NAMIBIA CIVIL AVIATION AUTHORITY

ISSUE OF TECHNICAL STANDARDS

(section 227 (read with section 236) of the Civil Aviation Act, No. 6 of 2016)

PUTTING INTO FORCE

NAM-CATS-FCL 61 (revision)

Date of issue: 15th August 2018

NAMIBIA CIVIL AVIATION AUTHORITY
NCAA
APPROVED
2018 -08- 17
PRIVATE BAG 12003
AUSSPANNPLATZ
WINDHOEK
EXECUTIVE DIRECTOR

"Original Lodged with CAR"

Approved by: .....

Ms Angeline Simana
Executive Director of Civil Aviation

Issued by the Executive Director in accordance with section 227, read with section 236(2) of the Civil Aviation Act, 2016 (Act No. 6 of 2016) and hereinafter referred to as ("the Act").

1. Background

Pursuant to section 227 (read with section 236(2) of the Act, the Executive Director may issue technical standards to the relevant parts of the Namibian Civil Aviation Regulations, 2001, as amended.

Part 61 of the Civil Aviation Regulations of 2001 provides for the promulgation of Part 61 Technical Standards (i.e. NAMCATS-FCL-61). The Technical Standards issued under Government Gazette (GG) Government Notice No.s 188 and 189 in GG No. 6096 on 18 August 2016 in terms of NAMCARS Part 11, were not comprehensive. The Executive Director issued aviation notice 1/2017 (dated 27 October 2017) with a draft revised technical standards on Part 61 and thereafter industry consultations followed.

The Executive Director re-issued the NAMCATS-FCL-61 via Aviation Directive NCAA- PEL-1/12/2017 effective from 3 January 2018, with some corrections issued through Aviation Directive NCAA- PEL-1/06/2018, effective from 25 June 2018.

NAMCATS-FCL-61 is herewith re-issued by the Executive Director. Where transition periods are relevant, they are included within the respective standard.

Note: The Appendixes, which form an integral part of these technical standards for Part 61 (NAMCATS-FCL-61) will be made available on the NCAA website (www.dca.com.na)

2. Reason for issue/Purpose

These technical standards replace the technical standards for Part 61 issued up to date and will apply to any updated Document NAM-CATS-FCL 61 which contains standards, rules, requirements, methods, specifications, characteristics and procedures which are applicable in respect of aviation pilot licensing.

3. Effective Date

This Directive shall come into force on the 15th of August 2018 and shall remain in force until it is updated, re-issued or withdrawn by the Executive Director in the manner as prescribed.

4. References

4.1 Sections 227, and section 236, of the Civil Aviation Act of 2016,
4.2 Part 61 of the Namibia Civil Aviation Regulations of 2001, and
4.3 Annex 1 (Personnel Licensing) of the Chicago Convention.

NAM-CATS-FCL 61

Pilot Licensing

NAMIBIAN CIVIL AVIATION TECHNICAL STANDARDS PILOT LICENSING

1. General

Section 227, read with sect 236(d), of the Civil Aviation Act, 2016 empowers the Executive Director for Civil Aviation to issue technical standards for civil aviation on the matters which are prescribed by regulation.

2. Purpose

Document NAM-CATS-FCL 61 contains the standards, rules, requirements, methods, specifications, characteristics and procedures collectively known as technical standards which are applicable in respect of aviation pilot licensing.

Each reference to a technical standard in this document, is a reference to the corresponding regulation in the Civil Aviation Regulations, 2001, for example, technical standard 61.01.3 refers to regulation 3 of Subpart 1 of Part 61 of the Regulations.

The abbreviation “CAR” is used throughout this document when referring to any regulation.

The abbreviation “TS” refers to any technical standard.

3. Schedules and Notes

Guidelines and recommendations in support of any particular technical standard are contained in schedules to, and/or notes inserted, throughout the technical standards.

LIST OF TECHNICAL STANDARDS: PILOT LICENSING

61.01.7 TYPE RATINGS

1. Issuing of class and type ratings

Class and Type ratings shall be issued as an endorsement in the pilot's logbook and licence on submission of the applicable skill test forms, namely FSS PEL 61-30, FSS PEL 61-31, FSS PEL 61-32, FSS PEL 61-33, FSS PEL 61-34, FSS PEL 61-35, FSS PEL 61-36, FSS PEL 61-37, FSS PEL 61-38, FSS PEL 61-39, FSS PEL 61-40, , which shall be forwarded to the Executive Director within 30 days of completion of the training. The endorsement in the logbook shall contain the following particulars

1. an indication of the type or class of aircraft in respect of which the endorsement is made;
2. the type (and variant if applicable) and registration marks of the aircraft in which the skills test was performed;
3. the name, licence number, designation and signature of the person making the endorsement;
4. the date.

2. Establishment of Type Ratings

Criteria: For the establishment of type ratings for aeroplanes other than those included in the Tables, all of the following shall be considered –

(a) airworthiness type certificate;

1. handling characteristics;

2. certificated minimum flight crew complements; and

3. level of technology.

(b) High performance single-pilot aeroplanes.

Criteria: For the establishment of a class or type rating of a single-pilot aeroplane designated as high performance, all the following shall be considered –

1. type of power plant;

2. provision and capabilities of airframe systems;

3. cabin pressurisation;

4. capabilities of navigation systems;

5. performance both airfield and en route;

6. handling characteristics.

3. List of Classes and Types of aeroplanes

Explanatory Notes NCAA Type Rating & License Endorsement Lists

Note: These lists are based on the EASA Type rating and Licence Endorsements as a source document.

3.1 Separate NCAA Type Rating & License Endorsement Lists Flight Crew are published by the Authority, one for Helicopters and one for all other aircraft. These lists constitute the class and type of aircraft categorizations (category of aircraft, class of aeroplane, and type of aircraft),

3.2 The lists indicate if Operational Evaluation Board (OEB) Flight Crew reports or Operational Suitability Data (OSD) Flight Crew are available. Type Certificate Data Sheets and the STC summary table may be consulted if need be. Complete current OEB/OSD information is held by the TC or STC holder.

3.3 The lists further provide aircraft specific references relevant to flight crew qualifications and air operations.

Note: 'Type of aircraft' means a categorisation of aircraft requiring a type rating as determined in the operational suitability data established in accordance with which include all aircraft of the same basic design including all modifications thereto except those which result in a change in handling or flight characteristics.

3.4 The circumstances in which a class or type rating is required is described and establishes the need to publish type rating and license endorsement lists by the Authority

3.5 Aircraft Class Ratings

3.5.1 Aircraft class rating designations are incorporated within the lists.

3.5.2 Aircraft within a class rating are not individually listed, except for all aircraft within the class rating SET, and for other aircraft which have received a specific license endorsement and/or an operational evaluation.

3.5.2.1 Class Rating "SET" for SP Single-Engine Turbo-Prop Aircraft

A class rating "SET" for single-pilot single-engine turbo-prop aircraft is established within the lists. Aircraft which are to be added to the class rating SET require an operational suitability data evaluation. All aircraft within the class ratings SET are listed individually in the table.

3.6 NCAA Type Rating & License Endorsement Lists

3.6.1 These lists provide users a consolidated overview of established type rating designations and associated license endorsements. The Type Rating & License Endorsement Lists do not include information for all aircraft. In particular, aircraft may not be included if they are part of a class rating SEP (land/sea), MEP (land/sea), TMG, or not subject to an operational suitability data evaluation.

3.6.2 The lists further indicate whether aircraft are defined as complex aircraft and if they are classified as (single-pilot) High Performance Aircraft (HPA) in accordance with this document.

3.6.3 The lists also indicate whether aircraft have been classified as variants. Flight Crew type rating and variant designations are established by the Authority through the OSD Flight Crew evaluation process and are valid for the evaluated aircraft make and model, only. Operation on more than one type or variant requires that, unless credits have been established by the operational suitability data, all training, checking and recent experience requirements should be completed independently for each type or variant.

3.6.4 License Endorsement

The license endorsement is established in accordance with category of aircraft, class of aeroplane, and type of aircraft.

Occasionally, the addition of a new aircraft variant may lead to a change in an existing license endorsement. In these cases, the previous license endorsement remains valid but should be replaced with the amended endorsement during the next routine license renewal.

3.6.5 Aircraft Variants

3.6.5.1 Aircraft within class ratings

3.6.5.1.1 Aircraft within class ratings may not have associated operational suitability data. The "NCAA Type Rating & License Endorsement List" provide categories of class ratings – such as SEP, MEP, SET, etc. – and indicate aircraft which are considered as variants.

3.6.5.1.2 Aircraft within the same class rating which are separated by a horizontal line in the tables require differences training, whereas those aircraft which are contained in the same box require familiarisation training when transitioning from one aircraft to another. As an example, SEP (land) aircraft with variable pitch propeller and SEP (land) aircraft with retractable undercarriage require differences training (unless credits have been established through the OSD, whereas two different SEP (land) aircraft, both with cabin pressurisation require familiarisation training.

3.6.5.1.3 All aircraft within the same class rating MEP or SET require differences training unless credits have been established by operational suitability data (OSD).

3.6.5.1.4 Unless determined by the OSD, revalidation for each SET aircraft must be accomplished individually.

3.6.5.2 Differences and familiarisation training:

3.5.6.2.1 Differences training requires the acquisition of additional knowledge and training on an appropriate training device or the aircraft.

3.5.6.2.2 Familiarisation training requires the acquisition of additional knowledge.

Example of aircraft with class ratings in the Type Rating & License Endorsement List

Manufacturer	Aircraft Model / Name	License Endorsement	Variants	Complex	SP / SP HPA / MP	OEB FC REPORT / OSD FC available	Remarks
1	2	3	4	5	6	7	8
All manufacturers	All powered sailplanes having an integrally mounted, non-retractable engine and a non-retractable propeller, capable of taking off and climbing under its own power.	TMG	X	—	SP		Class Rating TMG Aircraft within the class rating TMG (Touring Motor Glider) are not listed individually in this table, unless Operational Suitability Data have been established.

Manufacturer	Aircraft Model / Name	License Endorsement	Variants	Complex	SP / SP HPA / MP	OEB FC REPORT / OSD FC available	Remarks
All manufacturers	...	SEP (land)	X	—	SP		Class Rating SEP (land) Aircraft within the class rating SEP (land) are not listed individually in this table, unless Operational Suitability Data have been established.
	Single-engine piston (land) with Variable pitch propellers (VP)						
	Single-engine piston (land) with Retractable undercarriage (RU)						
	...						

All manufacturers	Single-engine turbo-prop engines	SET	X	—	SP		Class Rating SET All aircraft within the class rating SET are listed individually in this table and require an operational suitability data evaluation. Unless determined by the OSD, differences training is required between all SET aircraft and revalidation for each SET aircraft must be accomplished individually.
All manufacturers	Multi-engine piston (land)	MEP (land)	X	—	SP		EASA Class Rating MEP (land) Aircraft within the class rating MEP (land) are not listed individually in this table, unless Operational Suitability Data have been established. Unless determined by the OSD, differences training is required between all

							MEP (land) aircraft.

3.6.5.3 Aircraft with type ratings

3.6.5.3.1 Where more than one aircraft model/name is listed in column 3 under the same license endorsement, these aircraft are designated as variants of the same type of aircraft. This is indicated by "X" in column 4.

3.6.5.3.2 Aircraft models/names of variants which are separated by a horizontal line require differences training (example B737-500 series and B737-600 series), whereas those variants which are contained in the same box only require familiarisation training (example B737-300 series and B737-400 series), when transitioning from one variant to another.

3.6.5.3.4 Normally, the variant designation is the result of an operational evaluation referenced in column 7 and 8. The referenced document(s) may contain specific details regarding pilot training, checking and currency, as well as prerequisites, credits, or limitations, and must be consulted. Transitioning between variants may not have been evaluated between all models or in all directions.

3.6.5.3.5 Operational Evaluation Board (OEB) reports are published on the EASA website; Operational Suitability Data (OSD) are held by the relevant (Supplemental) Type Certificate Holder and available on request. In case of discrepancies, the OEB/OSD document(s) take precedence over the Type Rating & License Endorsement lists.

3.6.5.3.6 Where variant determinations are established without an operational evaluation, operators, ATOs or Competent Authorities should assess the differences, as applicable.

Example of aircraft with type ratings in the Type Rating & License Endorsement List

Manufacturer	Aeroplane Model / Name	License Endorsement	Variants	Complex	SP / SP HPA / MP	OEB FC REPORT / OSD FC available	Remarks
1	2	3	4	5	6	7	8
Boeing	B737 - 100 series -200 series	B737 100-200	X	X	MP	—	
	B737 - 300 series - 400 series - 500 series	B737 300-900	X	X	MP	X	OSD FC B737
	- 600 series - 700 series - 800						

	series - 900 series - 8 (MAX)						
Eclipse Aerospace	Eclipse 500	EA500	—	X	SP HPA	X	OSD FC EA 500 OEB FC REPORT Jet Ready EA500 Oxygen System (STC), dated 19 Jul 2011

3.6.5.4 Complex

3.6.5.4.1 The mark "X" in column 5 indicates that an aircraft is categorized as complex motor-powered aircraft.

"complex motor-powered aircraft" shall mean;

Aeroplanes with a maximum certificated take-off mass exceeding 5 700 kg, or certificated for a maximum passenger seating configuration of more than nineteen, or certificated for operation with a minimum crew of at least two pilots, or equipped with (a) turbojet engine(s) or more than one turboprop engine.

OR

Helicopters for a maximum takeoff mass exceeding 3175 kg, or for a maximum passenger seating of more than 9, or for operation with a minimum crew of at least 2 pilots.

3.6.5.5 Single-Pilot (SP) / SP High Performance Aeroplane (HPA) / Multi-Pilot (MP)

Column 6 indicates if an aircraft is certified for a minimum of one pilot (SP), classified as high performance aeroplane (SP HPA) in accordance with Part-61 requirements, or certified for a minimum of two pilots (MP).

Note: Aircraft which are certified for SP may be operated in a multi-crew environment for a variety of reasons. Applicable requirements relevant to flight crew qualifications and air operations apply, OSD for flight crew may contain additional provisions, where available.

3.6.5.6 OEB Flight Crew Report / OSD Flight Crew

The mark "X" in column 6 indicates the availability of operational suitability data either from an OEB report or OSD evaluation.

3.6.5.7 Remarks

The remarks column references available OEB/OSD Flight Crew documents, a class rating determination, or any other pertinent information.

3.6.6 NCAA Type rating and licence endorsement list

The NCAA type rating and licence endorsement lists constitute the following class and type of aircraft. Furthermore, the lists provide aircraft-specific references relevant to flight crew qualifications and air operations. Additional information concerning these lists is provided above.

3.6.6.1 Aeroplanes

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
All manufacturers	All powered sailplanes having an integrally mounted, non- retractable engine and a non-retractable propeller, capable of taking off and climbing under its own power.	TMG	X	—	SP		Class rating TMG Aircraft within the class rating touring motor glider (TMG) are not listed individually in this table, unless specific provisions have been established.

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
All manufacturers	Single-engine piston (land)	SEP (land)	X	—	SP		Class rating SEP (land) Aircraft within the class rating SEP (land) are not listed individually in this table, unless specific provisions have been established.
	Single-engine piston (land) with variable pitch propellers (VP)						
	Single-engine piston (land) with retractable undercarriage (RU)						
	Single-engine piston (land) with turbo- / super-charged engines (T)						
	Single-engine piston (land) with cabin pressurisation (P)						
	Single-engine piston (land) with tail wheels (TW)						
	Single-engine piston (land) with electronic flight instrument system (EFIS)						

	Single-engine piston (land) with single lever power control (SLPC)						
All manufacturers	Single-engine turbo-prop engines	SET	X	—	SP		Class rating SET All aircraft within the class rating SET are listed individually in this table and require NCAA classification. All aircraft within the class rating SET require differences training, unless indicated otherwise in the list.
All manufacturers	Single-engine piston (sea)	SEP (sea)	X	—	SP		Class rating SEP (sea) Aircraft within the class rating SEP (sea) are not listed individually in this table, unless specific provisions have been established.
	Single-engine piston (sea) with variable pitch propellers (VP)						
	Single-engine piston (sea) with turbo- / super-charged engines (T)						
Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
	Single-engine piston (sea) with cabin pressurisation (P)						
	Single-engine piston (sea) with electronic flight instrument system (EFIS)						
	Single-engine piston (sea) with single lever power control (SLPC)						
All manufacturers	Multi-engine piston (land)	MEP (land)	X	—	SP		Class rating MEP (land) Aircraft within the class rating MEP (land) are not listed individually in this table, unless specific provisions have been established.

All manufacturers	Multi-engine piston (sea)	MEP (sea)	X	—	SP		Class rating MEP (sea) Aircraft within the class rating MEP (sea) are not listed individually in this table, unless specific provisions have been established. All aircraft within the same class rating MEP require differences training, unless indicated otherwise in the list.

Aerospatiale	MS 760 Paris	S760	—	X	SP	—	

Aerospatiale / Sud Aviation	SN601 Corvette	SN601	—	X	MP	—	
	SE 210 III SE 210 III R	SE210/10B3/ 11/12	X	X	MP	—	
	SE 10B3						
	SE 11						
	SE 12						

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
Aerospatiale / Nord Aviation	Nordatlas 2501	ND25	—	X	MP	—	
Aerospatiale / Nord Aviation	C160 P Transall	ND16	—	X	MP	—	
Aerospatiale / Nord Aviation	260 A Nord 262 A-B-C Nord	ND26	—	X	MP	—	

Aero Spaceline	377 SGTF Super Guppy	SuperGuppy	—	X	MP	—	

AERO Vodochody AEROSPACE	Ae 270	Aero Vodochody SET	—	—	SP	—	Class rating SET Class rating SET has been established by the JAA.

Airbus	A300 -B1 -B2 series -B4 series	A300	X	X	MP	X	
Airbus	A300 -FFCC	A300FFCC	—	X	MP	—	
Airbus	A310 200 series A300 300 series B4 600 series C4 600 series F4 600 series	A310/300-600	X	X	MP	—	OE GM (OEB Report for A300/310 stop rudder input warning (SRIW), dated 27 March 2015)
Airbus	A300 - 600ST (Beluga)	A300-600ST	—	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
Airbus	A318 - 100 series A319 - 100 series A320 - 100 series - 200 series - neo A321 - 100 series - 200 series - neo	A320	X	X	MP	X	OSD FC A320
Airbus	A330 300 series 200 series	A330/350	X	X	MP	X	OSD FC A330/A350
	A350 - 900 series						
Airbus	A340 200 series 300 series	A340	X	X	MP	X	OSD FC A340
Airbus	A380 - 800 series	A380	—	X	MP	X	OSD FC A380

Airbus	A400M	A400M	—	X	MP	—	

Air Tractor Inc.	AT-402, -402A, -402B	AT-4/5/6/8 SET	X	—	SP	—	Class rating SET Class rating SET has been established by the JAA. OE GM AT-4/5/6/8 SET, dated 03 Jan 2018. Training levels between AT-802/A and AT-802/A (amphibious) have not been evaluated.
	AT-502, -502A, -502B						
	AT-503, -503A						
	AT-602						
	AT-802 AT-802 A			X			
	AT-802 (amphibious) AT-802 A (amphibious)						

ALENIA AERMACCHI	C27J	C27J	—	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
Antonov	An-26 An-26B	AN26	X	X	MP	—	

Asta GAF	Nomad -22B	AstaMET	X	X	SP	—	

ATR	ATR 42 (not PEC equipped) - 42-200 / -300 / -320	ATR42/72	X	X	MP	X	OSD FC ATR 42/72 PEC = propeller electronic control
ATR	ATR 42 (not PEC equipped)	ATR42/72	X	X	MP	X	OSD FC ATR 42/72
	ATR 42 (PEC equipped) - 42-400 / -500 ATR 72 (not PEC equipped) - 72-101 / -102 / -201 / -202						PEC = propeller electronic control

	/ -211 / -212 ATR 72 (PEC equipped) - 72-101 / -102 / -201 / -202 (with mod 4371) - 72-211 / -212 (with mod 3973 or 4371)						
	ATR 42 (glass cockpit or 42- 600) - 42-500 (with mod 5948) ATR 72 (glass cockpit or 72-600)						

BAE Systems (Operations)	HS 748 series	HS748	—	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA	OE GM / OEB / OSD FC	Remarks
BAE Systems (Operations) Ltd	Jetstream 41	Jetstream 41	—	X	MP	—	

Beechcraft Raytheon	RA-390	RA390	—	X	SP HPA	—	

Beriev	Be-200ES-E	BER2E	—	X	MP	—	

Boeing	B707 -100 series -300 series	B707/720	X	X	MP	—	
	B720						
Boeing	B717 series	B717	—	X	MP	—	
Boeing	B727 -100 series -200 series	B727	X	X	MP	—	

Boeing	B737 -100 series -200 series	B737 100-200	X	X	MP	—	
Boeing	B737 CL	B737 300-900	X	X	MP	X	OSD FC B737
	B737 NG -600 / -700 / -800 / -900 / - 900 ER series B737 MAX -8 / -9 series						
Boeing	B747 -100 series B747 -200 series B747 -300 series	B747 100-300	X	X	MP	—	
	B747-SP						
Boeing	B747 - 400 series - 400 F series	B747-400	X	X	MP	X	OSD FC B747
	B747 - 8 series - 8F series						

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA /	OE GM / OEB / OSD FC	Remarks
Boeing	B757 - 200 series - 300 series	B757/767	X	X	MP	X	OSD FC B757/767
	B767 - 200 series 300 series 300 F series						
	B767 -400 ER						
Boeing	B777 - 200 series -300 series B777F	B777/787	X	X	MP	X	OSD FC B777/787
	B787 - 8 series - 9 series -10 series						

Bombardier	CL 215	CL215	—	X	MP	—	
Bombardier	CL 215T	CL215T	—	X	MP	—	

Bombardier	CL 415	CL415	—	X	MP	—	

Bombardier Inc.	Challenger series: CL 600 CL 601-1A CL 601-3A	CL600/601	X	X	MP	—	
Bombardier Inc.	CL-600-2B16	CL604/605	X	X	MP	X	OSD FC CL-600-2B16
	CL-600-2B16 Challenger 605 Challenger 650						
Bombardier Inc.	CL600-2B19 CL 65 Regional Jet series CRJ - 100 - 200 - 440 - Challenger 850	CL65	X	X	MP	X	OSD FC CRJ Series OE GM (OEB report Rockwell Collins HGS 4200 dual head- up guidance system (STC), dated 4 November 2011)

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA /	OE GM / OEB / OSD FC	Remarks
	CL600-2C10 - 700 - 701 - 702 Challenger 870 CL600-2D15 - 705 CL600-2D24						
	CL600-2E25 - 1000						
Bombardier Inc.	BD-100-1A10 Challenger 300 Challenger 350	CL30	X	X	MP	X	OSD FC Challenger 300/350

Bombardier Inc.	BD700-1A10 (Global Express XRS) BD700-1A11 (Global 5000)	BD-700	X	X	MP	X	OSD FC BD-700
	BD700-1A10 GVFD (Global 6000) BD700-1A11 GVFD (Global 5000 GVFD)						
Bombardier Inc.	DHC8 -100 series -200 series -300 series	DHC8	X	X	MP	X	OSD FC DHC8
	DHC8 -400 series						

British Aerospace	ATP Jetstream 61	Bae/ATP/Jetstream 61	—	X	MP	—	
British Aerospace / AVRO	AVRO RJ series 146 -100 series 146 -200 series 146 -300 series	AVRORJ/Bae146	X	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
British Aerospace / AVRO	BAC 1-11 -200 series -400 series -500 series	BAC1-11	X	X	MP	—	
C Series Aircraft Limited Partnership	BD-500-1A10 (CSeries 100) BD-500-1A11 (CSeries 300)	BD-500	X	X	MP	X	OSD FC BD-500

Casa	C212 series	C212	—	X	MP	—	
Casa	C-295	C295	—	X	MP	—	

Casa	CN-235	CN235	—	X	MP	—	

Cessna	206 A/T Soloy 207 A/T Soloy 210 (Silver Eagle) 206 A/T Soloy (sea) 207 A/T Soloy (sea) 206 with STC 10061949 208 208 (sea)	Cessna SET	X	—	SP	—	Class rating SET Class rating SET has been established by the JAA. Training levels between Cessna SET land and sea aircraft have not been evaluated.

