifications required for an AFTL Examiner to be able to issue ratings, and validations	
Remarks:	
	·

Competence: Have a mastery knowledge and skill of how to assess staff for the issue of AFTL licences against performance criteria

30 June 2019 Page **62** of **67**



Aeronautical Facility Technician Licensing

Performance: Demonstrate a mastery kn and skill in comparing performance again		Yes/No/NA
Critical Area	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		
Remarks:		
		·

Competence: Have a mastery knowledge and skills of how to act in the overall interest of safety

Performance: Demonstrate mastery knowledge and skills of how to act in the overall interest of Safety when conducting examinations	Yes/No/NA
Demonstrated knowledge and skills in proactively reporting and dealing with safety incidents, defects etc.	
Demonstrated knowledge and skills in anticipation of safety issues prior to them becoming a problem e.g. judgment	
Demonstrated knowledge and skills in scanning	
Demonstrated knowledge and skills in organisation and efficiency	
Remarks:	
	_

30 June 2019 Page **63** of **67**



Aeronautical Facility Technician Licensing

Appendix 9.10 Performance Assessment Guide

The following is provided as guidance for CAAF's Testing Officers' assessing for AFTL Examiner Competency Certificate during practical tests.

ASSESSMENT CHECKLIST

Performance Criteria	Yes/No/NA/Comments
Things that the Examine could/should do before the assessment	
Familiarized him/herself with the assessment documentation and procedures as required by Operational procedures Training Procedures	
Previously checked the trainee Training File -	
Obtaining information from other sources as to the staff'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	
The Pre-brief: Things that the Examiner could/should cover during the	ne briefing
Pre-brief conducted in an appropriate environment	
Purpose/Type of assessment explained. Anything	
Special that will be expected 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	
Is the staff ready for the assessment	
Any special needs	

Performance Criteria	Yes/No/NA/Comments
Did the Examiner observe the tasks	
Watching the staff's performance at all times	
Examiner's reactions to distractions - assessment not	
degraded by distractions	
Note-taking	

30 June 2019 Page **64** of **67**



Aeronautical Facility Technician Licensing

Adequate note-taking throughout the assessment	
All notable events recorded during the assessment	
Recording of phraseology check - noting any incorrect phraseologies used	
Interaction Examiner/staff	
Not interfering performance	
Not asking questions at inappropriate times	
Pertinent questions asked at appropriate times	
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	
Did the Examiner do a self-brief?	

Performance Criteria	Yes/No/NA/Comments
De-brief	
De-brief conducted in an appropriate environment	
Immediate indication of the staff performance	
Opportunity given for progressive de-briefs (during breaks)	
Discussion about points recorded in assessment form	
Listening to and trying to understand staff 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	1
Not interfering performance	
Not asking questions at inappropriate times	

30 June 2019 Page **65** of **67**



Aeronautical Facility Technician Licensing

Pertinent questions asked at appropriate times	
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	
Documentation	
Report correctly filled out - all appropriate sections completed	
All other applicable forms/reports actioned	
Report signed by assessor and staff	
Report and applicable forms forwarded to correct	
place Log Book correctly signed	
Assessment Techniques	
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.	
Doufo manage Crittonia	Vaa (Na (NA (Campagarta
Performance Criteria	Yes/No/NA/Comments

Performance Criteria	Yes/No/NA/Comments
General	
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	

30 June 2019 Page **66** of **67**



Aeronautical Facility Technician Licensing

Advice/educative comments made	
Comments	

Documents Checked	Yes/No/NA
Licence of candidate	
Meets the requirements of SD AFTL Logbook of candidate Last operational assessment of the candidate e.g. Proficiency Assessment	
Previous assessments conducted by the candidate e.g. examination papers completed assessments, training Of those assessments condu of 'passes' (% in previous 12 months)	

30 June 2019 Page **67** of **67**