Cessna	C501/500SP C551/550SP	C501/551	X	X	SP HPA	—	
Cessna	510 (Citation Mustang)	C510	—	X	SP HPA	X	OSD FC C510 (Mustang)

Cessna	525 – CJ 525 – CJ1 525A – CJ2	C525	X	X	SP HPA	X	OSD FC C525

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA /	OE GM / OEB / OSD	Remarks
	525 – CJ1+ 525A – CJ2+ 525B – CJ3 525B – CJ3+ 525C – CJ4 525 – M2						

Cessna	C560XL C560XLS C560XLS+	C560XL/XLS	X	X	MP	X	OSD FC C560 XL / XLS / XLS+
Cessna	C 500 C 550 CS 550	C500/550/560	X	X	MP	X	

	CS 550 Bravo						
	560 (Citation V)						
	560 (Citation Ultra)						
	560 Encore						OSD FC CE-560 Encore / Encore+
	560 Encore+						
Cessna	C650 Citation III Citation VI Citation VII	C650	X	X	MP	—	
Cessna	C680 Sovereign	C680	X	X	MP	X	OSD FC C680
	C680 Sovereign+ C680A Latitude						
Cessna	C750 Citation X	C750	—	X	MP	X	OSD FC C750

Cessna/ Reims Aviation	F406 425	C406/425	X	X	SP HPA	—	
Cessna/ Reims Aviation	441	C441	—	X	SP HPA	—	

Cirrus Aircraft Company	SF50 Vision Jet	SF50	—	X	SP HPA	X	OSD FC SF50

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
Consolidated Vultee Aircraft	CV 240-4	CV240/340/440	X	X	MP	—	
	CV 340 CV 440						
Consolidated Vultee Aircraft	CV 580	CV580	—	X	MP	—	

Dassault	Falcon 10	Falcon 10/100	X	X	MP	—	
	Falcon 100						
Dassault	Falcon 20 series	Falcon 20/200	X	X	MP	—	
	Falcon 200						
Dassault	Falcon 900 EX EASy Falcon 900 DX Falcon		X	X	MP	X	OSD FC Falcon 900EX EASy /

	Falcon 900EX EASyII Falcon 900DX EASyII Falcon 900LX EASyII	Falcon900EX EASy					900DX / 900 LX / 900EX ESAyII / 900DX EASyII / 900LX EASyII
Dassault	Falcon 2000 Falcon 2000 EX	Falcon2000/2000EX	X	X	MP	X	OSD FC Falcon 2000/2000EX
Dassault	Falcon 2000 EX EASy Falcon 2000 DX Falcon Falcon 2000EX EASy II Falcon 2000DX EASy II Falcon 2000LX EASy II Falcon 2000LXS Falcon 2000S	Falcon2000EX EASy	X	X	MP	X	OSD FC Falcon 2000EX EASy / 2000DX / 2000LX / 2000LXS / 2000S
Dassault	Falcon 7X Falcon 7X EASy II Falcon 8X	Falcon 7X	X	X	MP	X	OSD FC Falcon 7X/8X
Dassault	Mystere Falcon 50 Falcon 50EX Mystere Falcon 900 Falcon 900C Falcon 900EX	Falcon50/900	X	X	MP	X	OSD FC Mystere Falcon 50/50EX/900/900C/900EX

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
De Havilland – AirTech Canada (Bombardier)	DHC-3 Turbo-Otter	DHC3 SET	X	—	SP	—	Class rating SET Class rating SET has been established by the JAA. Training levels between DHC3 SET land and sea aircraft have not been evaluated.
De Havilland – AirTech Canada (Bombardier)	DHC-2 Turbo-Beaver	DHC2 SET	—	—	SP	—	Class rating SET Class rating SET has been established by the JAA.

De Havilland - Canada (Bombardier)	DHC7	DHC7	—	X	MP	—	

Diamond Aircraft Industries GmbH	DA 42 (DA 42, DA 42 M, DA DA 62	MEP (land)	X	—	SP	X	Class rating MEP (land) OE GM (OEB report DA42 series, dated 1 November 2014)

Dornier	DO 128-6	D128	—	X	SP	—	
Dornier	DO 28-G92	D28-G92	—	X	SP	—	

Dornier	DO 328-100	DO 328-100	—	X	MP	—	
Dornier	DO 328-300	DO 328-300	—	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
Eclipse Aerospace	Eclipse EA500 Eclipse 500 Eclipse 550	EA500	—	X	SP HPA	X	OE GM (OEB report EA500, dated 9 December 2015) OE GM (OEB report Jet Ready EA500 oxygen system (STC), dated 19 July 2011)

Embraer	Bandeirante EMB 110	EMB110	—	X	SP	—	
Embraer	EMB 120 Brasilia	EMB 120	—	X	MP	—	

Embraer	EMB - 145	EMB 135/145	X	X	MP	X	OSD FC EMB-135/145
Embraer	EMB-500 (Phenom 100) EMB-505 (Phenom 300)	EMB 500/505	X	X	SP HPA	X	OSD FC EMB-500/505
Embraer	EMB-550 (Legacy 500) EMB-545 (Legacy 450)	EMB 550	—	X	MP	X	OSD FC Embraer 550 / Embraer 545

Embraer	ERJ 170-100 (Embraer 170) ERJ 170-200 (Embraer 175) ERJ 190-100 (Embraer 190, Lineage) ERJ 190-200 (Embraer 195)	EMB170	X	X	MP	X	OSD FC EMB 170

Fokker / Fairchild	FH227 F 27A/F/J F 27 series	F27	X	X	MP	—	
Fokker / Fairchild	F 28 series	F 28	—	X	MP	—	
Fokker / Fairchild	F 50	F 50	—	X	MP	—	
Fokker / Fairchild	F70 F100	F70/100	X	X	MP	—	
Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
Grob Aircraft AG	G 120 TP G 120 TP	G 120TP SET	X	—	SP	—	Class rating SET
Grob Aircraft AG	G 520T	G520 SET	—	—	SP HPA	—	Class rating SET

Grumman	Tracker S2FT	S2FT	—	X	SP	—	

Grumman Gulfstream	Grumman G-159	GulfstreamI	—	X	MP	—	

Grumman Gulfstream	Grumman G-1159	GulfstreamII/III	X	X	MP	—	
	Grumman G-1159A						

Gulfstream Aerospace Corporation	Am.G-164D	Gulfstream SET	—	—	SP	—	Class rating SET

Gulfstream Aerospace Corporation	Gulfstream 1159C (Gulfstream IV)	GIV	—	X	MP	X	OSD FC G-IV
	Gulfstream IV SP (G300/G400)						
Gulfstream Aerospace Corporation	Gulfstream IV-X (G350/G450)	G-V	X	X	MP	X	OSD FC G-V
	Gulfstream V						
	Gulfstream V-SP (G500/G550)						

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA /	OE GM / OEB /	Remarks
Gulfstream Aerospace Corporation	Gulfstream GVI (G650)	GVI	X	X	MP	X	OSD FC GVI (G650)
	Gulfstream GVI (G650) with PlaneView II Avionics Software Version “Block Point I” (ASC 901) G650ER						

Gulfstream Aerospace LP (GALP)	Gulfstream G150 (G150)	G150	—	X	MP	X	OSD FC G150

Gulfstream Aerospace LP (GALP)	Gulfstream G200 (G200)	G200	—	X	MP	X	OSD FC G200
Gulfstream Aerospace LP (GALP)	Gulfstream G280 (G280)	G280	—	X	MP	X	OSD FC G280

Handley Page	Herald series	Herald	—	X	MP	—	

Hawker Beechcraft Corporation	4000 (Hawker 4000) 4000 BPU (Hawker 4000 BPU)	HA4T	X	X	MP	X	OSD FC HBC 4000
Hawker Beechcraft Corporation	Hawker 125 Series Hawker 800XP / Proline 21 Hawker 750 / Proline 21 Hawker 125 Series Hawker 900XP / Proline 21 and IFIS 5000 Hawker 850XP / Proline 21 and IFIS 5000	HS125	X	X	MP	—	Differences training is applicable when equipped with an EFB software package. When the EFB software package is not installed Level B familiarisation is required.
Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA /	OE GM / OEB / OSD FC	Remarks
	Bae 125 800 series 1000 series						
Hawker Beechcraft Corporation	BE-200/B200 BE-C90A/B/GT BE-C90/90-1 BE-E90 BE-F90/F90-1 BE-90/A90/B90 BE-200PL21/B200GT/250 BE-C90GTi/C90GTx	BE90/99/100/200	X	X	SP HPA	X	OSD FC BE90/200

Hawker Beechcraft Corporation	Model G36 with turbo-prop engine (Bonanza)	BE36TC SET	—	—	SP	—	Class rating SET

Hawker Beechcraft Corporation	1900 1900 C	BE300/1900	X	X	SP HPA	X	OSD FC BE300/1900
	1900 D 300 300LW B300/B300C (except with ProLine 21)						
	B300/B300C (with ProLine 21) 300 (FF serial with ProLine 21)						

Hawker Beechcraft Corporation	Beechjet 400 series MU 300	Beech400/MU300	X	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
	BE-400XT (BE-400 A aircraft modified by NCAA STC 10042091 for Proline 21 avionics and by NCAA STC 10042353 for Williams FJ44-3AP engines)					X	OSD FC BE-400XT

Hawker Siddeley	Jetstream 3100 series 3200 series	Jetstream31/32	X	X	MP	—	

Hispano Aviación	HA-200 R, A, B, D (SAETA) HA-200 E (Super SAETA) HA-220	SAETA	X	X	SP HPA	—	

Honda Aircraft Company	HA-420 (HondaJet)	HA-420	—	X	SP HPA	X	OSD FC HA-420

Israel Aircraft Industry	IAI -1121 Jetcommander -1123 Commodore Jet -1124 Westwind	IAI1121/23/24	X	X	MP	—	
	IAI -1125 Astra	IAI1125	—	X	MP	—	

Junkers	Junkers 52	JU52	—	X	MP	—	Considered as aircraft referred to in Annex II to Regulation (EC) No 216/2008

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
Learjet (Bombardier)	Learjet -20 series -30 series	Learjet20/30	X	X	MP	—	
Learjet (Bombardier)	45 (Learjet 40 series, LR-40) 45 (Learjet 45 series, LR-45) 75 (Learjet 70 series, LR-70) 75 (Learjet 75 series, LR-75)	Learjet45/75	X	X	MP	X	OSD FC Learjet LR-40/LR-45/LR-70/LR-75

Learjet	Learjet -55 series	Learjet55	—	X	MP	—	
Learjet (Bombardier)	Model 60 (Learjet 60 series) LJ 60XR (Learjet-60 XR)	Learjet60	X	X	MP	X	OE GM (OEB report Learjet60/60XR, dated 8 August 2007)

Leteckee	L410 UVP	LetL410	—	X	MP	—	

Lockheed	L188 Electra series A L188 Electra series C	L188 Electra	X	X	MP	—	
Lockheed	L382 G (C 130)	Hercules	—	X	MP	—	
Lockheed	L1011 Series	L1011	—	X	MP	—	
Lockheed	L1329	Jetstar	—	X	MP	—	
Lockheed	Constellation Series	L1049	—	X	MP	—	

MBB	HFB 320	HFB320	—	X	MP	—	
MBB	VFW 614	VFW-614	—	X	MP	—	

McDonnell Douglas	Douglas A-26B	DCA26	—	X	MP	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks

McDonnell Douglas	DC-3A-S1C3G DC-3C-SC3G	DC3	—	X	MP	—	Considered as aircraft referred to in Annex II to Regulation (EC) No 216/2008 Licensing and operational credits between models have not been evaluated and are subject to NAA assessment.
McDonnell Douglas	DC4	DC4	—	X	MP	—	
McDonnell Douglas	DC6 series	DC6	—	X	MP	—	
McDonnell Douglas	DC7C	DC7	—	X	MP	—	

McDonnell Douglas / Boeing	DC8 -33 -50, 60, 70 series	DC8	X	X	MP	—	
McDonnell Douglas / Boeing	DC9 10-50 series	DC9 10-50	—	X	MP	—	
McDonnell Douglas / Boeing	DC9 80 series MD 88 series MD 90 series	DC9 80/MD88/MD90	X	X	MP	—	
McDonnell Douglas / Boeing	DC 10 series	DC 10	—	X	MP	—	
McDonnell Douglas / Boeing	MD 11	MD 11	—	X	MP	—	

Mitsubishi	MU 2B series	MU2B	—	X	SP HPA	—	

Pacific Aerospace Corporation	PAC750XL	PAC750XL SET	—	—	SP	—	Class rating SET

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks

Piaggio Aero Industries S.p.A.	P166	Piaggio 166	—	X	SP	—	
Piaggio Aero Industries S.p.A.	P180 Avanti P180 Avanti II P180 Avanti EVO	Piaggio 180	X	X	SP HPA	X	OSD FC P180

Pilatus Britten	BN2T Turbine Islander BN2T - 4R MSSA BN2T - 4S Defender	BN2T	X	X	SP	—	

Pilatus	PC-6 (manual stabiliser trim) PC-6 (electrical stabiliser trim)	Pilatus PC6 SET	X	—	SP	—	Class rating SET Class rating SET has been established by the JAA.
Pilatus	PC-7	Pilatus PC7 SET	—	—	SP	—	Class rating SET Class rating SET has been established by the JAA.
Pilatus	PC-7 MkII PC-9 PC-9 (M)	PC9/PC7MkII	X	—	SP HPA	—	
Pilatus	PC-12/47E (PC-12 NG) PC-12 PC-12/45 PC-12/47	Pilatus PC12 SET	X	—	SP HPA	X	Class rating SET OE GM (OEB Report PC-12, dated 6 November 2015)

Piper	PA-31 (Navajo, Navajo Chieftain, Mojave)	MEP (land)	—	—	SP	—	Class rating MEP (land)
Piper	PA-31T series (Cheyenne, Cheyenne II, Cheyenne IIXL) PA-42 series (Cheyenne III, Cheyenne IV)	PA31T/42	X	X	SP HPA	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks

Piper	PA-46-310P (Malibu) PA-46-350P (Malibu Mirage) PA-46R-350T (Malibu Matrix)	SEP (land)		—	SP	—	Class rating SEP (land) for PA-46-310P (Malibu), PA-46- 350P (Malibu Mirage), and PA-46R-350T (Malibu Matrix). Difference levels for the PA- 46R-350T (Malibu Matrix) have not been evaluated. Differences training which is not further specified, was established by the JAA between the Piper PA-46- 310P (Malibu)/PA-46-350P (Malibu Mirage) and the PA- 46-500TP (Malibu Meridian) aircraft.

Piper Jetprop LLC Piper (STC)	PA-46-500TP (Malibu Meridian) PA-46 Jetprop DLX	PA-46 SET	X	—	SP HPA	X	Class rating SET for PA-46- 500TP (Malibu Meridian), the Jetprop LLC Piper PA-46 (Jetprop DLX), and the PA- 46-600TP (M600). The Piper PA-46-500TP (Malibu Meridian) and the Jetprop LLC Piper PA-46 (Jetprop DLX) aircraft have been evaluated as variants requiring familiarisation.

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks

Piper	PA-46-600TP (M600)						OE GM (OEB report PA-46 Jetprop DLX / PA-46-500TP (Malibu Meridian), dated 28 June 2012.) The PA-46-600TP (M600) was assessed as variant for the license endorsement PA- 46 SET, requiring differences training.
PT Industry	IPTN CN 235-110	IPTNCN 235	—	X	MP	—	
PZL (Polskie Zakłady Lotnicze)	M28 - 02-W - 05	PZL-M28	X	X	MP	X	OSD FC PZL M28
Quest Aircraft Design LLC	Kodiak 100	SET Kodiak 100	—	—	SP HPA	—	Class rating SET
Rhein Flugzeugbau	FT 600	Rhein Flugzeugbau SET	—	—	SP	—	Class rating SET
Rockwell	AC 680T AC 690 series AC 900 series	Rockwell MET	X	X	SP HPA	—	

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
Rockwell International	NA-265 series	NA265	—	X	MP	—	
RUAG Aerospace Services GmbH	Dornier 228: 228-100 228-200 228-101 228-201 228-202 228-212	D228	X	X	SP	X	OSD FC Dornier 228
	Dornier 228: 228-212 NG						
Saab	SAAB SF340 series	SAAB340	—	X	MP	—	
Saab	SAAB 2000	SAAB2000	—	X	MP	—	
Short (Bombardier)	SC7 Skyvan	SC7Skyvan	—	X	SP	—	
Short Brothers (Bombardier)	SD3 - 30 - 60	SD3-30/60	X	X	MP	—	
Short Brothers (Bombardier)	SC5 Belfast	Belfast	—	X	MP	—	
SOCATA	TBM 700 A (TBM 700) TBM 700 B (TBM 700) TBM 700 C1 (TBM 700) TBM 700 C2 (TBM 700)	TBM SET	X	—	SP HPA	X	Class rating SET OE GM - FC TBM 700, dated 18 Jan 2018
	TBM 700 N • TBM 850						
	TBM 700 N • TBM 850 G1000						

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
	TBM 700 N • TBM 900						
	TBM 700 N • TBM 910						
	TBM 700 N • TBM 930						
SST Flugtechnik GmbH	EA 400 - Extra 400	SEP (land)	—	—	SP	X	OE GM (OEB report EA400/EA400-500, dated 11 December 2015) Class rating SEP(land) Class rating SET
SST Flugtechnik GmbH	EA 400-500 - Extra 500	Extra500 SET	—	—	SP		
Sukhoi Civil Aircraft	RRJ-95B (Superjet 100)	RRJ95	—	X	MP	X	OSD FC RRJ-95B
Swearingen / Fairchild	226 T 226 T(B)	SA226/227	X	X	SP HPA	—	
	226 AT 226 TC						
	227 TT						
	227 AC 227 AT 227 BC						
Thrush Aircraft Inc.	S2R turbo thrush	Snow/Ayres SET	—	—	SP	—	Class rating SET Class rating SET has been established by the JAA.

Manufacturer	Aircraft model / name	Licence endorsement	Variants	Complex	SP / SP HPA / MP	OE GM / OEB / OSD FC	Remarks
Viking Air Limited	DHC-6 (Twin Otter) Series 400	DHC6	X	X	SP	X	OSD FC DHC6
	DHC-6 (Twin Otter) Series 300						
	DHC-6 (Twin Otter) Series 200						DHC-6 series 100 and 200 have not been evaluated.
	DHC-6 (Twin Otter) Series 100						
Vickers-Armstrong	Vanguard	Vanguard	—	X	MP	—	
Vickers-Armstrong	Viscount	Viscount	—	X	MP	—	
Vulcanair S.p.A.	AP68TP-600 Viator	AP68TP-600	—	X	SP	X	OSD FC AP68TP-600
	AP68TP-300 (“Spartacus”)	AP68TP-300	—	X	SP	—	
	SF600	SF600	—	X	SP	—	
	SF600A	SF600A	—	X	SP	—	

3.6.6.2 Helicopters

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Agusta Bell - SE Piston -	Agusta Bell 47G-2 Agusta Bell 47G-2A-1 Agusta Bell 47G-3B-1 Agusta Bell 47G-4 Agusta Bell 47G-4A Agusta Bell 47J Agusta Bell 47J-2 Agusta Bell 47J-3		Bell 47			
Agusta Bell - SE Turbine -	Agusta Bell 206 A Agusta Bell 206 B	(D)	Bell 206			
	Agusta Bell 206 L					
	Agusta Bell 204	(D)	Bell 204/205/UH-1D	X		
	Agusta Bell 205					

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Agusta Bell - ME Turbine -	Agusta Bell 212 Agusta Bell 412 Agusta Bell 412 SP	(D)	Bell 212/412	X		

Leonardo - SE Turbine -	A119 –A119 IDS AW119MKII (Ke) AW119MKII (Kx)	(D)	A119		X	For OSD_FC Data contact Pietro.Ferriello@leonardocompany.com

Leonardo - ME Turbine -	A109 A A109 A II A109 C A109 K2 A109 LUH	(D)	A109			
	AB139 / AW139		A139	X	X	For OSD_FC Data contact Pietro.Ferriello@leonardocompany.com
	A109E A109S A109S Trekker AW109SP	(D)	AW109		X	For OSD_FC Data contact Pietro.Ferriello@leonardocompany.com
	AW169		AW169	X	X	For OSD_FC Data contact Pietro.Ferriello@leonardocompany.com
	AW189		AW189	X	X	For OSD_FC Data contact Pietro.Ferriello@leonardocompany.com
Agusta Sikorsky - ME Turbine -	Agusta S-61 N 1		SK-61	X		
Airbus Helicopters - SE Turbine -	SA 341 G -Gazelle SA 342 J –Gazelle		SA341/342			
	SA 3180 – Alouette II SA 318 B– Alouette II SA 318 C– Alouette II SA 3130 – Alouette II SA 313 B– Alouette II		SA318/SE313			

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Airbus Helicopters - SE Turbine -	SE 3160 – Alouette III SE 316 B– Alouette III SE 316 C– Alouette III	(D)	SA316/319/315			
	SA 319 B – Alouette III					
	SA 315 B – Lama					
	SA 360 – Dauphin		SA360			
	SO 1221-Djinn		SO 1221			
	EC 120B- Colibri		EC120B		X	For OSD_FC Data contact alain.madec@airbus.com christophe.pozzo-di borgo@airbus.com
	AS 350 (B, D, B1, B2, BA, BB) – Ecureuil	(D)	AS 350 / EC130		X	For OSD_FC Data contact alain.madec@airbus.com christophe.pozzo-di borgo@airbus.com
	AS 350 B3) – Ecureuil					
	AS 350 B3 Arriel 2B1) – Ecureuil AS 350 B3e) – Ecureuil					
	EC 130 B4 – Ecureuil EC 130 T2 – Ecureuil					

Airbus Helicopters	SA 330 F - Puma SA 330 G- Puma SA 330 J – Puma		SA 330	X		
- ME Turbine -	AS 332 (C, C1, L, L1) – Super Puma	(D)	AS 332 / EC 225	X	X	For OSD_FC Data contact alain.madec@airbus.com christophe.pozzo-di borgo@airbus.com
	AS 332 e (C1e, L1e) – Super Puma					
	AS 332 L2 – Super Puma					
	EC225 LP – Super Puma					
	EC175-B		EC175	X	X OSD Normal revision 1 dated 16/05/16	For OSD_FC Data contact alain.madec@airbus.com christophe.pozzo-di borgo@airbus.com

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
	AS 355 E – Ecureuil AS 355 F – Ecureuil AS 355 F1– Ecureuil AS 355 F2– Ecureuil	(D)	AS355		X	For OSD_FC Data contact alain.madec@airbus.com christophe.pozzo-di borgo@airbus.com
	AS 355 N – Ecureuil					
	AS 355 NP– Ecureuil					
	SA 365 C – Dauphin SA 365 C1– Dauphin SA 365 C2– Dauphin SA 365 C3– Dauphin		SA365 C	X		
	SA 365 N – Dauphin 2 SA 365 N1 – Dauphin 2 SA 365 N2 – Dauphin 2	(D)	S365 / EC155	X	X	For OSD_FC Data contact alain.madec@airbus.com christophe.pozzo-di borgo@airbus.com
	SA 365 N3 – Dauphin 2					
	SA 365 N3+ – Dauphin 2					
	EC 155 B/B1					

Airbus Helicopters Deutschland GmbH -ME Turbine	BO 105 A BO 105 C BO 105 D BO 105 LS A-1 BO 105 LSA-3 BO 105 S BO 105 CBS		BO 105			

Airbus Helicopters Deutschland GmbH - ME Turbine -	MBB-BK117 A-1 MBB-BK117 A-3 MBB-BK117 A-4 MBB-BK117 B-1 MBB-BK117 B-2	(D)	BK117	X		MBB-BK117A-1 is not considered as complex due to MTOM 2850Kg
	MBB-BK117 C-1					

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Airbus Helicopters Deutschland GmbH - ME Turbine -	BK 117 C-2	(D)	EC145 (BK117)	X	X	For OSD_FC Data contact information.osd-airbushelicopters.ahd@airbus.com
	BK 117 C-2e					
	BK 117 D-2					
	EC 135 P1 CDS /CPDS EC 135 P2 EC 135 P2+ EC 635 P2+	(D)	EC135/635		X	For OSD_FC Data contact information.osd- airbushelicopters.ahd@airbus.com
	EC 135 P3 EC 635 P3					
	EC 135 P3H					
	EC 135 T1 CDS/ CPDS EC 635 T1 EC 135 T2 EC 135 T2+ EC 635 T2+					
	EC 135 T3 EC 635 T3					
	EC 135 T3H					

Bell Helicopters - SE Piston -	Bell 47 D Bell 47 G Bell 47 G-1 Bell 47 G-2 Bell 47 G-3 B-1 Bell 47 G-4 Bell 47 G-4A Bell 47 G-5 Bell 47 H-1 Bell 47 J Bell 47 J-2 Bell 47 J-2 A		Bell 47			
Bell Helicopters - SE Turbine -	Bell 47 T		Bell 47 T			
	Bell 47 T A					
	Bell 204	(D)	Bell 204/205/UH-1D	X		
	Bell 205 A-1					
	Bell UH-1D Bell UH-1H					
	Bell 206 A Bell 206 B Bell 206 B 2 Bell 206 B 3	(D)	Bell 206			

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
	Bell 206 L Bell 206 L-1 Bell 206 L-3 Bell 206 L-4				X	For OSD_FC Data contact pselight@bh.com
	Bell 407	(D)	Bell 407		X	For OSD_FC Data contact pselight@bh.com
	Bell 407GX					
	Bell 214 B Bell 214 B 1		Bell 214	X		
	Bell 505		Bell 505		X	BHT-505-EASA-FCD dated 09/09/17
Bell Helicopters - ME Turbine -	Bell 206 LT Twin ranger		Bell 206 LT			
	Bell 212	(D)	Bell 212/412	X	X	For OSD_FC Data contact psemedium@bh.com
	Bell 412 Bell 412 SP Bell 412 HP Bell 412 EP					
	Bell 412 EPI					
	Bell 214 ST		Bell 214 ST	X		
Bell Helicopters - ME Turbine -	Bell 222 Bell 222 A Bell 222 B Bell 222 UT Bell 222 SP	(D)	Bell 222/230/430	X		
	Bell 230					
	Bell 430					
	Bell 427		Bell 427			
	Bell 429		Bell 429		X	For OSD_FC Data contact pseinter@bh.com
Boeing-Vertol	Boeing 234 LR		BV 234	X		
Brantly	B-2 B-2B		Brantley B2			
Breda Nardi	Breda Nardi 269		HU 269			

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Breda Nardi - SE Turbine -	Breda Nardi 369		HU 369/ MD500N / 600N			Difference training necessary to fly the Mc Donnell Douglas
Bristol Aircraft - SE Piston -	B-171-B		Bristol 171 B			
Leonardo - ME Turbine -	EH101-510		EH101	X		
Enstrom - SE Piston -	F-28A F-28C F-28C-2 F-28F F-28F-R 280 280C 280F 280FX		ENF 28		X	For OSD_FC Data contact engineering@enstromhelicopter.com
Enstrom - SE Turbine -	480 480B		ENF 480		X	For OSD_FC Data contact engineering@enstromhelicopter.com
Erickson Air-Crane Incorporated - ME Turbine -	S 64 F		S 64 F	X		
Hélicoptères Guimbal - SE Piston -	Cabri G2		Cabri G2		X	For OSD_FC Data contact support@guimbal.com

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Hiller - SE Piston -	UH 12 A UH 12 B UH 12 E		UH 12			
Hiller - SE Turbine -	UH 12 T		UH 12 T			
Hughes / Schweitzer - SE Piston -	269 A 269 B 269 C 300 C 300 CB 300 CB i		HU 269			
Hughes / Schweitzer - SE Turbine -	330 SP 333		SC 330			
Kaman - SE Turbine -	Kaman K 1200		K 1200			
McDonnell Douglas Helicopters - SE Turbine -	Hughes 369 D Hughes 369 E Hughes 369 FF Hughes 369 HE Hughes 369 HS	(D)	HU369 / MD500N / 600N			
	MD 500 N (NOTAR) MD 520 N AMD500N					
	MD 600 N					
McDonnell Douglas Helicopters - ME Turbine -	MD 900	(D)	MD 900 / 902			
	MD 902					

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Ministry of Aviation Industry of Russia -ME Piston-	Kamov KA 26 D		KA 26 D	X		
Ministry of Aviation Industry of Russia -ME Turbine-	Kamov KA 32 A		KA 32	X		
	MIL Mi-8 MIL Mi 17 MIL Mi 171 MIL Mi 172		Mi 8	X		
P.Z.L Swidnik, Poland	PZL SW-4		SW-4			
P.Z.L Swidnik, Poland - ME Turbine -	MIL Mi-2		Mi 2	X		
	PZL KANIA		KANIA	X		
	PZL W-3	(D)	W-3 SOKOL	X	X	For OSD_FC Data contact PL-CustomerSupport@AgustaWestland.com PL-CustomerSupport@finmeccanica.com
	PZL W-3A					
Robinson - SE Piston -	R 22 R 22 A R 22 B		R 22		X	OSD_FC Data available @ TC holders website: www.robinsonheli.com
	R 44 R 44 Raven R 44 Raven II		R 44		X	OSD_FC Data available @ TC holders website: www.robinsonheli.com
Robinson - SE Turbine -	R 66		R 66		X	OSD_FC Data available @ TC holders website: www.robinsonheli.com

Manufacturer	Helicopter Model / Name	Differences	License Endorsement	Complex	OSD FCD	Remarks
Sikorsky	S 55		S 55	X		
Sikorsky - ME Turbine -	S 58		S 58	X		
	S 76 A S 76 A+ S 76 A++	(D)	SK 76	X	X	
	S 76 B					
	S 76 C					
	S76D	(D)	S76		X	For OSD_FC Data contact Dave.J.Carew@lmco.com sikorskywcs@sikorsky.com
	S76C+ S76 C++					
	S-61 N S-61 S		SK 61	X		
	S-92 A		SK 92	X	X	For OSD_FC Data contact Dave.J.Carew@lmco.com sikorskywcs@sikorsky.com

Silvercraft - SE Piston -	SV 4		SV 4			

Westland - SE Piston -	Westland Bell 47 G3 B-1		Bell 47			

Westland Helicopters - SE Piston -	Westland S 55 Series 1	(D)	WHS 55	X		
Westland Helicopters - SE Turbine -	Westland S 55 Series 3					

61.01.10 VALIDATION OF LICENCE ISSUED BY AN APPROPRIATE AUTHORITY

1. Application Form

Application for the validation of a licence issued by an appropriate authority shall be made on Form FSS PEL 61-04.

2. Requirements and conditions for validation of foreign pilot licence and ratings

(1) The Executive Director may recognise pilot licences and ratings issued by an appropriate authority if the standard of such foreign licence or rating is deemed to be equivalent to, or higher than, the Namibian licence or rating.

(2) Before the Executive Director validates a foreign licence or rating he or she must confirm the validity of the foreign licence or rating with the appropriate authority of the issuing Contracting State.

(3) Notwithstanding the provisions of sub-regulations (1) and (2), any applicant for the validation of a foreign licence or rating must undergo the appropriate skills test and –

(a) in the case of validation for use as a private pilot under VFR conditions have attended a tutorial, conducted by at least a Grade III flight instructor at an approved Part 141 aviation training organisation on the differences in airspaces and terminology within Namibia as well as received a briefing on performance planning, taking into account the effect of density altitude, and write a Namibian approved examination in Air Law conducted by an approved Part 141 aviation training organisation; or

(b) in the case of validation for use as a private pilot under IFR conditions, have attended a tutorial, conducted by at least a Grade II flight instructor at an approved Part 141 aviation training organisation on the differences in airspaces and terminology within Namibia, as well as received a briefing on performance planning taking into account the effect of density altitude, and pass an examination in Air Law at an approved Part 141 aviation training organisation; or

(c) in the case of validation for use as a commercial pilot under VFR conditions pass an examination in Air Law at Commercial Pilot Licence (CPL) level at the Executive Director ate of Civil Aviation;

(d) in the case of validation for use as a commercial pilot under IFR conditions or as an airline transport pilot, pass an examination in Air Law and Procedures at Commercial Pilot Licence (CPL) or airline transport pilot (ATP) level at the Executive Director ate of Civil Aviation;

(e) shall, irrespective of the revalidation requirements in the country of issue, comply with the revalidation requirements of this Part in respect of the privileges to be granted by the licence or rating.

(4) In the case of validated foreign pilots flying Namibian registered aircraft in a foreign country, a certificate of validation for commercial purposes may be re-issued annually, provided that the operation is flown exclusively outside the borders of Namibia and that any flying carried out in Namibia is for the purpose of a ferry flight for pre- or post-maintenance purposes or for the purpose of a revalidation check or renewal test.

(5) The purposes for which a validation may be issued include any or a combination of the following –

(a) to exercise the privileges of a private pilot in a Namibian registered aircraft;

(b) to ferry a Namibian registered aircraft from one foreign country to another, or from a foreign country to Namibia;

(c) to conduct demonstration flights in Namibian registered aircraft;

(d) to conduct familiarisation, difference training or route training of Namibian flight crew; and

(e) to provide its holder with time to complete prescribed bridging training for the conversion of the foreign licence or rating while acting as a flight crew member on a Namibian registered aircraft during commercial operations; and

(f) to exercise the privileges of a commercial pilot in a Namibian registered aircraft for the period specified in the validation.

(6) The minimum knowledge, experience and skill requirements for the issuing of a validation for the various pilot licences and ratings are those prescribed in Document NAM-CATS-FCL 61 for the equivalent Namibian licences or ratings.

(7) Where a practical skills test/proficiency check is required, such test must be undertaken in an aircraft of the category, class or type, appropriate to the pilot licence for which the validation is sought, or in a flight simulation training device approved for the purpose.

(8) The holder of a validation must comply with all the applicable provisions of these Regulations.

(9) Before the privileges of an additional rating may be exercised in terms of the validation, such additional privileges must have been endorsed on the foreign pilot licence by the appropriate foreign authority.

(10) A validation shall become invalid as soon as the corresponding foreign licence or rating has been suspended or revoked by the issuing authority.

(11) A foreign licence, if qualifying for the issue of a validation in terms of these Regulations, or for which a validation has been issued, may be accepted as the entry requirement for the issue of a higher Namibian pilot licence.

(12) The PPL validation for VFR day operations may be issued by the NCAA on confirmation of the validity of the licence. The PPL (VFR) validation will be endorsed with the following wording –

"For private day VFR operations only, provided that the holder of this validation may only exercise the privileges of a private pilot on a Namibian registered aircraft"

3. Form of validation

The form of a validation shall be determined by the Executive Director.

61.01.11 CREDIT FOR MILITARY SERVICE

1. Application Form

The application for credit for military service shall be made in writing to the Executive Director, in the form of a request, accompanied by all relevant supporting documents.

2. Skill test report

An applicant for credit for military service shall be required to undergo the skill test applicable to the type of licence that the applicant is applying for, i.e. credit for a PPL licence shall require the applicant to undergo the PPL skills test.

61.01.12 CONVERSION OF A PILOT LICENCE ISSUED BY AN APPROPRIATE AUTHORITY

1. Application Form

Application shall be made on Forms FSS PEL 61-05 (Pre-approval application) and FSS PEL 61-06 (Application).

2. Conditions, rules, requirements, procedures and standards for a conversion of foreign pilot licence and ratings

(1) The holder of a foreign pilot licence and rating issued by an appropriate authority, may apply to the Executive Director for a conversion of the licence and rating and the Executive Director may, subject to the conditions, rules, requirements, procedures or standards prescribed in these regulations , convert the said licence and rating.

(2) When issuing a Namibian pilot licence or rating on the basis of conversion the Executive Director must, when determining whether any foreign examination credits should be applied take into account any foreign licenses or ratings held by the applicant.

(3) The holder of a current Namibian validation issued in terms of these regulations may apply for the conversion of his or her licence, without having to meet the theoretical knowledge or practical skills tests requirements of this Part provided that;

(a) the validation has been held for a uninterrupted period of 3 years or more; and

(b) the holder has acquired not less than 750 hours flight time during the same three year period.

(4) Subject to subparagraph (2) all applicants for the conversion of a licence shall be required to pass the Namibian theoretical examination as prescribed below –

(a) Private Pilot Licence (PPL/VFR) –

(i) Air Law.

(ii) Meteorology.

(iii) Flight Performance and Planning.

(b) Private Pilot Licence with Instrument Rating –

(i) Air Law and Procedures.

(ii) Meteorology.

(iii) Flight Performance and Planning.

(c) Commercial Pilot Licence (CPL/VFR) –

(i) Air Law.

(ii) Meteorology.

(iii) Flight Performance and Planning.

(d) Commercial Pilot Licence with Instrument Rating (CPL/IR) –

(i) Air Law and Procedures.

(ii) Meteorology.

(iii) Flight Performance and Planning.

(e) Airline Transport Pilot Licence –

(i) Air Law and Procedures.

(ii) Meteorology.

(iii) Flight Performance and Planning.

(5) An applicant shall be required to attend training at an approved Part 141 aviation training organisation and receive tuition at the discretion of the Chief Flying Instructor (CFI) with respect to differences in Namibian airspaces, flight performance and planning and typical Namibian weather patterns. The Chief Flying Instructor may issue a letter of recommendation that the applicant gain entry to the NCAA on-line examinations.

(6) An applicant for the conversion of a licence shall undergo a skills test conducted by a Designated Flight Examiner as shown below –

(a) Private Pilot Licence (PPL/VFR) – skills test for an initial issue;

(b) Private Pilot Licence with Instrument Rating (PPL/IR) – skills test for revalidation of an instrument rating;

(c) Commercial Pilot Licence (CPL/VFR) – skills test for an initial issue;

(d) Commercial Pilot Licence with Instrument Rating (CPL/IR) – skills test for revalidation of an instrument rating.

(e) Airline Transport Pilot Licence–skills test for revalidation of an instrument rating.

(7) A foreign flight instructor rating may be converted on compliance with subparagraph (10).

(8) Notwithstanding the provisions of this technical standard, the Executive Director may require any additional examinations when the standard of issue of the licence is not equivalent to the standards in the NAMCAR.

3. Form of conversion

The form of the conversion shall be the same as that of a Namibian licence.

61.01.16 LOGBOOKS

1. Form of logbook

The logbook format is contained in Appendix A.

2. Information and manner of information to be contained in the logbook

(1) The holder of a pilot licence shall maintain in a pilot logbook a record of all his or her flight time, instrument time, flight simulation training device time and instruction time. Electronic logbooks may be used, provided that the electronic data is printed on paper at least every 90 days, certified by an instructor and the printed pages filed sequentially in a binder available for inspection on request by the Executive Director an authorised officer, an inspector or an authorised person.

(2) Entries in pilot logbooks must be made within the following periods after the completion of the flight to be recorded –

(a) in the case of flights not for hire and reward (Part 91 operations), flight training, and domestic commercial air transport operations: 7 days;

(b) in the case of international commercial air transport operations: 14 days;

(c) where a pilot is engaged in flight operations away from the base where the pilot logbook is normally kept, the periods specified in paragraphs (a) and (b) may be extended to 48 hours after return to base.

(3) All pilots must retain their pilot logbooks for at least 60 months calculated from the date they no longer hold a valid pilot licence.

(4) If the holder of a pilot licence carries out a number of flights upon the same day and the interval between successive flights does not exceed one hundred and eighty minutes, such series of flights may be recorded as a single entry, provided that in the case of a cross-country flight the route and intermediate stops must be recorded.

(5) The holder of a pilot licence must make his or her logbook available for inspection upon request by the Executive Director , an authorised officer, inspector or authorised person.

Pilot-in-command recorded time

(6) The holder of a valid pilot licence must log as pilot-in-command time only that flight time during which he or she is –

(a) the designated pilot-in-command of the aircraft; this shall be the case also if the designated pilot-in-command provides command supervision to another pilot in terms of paragraph (b) below.

(b) pilot-in-command-under-supervision (PICUS) provided there is no intervention by the supervising pilot-in-command and "PICUS" is indicated in the remarks column with the entry certified by the supervising pilot-in-command. PICUS may, irrespective of the licence held, be flown from either the left hand or the right hand seat, provided that the pilot is appropriately rated and the aircraft is either certificated for multi-pilot operations or required to be operated by two pilots in terms of Parts 91, 94, 96, 121, 127, 135 or 138.

(c) carrying out a student solo flight and is the sole occupant of the aircraft (except in the case of an airship requiring an additional crew member) and "SOLO" is indicated in the remarks column;

(d) giving flight instruction while occupying a pilot seat with access to the controls, provided that the time must also be logged as instructor time.

Co-pilot time

(7) The holder of a valid pilot licence and instrument rating (if an instrument rating is required for the flight), may log as co-pilot time only that flight time during which he or she is occupying a pilot seat and acting as co-pilot of an aircraft requiring a type rating provided that he or she holds the type rating (with or without a co-pilot restriction);

(8) An in-flight-relief pilot occupying a pilot seat of an aircraft requiring more than one pilot under the type certification of the aircraft, or as prescribed by the regulations under which the flight is conducted, may log the flight time as co-pilot time while occupying the seat as co-pilot provided that he or she writes "Third Pilot" in the remarks column.

Safety pilot time

(9) Any pilot acting as safety pilot in terms of Part 91 of these Regulations occupying a pilot seat, with an appropriate valid category, class or type rating, may log the flight as co-pilot. The flight time so acquired may not be credited towards the experience requirements for a higher grade pilot licence or a rating. The remarks column must be marked SAFETY PILOT.

Dual instruction time

(10) Flight time during which the holder of a pilot licence is receiving dual instruction must be logged as dual flight time, and must include a record of the air exercises undertaken.

Instrument flight time

(11) The pilot controlling an aircraft under actual or simulated instrument meteorological conditions solely by reference to instruments and without external reference points must log that time as instrument flight time.

(12) An instructor conducting instrument flight training or an examiner conducting a skill or proficiency instrument test must log as instrument flight time all flight time in actual (not simulated) instrument meteorological conditions.

Flight time as designated flight examiner

(13) When acting as flight examiner and occupying a pilot seat, whether as the designated pilot-in-command or not, and provided the examiner holds the appropriate valid class or type rating, the flight time may be logged as pilot-in-command time and furthermore, as flight instructor time, in the capacity of examiner, if the examiner holds the appropriate valid flight instructor rating.

(14) When a flight examiner administers a skills test or proficiency check from a seat, other than a pilot seat, he or she may log the flight time as co-pilot time, provided he or she holds the appropriate valid rating for the particular aircraft, but may not log the time as flight instructor time.

(15) Flight time accumulated as a designated flight examiner must be marked in the remarks column of the pilot's logbook as designated flight examiner (DFE) time.

(16) Flight time accumulated as Authorised Officer/Person (AO) must be marked in the remarks column of the pilot's logbook as AO.

Flight simulation time

(17) All time accumulated during training on a flight simulation training device (FSTD) approved for instrument flight training must be logged as instrument time and flight simulation time and must be certified by the instructor in the pilot's logbook.

(18) Instructors and examiners must keep a record of all instruction and examiner time carried out on an approved flight simulation training device and log the time as flight simulation training device time, provided that they are rated on the simulated aircraft type, and are holders of an FLIGHT SIMULATION TRAINING DEVICE instructor authorisation issued in terms of this Part.

Flight instruction time

(19) Instructors may only log time as instructional time if they are providing the instruction for the issuance or renewal of licences, ratings or authorisations in terms of this Part. Line/route training and Operator Proficiency Checks (OPCs) conducted in terms of Parts 121, 127 and 135 may NOT be logged as instructional time.

(20) If they occupy a pilot seat during instruction, instructors may also log the time as PIC or co-pilot time, whichever is applicable.

61.01.18 RE-TESTING AFTER FAILURE

1. Requirements

(1) *Re-write after failure*

a. A candidate, who fails an examination, may apply in writing for a re-mark up to 30 days after the date of notification of the examination results.

b. Candidates cannot apply to re-write examinations, which they believe they may have failed, until they have received the official result notification. Furthermore, applicants who have applied for a re-write may not apply for the examination being remarked until they receive the official examination result notification.

c. Candidates for re-writes may not be allowed to re-write an examination, unless special circumstances prevail, within a period of 72 hours of an unsuccessful attempt.

d. Candidates for re-writes, who achieved a mark of less than 65%, will be required to produce proof that they have completed additional knowledge instruction from a Part 141 approved training provider, at the time of the re-write.

(2) *Theoretical Knowledge Examination Pass Standards*

a. As of 1 September 2008, a candidate must complete all seven required written PPL examination papers within 12 months with no more than 7 re-writes in total.

b. As from 1 July 2008 a candidate must complete all required written CPL/ATPL/IR examination papers within 18 months of achieving a first credit for an examination. A credit for an examination is held for each successful attempt.

c. The papers can be attempted in any order. A Pass in an examination paper will be awarded to a candidate achieving at least 75% of the marks allocated to that paper.

(3) *Failure to comply with Pass Standards*

a. An applicant failing to pass all of the relevant PPL examinations in accordance with the requirements of paragraph (11) will be required to re-enter the examinations as though for an initial attempt.

b. An applicant failing to pass all of the relevant CPL, CPL/IR or ATPL examinations in accordance with the requirements of paragraph (11.2) will be required to re-enter the examinations as though for an initial attempt. Candidates entering for examinations in accordance with the revised syllabus in effect 1 January 2009, will be required to complete the minimum approved theoretical knowledge training specified below prior to re-entering the examinations:

(a) Integrated or modular IR theory course = minimum 20 hours theoretical knowledge instruction.

(b) Integrated or modular CPL theory course = minimum 20 hours theoretical knowledge instruction.

(c) Integrated or modular ATPL theory course = minimum 20 hours theoretical knowledge instruction.

(d) Flight instructor theory course = minimum 20 hours theoretical knowledge instruction.

(e) A candidate, who received a reduction in the hours required for theoretical instruction for an ATPL course, i.e. where an IR, CPL or CPL/IR was already held, will be required to complete further theoretical knowledge instruction equivalent to a minimum 10% of the original course completed.

(f) A candidate who only completed ATPL, CPL, IR and/or Flight Instructor Rating theoretical knowledge instruction at the discretion of a Part 141 approved training organisation, e.g. conversion from a non-Namibian qualification, will be required to complete further theoretical knowledge instruction as defined and at the discretion of a Part 141 approved training organisation.

(4) *Theoretical Knowledge Examination Credits*

a. Details of Theoretical Examination Credits can be found in Table 2 of this Technical Standard.

b. Candidates who obtain credit or a pass for the ATPL subjects have 36 months to obtain an Instrument Flight Rating. The ATPL subjects will remain valid for a period of 60 months from the date of expiry of the last Instrument Flying Revalidation Check.

c. Candidates who obtained a pass at ATPL level under the provisions of the ANR's of 1976 and who have maintained an Instrument Flying Rating are afforded the same privilege as detailed in 13.2 above.

(5) *Failure to obtain CPL/IR/Flight Instructor Rating within 36 month period*

a. If a CPL or IR are not issued within the 36 month period from the date of passing the last CPL/IR or ATP examination as the case may be, then the CPL/IR and ATPL theory credit for Air Law and Procedures will lapse. Candidates will be required to re-take the Air Law and Procedures CPL/IR knowledge examinations in order to regain CPL/IR or ATPL theory credits or Air Law in the case of VFR examinations. Where a candidate has previously passed all ATPL theoretical knowledge examinations but was not issued with a CPL/IR within the 36 month period, the amount of credit to be given for the ATPL theoretical knowledge instruction for the Air Law and Procedures will be at the discretion of the Head of Training of the Part 141 approved training organisation. If the Flight Instructor Rating is not issued within 36 months of the date of the last Flight Instructor Rating examination, then the candidate will be required to re-take all the Flight Instructor Rating examinations.

b. In the event of the lapse of the credit referred to above, a student shall be required to rewrite and pass the Air Law and Procedures theoretical knowledge examination which will then be valid for an additional 36 months.

(6) *Credit of ATPL Examination*

a. In some circumstances a candidate who has previously attempted some ATPL theoretical knowledge examinations may wish to consider attempting examinations at a lower level (i.e. CPL and/or IR). A candidate who has failed to obtain a pass in any subject at ATPL level will be required to enter for the CPL and/or IR examinations as though for an initial sitting.

b. A candidate who has previously completed an approved ATPL theoretical knowledge course may be credited with the CPL and/or IR theoretical knowledge course.

c. Candidates will be required to enter for these theoretical knowledge examinations via an approved Part 141 Aviation Training Organisation. A candidate who has passed at least one subject at ATPL level may be credited the equivalent subject at CPL and/or IR level as detailed below.

d. Candidates should note that where credit is given in accordance with Table 2, all sittings, attempts and time limits will be calculated from the initial attempt at the ATPL examinations.

Table 2: ATPL Examinations Credits IRO of CPL and IR

ATPL	CPL/IR	IR	CPL (VFR)	PPL
Aviation Meteorology	Aviation Meteorology	Aviation Meteorology	Aviation Meteorology	Aviation Meteorology

Flight Performance and Planning	Flight Performance and Planning	Flight Performance and Planning	Flight Performance and Planning	Flight Performance and Planning
Radio Aids and Communication	Radio Aids and Communication	Radio Aids and Communication	Radio Aids and Communication	
General Navigation	General Navigation	General Navigation	General Navigation	General Navigation
Navigation (Plotting)				
Instruments and Electronics	Instruments and Electronics	Instruments and Electronics	Instruments and Electronics	
Aircraft (A or H) Technical and General	Aircraft (A or H) Technical and General		Aircraft (A or H) Technical and General	Aircraft (A or H) General
				Principles of Flight (A or H)
Human Performance and Limitations				Human Performance and Limitations
*Air Law and Operational Procedures			*Air Law	Air Law

- **Note 1:** A candidate who has decided to discontinue writing the ATPL examinations and who has a passed a subject at ATPL level will be credited with the subject at CPL/IR, IR or CPL (VFR). Should the candidate wish to upgrade his/her licence then all subjects will have to be rewritten at the correct level with the exception of Human Performance and Limitations and Air Law and Operational Procedures.

- **Note 2:** A candidate who has decided to discontinue writing the ATPL examinations and who has passed Human Performance and Limitations examination papers at CPL (VFR) level will be credited with the Human Performance and Limitations examination required at CPL/IR, IR or ATPL.

- **Note 3:** A candidate who has passed Air Law and Operational Procedures examination papers at ATPL level will be credited with the Air Law and Operational Procedures examination required at CPL/IR or IR.

- **Note 4:** The IR exams under Part 61 are only offered at the level of ATPL or CPL. A PPL requiring an instrument rating shall write the examinations at CPL level. These examinations will act as a credit for the CPL (IR) examinations provided that the applicant successfully attains an instrument flying rating within 36 months of attaining a credit for the examinations. The credit for examinations remains valid for a period of 60 months from the date of the last successful IR revalidation check.

- **Note 5:** The credits for the CPL (IR) or IR examinations with the exception of Air Law/Operational Procedure and Human Performance are not applicable to the ATPL examinations.

- **Note 6:** The credits obtained for ATPL examinations are valid for the CPL (IR), CPL (VFR) and the IR examinations.

(7) *Crediting of Theoretical Knowledge*

a. Where an applicant holds the theoretical knowledge credits for an aeroplane licence and wishes to obtain an equivalent helicopter licence and *vice versa* then the following rules apply to the transfer of the credits held.

b. In order to satisfy the theoretical knowledge requirements for the ATPL (H), the holder of an ATPL (A), or CPL (A) with valid ATPL (A) theory credit, is required to complete approved bridge instruction for the subjects/topics detailed in Appendix 2 to NAM-CATS-FCL 61.8. In addition, a pass in the following ATPL (H) examinations must be obtained –

(a) Aircraft (H) Technical and General;

c. In order to satisfy the theoretical knowledge requirements for the CPL (A), the holder of an ATPL (H) or CPL (H) is required to complete approved instruction for the subjects/topics detailed in Appendix 2 to NAM-CATS-FCL 61.5. In addition, a pass in the following CPL (A) examinations must be obtained,

(a) Aircraft (A) Technical and General; and

d. In order to satisfy the theoretical knowledge requirements for the PPL (H), the holder of an ATPL (A), CPL (A) or PPL (A) is required to complete approved bridge instruction for the subjects/topics detailed in Appendix 1 to NAM-CATS FCL 61.4. In addition, a pass in the following PPL (H) examinations must be obtained –

(a) Aircraft (H) Technical and General;

(b) Principles of Flight (H);

(c) Air Law (H);

(d) Flight Performance and Planning (H).

e. Division 5 - Examination arrangements shall apply.

The Executive Director shall publish dates, times and venues for the examinations on the NCAA website.

f. ATPL Papers

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Navigation (Plotting)

(f) Instruments and Electronics;

(g) Aircraft (A or H) Technical and General;

(h) Human Performance and Limitations;

(i) Air Law and Operational Procedures.

g. CPL/IR Papers

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft (A or H) Technical and General;

(g) Human Performance and Limitations;

(h) Air Law and Operational Procedures.

h. IR Papers

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Human Performance and Limitations;

(g) Air Law and Operational Procedures.

i. CPL (VFR) Papers

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft (A or H) Technical and General;

(g) Human Performance and Limitations;

(h) Air Law.

j. PPL Papers

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) General Navigation;

(d) Aircraft (A or H) General;

(e) Principles of Flight;

(f) Human Performance and Limitations;

(g) Air Law.

k. Flight Instructor Papers

(a) Applied Navigation and Meteorology

(b) Principles of Flight and Legislation

l. Other Papers (not required for a licence in another category)

(a) Night Rating

(b) Restricted Radio licence

61.01.21 CHANGE OF NAME OR ADDRESS

The notification of change of Name or Address shall be made on form FSS PEL-G01.

61.01.22 VOLUNTARY REPLACEMENT OF SURRENDER OF LICENCE

The notification of change of voluntary replacement of surrender of licence shall be made in writing to the Executive Director.

61.01.23 DUPLICATE PILOT LICENCE

The application for a duplicate licence shall be made on the respective licence application form for the initial issue of the licence.

61.01.25 DESIGNATION OF PILOTS

The Executive Director may designate any pilot to conduct training and tests under the following conditions, requirements, rules, procedures and standards:

1. When a new aircraft type is registered in Namibia, irrespective of whether it falls within a group type rating or if it requires a type rating, and no instructors are available to provide training to any prospective group type/type rating holder, the Executive Director may designate a pilot to provide training to the prospective type holder, when –

    a. In the case of a type falling into a group type rating, the pilot has the type endorsed in his logbook and he has at least 10 hours experience on type, or

b. In the case of a type rating, the pilot holds the type rating and has at least 20 hours experience on type or

c. In case of a foreign pilot, the pilot has a valid licence and ratings and has experience on type in accordance with a. and b. above.

2. When a new aircraft is registered in Namibia, as referred to in number 1 above, the Executive Director may designate a pilot to conduct the skills test on this type, when –

a. The pilot is a designated examiner and has experience on the specific type of aircraft or on similar types or on aircraft types with similar handling characteristics.

b. In case of a foreign pilot, he is designated by the Executive Director .

61.01.26 DESIGNATED EXAMINERS

1. Requirements, rules, procedures and standards for designation

1.1 DE Categories

(1) Designation of examiners may be in one or more of the following categories –

(a) Flight Examiner (FE);

(b) Type Rating Examiner (TRE);

(c) Class Rating Examiner (CRE):

(d) Commercial & Instrument Rating Examiner (CIRE);

(e) Airline Transport Pilot Examiner (ATPE);

(f) Flight Instructor Examiner (FIE);

(g) Synthetic Flight Examiner (SFE);

(2) Any reference to 'examiner' in this Subpart shall mean a reference to each and every category of the above examiners.

(3) Designation in any of the categories referred to in sub-regulation (1) may be in any of the aircraft categories and will be indicated by the letters A, H, G, B or S for Aeroplane, Helicopter, Glider, Free Balloon or Airship respectively.

(4) Examiners may be designated in more than one of the aircraft categories provided they meet the qualification and experience requirements set out in this Subpart for each of the aircraft categories for which authorisation is sought.

(5) In order to provide for exceptional circumstances, the Director may, on written application, approve a national of a Contracting State to act as an Foreign Flight Examiner (FFE), for a period not exceeding 90 days, for the purposes of instrument rating revalidations, class and type rating revalidations, initial type ratings or differences training. The FFE shall comply with the validation requirements of regulation 61.01.10.

(6) The Director must issue the designation referred to in sub-regulation (5) in writing, subject to the payment of relevant fee referred to in.

(7) In order to be considered for the purposes of sub-regulation (5), the applicant must meet at least the following minimum experience and qualification levels –

(a) hold the equivalent examiner designation, or qualifications as those prescribed in these technical standards for examiners of the same nature issued by the appropriate authority of a Contracting State acceptable to the Director; or

(b) hold at least a valid Commercial Pilot Licence; and

(c) have accumulated not less than 2 000 flying hours, of which at least –

(i) 100 hours must be instrument flight time;

(ii) 50 hours must be night flight time; and

(iii) 100 hours must be as pilot-in-command on type;

(d) in the case of a type rating, the applicant must have accumulated not less than 10 hours as instructor on type;

(e) in the case where the applicant does not hold the equivalent of a Namibian Grade II Flight Instructor Rating, such person must act under the supervision of a suitably qualified instructor, an appointed designated flight examiner or a Namibian Authorised Officer or a person designated with examining privileges by the Director.

1.2 General requirements for Designated Examiners

(1) An applicant for designation as designated examiner must –

(a) hold at least a valid Commercial Pilot Licence in the applicable category of aircraft and a valid Grade I or Grade II Flight Instructor Rating;

(b) hold a valid licence and ratings, issued in terms of this Part, at least equal to the licence and ratings for which he or she seeks authorisation to conduct skills tests or proficiency checks and, unless specified otherwise, the appropriate valid flight instructor rating and endorsements;

(c) be qualified to act as pilot-in-command of the aircraft during a skills test or proficiency check;

(d) meet the applicable experience requirements mentioned below;

(e) have attended a flight examiner assessment course, mentioned below in 3;

(f) have conducted at least one skills test in the role of a candidate examiner for which designation is sought, including briefing, conduct of the skills test, assessment of the person to whom a skills test is given, de-briefing and recording documentation. The Examiner Designation Acceptance Skills Test referred to in section 5. Below must be supervised by a Namibian Authority Authorised Officer or Person designated with examining privileges or by a designated flight examiner appointed for the purpose by the Director;

(g) be currently active in the field of aviation for which the designation is sought; and

(h) prior to initial appointment, appear before and be approved by a panel constituted for the purpose of eligibility by the Director.

1.3 Specific Requirements for Designated Examiners

(1) An applicant for designation as a Flight Examiner (Aeroplane) (DFE A) must meet the following additional requirements –

(a) For conducting skill tests for the issue of the PPL (A) and skill tests and proficiency checks for associated single-pilot class and type ratings, except for single-pilot high performance complex aeroplanes, provided that the applicant –

i. Have completed at least 1,000 hour of flight time as a PIC on aeroplanes or TMGs, of which at least 300 in aeroplane class for designation;
ii. 500 hours of flight instruction in aeroplanes and 100 in class;
iii. 100 hrs pilot-in-command night time.

(b) For conducting skill tests for the issue of the CPL (A) and skill tests and proficiency checks for the associated single-pilot class and type ratings, except for single-pilot high performance and complex aeroplanes, the applicant shall have –

i. A CPL (A), appropriate class rating(s);
ii. A valid flight instructor Grade II rating with an aeroplane category and an appropriate class rating(s).
iii. 2000 hours as pilot-in-command which includes at least -

aa) 1000 hours in aeroplanes;
bb) 500 hours in the class of aeroplane for which the designation is sought;
cc) 100 hours in aeroplanes at night;
dd) 200 in high performance and complex aeroplanes;
ee) 500 hours as a flight instructor in aeroplane which includes at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought;
ff) 200 hours as an instrument flight instructor of which 100 hours were in aeroplanes;
gg) 100 instruction time preparing pilots for CPL.

(2) An applicant for designation as a Flight Examiner (Helicopter) (DFE H) must meet the following additional requirements –

(a) For conducting skill tests for the issue of the PPL (H) and skill tests and proficiency checks for associated class and type ratings –

i. Completed at least 1,000 hours of flight time as a pilot-in-command, of which at least 500 were in helicopters; and
ii. 200 hours of flight instruction in helicopters.

(b) For conducting skill tests for the issue of the CPL(H) and skill tests and proficiency checks for the associated single-pilot single engine helicopter type ratings –

i. Hold a CPL (H), appropriate class rating(s);
ii. Hold a valid flight instructor Grade II rating with an helicopter category and appropriate class rating(s);
iii. 2000 hours flight time as PIC, of which at least 500 hours were in helicopters;
iv. 200 hours as a flight instructor in helicopters which includes; and
v. 50 hours instruction time preparing pilots for CPL.

(c) If applying for large helicopters to be listed on the designation certificate, 100 hours acting as pilot-in-command in large helicopters, including a minimum of 50 hours in the type sought.

(3) An applicant for designation as a Type Rating Examiner (Aeroplane) (TRE A) must meet the following additional requirements –

(a) In the case of multi-pilot aeroplanes, have completed 1,500 hours of flight time as a pilot of multi-pilot aeroplanes, as applicable, of which at least 500 hours shall be as pilot-in-command;

(b) In the case of single pilot high performance complex aeroplanes, have completed 500 hours of flight time as a pilot of single pilot aeroplanes, of which at least 200 hours shall be as pilot-in-command;

(d) Hold a CPL or ATPL and an instructor rating or TRI certificate for the applicable type;

(e) For the initial issue of a TRE designation, have completed at least 50 hours of flight instruction as the holder of a flight instructor rating with a type rating endorsement, or as a type rating instructor, or as a SFI in the applicable type or an FSTD representing that type.

(4) An applicant for designation as a Type Rating Examiner (Helicopter) (TRE H) must meet the following additional requirements –

(a) Hold a type rating instructor rating (H) certificate or, in the case of single-pilot single-engine helicopters a valid FI (H) rating with a type rating instructor endorsement for the applicable type;

(b) For the initial issue of a TRE certificate, have completed 50 hours of flight instruction as a type rating instructor, FI or SFI in the applicable type or an FSTD representing that type;

(c) In the case of multi-pilot helicopters;

i. Hold a CPL (H) or ATPL(H); and
ii. Have completed 1,500 hours of flight as a pilot on multi-pilot helicopters; of which at least 500 hours shall be pilot-in-command.

(d) In the case of single-pilot multi-engine helicopters:

i. Have completed 1,000 hours of flight as pilot on helicopters, of which at least 500 hours shall be as pilot-in-command; and
ii. Hold a CPL (H) or ATPL (H) and, when applicable, a valid IR (H).

(f) In the case of single-pilot single-engine helicopters:

i. Have completed 750 hours of flight as a pilot on helicopters, of which at least 500 hours shall be as pilot-in-command; and
ii. Hold a CPL (H) or ATPL (H).

(g) To extend the privileges of a TRE (H) from single-pilot multi-engine to multi-pilot multi-engine privileges on the same type of helicopter, the holder shall have at least 100 hours in multi-pilot operations on this type.

(h) In the case of applicants for the first multi-pilot multi-engine TRE designation, the 1,500 hours of flight experience on multi-pilot helicopters required in (c) above may be considered to have been met if they have completed the 500 hours of flight time as pilot-in-command on a multi-pilot helicopter of the same type.

(5) An applicant for designation as a Class Rating Examiner (Aeroplane) (CRE A) must meet the following additional requirements –

(a) Hold a CPL (A), or ATPL (A) with single pilot privileges;

(b) Hold a Grade II flight instructor rating with a class rating instructor endorsement for the applicable class or type; and

(c) Have completed 500 hours of flight time as a pilot on aeroplanes.

(5) An applicant for designation as a Class Rating Examiner (Helicopter) (CRE H) must meet the following additional requirements –

(a) Hold a CPL (H), or ATPL (H) with single pilot privileges;

(b) Hold a Grade II flight instructor rating with class rating instructor endorsement certificate for the applicable class or type; and

(c) Have completed 500 hours of flight time as a pilot on helicopters.

(6) An applicant for designation as a Commercial and Instrument Rating Examiner (Aeroplane) (CIRE A) must meet the following additional requirements –

(a) Hold a commercial pilot licence with an aeroplane category rating, the appropriate class rating(s), and an Instrument (A) rating;

(b) Hold a valid flight instructor rating with an aeroplane category, the appropriate class rating(s) and an Instrument (A) rating; and

(c) Have 2000 hours as PIC, which includes at least –

i. 1000 hours in aeroplanes;
ii. 500 hours in the class of aeroplane for which the designation is sought;
iii. 200 hours of instrument flight time in actual or simulated conditions; and
iv. 100 hours at night in aeroplanes;
v. 500 hours as a flight instructor in aeroplanes which include at least –

aa) 100 hours of flight instruction given in the class of aeroplanes applicable to the designation sought; and
bb) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes.

(d) If applying for large, turbine-powered aircraft to be listed on the designation certificate, an additional 300 hours acting as pilot-in-command in large, turbine powered aircraft, of which at least 50 hours in the type sought is required, and 25 hours on type for each additional type.

(7) An applicant for designation as a Commercial and Instrument Rating Examiner (Helicopter) (CIRE H) must meet the following additional requirements –

(a) Hold a commercial pilot licence with a helicopter category, appropriate class rating(s), and an Instrument rating – Helicopter;

(b) Hold a valid flight instructor rating with a helicopter category rating, in the appropriate class rating(s), and an Instrument Rating - Helicopter;

(c) Have 2000 hours as PIC, which includes at least –

i. 500 hours in helicopters; and
ii. 200 hours of instrument flight time in actual or simulated conditions;

(d) For authority to conduct skill tests in large or turbine-powered Helicopters;

i. 100 hours as pilot-in-command of large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and
ii. 25 hours for each additional type of large helicopter for which designation is sought.
iii. 250 hours as a flight instructor in helicopters, which include at least –

aa) 100 hours of flight instruction given in preparing pilots for CPL(H); and

bb) 50 hours of instrument flight instruction in helicopters.

(8) An applicant for designation as an Airline Transport Pilot Examiner (Aeroplane) (ATPE A) must meet the following additional requirements –

(a) Hold an ATPL with an aeroplane category rating, appropriate class rating(s) and an Instrument rating – Aeroplane (IR (A)) rating;
(b) Hold a valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument rating - Aeroplane;
(c) Have 2000 hours as pilot-in-command, which includes at least –

i. 1500 hours in aeroplanes;
ii. 500 hours in the class of aeroplane for which the designation is sought;
iii. 100 hours at night in aeroplanes;
iv. 200 hours in complex aeroplanes; and
v. 100 hours of instrument flight time in actual or simulated conditions.

vi. 500 hours as a flight instructor in aeroplanes which include at least –

aa) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought;
bb) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes; and
cc) 150 hours flight instruction given to pilots, preparing them for a CPL (A) or ATPL (A) or an IR (A).

(d) To conduct skill tests in large or turbine powered aeroplanes additional requirements are –

i. 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought, and
ii. 25 hours for each additional type of large aeroplane for which designation is sought.

(9) An applicant for designation as an Airline Transport Pilot Examiner (Helicopter) (ATPE H) must meet the following additional requirements –

(a) Hold an ATPL with a helicopter category rating, appropriate class rating(s) and an Instrument Rating – Helicopter.
(b) Hold a valid flight instructor certificate and endorsed for helicopter category rating, the appropriate class rating(s) and an Instrument rating – Helicopter.
(c) Have 2000 hours as pilot-in-command, which includes at least –

i. 1200 hours pilot-in-command in helicopters;
ii. 100 hours PIC of instrument flight time in actual or simulated conditions;
iii. For authority to conduct skill tests in large helicopters;
iv. 100 hours pilot-in-command in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought, and
v. 25 hours for each additional type of large helicopter for which designation is sought.

(d) Have 250 hours as a flight instructor in helicopters, which include at least –

i. 100 hours of flight instruction given, preparing pilots for CPL(H) or ATPL(H); and
ii. 50 hours of instrument flight instruction in helicopters.

(10) An applicant for designation as an Flight Instructor Examiner (Aeroplane) (FIE A) must meet the following additional requirements –

(a) The requirements for a commercial examiner or a Commercial Instrument Rating Examiner designation, as appropriate for the category and class of aircraft pertinent to the FIE designation sought;
(b) Have held a Commercial Examiner or Commercial and instrument Rating examiner designation for at least a year prior to designation as a FIE;
(c) Hold the relevant instructor rating and endorsement, as applicable;
(d) Have completed 2000 hours of flight time as a pilot on aeroplanes; and
(e) Have at least 100 hours of flight time instructing applicants for an instructor rating with the relevant endorsement.

(11) An applicant for designation as a Flight Instructor Examiner (Helicopter) (FIE H) must meet the following additional requirements –

(a) Hold the relevant instructor certificate, as applicable;
(b) Have completed 2000 hours of flight time as pilot on helicopters;
(c) Have at least 100 hours of flight time instructing applicants for an Instructor rating with relevant endorsement.

(12) An applicant for designation as a Synthetic Flight Examiner (Aeroplane) (SFE A) must meet the following additional requirements -
(a) Hold or have held an ATPL (A), a class or type rating and a SFI (A) certificate for the applicable type of aeroplane;
(b) Have at least 1500 hours of flight time as a pilot on multi-pilot aeroplanes;
(c) For the initial issue of a SIFE designation certificate, have completed at least 50 hours of synthetic flight instruction as a SFI (A) on the applicable type.

(13) An applicant for designation as a Synthetic Flight Examiner (Helicopter) (SFE H) must meet the following additional requirements –

(a) Hold or have held an ATPL(H), a class or type rating and an SFI (H) certificate for the applicable category and type of helicopter;
(b) Have at least 1500 hours of flight time as a pilot on multi-pilot helicopters;
(c) For the initial issue of an SIFE designation certificate, have completed at least 50 hours of synthetic flight instruction as a SFI (H) on the applicable type.

(14) An applicant for designation as a Designated Flight Examiner (Glider) DFE (G)) must meet the following additional requirements –

(a) hold at least a valid Glider Pilot Licence and a valid Grade I Flight Instructor Rating;
(b) have accumulated in gliders not less than 1000 flying hours, of which at least –
(i) 500 hours must be in the appropriate class of glider; and
(ii) 200 hours must be flight instruction time on the specific type of glider.

(15) An applicant for designation as a Designated Flight Examiner (Free Balloon) (DFE (B)) must meet the following additional requirements –

(a) hold at least a valid Free Balloon Pilot Licence and a valid Grade I Flight Instructor Rating;

(b) have accumulated in Free balloons not less than 1 000 flying hours, of which at least –

(i) 500 hours must be in the appropriate class of free balloon;

(ii) 200 hours must be flight instruction time on the specific type of free balloon.

(16) An applicant for designation as a Designated Flight Examiner (Airship) (DFE (S)) must meet the following additional requirements –

(a) hold at least a valid Airship Pilot Licence and a valid Grade I Flight Instructor Rating;

(b) have accumulated in airships not less than 1 000 flying hours, of which at least –

(i) 500 hours must be in the relevant class of airship;

(ii) 200 hours must be flight instruction time on the specific type of airship.

(17) An applicant for authorisation to act as examiner in a skills test or a proficiency check in respect of a helicopter sea rating, a helicopter agricultural pilot rating, a helicopter sling load rating, a helicopter winching rating, or a helicopter game or livestock cull rating, must be the holder of the applicable valid rating.

(18) An applicant for designation as a Designated Flight Examiner I and II (Aeroplane or Helicopter or Powered-lift) must, prior to conducting a skills test in a Flight Simulation Training Device, have conducted a similar test under the supervision of a designated flight examiner who has experience at examining skills tests in a Flight Simulation Training Device .

1.4 Application for Designation as Examiner

(1) An application for designation as flight examiner must be made to the Director on the form FSS PEL 61-11 and must be accompanied by –

(a) original or certified copy of the two most recent pages of the applicant's flying logbook indicating relevant flying experience;

(b) proof of holding the required valid licence;

(c) original or certified proof of the applicant having successfully attended the flight examiner assessment course as prescribed in paragraph 1.2 (e) above;

(d) original or certified proof of the applicant having passed the examiner designation acceptance test as prescribed in paragraph 1.2 (f) above;

(e) motivation as to why the applicant believes he or she should be considered for designation; and

(f) the applicable fee as prescribed in .

(2) The application containing any incorrect, false or misleading information, including in respect of any supporting documentation, must be disqualified.

(3) If any incorrect, false or misleading information comes to light, subsequent to the approval of the application, the designated flight examiner must be suspended or the designation withdrawn as prescribed in this Part.

(4) In addition to the suspension or withdrawal, referred to in sub-regulation (3), criminal proceedings may be instituted in terms of and any tests that may have been conducted by the applicant may be declared null and void.

1.5 Issuing of designation as Designated Examiner

(1) The Director may issue a designation as flight examiner in the aviation document format determined by the Director, when the applicant –

(a) meets the requirements prescribed in 1.2 and 1.3 above;;

(b) has a good record as a pilot and as flight instructor as far as safety and adherence to the Regulations are concerned; and

(c) signs an undertaking to abide by the Code of Conduct for Designated Flight Examiners as compiled by the Director.

(2) The designation must indicate the period of validity, its category, and any endorsements, restrictions or limitations that may apply.

(3) An initial designation as examiner is valid for a maximum period of one year from date of designation, and thereafter for a period of 24 months.

(4) Where designation is refused, notwithstanding that the applicant meets the requirements the Director must supply the applicant with written reasons for the refusal.

1.6 Re-designation as Designated Examiner

(1) An application for re-designation as flight examiner must be made on the form FSS PEL 61-11 to reach the Director not less than 90 days prior to the beginning of the month in which the designation expires, together with the non-refundable fee as prescribed in .

(2) Submission of such application does not automatically entitle the applicant to continue to exercise the privileges of a designated flight examiner after the expiry date.

(3) Designation of applicants is at the discretion of the Director and is dependent on the examiner -

(a) having attended at least one designated flight examiners conference/workshop under the auspices of the Directorate of Civil Aviation during the preceding 12 months from expiry of his/her current designation;

(b) having been subjected to the oversight carried out by the Namibia Civil Aviation Authority;

(c) having completed at least two (2) skills tests/proficiency checks annually to the standard required by the Director; and

(d) having complied with the duties as prescribed in section 4 below.

1.7 Designation, oversight, suspension and withdrawal of Designation as Examiner (Aviation Document)

(1) A designation to act as flight examiner is a privilege and not a right.

(2) The examiner conducts tests or checks on behalf of the Authority.

(3) The Director must exercise oversight before designation, within the 12 months after initial designation and thereafter at least once every two (2) years in respect of each designated flight examiner for the purposes of compliance with the requirements, including maintenance of flight and safety standards.

(4) When the Director has reasonable grounds to suspect misconduct, which could compromise flight safety, he or she may suspend or withdraw the person’s designation as flight examiner.

(5) The Director must provide written reasons for the suspension, withdrawal, or curtailment of designation as flight examiner.

1.8 Authorisations and Limitations of Designated Examiners

(1) The Director must determine the authorisations and limitations of a designated flight examiner dependent upon the applicant's qualifications, recent and total flight experience and must specify them on the certificate issued by the Director.

(2) Where a designated flight examiner exercises the authorisations of his or her designation as an observer in flight or in a Flight Simulation Training Device, and not as a required flight crew member, the holder is not required to hold a valid medical certificate.

(3) A designated flight examiner must limit the number of skills tests and proficiency checks to a maximum of four tests or checks per working day, subject to the limitations of Part 91 or the operator's flight and duty time limitations as filed with the Director.

(4) A skills test/proficiency check or proficiency check may be conducted by a designated flight examiner in an aircraft under the following conditions –

(a) When a test is to be administered in a piston engine aeroplane (single- or multi-) having a maximum certificated mass of 5 700 kg or less, or in a helicopter, as the case may be, and if the designated flight examiner is not current on such aircraft, the pilot to be tested must have a valid licence and be appropriately rated to act as pilot-in-command on the aircraft;

(b) In the case where the test is to be executed in aircraft that require a single-engine turboprop class rating or type rating to be endorsed in the pilot licence, the designated flight examiner must be instructor rated in that class or type of aircraft;

(c) For the purposes of conducting an instrument rating revalidation in an aircraft certified for multi crew operation, and where the designated flight examiner is not rated, the aircraft crew must comprise of two appropriately licensed pilots, where in such case, the test is assessed by the designated flight examiner , not occupying a pilot seat;

(d) The designated flight examiner , when occupying a pilot seat as examiner in an aircraft with a maximum certificated mass in excess of 5 700 kg shall hold a valid type rating for the aircraft in which the test is being carried out.

(5) A skills test/proficiency checks may be conducted in a simulator, under the following conditions-

(a) Except as otherwise noted, a synthetic flight training device, whether a simulator (FFS) or flight training device (FTD) used for Flight Checks must:

i. meet the requirements of the Simulator Manual or equivalent document of another contracting state; and

ii. provide visual scenery approved for circling to permit the demonstration of one approach manoeuvre to land, where the flight crew is authorized to conduct circling approaches in accordance with the company operations manual.

(b) When conducting a skills test/proficiency check or an OPC in a simulator, the DEs shall not participate as a crewmember and shall limit their activities to the conduct of the PPT/OPC.

(c) The DE shall conduct the skills test/proficiency check in real time to maintain verisimilitude and only use freeze and repositioning sparingly. The DE shall not operate the simulator unless qualified to do so.

(d) Simulators must have for each observer an approved seat secured to the floor and fitted with

positive restraint devices. The seat must safely restrain the occupant during any known or predicted motion system excursion. If the simulator has unserviceabilities, the DE shall refer to the Simulator Component Inoperative Guide, the Simulator Manual and the simulator qualification documents to determine if the Test/Check can proceed with the unserviceabilities. When guidance is not available, the DE may refer to the CARs, aircraft MEL, AOM/AFM, and use their experience and judgment to continue the Test/Check.

(e) When requesting a monitored check ride for a DE in a simulator with seating for four persons, the operator shall have the following options:

i. Ask the training centre to add a seat to the simulator. (Observer seats shall be secured to the floor of the flight simulator fitted with positive restraint devices and be of sufficient integrity to safely restrain the occupant during any known or predicted motion system excursion).

ii. Co-ordinate simulator training for the monitored DE to operate the console (replacing the sim operator).

iii. Use a different simulator that has sufficient seating.

(f) The Director may also assess the possibility to conduct a monitor on a different aircraft type, where the DE has authority on more than one type. Special cases shall be assessed on an individual basis to determine the particular requirements.

1.9 Crew member status of Designated Examiners

(1) When an examiner in an aircraft acts as a required flight crew member or as pilot-in-command when conducting a skills test or proficiency check, he or she may do so only by prior written agreement, proof of which must be retained at the point of departure.

(2) A designated flight examiner may be allowed to act as pilot-in-command of an aircraft during a skills test/proficiency check under the following circumstances:

(a) the skills test/proficiency check is for the issue of an instrument rating;

(b) the skills tests/proficiency checks is for an aircraft type rating and conducted from a pilot seat; or

(c) the designated flight examiner considers this to be necessary in the interest of safety; and

(d) the skills test/proficiency check is for the issue of an initial private pilot licence.

(3) In all other cases the status of the designated flight examiner shall be that of an observer.

1.10 Skills tests and proficiency checks by Designated Examiners

Guidelines in respect of conducting skills tests and proficiency checks are contained in the Appendices to these Technical Standards.

1.12 Transitional Arrangements for Designated Examiners

(1) The designated examiner authorisation in existence at the time of promulgation of this Subpart shall expire at the end of December 2018.

(2) Current Designated Examiners who wish to be considered for appointment as Designated Flight Examiners in terms of this Part, are required to submit an application as detailed in this Subpart, at least 90 days before the date of expiry referred to in sub-regulation (1).

(3) The Director may exempt the applicant from one or more of the requirements set out in these Technical Standards.

2. Conditions for designation

The following conditions are applicable to designation.

(a) A person applying for designation as an examiner shall:

a. be a fit and proper person to exercise the authorisations of the aviation document in accordance with the provisions of the Civil Aviation Act;

b. be of good character and standing acceptable to the aviation industry and to the Executive Director;

c. declare any conflict of interest with respect to the Part 141 aviation training organisation or operator or the person to be tested.

(b) A designation reference number will be allocated to each examiner. The reference number must be reflected on all documents signed by the examiner.

(c) An examiner must, upon appointment, have a stamp made that reflects the following:

a. Name of examiner

b. Licence number

c. Designation reference number.

3. Assessment course

A Designated Examiner is required to successfully complete the flight examiner assessment course, the contents of which are stated below.

1.1 *Flight examiner assessment course*

(a) An applicant for his or her first designation as a flight examiner (DFE) or for approval as a person to act as flight examiner shall have completed an approved flight examiner assessment course within the 12 months immediately preceding such application;

(b) An applicant for designation as a flight examiner shall pass a pre-designation knowledge test in the areas appropriate to the category of aircraft for which designation is sought with the designated examiner under whose mentorship he is placed.

(c) The assessment course, referred to in paragraph (a), shall be conducted by the NCAA or by the holder of an aviation training organisation approval issued in terms of Part 141, and shall include – as appropriate to the role of the examiner – at least the following subjects –

(i) the regulatory requirements relevant to the examination duties;

(ii) fundamentals of human performance and limitations relevant to flight examination;

(iii) fundamentals of evaluation relevant to examiner's performance;

(iv) Civil Aviation Act, 2016, NAMCAR Part 61, related technical standards, AIP, published flight guides, and AICs;

(v) quality system as related to NAMCAR Part 61;

(vi) multi-crew co-operation, and human performances and limitations, if applicable;

(vii) constructing and conducting a skills test or proficiency check; and

(viii) performance assessment.

4. Duties

Designated Examiners are required to:

(a) ensure that the original form for each test conducted, whether such test was successful or not, is submitted to the Director;

(b) provide a copy of the test to the person tested;

(c) keep a record of each test carried out with suitable notes explaining the outcome of the test;

(d) submit an annual report of tests conducted on the appropriate form FSS PEL 61-59 within 60 days preceding the anniversary date of the designation or within 60 days preceding expiry of the designation;

(e) have access to the current CAR, CATS and for skills tests/proficiency checks, the AIP, AIC, applicable NOTAMS and the current DFE Manual including applicable skills test/proficiency check standards, or current language proficiency standards, if applicable;

(f) administer all skills tests/proficiency checks in accordance with the skills test/proficiency check standards;

(g) sign and stamp all forms, clearly indicating the DFE reference number and date of the test;

(h) sign the appropriate sections of the tested pilot's logbook and licence, indicating the nature, date and outcome of the test;

(i) comply with the code of Conduct for designated examiners contained in the DFE Manual;

(j) if a candidate fails, notify the failed items and recommendations to the Chief Flight Instructor, Chief Pilot or Operations Manager, whichever is applicable;

(k) if a candidate fails to meet the required proficiency standard for the licence or rating, notify the Director and submit a copy of the failed test report and detailed written comments on the failed items; and

(l) if a candidate fails the instrument rating test and the rating is still valid, draw a line through the instrument rating endorsement on the licence and inscribe 'instrument rating invalid' on the licence with signature and date.

5. Designated Examiner Acceptance Skills Test

(a) Applicants for designation as examiners shall demonstrate their competence to a NCAA inspector or to another person so delegated by the Director. This includes the conduct of a skill test, proficiency check or any assessment of competence in the examiner role for which privileges are sought as applicable, including briefing, conduct of the skill test, proficiency check or assessment of competence, and assessment of the person to whom the test, check or assessment is given;

(b) The NCAA inspector or delegated person shall hold a current and valid licence with the appropriate category and, if applicable class and type rating in the areas of operation contained in the relevant skill test standards for the applicable designation.

6. Skills test and proficiency checks conducted by designated examiners

The guidelines for the conducting of a Skills Test or Proficiency Check are contained in Appendix 9.0 to these Technical Standards.

61.01.30 INTEGRATED TRAINING

1. General

(1) All flying training shall be conducted in accordance with the requirements laid down for a licence and rating as stipulated in the various Subparts.

(2) The written approval by the Executive Director to conduct flying training shall be kept by the person conducting the training and produced on demand to any authorised officer or inspector.

Flying instruction

(3) Flight instruction and authorisation to a student for solo flying shall be such as to ensure that an aircraft piloted by a student does not constitute a hazard to air navigation or endanger the safety of life or property.

Flight instruction syllabus

(4) Flying training shall be conducted in accordance with the flight instruction syllabus prescribed in the Subparts applicable to the licence or rating sought.

Local rules

(5) A flying training organisation shall prepare and keep accessible to all students a copy of its local rules, which shall be submitted to the Executive Director for approval.

(6) In conjunction with the rules referred to in subregulation (8) there shall be displayed a map clearly showing –

(a) the general flying area;

(b) the low-flying area;

(c) the simulated instrument flying area (if applicable); and

(d) the acrobatic and spinning area.

Experience requirement for the appointment of a chief flying instructor

(7) A chief flying instructor must be the holder of at least a Grade II flight instructor rating and must satisfy the Executive Director that he/she has –

(a) flown at least 1000 hours total flying time; and

(b) given not less than 500 hours of flight instruction of which at least 200 hours shall be *ab initio* training.

Responsibilities of chief flying instructors

(8) A chief flying instructor shall be responsible for –

(a) ensuring that each dual and solo training flight is authorised by the holder of an appropriate and valid flight instructor rating or a person appointed by the Chief Flying Instructor for the specific flight or sequence required by these regulations;

(b) ensuring that all authorisations are properly entered in the appropriate flight authorisation book;

(c) ensuring that the flight authorisation book is correctly completed before each dual and solo flight. Such authorisation book shall at least show the following entries –

(i) Date of the flight;

(ii) Aircraft type and registration;

(iii) Name and licence number of pilot in command;

(iv) Name and licence number of student pilot;

(v) Estimated elapse time;

(vi) Actual time of take-off;

(vii) Actual time of landing;

(viii) Actual flying time;

(viii) Description of exercise/route;

(viii) Name and full signature of the authorising person;

(ix) Full signature of the student before the flight (OUT); and

(x) Full signature of the student after the flight (IN).

(d) ensuring that each solo training flight is personally supervised by the holder of an appropriate and valid flight instructor rating or a person appointed by the Chief Flying Instructor;

(e) the maintenance of flying discipline;

(f) ensuring that student pilots receive the following dual flight instruction –

(i) a dual flight check prior to each solo flight during his first 3 hours of solo flight. Such dual flight check shall be conducted in accordance with subparagraph (9); and

(ii) subsequently a minimum of 1 hour dual instruction for every 5 hours' flight time until a private pilot's licence is obtained;

(g) ensuring that a dual competency check is conducted before the student pilot is permitted to undertake his first solo flight;

(h) ensuring that before a student pilot is authorised to conduct his first solo flight (exercise 14), the instructor who conducted the solo competency check flight has endorsed the student's logbook in accordance with these Technical Standards;

(i) ensuring that before a student pilot is authorised to leave the circuit area on a solo flight to the general flying area or on a solo navigation flight, a flight instructor has endorsed the student's logbook in accordance with these Technical Standards;

(j) the correct maintenance of pilot's logbooks by pupils and student pilots who are under training at the organisation;

(k) ensuring that the aircraft is equipped in accordance with Namibian CAR 91;

(l) ensuring that the standard of ground instruction given shall comply with the standards required for the licence to be obtained;

(m) ensuring that a training record of each student or pilot trained is properly maintained. This record is the property of the student and shall company him or her as a portfolio of evidence. The training organisation is required to make a copy of the training record and is to keep such record in a safe place for a minimum of 60 months. However, the full training file and logbook of a student or pilot trained shall be kept in a secure area on the premises of the training organisation during the entire training period. The training record shall include:

(i) the full details of the student or pilot trained;

(ii) the name and licence number of the flight instructor concerned with the training;

(iii) a training progress report for each individual training session which shall include:

- the name of the student or trained pilot;
- the name of the instructor conducting the training session;
- the description of the exercise/route;
- detailed de-brief comments related to each training session;
- records of the dual flying hours;
- records of the solo hours conducted in the circuit and general flying area;
- record of the solo hours conducted during navigation flights; and
- a summary of the hours flown solo and dual;

(iv) a record of all the theoretical examinations;

(v) a record of all the briefings and courses attended pertaining to the licence sought;

(vi) certificates of competency;

(vii) all reports of passed and failed theoretical examinations;

(viii) an exercise checklist;

(ix) whether the training was successfully completed and the duration of the training period;

(n) ensuring that no student pilot will conduct a flight below a height of less than 500 feet unless accompanied by a holder of an appropriate and valid flight instructor rating.

(9) Dual progress check flights

(a) ensuring that a dual progress check flight is conducted at the latest after a student completed his/her first 15 hours dual flight instruction and after each completion of 10 hours flight time thereafter.

(b) the dual progress check flight must be conducted by the chief flying instructor or by an appointed Grade II or Grade I instructor.

(c) Each dual progress check flight must be endorsed by the checking instructor in the logbook of the student in accordance with these Technical Standards.

61.02.2 APPLICATION FOR STUDENT PILOT LICENCE

1. Application

The application for Student Pilot Licence shall be made on Form FSS PEL 61-01.

61.02.3 ISSUING OF STUDENT PILOT LICENCE

1. Form of licence

A Student Pilot Licence shall be issued in the form determined by the Executive Director .

61.02.4 TRAINING FOR STUDENT PILOT LICENCE

1. Training requirements

(1) a student pilot shall undergo theoretical (classroom) training as well as dual and solo flight training in accordance with a structured training programme approved for use by a Part 141 approved aviation training organisation.

(2) Each dual and solo training flight must be authorised by the holder of an appropriate and valid flight instructor rating or a person appointed by the Chief Flying Instructor for the specific flight or sequence required by these regulations prior to it being undertaken;

(3) Each authorised flight must be entered in the flight authorisation book;

(4) Each solo training flight must be personally supervised by the holder of an appropriate and valid flight instructor rating or a person appointed by the Chief Flying Instructor;

(5) Dual flight instruction must include –

(i) a dual flight check prior to each solo flight during the first 3 hours of solo flight; and

(ii) a minimum of 1 hour dual instruction for every 5 hours' flight time until a private pilot's licence is obtained;

(6) A dual competency check must be conducted before the student pilot is permitted to undertake his first solo flight and the instructor who conducts the solo competency check flight must endorsed the student's logbook;

(7) Before a student pilot is authorised to leave the circuit area on a solo flight to the general flying area or on a solo navigation flight, a flight instructor has to endorse the student's logbook;

(8) The standard of ground instruction shall comply with the standards required for the licence to be obtained as per the syllabi contained in the Appendices to these Technical Standards;

(9) No student pilot is allowed to conduct a flight below a height of less than 500 feet unless accompanied by a holder of an appropriate and valid flight instructor rating.

(10) A training record must be kept and is the property of the student. The training organisation is required to keep a copy for a minimum of 60 months.

(11) The training record shall include:

(i) the full details of the student or pilot trained;

(ii) the name and licence number of the flight instructor concerned with the training;

(iii) a training progress report for each individual training session which shall include:

– the name of the student or trained pilot;

– the name of the instructor conducting the training session;

– the description of the exercise/route;

– detailed de-brief comments related to each training session;

– records of the dual flying hours;

– records of the solo hours conducted in the circuit and general flying area;

– record of the solo hours conducted during navigation flights; and

– a summary of the hours flown solo and dual;

(iv) a record of all the theoretical examinations;

(v) a record of all the briefings and courses attended pertaining to the licence sought;

(vi) certificates of competency;

(vii) all reports of passed and failed theoretical examinations;

(viii) an exercise checklist;

(ix) whether the training was successfully completed and the duration of the training period;

(12) The chief flight instructor is responsible to ensure that -

(a) a dual progress check flight is conducted at the latest after a student completed his/her first 15 hours dual flight instruction and then after each completion of 10 hours flight time thereafter.

(b) the dual progress check flight must be conducted by the chief flying instructor or by an appointed Grade II or Grade I instructor.

(c) Each dual progress check flight must be endorsed by the checking instructor in the logbook of the student in accordance with these Technical Standards.

61.02.5 THEORETICAL KNOWELDGE EXAMINATION FOR STUDENT PILOT LICENCE

1. Theoretical Knowledge Course and Examination

1. The theoretical knowledge course and pre-solo theoretical examination shall cover the following aspects:

   1.1 Air Law, as appropriate to student pilots; and

   1.2 Aircraft Knowledge, covering the aircraft make and model used for training.

2. The written theoretical knowledge examinations shall be conducted at an approved Aviation Training Organisation.

   2.1 The examination shall be conducted and corrected by the holder of an appropriately rated Grade I or Grade II flight instructor, Aeroplane or Helicopter, respectively;

   2.2 The flight instructor referred to in paragraph (2.1) may not be the flight instructor from whom the applicant received his or her theoretical training.

3. The Communications Syllabus can be found in Appendix 1.5 to these Technical Standards.

61.02.8 PRIVILEGES AND LIMITATIONS OF STUDENT PILOT LICENCE

NOTE: ENTRY TO TRAINING

Before being accepted for training an applicant should be informed that the appropriate medical certificate must be obtained before solo flying is permitted.

1. Requirements for, authorisation and supervision of solo training flights

(a) A student cannot be released for the first solo flight unless he/she:

   (i) has undergone a minimum of 10 hours of dual flight training;

   (ii) is holder of a student pilot licence;

   (iii) proves to possess adequate knowledge of the basic principles of flight;

   (iv) has undergone training in exercises 1 through 13;

   (v) has shown proficiency in handling the aircraft in the event of an engine failure during initial climb-out and from downwind position;

   (vi) has shown proficiency in recovery from a balloon during landing and a bounced landing; and

   (vii) has shown proficiency in executing a go-around manoeuvre from a full flaps configuration.

(b) Each solo training flight must be authorised by the Chief Flying Instructor (CFI) or by the holder of a valid flight instructor rating appointed by the CFI for the specific flight or sequence required by these regulations.

(c) Each solo training flight authorisation must be properly entered in the appropriate flight authorisation book in compliance with the proper format represented in Part 141 of the Regulations.

(d) Each solo training flight must be personally supervised by the holder of a valid flight instructor rating or a person appointed by the Chief Flying Instructor.

2. Dual competency check flight, dual check flight and dual progress check flight

(a) A dual competency check flight must be conducted before the student pilot is permitted to undertake his first solo flight.

(b) The dual competency first solo check flight shall be conducted by the Chief Flying Instructor (CFI) or a Grade II or Grade I instructor appointed by the CFI.

(c) Before a student pilot is authorised to conduct his first solo flight (exercise 14), the instructor who conducted the dual competency check flight must endorse the student's logbook in accordance with NAM-CATS-FCL 61.

(d) The dual competency first solo check flight must include but is not limited to –

(i) at least 3 take-offs and landings

(ii) one glide approach to a landing

(iii) one simulated engine failure during initial climb out

(iv) one go-around from a full flaps configuration.

(e) A dual check flight shall be conducted by a suitably rated instructor prior to each solo flight during the first 3 hours of the student's solo flight time –

(i) subsequently a minimum of 1 hour dual instruction shall be conducted for every 5 hours solo flight time until a private pilot's licence is obtained.

(f) Before a student pilot is authorised to leave the circuit area on a solo flight to the general flying area or on a solo navigation flight, a flight instructor shall endorse the student's logbook in accordance with NAM-CATS-FCL 61.

(g) A dual progress check flight must be conducted at the latest after a student completed his/her first 10 hours dual flight instruction and after each completion of 10 hours flight time thereafter.

(i) the dual progress check flight must be conducted by the Chief Flying Instructor (CFI) or by a Grade II or Grade I instructor appointed by the CFI.

(ii) each dual progress check flight must be endorsed by the checking instructor in the logbook of the student in accordance with NAM-CATS-FCL 61.

3. Solo flights in the General Training Area and solo navigation flights

(a) The student shall adhere to the authorised exercises while conducting solo flights in the general training area.

(b) The student shall adhere to the authorised route while conducting his/her solo navigation flight.

(c) The solo navigation flight must –

(i) include full-stop landings at two aerodromes away from base;

(ii) have a total distance of not less than 150 nautical miles with a radius not exceeding 100 nautical miles from the base, along any sector of the flight.

(d) Except for the purpose of conducting the exercise 17b (precautionary landing), no flight below 500 feet above ground level (AGL) shall be conducted unless an instructor is on board the aircraft.

61.03.3 TRAINING FOR PRIVATE PILOT LICENCE (AEROPLANE)

1. Training

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a private pilot licence (Aeroplane), and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any aeroplane for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course.

3. *Theoretical knowledge course*

4. *Theoretical knowledge course syllabus*

4.1 The detailed theoretical knowledge syllabus is contained in Appendix 1.0 to Document NAM-CATS-FCL 61.

4.1 The practical training syllabus is contained in Appendix 1.1 to Document NAM-CATS-FCL 61.

5. *Radio Telephony*

5.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are –

5.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

5.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

5.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

5.1.4 Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved CAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to Document NAM-CATS-FCL 61.

5.2. Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

(a) Use of Radio on the Ground.

(i) Obtaining and complying with taxi instructions.

(ii) Knowing what to expect from the Air Traffic Control (ATC).

(iii) The importance of reading back all “hold short of instructions”.

(iv) The avoidance of runway incursions.

(v) Meaning of “give way to other aircraft”.

(vi) Obtaining and complying with take-off instructions.

(vii) Importance of understanding “line up behind”.

(viii) Importance of reading back the take-off clearance.

(ix) Importance of reading back any other required instructions.

(x) Radio procedures at unmanned/uncontrolled aerodromes.

(b) Departure procedures.

(i) Knowing what to expect in respect of departure procedures.

(ii) Required calls to be made on leaving the aerodrome circuit area.

(c) *En route* procedures.

(i) Knowing what call should be made to which station and when according to the airspace requirements.

(ii) Knowing the required in-flight broaNCAAst procedure applicable to uncontrolled airspace.

(iii) Making a position report.

(iv) Obtaining relevant weather information, use of ATIS.

(v) Making appropriate weather reports (PIREPS).

(vi) Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

(vii) Transponder use.

(viii) Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

(ix) Relaying messages for other stations.

(d) Arrival and traffic pattern procedures.

(i) Knowing what to expect.

(ii) Arrival clearance/instructions.

(iii) Calls and ATC instructions whilst joining the traffic pattern.

(iv) Calls to be made in the circuit.

(v) Calls to be made on vacating the runway.

5.3. Applicants for a Restricted Radio Certificate shall attach a certificate of competency from the Communications Regulating Authority of Namibia when applying for a private pilot licence.

61.03.4 THEORETICAL KNOWLEDGE EXAMINATION FOR PRIVATE PILOT LICENCE

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects –

(a) Aviation Meteorology (duration: 60 min);

(b) Flight Performance and Planning (duration: 90 min);

(c) General Navigation (duration: 90 min);

(d) Aircraft General (duration: 45 min);

(e) Principles of Flight (duration: 45 min);

(f) Human Performance and Limitations (duration: 45 min);

(g) Air Law (duration: 60min).

61.03.5 SKILLS TEST FOR PRIVATE PILOT LICENCE

1. Practical Skills test/proficiency check Standard

The Practical Skills test/proficiency check Standard is found in Appendix 1.2 to these Technical Standards.

1. Skills test

a. The Skills Test shall be conducted in accordance with Appendix 1.2. Guidance to the Instructor or Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-30, in respect of retesting. The skills test Form FSS PEL 61-30, completed by the Instructor or Designated Flight Examiner, shall accompany the application form.

b. The navigation element of the skills test administered for the issuing of a private pilot licence may be conducted as a separate flight within a maximum period of 14 days.

c. The cross-country navigation flight of the skills test shall not be less than 200 nautical miles total distance and must include take-offs and landings at two aerodromes away from base. At least one of the aerodromes from which the aircraft takes off for this flight shall be an aerodrome at which an Air Traffic Services Unit (ATSU) is in operation.

61.03.6 APPLICATION FOR PRIVATE PILOT LICENCE (AEROPLANE)

1. The application for a private pilot licence (Aeroplane) shall be made on Form FSS PEL 61-02.

2. The logbook summary shall be completed in the format indicated below and submitted together with the application form.

3. The skills test report form to be used is form FSS PEL 61-30.

4. Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							4.3	4.3		
C 172	3.0						15.2	12.9		
FNPT 1		3.8					18.0	4.3		

	3.0	3.8					37.5	21.5		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			59.0		Hours						

61.03.7 ISSUING OF PRIVATE PILOT LICENCE (AEROPLANE)

A private pilot licence (aeroplane) shall be issued in a form determined by the Executive Director .

61.03.11 MAINTENANCE OF COMPETENCY OF PRIVATE PILOT LICENCE (AEROPLANE)

The requirements for class and type ratings are defined in 61.01.7 of these Technical Standards.

61.04.3 TRAINING FOR PRIVATE PILOT LICENCE (HELICOPTER)

1. Training

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a private pilot licence (Helicopter), and provide the training necessary to act, but not for

remuneration, as pilot-in-command or as co-pilot of any helicopter for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course.

3. *Theoretical knowledge course*

4. *Theoretical knowledge course syllabus*

The detailed theoretical knowledge syllabus is contained in Appendix 1.0 to these Technical Standards.

5. *Radio Telephony*

5.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are:

5.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc. and especially those relating to the safety of human life.

5.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

5.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

5.1.4 Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved NCAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to Document NAM-CATS-FCL 61.

5.2. Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

a. Use of Radio on the Ground.

i. Obtaining and complying with taxi instructions.

ii. Knowing what to expect from the Air Traffic Control (ATC).

iii. The importance of reading back all “hold short of instructions”.

iv. The avoidance of runway incursions.

v. Meaning of “give way to other aircraft”.

vi. Obtaining and complying with take-off instructions.

vii. Importance of understanding “line up behind”.

viii. Importance of reading back the take-off clearance.

ix. Importance of reading back any other required instructions.

x. Radio procedures at unmanned/uncontrolled aerodromes.

b. Departure procedures.

i. Knowing what to expect in respect of departure procedures.

ii. Required calls to be made on leaving the aerodrome circuit area.

c. En route procedures.

i. Knowing what call should be made to which station and when according to the airspace requirements.

ii. Knowing the required in-flight broaNCAAst procedure applicable to uncontrolled airspace.

iii. Making a position report.

iv. Obtaining relevant weather information, use of ATIS.

v. Making appropriate weather reports (PIREPS).

vi. Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

vii. Transponder use.

viii. Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

ix. Relaying messages for other stations.

d. Arrival and traffic pattern procedures.

i. Knowing what to expect.

ii. Arrival clearance/instructions.

iii. Calls and ATC instructions whilst joining the traffic pattern.

iv. Calls to be made in the circuit.

v. Calls to be made on vacating the runway.

5.3. Applicants for a Restricted Radio Certificate shall attach a certificate of competency (Form CA 61.03.2a) signed by a Designated Radio Examiner when applying for a private pilot licence.

61.04.4 THEORETICAL KNOWELEDGE EXAMINATION FOR PRIVATE PILOT LICENCE (HELICOPTER)

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects –

(a) Aviation Meteorology (duration: 60 min);

(b) Flight Performance and Planning (duration: 90 min);

(c) General Navigation (duration: 90 min);

(d) Aircraft General (duration: 45 min);

(e) Principles of Flight (duration: 45 min);

(f) Human Performance and Limitations (duration: 45 min);

(g) Air Law (duration: 60min).

61.04.5 SKILLS TEST FOR PRIVATE PILOT LICENCE (HELICOPTER)

1. Practical Skills test/proficiency check Standard

The Practical Skills test/proficiency check Standard is found in Appendix 1.2 to these Technical Standards.

2. Skills Test

The Skills Test shall be conducted in accordance with Appendix 1.4 to these Technical Standards. Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-31, in respect of retesting. The skills test Form FSS PEL 61-31, completed by the Designated Flight Examiner, shall accompany the application form.

61.04.6 APPLICATION FOR PRIVATE PILOT LICENCE (HELICOPTER)

1. The application for a Private Pilot Licence (Helicopter) shall be made on Form FSS PEL 61-02.

2. The logbook summary shall be completed in the format indicated below and submitted together with the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
R22							4.3	4.3		
R44	3.0						15.2	12.9		
FNPT 1		3.8					18.0	4.3		
	3.0	3.8					37.5	21.5		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			59.0		Hours						

61.04.7 ISSUING OF PRIVATE PILOT LICENCE (HELICOPTER)

The licence will be issued in the form determined by the Executive Director .

61.04.11 MAINTENANCE OF COMPETENCY OF PRIVATE PILOT LICENCE (HELICOPTER)

The requirements for class and type ratings are defined in 61.01.7 of these Technical Standards.

61.05.3 TRAINING FOR COMMERCIAL PILOT LICENCE (AEROPLANE)

1. Training

1.1 *Aim of training course*

The aim of the course is to train a candidate to the level of proficiency required for the issue of a Commercial Pilot licence (Aeroplane), and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any aeroplane for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

1.2 *Contents and requirements of training course*

1.2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

1.2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course. The syllabus for the practical training is contained in Appendix 2.0.1 to these technical Standards.

61.05.4 THEORETICAL KNOWLEDGE EXAMINATION FOR COMMERVIAL PILOT LICENCE (AEROPLANE)

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects:

1.1 In the case of CPL VFR only:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

(g) Human Performance and Limitations;

(h) Air Law.

2.2 In the case of CPL with IFR:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

(g) Human Performance and Limitations;

(h) Air Law and Operational Procedures.

2. Theoretical knowledge course syllabus

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to these Technical Standards.

3. Radio Telephony

3.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are:

3.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

3.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

3.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

3.1.4 Applicants for a General Radio Certificate shall pass a theoretical General Radio Examination at an approved NCAA examination centre. The training syllabus for a General Radio Certificate is contained in Appendix 1.5a to these Technical Standards.

3.2 Applicants for a General Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner (General). The practical test shall include the full completion of an ATC IFR Flight Plan and examine, at minimum, the following

aspects for an IFR flight departing on a standard or non-standard departure from a controlled aerodrome, into a CTR/TMA, flying in both controlled and uncontrolled airspace en route to a controlled airfield as destination, complying with a standard arrival (STAR) and the completion of an instrument approach procedure (precision or non-precision):

(a) Use of Radio on the Ground –

(i) Obtaining start clearance

(ii) Obtaining taxi clearance

(iii) Acceptance and read back of ATC departure clearance (Standard/non-standard)

(b) Departure procedure –

(i) Take-off clearance

(ii) Use of SID chart/compliance with non-standard departure procedure

(iii) Selection of departure frequency and contact with relevant ATSU

(iv) Use of area chart if applicable

(c) En route procedures –

(i) Use of radio navigation chart

(ii) Selection of frequencies appropriate to the route

(iii) Passing and revising estimates

(iv) Complying with onward clearance time (OCT)

(d) Arrival procedures –

(i) Use of area chart if applicable

(ii) Acceptance and review of STAR and instrument approach charts

(iii) Radar vectors to ILS localiser or

Holding beacon for non-precision approach including expected approach time (EAT)

(iv) Establishing weather minima at landing aerodrome and compliance with Approach Ban

(v) Completion of instrument approach procedure using IAC and correct radio procedures

(e) Radio communication failure –

Emphasis shall be placed on correct use of aviation words and phrases as well as the avoidance of slang terms.

61.05.5 SKILLS TEST FOR COMMERCIAL PILOT LICENCE (AEROPLANE)

The practical test standard for the skills test is contained in Appendix 2.1 to these Technical Standards.

61.05.6 APPLICATION FOR COMMERCIAL PILOT LICENCE (AEROPLANE)

1. The application for a Commercial Pilot Licence (Aeroplane) shall be made on Form FSS PEL 61-03.
2. The logbook summary shall be completed in the format indicated on the following page and submitted together with the application form.
3. Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-32, in respect of retesting. The skills test Form FSS PEL 61-32, completed by the Designated Flight Examiner, shall accompany the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							40.0	27.2		
C 172	15.0.0						53.3	67.2		
FNPT 1		21.0								
BE 55	5.0									
	20.0	21.0					93.3	94.4		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
12.0	4.5										
	3.0										
				9.1	2.0			2.0	1.0		

12.0	7.5			9.1				2.0	1.0		
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			219.3		Hours						

61.05.7 ISSUING OF COMMERCIAL PILOT LICENCE (AEROPLANE)

The commercial pilot licence shall be issued in the form determined by the Executive Director .

61.05.11 MAINTENANCE OF COMPETENCY OF COMMERCIAL PILOT LICENCE (AEROPLANE)

The requirements for class and type ratings are defined in 61.01.7 of these Technical Standards.

61.06.3 TRAINING FOR COMMERCIAL PILOT LICENCE (HELICOPTER)

1. Training

1. *Aim of training course*

The aim of the course is to train a candidate to the level of proficiency required for the issue of a Commercial Pilot licence (Helicopter), and provide the training necessary to act as pilot-in-command or as co-pilot of any helicopter for which he or she holds a valid class or type rating engaged in flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course. The syllabus for the practical training is contained in Appendix 2.1 to these Technical Standards.

61.06.4 THEORETICAL KNOWLEDGE EXAMINATION FOR COMMERCIAL PILOT LICENCE (HELICOPTER)

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects:

1.1 In the case of CPL VFR only:

(a) Aviation Meteorology;

(i) Flight Performance and Planning;

(j) Radio Aids and Communication;

(k) General Navigation;

(l) Instruments and Electronics;

(m) Aircraft Technical and General;

(n) Human Performance and Limitations;

(o) Air Law.

1.2 In the case of CPL with IFR:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

(g) Human Performance and Limitations;

(h) Air Law and Operational Procedures.

2. *Theoretical knowledge course syllabus*

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to these Technical Standards.

3. *Radio Telephony*

3.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are:

3.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

3.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

3.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian

Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

3.1.4 Applicants for a General Radio Certificate shall pass a theoretical General Radio Examination at an approved CAA examination centre. The training syllabus for a General Radio Certificate is contained in Appendix 1.5a to Document NAM-CATS-FCL 61.

3.2. Applicants for a General Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner (General). The practical test shall include the full completion of an ATC IFR Flight Plan and examine, at minimum, the following aspects for an IFR flight departing on a standard or non-standard departure from a controlled aerodrome, into a CTR/TMA, flying in both controlled and uncontrolled airspace en route to a controlled airfield as destination, complying with a standard arrival (STAR) and the completion of an instrument approach procedure (precision or non-precision):

(a) Use of Radio on the Ground

(i) Obtaining start clearance

(ii) Obtaining taxi clearance

(iii) Acceptance and read back of ATC departure clearance (Standard/non-standard)

(b) Departure procedure

(i) Take-off clearance

(ii) Use of SID chart/compliance with non-standard departure procedure

(iii) Selection of departure frequency and contact with relevant ATSU

(iv) Use of area chart if applicable

(c) *En route* procedures

(i) Use of radio navigation chart

(ii) Selection of frequencies appropriate to the route

(iii) Passing and revising estimates

(iv) Complying with onward clearance time (OCT)

(d) Arrival procedures

(i) Use of area chart if applicable

(ii) Acceptance and review of STAR and instrument approach charts

(iii) Radar vectors to ILS localiser or Holding beacon for non-precision approach including expected approach time (EAT)

(iv) Establishing weather minima at landing aerodrome and compliance with Approach Ban

(v) Completion of instrument approach procedure using IAC and correct radio procedures

(e) Radio communication failure

Emphasis shall be placed on correct use of aviation words and phrases as well as the avoidance of slang terms.

61.06.5 SKILLS TEST FOR COMMERCIAL PILOT LICENCE (HELICOPTER)

The practical test shall be conducted in accordance with Appendix 2.2 to these Technical Standards.

61.06.6 APPLICATION FOR COMMERCIAL PILOT LICENCE (HELICOPTER)

(1) The application for a Commercial Pilot Licence (Helicopter) shall be made on Form FSS PEL 61-03.

(2) The logbook summary shall be completed in the format indicated on the next page and submitted together with the application form.

(3) Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-33, in respect of retesting. The skills test Form FSS PEL 61-33, completed by the Designated Flight Examiner, shall accompany the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
R22							40.0	36.3		
R44	20.0.0						53.3	67.2		
FNPT 1		21.0								
	20.0	21.0					93.3	103.5		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
12.0	4.5										
1.0	3.0										
13.0	7.5			9.1				2.0	1.0		
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			217.8		Hours						

61.06.7 ISSUING OF COMMERCIAL PILOT LICENCE (HELICOPTER)

The commercial pilot licence (helicopter) shall be issued in a form determined by the Executive Director.

61.06.11 MAINTENANCE OF COMPETENCY OF COMMERCIAL PILOT LICENCE (HELICOPTER)

The requirements for class and type ratings are defined in 61.01.7 of these Technical Standards.

61.07.3 TRAINING FOR AIRLINE TRANSPORT PILOT LICENCE (AEROPLANE)

1. Training

1. *Aim of training course*

The aim of the course is to train a candidate to the level of proficiency required for the issue of an Airline Transport Pilot licence (Aeroplane), and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any aeroplane for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) Theoretical knowledge course; and

(b) Practical training course is only applicable to the Integrated Training Course. The syllabus for the practical training is contained in Appendix 3.0 to Document NAM-CATS-FCL 61.

61.07.4 THEORETICAL KNOWLEDGE EXAMINATION FOR AIRLINE TRANSPORT PILOT LICENCE (AEROPLANE)

1. Theoretical Knowledge Examination

1.1 The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(d) Navigation Plotting;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

1.2 In the case of a student pilot following an integrated course or a private pilot, the following two exams will also have to be written:

(a) Human Performance and Limitations;

(b) Air Law and Operational Procedures.

2. *Theoretical knowledge course syllabus*

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to these Technical Standards.

61.07.5 SKILLS TEST FOR AIRLINE TRANSPORT PILOT LICENCE (AEROPLANE)

The practical test shall be conducted in accordance with Appendix 9.0 to these Technical Standards.

61.07.6 APPLICATION FOR AIRLINE TRANSPORT PILOT LICENCE (AEROPLANE)

(1) The application for an Airline Transport Pilot Licence (Aeroplane) shall be made on Form FSS PEL 61-03.

(2) The logbook summary shall be completed in the format indicated on the following page and submitted together with the application form.

(3) Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-35, in respect of retesting. The skills test Form FSS PEL 61-35, completed by the Designated Flight Examiner, shall accompany the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							40.0	27.2		
C 172	15.0						53.3	67.2		
FNPT 1		21.0								
BE 55	5.0									
C208	29.0						12.0	250.7	120.2	
BE1900	37.8	17.0								
C551	17.0	34.4								
B737	103.2	65.0								
	276.8	103.0					105.3	345.1	120.2	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
12.0	4.5										
	3.0										
				9.1	2.0			2.0	1.0		
2.0	50.7	20.2	138.4								
				7.0	237.0	120.0	572.0	3.1	9.4	2.7	15.8
				4.0	120.0	60.0	420.0	2.0	4.7	3.2	45.8
				12.0		230.0	952.0	10.0		15.0	158.0
14.0	58.2	20.2	138.4	32.1	359.0	410.0	1944.0	17.0	15.1	20.9	219.6
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			3809.1		Hours						

61.07.7 ISSUING OF AIRLINE TRANSPORT PILOT LICENCE (AEROPLANE)

The airline transport pilot licence (aeroplane) shall be issued in a form determined by the Executive Director .

61.07.11 MAINTENANCE OF COMPETENCY OF AIRLINE TRANSPORT PILOT LICENCE (AEROPLANE)

The requirements for class and type ratings are defined in 61.01.7 of these Technical Standards.

61.08.3 TRAINING FOR AIRLINE TRANSPORT PILOT LICENCE (HELICOPTER)

1. Training

1. *Aim of training course*

The aim of the course is to train a candidate to the level of proficiency required for the issue of an Airline Transport Pilot licence (Helicopter), and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any helicopter for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course is only applicable to the Integrated Training Course. The syllabus for the practical training is contained in Appendix 3.0 to these Technical Standards.

61.08.4 THEORETICAL KNOWLEDGE EXAMINATION FOR AIRLINE TRANSPORT PILOT LICENCE (HELICOPTER)

1. Theoretical Knowledge Examination

1.1 The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(d) Navigation Plotting;

(e) Instruments and Electronics;

(f) Aircraft Technical and General.

1.2 In the case of a student pilot following an integrated course or a private pilot, the following two exams will also have to be written:

(a) Human Performance and Limitations;

(b) Air Law and Operational Procedures.

4. *Theoretical knowledge course syllabus*

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to these Technical Standards.

61.08.5 SKILLS TEST FOR AIRLINE TRAINSPORT PILOT LICENCE (HELICOPTER)

The practical test standard shall be conducted in accordance with Appendix 9.0 to these Technical Standards.

61.08.6 APPLICATION FOR AIRLINE TRANSPORT PILOT LICENCE (HELICOPTER)

(1) The application for an Airline Transport Pilot licence (Helicopter) shall be made on Form FSS PEL 61-03.

(2) The logbook summary shall be completed in the format indicated on the following page and submitted together with the application form.

(3) Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-32, in respect of retesting. The skills test Form FSS PEL 61-36, completed by the Designated Flight Examiner, shall accompany the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
R22							40.0	27.2		
R44	15.0						53.3	67.2		
FNPT 1		21.0								
Bell 206LT	5.0									
Bell47T	29.0						12.0	250.7	120.2	

AS332	37.8	17.0								
NAMIBIAN330	17.0	34.4								
SK 61	103.2	65.0								
	276.8	103.0					105.3	345.1	120.2	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
12.0	4.5										
	3.0										
				9.1	2.0			2.0	1.0		
2.0	50.7	20.2	138.4								
				7.0	237.0	120.0	572.0	3.1	9.4	2.7	15.8
				4.0	120.0	60.0	420.0	2.0	4.7	3.2	45.8
				12.0		230.0	952.0	10.0		15.0	158.0
14.0	58.2	20.2	138.4	32.1	359.0	410.0	1944.0	17.0	15.1	20.9	219.6
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			3809.1		Hours						

61.08.7 ISSUING OF AIRLINE TRANSPORT PILOT LICENCE (HELICOPTER)

The airline transport pilot licence (helicopter) shall be issued in a form determined by the Executive Director .

61.08.11 MAINTENANCE OF COMPETENCY OF AIRLINE TRANSPORT PILOT LICENCE (HELICOPTER)

The requirements for class and type ratings are defined in 61.01.7 of these Technical Standards.

61.09.3 TRAINING FOR MICROLIGHT PILOT LICENCE

1. General requirements

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a microlight pilot licence, and provide the training necessary to act, but not for remuneration, as pilot-in-command of any microlight aeroplane for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course which is outlined in Appendix R62.02 and Appendix R62.05; and

(b) practical training course.

2. Conventional microlight aeroplanes

2.1 Practical training

The practical training must be done according to Appendix R62.01

2.2 Additional type ratings by name for conventional microlight aeroplanes

An applicant for the issue of an additional type rating for conventional microlight aeroplanes shall pass the technical exams on the aeroplane for which the type rating is sought and which will include:

a) All technical aspects and specifications of the aeroplane

b) All flight parameters of the aeroplane

c) Any special safety considerations for that particular aeroplane type

3. Weight-Shift microlight aeroplanes

3.1 Training

The practical training must be done according to APPENDIX R62.04

3.2 Additional type ratings for weight-shift controlled microlight aeroplanes

An applicant for the issue of an additional type rating for weight-shift controlled microlight aeroplanes shall pass the technical exams on the aeroplane for which the type rating is sought and which will include:

(a) All technical aspects and specifications of the aeroplane

(b) All flight parameters of the aeroplane

(c) Any special safety considerations for that particular aeroplane type

61.09.4 THEORETICAL KNOWLEDGE EXAMINATION FOR MICROLIGHT PILOT LICENCE

1. Content

(a) The contents of the written theoretical knowledge examination for conventional microlight aeroplanes must be based on the theoretical training described in APPENDIX R 62.02.

(b) The contents of the written theoretical knowledge examination for weight –shift microlight aeroplanes must be based on the theoretical training described in APPENDIX R 62.05

(c) The written theoretical knowledge examination shall be invigilated by the holder of an appropriately qualified Grade I microlight aeroplane flight instructor.

(d) The pass mark for the theoretical knowledge examination is 75%.

2. Radio Telephony

(a) To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are –

(b) ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

(c) Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

(d) The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

(e) Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved CAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to these Technical Standards.

(f) Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

i. Use of Radio on the Ground.

ii. Obtaining and complying with taxi instructions.

iii. Knowing what to expect from the Air Traffic Control (ATC).

iv. The importance of reading back all “hold short of instructions”.

v. The avoidance of runway incursions.

vi. Meaning of "give way to other aircraft".

vii. Obtaining and complying with take-off instructions.

viii. Importance of understanding "line up behind".

ix. Importance of reading back the take-off clearance.

x. Importance of reading back any other required instructions.

xi. Radio procedures at unmanned/uncontrolled aerodromes.

(g) Departure procedures.

i. Knowing what to expect in respect of departure procedures.

ii. Required calls to be made on leaving the aerodrome circuit area.

(h) *En route* procedures.

i. Knowing what call should be made to which station and when according to the airspace requirements.

ii. Knowing the required in-flight broaNCAAst procedure applicable to uncontrolled airspace.

iii. Making a position report.

iv. Obtaining relevant weather information, use of ATIS.

v. Making appropriate weather reports (PIREPS).

vi. Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

vii. Transponder use.

viii. Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

ix. Relaying messages for other stations.

(i) Arrival and traffic pattern procedures.

i. Knowing what to expect.

ii. Arrival clearance/instructions.

iii. Calls and ATC instructions whilst joining the traffic pattern.

iv. Calls to be made in the circuit.

v. Calls to be made on vacating the runway.

(j) Applicants for a Restricted Radio Certificate shall attach a certificate of competency from the Communications Regulating Authority of Namibia when applying for a microlight pilot licence.

61.09.5 SKILLS TEST FOR MICROLIGHT PILOT LICENCE

1. General

(a) An applicant for a recreational pilot licence to be issued with a type rating or class rating for either conventional microlight aeroplanes and/or weight-shift microlight aeroplanes must demonstrate his skill in the following procedures to an appropriately qualified Grade I Microlight Flight Instructor of a conventional microlight aeroplane and/or weight-shift microlight aeroplane who had not been involved in more than 3 hours of instruction with the applicant.

(b) Procedures and actions to be tested during the skill test for conventional microlight aeroplanes are contained in APPENDIX 62.03.

(c) Procedures and actions to be tested during the skill test for conventional microlight aeroplanes are contained in APPENDIX 62.06.

2. Skill test report

(a) The flight instructor conducting the skill test must complete the assessment report on form FSS PEL 62-20, with reference to the standard of assessment on a scale of 1 to 4 as contained in the test report form.

61.09.6 APPLICATION FOR MICROLIGHT PILOT LICENCE

An application for the issuing of a microlight pilot licence shall be made on FSS PEL 62-02 and an application for a class rating or additional type rating for microlight aeroplanes shall be made on forms FSS PEL 62-04 or FSS PEL 62-04a as applicable.

61.09.7 ISSUING OF MICROLIGHT PILOT LICENCE

A microlight pilot licence shall be issued in the form determined by the Executive Director.

61.10.3 TRAINING FOR GLIDER PILOT LICENCE

1. Training

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a glider pilot licence, and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any glider for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course.

61.10.4 THEORETICAL KNOWLEDGE EXAMINATION FOR GLIDER PILOT LICENCE

1. Theoretical knowledge course

1.1. *Theoretical knowledge course syllabus*

1.1.1 The detailed theoretical knowledge syllabus is contained in Appendix 1.0 to these Technical Standards.

1.1.1 The practical training syllabus is contained in Appendix 1.1A to these Technical Standards.

2. *Radio Telephony*

5.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are –

5.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

5.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

5.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

5.1.4 Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved CAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to these Technical Standards.

5.2. Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

(a) Use of Radio on the Ground.

(i) Obtaining and complying with taxi instructions.

(ii) Knowing what to expect from the Air Traffic Control (ATC).

(iii) The importance of reading back all "hold short of instructions".

(iv) The avoidance of runway incursions.

(v) Meaning of "give way to other aircraft".

(vi) Obtaining and complying with take-off instructions.

(vii) Importance of understanding "line up behind".

(viii) Importance of reading back the take-off clearance.

(ix) Importance of reading back any other required instructions.

(x) Radio procedures at unmanned/uncontrolled aerodromes.

(b) Departure procedures.

(i) Knowing what to expect in respect of departure procedures.

(ii) Required calls to be made on leaving the aerodrome circuit area.

(c) *En route* procedures.

(i) Knowing what call should be made to which station and when according to the airspace requirements.

(ii) Knowing the required in-flight broaNCAAst procedure applicable to uncontrolled airspace.

(iii) Making a position report.

(iv) Obtaining relevant weather information, use of ATIS.

(v) Making appropriate weather reports (PIREPS).

(vi) Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

(vii) Transponder use.

(viii) Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

(ix) Relaying messages for other stations.

(d) Arrival and traffic pattern procedures.

(i) Knowing what to expect.

(ii) Arrival clearance/instructions.

(iii) Calls and ATC instructions whilst joining the traffic pattern.

(iv) Calls to be made in the circuit.

(v) Calls to be made on vacating the runway.

5.3. Applicants for a Restricted Radio Certificate shall attach a certificate of competency from the Communications Regulating Authority of Namibia when applying for a glider pilot licence.

2. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects –

(a) Aviation Meteorology (duration: 60 min);

(b) Flight Performance and Planning (duration: 90 min);

(c) General Navigation (duration: 90 min);

(d) Aircraft General (duration: 45 min);

(e) Principles of Flight (duration: 45 min);

(f) Human Performance and Limitations (duration: 45 min);

(g) Air Law (duration: 60min).

3. Practical Skills test/proficiency check Standard

The Practical Skills test/proficiency check Standard is found in Appendix 1.2A to these Technical Standards.

61.10.5 SKILLS TEST FOR GLIDER PILOT LICENCE

1. The Skills Test shall be conducted in accordance with Appendix 1.2A to these Technical Standards. Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-38, in respect of retesting. The skills test Form FSS PEL 61-38, completed by the Designated Flight Examiner, shall accompany the application form.

2. The navigation element of the skills test administered for the issuing of a glider pilot licence may be conducted as a separate flight within a maximum period of 14 days.

3. The cross-country navigation flight of the skills test shall not be less than 25 nautical miles total distance and must include 20 launches and landings. At least one of the landing strips from which the aircraft takes off for this flight shall be an aerodrome at which an Air Traffic Services Unit (ATSU) is in operation.

61.10.6 APPLICATION FOR GLIDER PILOT LICENCE

1. The application for a glider pilot licence shall be made on Form FSS PEL 61-02.

2. The logbook summary shall be completed in the format indicated at the next page and submitted together with the application form.

3. The skills test report form to be used is form FSS PEL 61-38.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							4.3	4.3		
C 172	3.0						15.2	12.9		
FNPT 1		3.8					18.0	4.3		
	3.0	3.8					37.5	21.5		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			59.0		Hours						

61.10.7 ISSUING OF GLIDER PILOT LICENCE

A glider pilot licence shall be issued in the form determined by the Executive Director.

61.11.3 TRAINING FOR FREE BALLOON PILOT LICENCE

1. Training

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a free balloon pilot licence, and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any free balloons for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course.

61.11.4 THEORETICAL KNOWLEDGE EXAMINATION FOR FREE BALLOON PILOT LICENCE

1. Theoretical knowledge course

1.1. *Theoretical knowledge course syllabus*

1.1.1 The detailed theoretical knowledge syllabus is contained in Appendix 1.0 to these Technical Standards.

1.1.1 The practical training syllabus is contained in Appendix 1.1B to these Technical Standards.

1.2. *Radio Telephony*

1.2.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are –

1.2.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

1.2.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

1.2.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

1.2.1.4 Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved CAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to these Technical Standards.

1.2.2. Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

(a) Use of Radio on the Ground.

(i)Obtaining and complying with taxi instructions.

(ii)Knowing what to expect from the Air Traffic Control (ATC).

(iii)The importance of reading back all "hold short of instructions".

(iv)The avoidance of runway incursions.

(v)Meaning of "give way to other aircraft".

(vi)Obtaining and complying with take-off instructions.

(vii)Importance of understanding "line up behind".

(viii)Importance of reading back the take-off clearance.

(ix)Importance of reading back any other required instructions.

(x)Radio procedures at unmanned/uncontrolled aerodromes.

(b) Departure procedures.

(i) Knowing what to expect in respect of departure procedures.

(ii) Required calls to be made on leaving the aerodrome circuit area.

(c) *En route* procedures.

(i) Knowing what call should be made to which station and when according to the airspace requirements.

(ii) Knowing the required in-flight procedure applicable to uncontrolled airspace.

(iii) Making a position report.

(iv) Obtaining relevant weather information, use of ATIS.

(v) Making appropriate weather reports (PIREPS).

(vi) Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

(vii) Transponder use.

(viii) Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

(ix) Relaying messages for other stations.

(d) Arrival and traffic pattern procedures.

(I)Knowing what to expect.

(ii)Arrival clearance/instructions.

(iii)Calls and ATC instructions whilst joining the traffic pattern.

(iv)Calls to be made in the circuit.

(v)Calls to be made on vacating the runway.

1.2.3. Applicants for a Restricted Radio Certificate shall attach a certificate of competency from the Communications Regulating Authority of Namibia when applying for a free balloon pilot licence.

2. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects –

(a) Aviation Meteorology (duration: 60 min);

(b) Flight Performance and Planning (duration: 90 min);

(c) General Navigation (duration: 90 min);

(d) Aircraft General (duration: 45 min);

(e) Principles of Flight (duration: 45 min);

(f) Human Performance and Limitations (duration: 45 min);

(g) Air Law (duration: 60min).

61.11.5 SKILLS TEST FOR FREE BALLOON PILOT LICENCE

1. The Practical Skills test/proficiency check Standard is found in Appendix 1.2B to these Technical Standards.

2. The Skills Test shall be conducted in accordance with Appendix 1.4B to these Technical Standards. Guidance to the instructor is provided on page 2 of the skills test form, Form FSS PEL 61-39, in respect of retesting. The skills test Form FSS PEL 61-39, completed by the Grade I Instructor shall accompany the application form.

2. The navigation element of the skills test administered for the issuing of a free balloon pilot licence may be conducted as a separate flight within a maximum period of 14 days.

3. The cross-country flight of the skills test shall include using visual reference and dead reckoning.

61.11.6 APPLICATION FOR FREE BALLOON PILOT LICENCE

1. The application for a free balloon pilot licence shall be made on Form FSS PEL 61-02.

2. The logbook summary shall be completed in the format indicated at the next page and submitted together with the application form.

3. The skills test report form to be used is form FSS PEL 61-39.

5. Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							4.3	4.3		
C 172	3.0						15.2	12.9		
FNPT 1		3.8					18.0	4.3		
	3.0	3.8					37.5	21.5		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			59.0		Hours						

61.11.7 ISSUING OF FREE BALLOON PILOT LICENCE

The free balloon pilot licence shall be issued in the form determined by the Executive Director .

61.12.3 TRAINING FOR FREE BALLOON PILOT LICENCE FOR COMMERCIAL PURPOSES

1. Training

1.1 *Aim of training course*

The aim of the course is to train a candidate to the level of proficiency required for the issue of a Commercial Free Balloon Pilot licence, and provide the training necessary to act as pilot-in-command or as co-pilot of any free balloon for which he or she holds a valid class or type rating, engaged in commercial operations.

1.2 *Contents and requirements of training course*

1.2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

1.2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course. The syllabus for the practical training is contained in Appendix 2.1A. to these Technical Standards.

61.12.4 THEORETICAL KNOWLEDGE EXAMINATION FOR FREE BALLOON FOR COMMERCIAL PURPOSES

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects:

1.1 In the case of CPL VFR:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

(g) Human Performance and Limitations;

(h) Air Law.

2. ***Theoretical knowledge course syllabus***

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to these Technical Standards.

3. ***Radio Telephony***

3.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are:

3.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

3.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

3.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

3.1.4 Applicants for a General Radio Certificate shall pass a theoretical General Radio Examination at an approved NCAA examination centre. The training syllabus for a General Radio Certificate is contained in Appendix 1.5a to Document NAM-CATS-FCL 61.

3.2 Applicants for a General Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner (General). The practical test shall include the full completion of an ATC IFR Flight Plan and examine, at minimum, the following aspects for an IFR flight departing on a standard or non-standard departure from a controlled aerodrome, into a CTR/TMA, flying in both controlled and uncontrolled airspace en route to a controlled airfield as destination, complying with a standard arrival (STAR) and the completion of an instrument approach procedure (precision or non-precision):

(a) Use of Radio on the Ground –

(i) Obtaining start clearance

(ii) Obtaining taxi clearance

(iii) Acceptance and read back of ATC departure clearance (Standard/non-standard)

(b) Departure procedure –

(i) Take-off clearance

(ii) Use of SID chart/compliance with non-standard departure procedure

(iii) Selection of departure frequency and contact with relevant ATSU

(iv) Use of area chart if applicable

(c) En route procedures –

(i) Use of radio navigation chart

(ii) Selection of frequencies appropriate to the route

(iii) Passing and revising estimates

(iv) Complying with onward clearance time (OCT)

(d) Arrival procedures –

(i) Use of area chart if applicable

(ii) Acceptance and review of STAR and instrument approach charts

(iii) Radar vectors to ILS localiser or

Holding beacon for non-precision approach including expected approach time (EAT)

(iv) Establishing weather minima at landing aerodrome and compliance with Approach Ban

(v) Completion of instrument approach procedure using IAC and correct radio procedures

(e) Radio communication failure –

Emphasis shall be placed on correct use of aviation words and phrases as well as the avoidance of slang terms.

61.12.5 SKILLS TEST FOR FREE BALLOON PILOT LICENCE FOR COMMERCIAL PURPOSES

The practical test standard shall be conducted in accordance with Appendix 2.1B to NAM-CATS-FCL 61

61.12.6 APPLICATION FOR FREE BALLOON PILOT LICENCE FOR COMMERCIAL PURPOSES

1. The application for a Free Balloon Pilot Licence for Commercial purposes shall be made on Form FSS PEL 61-03.

2. The logbook summary shall be completed in the format indicated on the following page and submitted together with the application form.

3. Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-39, in respect of retesting. The skills test Form FSS PEL 61-39, completed by the Designated Flight Examiner, shall accompany the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							40.0	27.2		
C 172	15.0.0						53.3	67.2		
FNPT 1		21.0								
BE 55	5.0									
	20.0	21.0					93.3	94.4		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
12.0	4.5										
	3.0										
				9.1	2.0			2.0	1.0		
12.0	7.5			9.1				2.0	1.0		
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			219.3		Hours						

61.12.7 ISSUING OF FREE BALLOON PILOT LICENCE FOR COMMERCIAL PURPOSES

The practical test standard shall be conducted in accordance with Appendix 2.1B to these Technical Standards.

61.13.3 TRAINING FOR AIRSHIP PILOT LICENCE

1. Training

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of an airship pilot licence, and provide the training necessary to act, but not for remuneration, as pilot-in-command or as co-pilot of any airships for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course.

3. *Theoretical knowledge course syllabus*

3.1 The detailed theoretical knowledge syllabus is contained in Appendix 1.0 to these Technical Standards.

3.2 The practical training syllabus is contained in Appendix 1.2C to these Technical Standards.

4. *Radio Telephony*

4.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are –

4.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

4.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

4.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

4.1.4 Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved CAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to Document NAM-CATS-FCL 61.

4.2. Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

(a) Use of Radio on the Ground.

(i) Obtaining and complying with taxi instructions.

(ii) Knowing what to expect from the Air Traffic Control (ATC).

(iii) The importance of reading back all "hold short of instructions".

(iv) The avoidance of runway incursions.

(v) Meaning of "give way to other aircraft".

(vi) Obtaining and complying with take-off instructions.

(vii) Importance of understanding "line up behind".

(viii) Importance of reading back the take-off clearance.

(ix) Importance of reading back any other required instructions.

(x) Radio procedures at unmanned/uncontrolled aerodromes.

(b) Departure procedures.

(i) Knowing what to expect in respect of departure procedures.

(ii) Required calls to be made on leaving the aerodrome circuit area.

(c) *En route* procedures.

(i) Knowing what call should be made to which station and when according to the airspace requirements.

(ii) Knowing the required in-flight procedure applicable to uncontrolled airspace.

(iii) Making a position report.

(iv) Obtaining relevant weather information, use of ATIS.

(v) Making appropriate weather reports (PIREPS).

(vi) Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

(vii) Transponder use.

(viii) Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

(ix) Relaying messages for other stations.

(d) Arrival and traffic pattern procedures.

(i) Knowing what to expect.

(ii) Arrival clearance/instructions.

(iii) Calls and ATC instructions whilst joining the traffic pattern.

(iv) Calls to be made in the circuit.

(v) Calls to be made on vacating the runway.

4.3. Applicants for a Restricted Radio Certificate shall attach a certificate of competency from the Communications Regulating Authority of Namibia when applying for an airship pilot licence.

61.13.4 THEORETICAL KNOWLEDGE EXAMINATION FOR AIRSHIP PILOT LICENCE

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects –

(a) Aviation Meteorology (duration: 60 min);

(b) Flight Performance and Planning (duration: 90 min);

(c) General Navigation (duration: 90 min);

(d) Aircraft General (duration: 45 min);

(e) Principles of Flight (duration: 45 min);

(f) Human Performance and Limitations (duration: 45 min);

(g) Air Law (duration: 60min).

61.13.5 SKILL TEST FOR AIRHSIP PILOT LICENCE

1. Practical Skills test/proficiency check Standard

The Practical Skills test/proficiency check Standard is found in Appendix 1.1C to these Technical Standards.

2. Skill Test

1. The Skills Test shall be conducted in accordance with Appendix 1.2C to these Technical Standards. Guidance to the Instructor is provided on page 2 of the skills test form, Form FSS PEL 61-40, in respect of retesting. The skills test Form FSS PEL 61-40, completed by the Grade I Instructor shall accompany the application form.

2. The navigation element of the skills test administered for the issuing of an airship pilot licence may be conducted as a separate flight within a maximum period of 14 days.

3. The cross-country navigation flight of the skills test shall not be less than 25 nautical miles total distance and must include five ascents and landings.

61.13.6 APPLICATION FOR AIRSHIP PILOT LICENCE

1. The application for an airship pilot licence shall be made on Form FSS PEL 61-02.

2. The logbook summary shall be completed in the format indicated at the next page and submitted together with the application form.

3. The skills test report form to be used is form FSS PEL 61-40.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							4.3	4.3		
C 172	3.0						15.2	12.9		
FNPT 1		3.8					18.0	4.3		
	3.0	3.8					37.5	21.5		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			59.0		Hours						

61.13.7 ISSUING OF AIRSHIP PILOT LICENCE

An airship pilot licence shall be issued in a form determined by the Executive Director.

61.14.3 TRAINING FOR AIRSHIP PILOT LICENCE COMMERCIAL PURPOSES

1. Training

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a Commercial Airship Pilot licence, and provide the training necessary to act as pilot-in-command or as co-pilot of any airship for which he or she holds a valid class or type rating, engaged in commercial operations.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course. The syllabus for the practical training is contained in Appendix 2.1. to these Technical Standards.

3. *Theoretical knowledge course syllabus*

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to these Technical Standards.

4. *Radio Telephony*

4.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are:

4.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

4.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

4.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

4.1.4 Applicants for a General Radio Certificate shall pass a theoretical General Radio Examination at an approved NCAA examination centre. The training syllabus for a General Radio Certificate is contained in Appendix 1.5a to these Technical Standards.

4.2 Applicants for a General Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner (General). The practical test shall include the full completion of an ATC IFR Flight Plan and examine, at minimum, the following aspects for an IFR flight departing on a standard or non-standard departure from a controlled aerodrome, into a CTR/TMA, flying in both controlled and uncontrolled airspace en route to a controlled airfield as destination, complying with a standard arrival (STAR) and the completion of an instrument approach procedure (precision or non-precision):

(a) Use of Radio on the Ground –

(i) Obtaining start clearance

(ii) Obtaining taxi clearance

(iii) Acceptance and read back of ATC departure clearance (Standard/non-standard)

(b) Departure procedure –

(i) Take-off clearance

(ii) Use of SID chart/compliance with non-standard departure procedure

(iii) Selection of departure frequency and contact with relevant ATSU

(iv) Use of area chart if applicable

(c) En route procedures –

(i) Use of radio navigation chart

(ii) Selection of frequencies appropriate to the route

(iii) Passing and revising estimates

(iv) Complying with onward clearance time (OCT)

(d) Arrival procedures –

(i) Use of area chart if applicable

(ii) Acceptance and review of STAR and instrument approach charts

(iii) Radar vectors to ILS localiser or Holding beacon for non-precision approach including expected approach time (EAT)

(iv) Establishing weather minima at landing aerodrome and compliance with Approach Ban

(v) Completion of instrument approach procedure using IAC and correct radio procedures

(e) Radio communication failure –

Emphasis shall be placed on correct use of aviation words and phrases as well as the avoidance of slang terms.

61.14.4 THEORETICAL KNOWLEDGE EXAMINATION FOR AISHIP PILOT LICENCE FOR COMMERCIAL PURPOSES

1. Theoretical Knowledge Examination

The knowledge acquired must be sufficient for the candidate to pass examinations in the following theoretical knowledge subjects:

1.1 In the case of CPL VFR only:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

(g) Human Performance and Limitations;

(h) Air Law.

1.2 In the case of CPL with IFR:

(a) Aviation Meteorology;

(b) Flight Performance and Planning;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Instruments and Electronics;

(f) Aircraft Technical and General;

(g) Human Performance and Limitations;

(h) Air Law and Operational Procedures.

61.14.5 SKILL TEST FOR AIRSHIP PILOT LICENCE FOR COMMERCIAL PURPOSES

The practical test standard shall be conducted in accordance with Appendix 2.2B to these Technical Standards.

61.14.6 APPLICATION FOR AIRSHIP PILOT LICENCE FOR COMMERCIAL PURPOSES

1. The application for a Airship Pilot Licence for commercial purposes shall be made on Form FSS PEL 61-03.

2. The logbook summary shall be completed in the format indicated on the following page and submitted together with the application form.

3. Guidance to Designated Flight Examiner is provided on page 2 of the skills test form, Form FSS PEL 61-40, in respect of retesting. The skills test Form FSS PEL 61-37, completed by the Designated Flight Examiner, shall accompany the application form.

Logbook Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A/C Class	Instrument			Instructor		FSTD	Single Engine Day			
or Type	Actual Time	FSTD Time	SE	ME	FSTD		Dual	PIC	PICUS	Co-Pilot
PA 160							40.0	27.2		
C 172	15.0.0						53.3	67.2		
FNPT 1		21.0								
BE 55	5.0									

	20.0	21.0					93.3	94.4		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Single Engine Night				Multi Engine Day				Multi Engine Day			
Dual	PIC	PICUS	Co-Pilot	Dual	PIC	PICUS	Co-pilot	Dual	PIC	PICUS	Co-pilot
12.0	4.5										
	3.0										
				9.1	2.0			2.0	1.0		
12.0	7.5			9.1				2.0	1.0		
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Total Flight Time			219.3		Hours						

61.14.7 ISSUING OF AIRSHIP PILOT LICENCE FOR COMMERCIAL PURPOSES

An airship pilot licence for commercial purposes shall be issued in a form determined by the Executive Director .

61.15.3 TRAINING FOR GYROPLANE PILOT LICENCE

1. General training requirements

1. *Aim of training course*

1.1 The aim of the course is to train a candidate to the level of proficiency required for the issue of a gyroplane pilot licence, and provide the training necessary to act, but not for remuneration, as pilot-in-command of any gyroplane for which he or she holds a valid class or type rating, engaged in non-revenue flights under visual flight rules.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course comprises –

(a) theoretical knowledge course as contained in Appendix R62.08; and

(b) practical training course.

3 Training

3.1 The practical training must be done according to Appendix R62.07.

4 Additional type ratings by name for gyroplanes

An applicant for the issue of an additional type rating for gyroplanes shall pass the technical exams on the gyroplane for which the type rating is sought and which will include:

d) All technical aspects and specifications of the gyroplane

e) All flight parameters of the gyroplane

f) Any special safety considerations for that particular gyroplane

61.15.4 THEORETICAL KNOWLEDGE EXAMINATION FOR GYROPLANE PILOT LICENCE

1. Content

(a) The contents of the written theoretical knowledge examination must be based on the theoretical training described in APPENDIX R 62.08.

(b) The written theoretical knowledge examination shall be invigilated by the holder of an appropriately qualified Grade I gyroplane flight instructor.

(c) The pass mark for the theoretical knowledge examination is 75%.

2. Radio Telephony

(k) To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are –

(l) ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g. use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

(m) Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

(n) The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

(o) Applicants for a Restricted Radio Certificate shall pass a theoretical Restricted Radio Examination at an approved CAA examination centre. The training syllabus for a Restricted Radio Certificate is contained in Appendix 1.5 to these Technical Standards.

(p) Applicants for a Restricted Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner. The practical test shall include the full completion of an ATC Flight Plan and examine at minimum the following aspects:

i. Use of Radio on the Ground.

ii. Obtaining and complying with taxi instructions.

iii. Knowing what to expect from the Air Traffic Control (ATC).

iv. The importance of reading back all “hold short of instructions”.

v. The avoidance of runway incursions.

vi. Meaning of “give way to other aircraft”.

vii. Obtaining and complying with take-off instructions.

viii. Importance of understanding “line up behind”.

ix. Importance of reading back the take-off clearance.

x. Importance of reading back any other required instructions.

xi. Radio procedures at unmanned/uncontrolled aerodromes.

(q) Departure procedures.

i. Knowing what to expect in respect of departure procedures.

ii. Required calls to be made on leaving the aerodrome circuit area.

(r) *En route* procedures.

i. Knowing what call should be made to which station and when according to the airspace requirements.

ii. Knowing the required in-flight broaNCAAst procedure applicable to uncontrolled airspace.

iii. Making a position report.

iv. Obtaining relevant weather information, use of ATIS.

v. Making appropriate weather reports (PIREPS).

vi. Knowing the difference between positively controlled airspace as opposed to a Flight Information Service (FIS).

vii. Transponder use.

viii. Procedure to obtain bearings, headings and position from air traffic control/FIS Altimeter setting procedures.

ix. Relaying messages for other stations.

(s) Arrival and traffic pattern procedures.

i. Knowing what to expect.

ii. Arrival clearance/instructions.

iii. Calls and ATC instructions whilst joining the traffic pattern.

iv. Calls to be made in the circuit.

v. Calls to be made on vacating the runway.

(t) Applicants for a Restricted Radio Certificate shall attach a certificate of competency from the Communications Regulating Authority of Namibia when applying for a gyroplane pilot licence.

61.15.5 SKILLS TEST FOR GYROPLANE PILOT LICENCE

1. General

(a) An applicant for a gyroplane pilot licence to be issued with a type rating or class rating for gyroplanes must demonstrate his skill in the following procedures to an appropriately qualified Grade I Flight Instructor (gyroplanes) who had not been involved in more than 3 hours of instruction with the applicant:

(b) Procedures and actions to be tested according to APPENDIX R 62.09.

2. Skill test report

The flight instructor conducting the skill test must complete the assessment report on form FSS PEL 62-20 with reference to the standard of assessment on a scale of 1 to 4 as indicated on the test report form.

61.15.6 APPLICATION FOR GYROPLANE PILOT LICENCE

An application for the issuing of a gyroplane pilot licence and an application for a class rating or additional type rating for gyroplanes shall be made on forms FSS PEL 62-04 or FSS PEL 62-04a as applicable.

61.15.7 ISSUING OF GYROPLANE PILOT LICENCE

A gyroplane pilot licence shall be issued in the form determined by the Executive Director .

61.16.2 TRAINING FOR TYPE RATINGS

1. Training and prior qualifications

The training and prior qualification requirements for the issuing of class and type ratings (including high performance aeroplanes) are set out in Table A.

Table A

	SE Class	**SE/SP Type**	**ME Class**	**1st ME/SP Type**	**HPA**	**Multi-pilot**
Applicable Tables *	1, 2, 3	5	1	4, 6, 7	2, 4, 5, 6, 7	8
Instrument rating (ME)	N/A	N/A	N/A	N/A	Desirable	Required
MCC training	N/A	N/A	N/A	N/A	N/A	Required
ATP theory credit	N/A	N/A see HPA	N/A	N/A	Required, or additional theory training	Required
Theoretical knowledge	Appendix 8.0 to NAMIBIAN-CATS-FCL 61	Appendix 8.0 to NAMIBIAN-CATS-FCL 61	Appendix 8.0 to NAMIBIAN-CATS-FCL 61	Appendix 8.0 to NAMIBIAN-CATS-FCL 61	Appendix 8.2 to NAMIBIAN-CATS-FCL 61	Appendix 8.1 to NAMIBIAN-CATS-FCL 61
Practical training	Appendix 10.0 to NAMIBIAN-CATS-FCL 61	Appendix 10.0 to NAMIBIAN-CATS-FCL 61	Appendix 10.2 to NAMIBIAN-CATS-FCL 61	Appendix 10.2 to NAMIBIAN-CATS-FCL 61	Appendix 10.1 to NAMIBIAN-CATS-FCL 61	Appendix 10.3 to NAMIBIAN-CATS-FCL 61

2. General

(1) The type rating course, including theoretical knowledge, shall be completed within the 3 months preceding the skills test.

(2) Where the type is new to the aircraft register or a manufacturer requires specific type training, then the training done through that manufacturer or TRTO shall be acceptable as part of the type training requirements as referred to above.

(3) Where the type is new to the aircraft register and the pilot is able to present a FAA/JAR skills test carried out by a pre-approved examiner and where that skills test includes the oral exam pertaining to that regulatory authority, then that skills test will be deemed as being compliant with the Civil Aviation Regulations, 2001.

3. Class and Type Rating Training syllabus

1. Theoretical knowledge instruction requirements for class/type ratings

1.1 The theoretical knowledge instruction shall be conducted by competent persons having appropriate experience in aviation and knowledge of the aircraft concerned, e.g. flight instructor, flight engineer, maintenance engineer.

1.2 The theoretical knowledge instruction shall cover the syllabus in Appendix 8.0 to NAM-CATS-FCL 61, as appropriate to the aircraft class/type concerned. Depending on the equipment and systems installed, the instruction shall include but is not limited to the following content

(a) *Aircraft structure and equipment, normal operation of systems and malfunctions*

(i) Dimensions;

(ii) Engine including auxiliary power unit;

(iii) Fuel system;

(iv) Pressurisation and air-conditioning;

(v) Ice protection, windshield wipers and rain repellent;

(vi) Hydraulic systems;

(vii) Landing gear;

(viii) Flight controls, lift devices;

(ix) Electrical power supply;

(x) Flight instruments, communication, radar and navigation equipment;

(xi) Cockpit, cabin and cargo compartment;

(xii) Emergency equipment.

(b) *Limitations*

(i) General limitations;

(ii) Engine limitations;

(iii) System limitations;

(iv) Minimum equipment list.

(c) *Performance, flight planning and monitoring*

(i) Performance;

(ii) Flight planning;

(iii) Flight monitoring.

(d) *Load, balance and servicing*

(i) Load and balance;

(ii) Servicing on ground.

(e) *Emergency procedures*

(f) *Special requirements for extension of a type rating for instrument approaches down to a decision height of less than 200 ft (60 m)*

(i) Airborne equipment, procedures and limitations.

(g) *Special requirements for "glass cockpit" aeroplanes*

(i) Electronic flight instrument systems (e.g. EFIS, EICAS).

(h) *Flight Management systems (FMS)*

2. *High Performance Aeroplane (HPA) Training Course of additional theoretical knowledge training for a class or type rating for high performance single-pilot aeroplane and warbird type endorsements.*

2.1 A number of aeroplanes certificated for single-pilot operation have similar performances, systems and navigation capabilities to those more usually associated with multi-pilot types of aircraft, and regularly operate within the same airspace. The level of knowledge required to operate safely in this environment is not part of, or not included to the necessary depth of knowledge in the training syllabi for the PPL (A), CPL (A) or IR (A) but these licence holders may fly as pilot-in-command of such aeroplanes.

2.2 The aim of the theoretical knowledge course is to provide the applicant with sufficient knowledge of those aspects of the operation of aeroplanes capable of operating at high speeds and altitudes, and the aircraft systems necessary for such operation.

2.3 The holder of an ATPL (A) issued by a Contracting State or with a pass in the theoretical knowledge examinations at ATPL (A) level is credited with meeting the requirement of regulation 61.17.4(3).

2.4 A pass in any theoretical knowledge subjects as part of the HPA course will not be credited against meeting future theoretical examination requirements for issue of a CPL (A), IR (A) or ATPL (A).

3. *HPA Course Providers*

Theoretical knowledge instruction for the HPA may be provided by a Part 141 approved aviation training organisation accredited to conduct theoretical knowledge training for the ATPL (A). Course providers will be required to certify completion of the training and demonstration of knowledge by the applicant as a pre-requisite for training for an initial type or class rating for aeroplanes designated as high performance.

4. *HPA Course Syllabus*

There is no mandatory minimum or maximum duration of the theoretical knowledge instruction required for the HPA syllabus. The course material may be conducted by distance learning. The subjects to be covered in the course and written examination are given in Document NAM-CATS-FCL 61.

5. *Multi-crew Co-operation Course*

5.1 The aim of the course is to become proficient in multi-crew co-operation (MCC) in order to operate safely multi-pilot multi-engine aircraft under IFR and, for that purpose, to ensure that–

(a) The pilot-in-command fulfils his managing and decision-making functions irrespective whether he is pilot flying (PF) or pilot not flying (PNF);

(b) The tasks of PF and PNF are clearly specified and distributed in such a manner that the PF can direct his full attention to the handling and control of the aircraft;

(c) Co-operation is effected in an orderly manner appropriate to the normal, abnormal or emergency situations encountered; and

(d) Mutual supervision, information and support are ensured at all times.

6. *Instructors*

Instructors for MCC training shall be approved as instructors for MCC training. They should be current with the latest developments in human factors training and CRM techniques.

7. *Theoretical Knowledge*

The theoretical knowledge syllabus is set out in Appendix 20.0 to Document NAM-CATS-FCL 61. An approved MCC theoretical knowledge course shall comprise not less than 25 hours.

8. *Flying Training*

The flying training syllabus is set out in Appendix 20.0 to Document NAM-CATS-FCL 61.

9. *Certificate of Completion*

On completion of the MCC training course or upon completion of an initial multi-pilot aircraft type endorsement, the applicant shall be issued with a certificate of satisfactory course completion by the CFI.

10. *Cross-Crediting*

A holder of a certificate of completion of MCC training on aeroplanes or helicopters shall be exempted from the requirement to complete the theoretical knowledge syllabus, as set out in Appendix 20.0 to Document NAM-CATS-FCL 61, in the event that applicant seeks multi-crew authorisation on an alternative category of aircraft.

61.16.3 THEORETICAL KNOWLEDGE EXAMINATION FOR TYPE RATINGS

1. HPA Examination

1.1 Demonstration of acquisition of the HPA knowledge will be undertaken by passing an examination set by the training provider and acceptable to the Executive Director . Successfully passing this examination will result in the issue of a certificate indicating that the course and examination have been completed. The syllabus content for theoretical training for High Performance Aircraft is set out in Appendix 8.2 to the NAM-CATS-FCL 61.

1.2 The certificate will represent a 'once only' qualification and will satisfy the requirement for the addition of all future high performance aeroplanes to the holder's licence. The certificate will be valid indefinitely and must be submitted with the application of the first HPA type or class rating.

1.3 The written examination shall consist of not less than 60 multi-choice questions, and may be split into individual subject papers at the discretion of the Part 141 approved aviation training organisation. The pass mark for the examination will be 75%.

2. Class and Type Rating Examinations

1.1 Demonstration of acquisition of the class or type rating knowledge will be undertaken by passing an examination(s) set by the Part 141 training provider or an equivalent organisation acceptable to the Executive Director . Successfully passing this examination will result in the issue of a certificate indicating that the course and examination have been completed.

2.2 For the initial issue of type ratings for multi-pilot aeroplanes the written or computer based examination shall at least comprise one hundred questions distributed appropriately across the main subjects of the syllabus. The pass mark shall be 75% in each of the main subjects of the syllabus.

2.3 For the initial issue of type and class ratings for single-pilot aeroplanes the number of questions in the written or computer based examination shall depend on the complexity of the aeroplane. The pass mark shall be 75%.

2.4 After the examination, the candidate shall review the questions answered incorrectly, with the instructor who provided the theoretical knowledge training, to correct the knowledge deficiency.

61.16.4 SKILLS TESTS

Skills tests, the details of which can be found in Appendix 9.0, 'Guidance for the Conducting of Skills and Proficiency Tests' together with Appendices 9.1, 9.2 and 9.3 to Document NAM-CATS-FCL 61, shall comprise the relevant elements from the following areas of operation

1. Normal Procedures

1.1. Mass and balance data;

1.2. Take-off and landing distance requirements;

1.3. Altitude capability/flight planning;

1.4. Weather interpretation;

1.5. Filing of flight plan;

1.6. Pre-flight inspection;

1.7. Pre-start checks;

1.8. Starting procedures after start procedures;

1.9. Taxiing checks;

1.10. Pre- take-off procedures and checks;

1.11. Crew/pilot briefing;

1.12. Departure procedures;

1.13. Climb procedures including best rate/maximum angle and cruise climb techniques and engine monitoring procedures;

1.14. Cruise techniques;

1.15. Use of navigation systems;

1.16. Use of automation;

1.17. Descent techniques;

1.18. Approach preparation and briefings;

1.19. Flying the approach and relevant procedures;

1.20. Landing techniques;

1.21. After-landing procedures;

1.22. Shutdown procedures; and

1.23. Paperwork requirements.

2. Non-normal Procedures

2.1. Operation on wet or contaminated runways;

2.2. Operation in strong crosswinds;

2.3. Operation in icing conditions;

2.4. Windshear recovery techniques;

2.5. Aborted and alternate engine start procedures;

2.6. Rejected take-off;

2.7. Engine failure procedures;

2.8. System failure procedures;

2.9. Instrument failure procedures;

2.10. Avionic failure procedures;

2.11. Radio failure procedures; and

2.12. Declaring an emergency.

3. Crew Procedures (where applicable)

3.1. CRM;

3.2. Threat and error identification and management;

3.3. Multi-crew co-operation;

3.4. Communication including ATC communications;

3.5. General management of the flight;

3.6. Situational awareness.

4. Theoretical knowledge instruction and checking requirements

An applicant for a class or type rating for single- or multi-engine aircraft shall have completed the required theoretical knowledge instruction and demonstrated the level of knowledge required for the safe operation of the applicable aircraft type.

5. Flight instruction

5.1. An applicant for a class/type rating for single-engine and multi-engine single-pilot aircraft shall have completed a course of theory and flight instruction related to the class/type rating skills test.

5.2. An applicant for a type rating for multi-pilot aeroplanes shall have completed a course of theory and flight instruction related to the type rating skills test.

6. Conduct of training courses

6.1. Training courses shall be conducted by an Aviation Training organisation approved by the Executive Director in terms of Part 141.

6.2. Such courses shall be approved by the Executive Director .

7. Multi-crew co-operation training

7.1. The course shall provide multi-crew co-operation training for –

(a) students attending an integrated course for an airline transport pilot licence; or

(b) the holders of a private pilot licence with instrument rating or commercial pilot licence with instrument rating, who have not graduated from an airline transport pilot integrated course but who wish to obtain an initial type rating on multi-pilot aeroplanes.

7.2. The multi-crew co-operation course shall comprise at least 25 hours of theoretical knowledge instruction and exercises and 20 hours of multi-crew co-operation training. Students attending an airline transport pilot integrated course may have the practical training reduced by 5 hours. Wherever possible, the multi-crew co-operation training should be combined with the initial type rating course on multi-pilot aeroplanes or helicopters.

7.3. The multi-crew co-operation training shall be conducted by an aviation training organisation approved by the Executive Director in terms of Part 141. When multi-crew co-operation training is combined with the initial type rating training for a multi-pilot aeroplane, the practical multi-crew co-operation training

may be reduced to not less than 10 hours provided the same FSTD is used for both the multi-crew co-operation and type rating training.

8. Additional training requirements for type or class ratings on High Performance Single-pilot Aeroplanes or Powered-lifts

The additional training requirements for an applicant for a class or type rating on a high performance single-pilot aeroplane or Powered-lift and who is not the holder of an Airline Transport Pilot's Licence or holds credit for the ATP theoretical knowledge examinations shall be as set out in Appendix 8.2 to NAM-CATS-FCL 61.

9. Warbird Qualification and Experience

The following qualifications and aeronautical experiences apply to warbird types of aeroplanes or Powered-lifts fitted with dual controls –

9.1. The appropriate aeroplane class rating;

9.2. Any applicable design feature endorsements;

9.3. For gas turbine engine powered warbird types of aeroplane or powered-lifts not capable of exceeding Mach 1 in level flight, aeronautical experience of at least –

(a) 300 hours of flight time as pilot-in-command in aeroplanes; or

(b) 30 hours of flight time as pilot-in-command in gas turbine engine powered aeroplanes.

9.4. For gas turbine engine powered warbird types of aeroplanes or powered-lifts capable of exceeding Mach 1 in level flight, aeronautical experience of at least 30 hours of flight time as pilot-in-command in turbojet or turbofan powered aeroplanes with a MMO of at least Mach 0.8;

9.5. In addition, for a warbird type not fitted with dual controls:

(a) for piston engine powered type, at least 30 hours of flight time as pilot-in-command in aircraft having engine power in excess of 450 hp;

(b) for a gas turbine powered type not capable of exceeding Mach 1, at least 30 hours of flight time as pilot-in-command in gas turbine powered aeroplanes or powered-lifts;

(c) for a gas turbine powered warbird type capable of exceeding Mach 1 in level flight, a minimum of 50 hours of flight time in gas turbine powered aeroplanes or powered-lifts capable of exceeding Mach 1 in level flight;

(d) for a warbird with a delta wing, at least 15 hours of flight time as pilot-in-command in aeroplanes or powered lifts fitted with a delta wing;

9.6. For multi-engine warbird aeroplane or powered-lift types, the aeronautical experience (except that mentioned in subparagraph (e) (iv) above) must be in multi-engine aeroplanes or powered-lifts.

9.7. *Multi-pilot Skills Test.* An applicant for a type rating for a multi-pilot aeroplane or powered-lift shall have demonstrated to a Designated Flight Examiner the skills required for the safe operation of the applicable type of aeroplane or powered-lift in a multi-crew environment as a pilot-in-command or a co-pilot as applicable, as set out in Appendices 9.0 and 9.1 to Document NAM-CATS-FCL 61.

9.8. *Multi-engine Class Rating.* An applicant for the issuing of a multi-engine class rating shall have demonstrated to a Designated Flight Examiner the competence to perform as pilot-in-command of the aircraft concerned the procedures and manoeuvres as described in Appendix 9.2 to Document NAM-CATS-FCL 61.

9.9. *Single-engine Class or Type Rating.* An applicant for the issuing of a single-engine class, type rating or touring motor glider class rating shall have demonstrated to a Designated Flight Examiner or an appropriately rated flight instructor the competence to perform as pilot-in-command of the aircraft concerned the procedures and manoeuvres as described in Appendix 9.2 to Document NAM-CATS-FCL 61.

9.10. *Warbird Type Rating*. An applicant for the issuing of a warbird type rating shall have demonstrated to a Designated Flight Examiner or an appropriately rated flight instructor the competence to perform as pilot-in-command of the aircraft concerned the procedures and manoeuvres as described in Appendix 9.3 to Document NAM-CATS-FCL 61.

9.11. *Multi-crew Co-operation.* On completion of the MCC training the applicant shall either demonstrate the ability to perform the duties of a pilot on multi-pilot aeroplanes or powered-lifts by passing the type rating skills test on multi-pilot aeroplanes or powered-lifts as set out in Appendices 9.0 and 9.1 to NAM-CATS-FCL 61, or shall be given a certificate of completion of MCC and have the successful completion of the course endorsed in the logbook.

9.12. The skills test shall have been completed within 6 months of the date of completion of the training course.

9.13 *Airship and Free Balloon Class or Type rating*. An applicant for the issuing of an airship or free balloon class or type rating shall have demonstrated to a Designated Flight Examiner or an appropriately rated flight instructor the competence to perform as pilot-in-command of the aircraft concerned the procedures and manoeuvres as described in Appendix 9.2 to Document NAM-CATS-FCL 61.

9.14 Microlight aeroplane or gyroplane Class or Type rating. An applicant for the issuing of a microlight aeroplane or gyroplane class or type rating shall have demonstrated to a Designated Flight Examiner or an appropriately rated flight instructor the competence to perform as pilot-in-command of the aircraft concerned the procedures and manoeuvres as described in Appendixes R62.03, R62.06 or R62.09 to Document NAM-CATS-FCL 61, as applicable.

9.15. The skill test form applicable to the licence to which the type rating is added, has to be used, e.g. the private pilot skill test form for a type rating to be added to a private pilot licence, etc.

61.16.5 APPLICATION FOR THE ISSUING OF A CLASS OR TYPE RATING

1. Application

Application for a class or type rating shall be made on Form FSS PEL 61-09.

2. Endorsement

Applicable class, or type ratings shall be endorsed in the pilot licence.

61.16.6 ISSUING OF TYPE AND CLASS RATINGS

Class and Type ratings shall be issued in the form determined by the Executive Director .

61.16.9 NOTIFICATION FOR ADDITION OF GROUP TYPE OR TYPE AND CLASS RATING

1. Endorsement of logbook

The logbook of the pilot shall be endorsed in accordance with the requirements of technical standard 61.01.16.

2. Notification of addition of type to group type rating

The notification of the addition of a type to a group type rating shall be made on form FSS PEL 61-52.

61.16.10 NOTIFICATION OF ADDITION OF VARIANT TO TYPE RATING (BY NAME)

1. Endorsement of logbook

The logbook of the pilot shall be endorsed in accordance with the requirements of technical standard 61.01.16.

2. Notification of addition of variant to type rating (by name)

The notification of the addition of a type to a group type rating shall be made on form FSS PEL 61-52 and in instances where multi-crew cooperation is included in the skill test form FSS PEL 61-52 must be accompanied by form FSS PEL 61-58.

61.16.11 RENEWAL OF TYPE OR CLASS RATING

1. Proficiency check

The proficiency check is the skill test referred to in technical standard 61.16.4 above.

2. Application for renewal

The application for the renewal of the type or class rating shall be made on form FSS PEL 61-09a, which includes the temporary rating certificate.

3. Form of rating

The form of the rating shall be determined by the Executive Director .

61.16.12 REISSUE OF TYPE OR CLASS RATING

1. Skill test report

The skill test report is the applicable skill test report for the licence held, namely private pilot, commercial pilot or airline transport pilot, etc.

2. Application for reissue

The application for the reissue of the type or class rating shall be made on form FSS PEL 61-09, which includes the temporary rating certificate.

3. Form of rating

The form of the rating shall be determined by the Executive Director .

61.17.3 TRAINING FOR AN INSTRUMENT RATING

1. Training

1.1 *Aim of the Instrument Rating training course:*

(a) The aim of the Instrument Rating training course is to train a candidate to the level of proficiency necessary to operate aircraft under IFR and in IMC required for the issue of an instrument rating.

(b) The flight instructor conducting the course shall hold the instrument rating instructor (IRI) endorsement and all other applicable endorsements.

(c) The aircraft used for instrument rating training shall meet the minimum equipment requirements for operations under IFR and in IMC.

(d) The training program shall be approved by the Executive Director and shall include the use of an FSTD approved for the purpose of instrument training towards the IR.

(e) The additional instrument rating training required for the multi-engine IR (MEA) may only commence once the candidate has completed the multi- engine class or type rating training.

2 *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course is comprised of –

(a) theoretical knowledge course; and

(b) practical training course.

3. *Theoretical knowledge course*

3.1 An instrument rating theoretical knowledge course shall cover the subjects listed below –

3.2 IF theoretical knowledge –

(a) Aviation Meteorology;

(b) Flight Planning and Performance;

(c) Radio Aids and Communication;

(d) General Navigation;

(e) Air Law and Operational Procedures;

(f) Instruments and Electronics;

(g) Human Performance;

3.3 Theoretical knowledge course syllabus

The detailed theoretical knowledge syllabus is contained in Appendix 2.0 to Document NAM-CATS-FCL 61.

4. *Practical Flight Training course*

4.1 The practical training syllabus for an instrument rating consists of six distinct training phases –

4.1.1 ground training

4.1.2 instrument flying skills

4.1.3 instrument flying procedures

4.1.4 operating procedures under IFR ground training

4.1.5 line oriented flight training (LOFT) and line operational evaluation (LOE)

4.1.6 route familiarization (aircraft flight).

4.2 The detailed practical flight training syllabus is contained in Appendix 12.0.

4.3 Where the RNAV (GNSS) endorsement is sought, the RNAV (GNSS) training must be conducted in compliance with Appendix 12 of NAM-CATS-FCL 61.

4.4 Multi-engine aeroplane instrument flight training shall include the operation of the aeroplane with simulated one engine inoperative, or in the case of an FSTD, one engine inoperative.

4.5 <u>Phase 1 – Ground Training</u>

a. The objective of this phase is to consolidate the candidate's knowledge in the following subjects -

i. performance resulting from power settings and aircraft attitude

ii. scanning techniques and errors

iii. scanning techniques with instrument failures

iv. intercepts and tracking using VOR and NDB (CDI/HSI/RMI)

v. sector entries and holding techniques

vi. procedural non-precision and procedural precision approaches

vii. radar positioning for the purpose of an instrument approach

viii. preparation for a flight under IFR

- all weather operations (AWOPS)
- fuel requirements
- ATC flight plan
- selection of route (flight levels and terrain consideration)
- airspaces
- charts (airport, SID, STAR, approach and en-route)

ix. single-pilot resource management

x. sourcing and interpretation of meteorological data

xi. publications

- AIP;
- AIP supplements;
- Pilot operating handbook;
- SA-CATS;
- NOTAMS;
- Aeronautical Information Circulars (AIC); and
- JEPPESEN

b. The ground training phase must be completed prior to proceeding with the following training phases.

4.6 Phase 2 – Instrument Flying Skills

a. The objective of this phase is to teach the basic instrument flying skills in order to reach the competency level required for the next phases. This phase may be conducted in an aircraft and/or approved FSTD.

b. The training syllabus shall include at least the following exercises -

(i) instrument scanning
(ii) straight and level flight using various airspeeds and aircraft configurations
(iii) climb, cruise and descent attitudes
(iv) turning onto a heading
(v) climbing and descending turns at constant and changing airspeed
(vi) steep turns at constant airspeed
(vii) aircraft handling during slow flight in various configurations
(viii) stall recovery in various aircraft configurations
(ix) recovery from unusual aircraft attitudes
(x) achieving stabilized approach criteria

(xi) go-around

(xii) instrument scanning technique adaptation using limited panel

(xiii) transition from visual flight to instrument flight on take-off

(xiv) transition from instrument flight to visual flight on landing

c. Previous instrument training experience may be credited towards the training requirements for this phase, subject to competency of the candidate. This competency shall be assessed by the flight instructor conducting the instrument rating training.

4.7 Phase 3 – Instrument Flying Procedures

a. The objective of this phase is to train the candidate to the required level of competency in instrument flying procedures

b. The candidate must have passed the IR theoretical knowledge examination prior to proceeding with this phase of training.

c. This training may be conducted in an aircraft and/or approved FSTD.

d. Non-approved training devices may be used to enhance learning and skills development. In such a case the training hours shall not be credited towards the hours required for an instrument rating.

e. The training syllabus shall include training in at least the following procedures:

(i) standard instrument departures and arrivals (SIDs and STARs)

(ii) intercepts and tracking using VOR and NDB (CDI/HSI/RMI);

(iii) sector entry and holding

(iv) onward clearance times/expected approach time

(v) radar positioning

(vi) DME arc arrival

(vii) precision instrument approach

(viii) non- precision instrument approach (conventional)

(ix) non- precision instrument approach using a continuous descent final approach (CDFA)

(x) missed approach procedures

(xi) circling approaches

(xii) use of GNSS equipment (if available)

(xiii) use of autopilot during various phases of flight

(xiv) use of flight Executive Director during various phases of flight (if available).

4.7 Phase 4 – Operating procedures under IFR ground training

a. This phase consists of ground training which may encompass briefings, lectures, workshops and

group discussions. The objective of this phase is to equip the candidate with sufficient applied knowledge for the following phase (Line Oriented Simulation training)

b. This training shall consist of the following elements:

(i) checklist and standard operating procedure (SOP) philosophy

(ii) developing an SOP and checklist system

(iii) integration of IFR procedures into the SOP including standard callouts

(iv) appropriate briefings embedded into the SOP

(v) risk analysis/assessment before flight

(vi) preparation of an IFR flight log

(vii) flight performance requirements

(viii) R/T procedures and phraseology

(ix) threat identification and management

(x) in flight event management model (including aeronautical decision making)

(xi) accident analysis

(xii) efficient cockpit management

4.8 Phase 5 – Line oriented flight training (LOFT) and line operational evaluation (LOE)

a. All previous training phases must be successfully completed by the student before he or she proceeds with this training phase

b. The objective of this phase is to expose the candidate to practical, real world scenarios during IFR/IMC operations, from departure to destination; this includes the application of normal and non-normal procedures. During this phase the candidate will also develop a proactive cockpit management culture (as opposed to reactive).

c. This phase shall be conducted in an approved FSTD (FNPT II or higher), using Line Oriented Flight Training (LOFT) principles. At least one Line Operational Evaluation (LOE) must be included in the program.

d. The Line Operational Simulation (LOS) training phase shall comprise a minimum of five sectors each of which shall have a minimum sector length of 50 nm. Each sector shall start from a different aerodrome and terminate using a different instrument approach and aerodrome.

e. The following list of failures shall be used when designing the LOS training for the management of non-normal events:

A. Technical (at least 8 of the items listed below shall be included, as applicable):

i. flight instrumentation/displays (EFIS)

ii. pitot/static system

iii. electrical system

iv. engine fire or malfunction (partial or full power loss)

v. propeller systems

vi. fuel system

vii. hydraulic system

viii. flight control and trim system

ix. anti/de-icing system

x. autopilot/flight Executive Director

xi. navigation/communication system

xii. landing gear and brake system

xiii. lift augmentation devices

xiv. air conditioning and pressurization system

xv. aircraft doors

xvi. cabin smoke or fire

B. Environmental/operational (All items listed below shall be included, if applicable)

i. weather change/deterioration
ii. weather avoidance
iii. in flight diversion
iv. arrival/departure procedure change
v. ground station navigation/communication/airfield lighting
vi. in flight icing
vii. low fuel management
viii. wind shear
ix. EGPWS/TAWS
x. TCAS/ACAS
xi. prioritizing multiple events
xii. managing distractions
xiii. recognition of marginal weather conditions

4.9 Phase 6 – Route familiarisation training (aircraft flight)

This phase of the training serves to transition the candidate to IFR operations in the aircraft. It shall comprise at least two sectors, both terminating in an instrument approach

5. *Radio Telephony*

5.1 To be eligible for the RTC a candidate must prove his knowledge of the ITU (International Telecommunications Union), and NCAA requirements in both written and oral tests. The requirements are:

5.1.1 ITU: Knowledge of radiotelephony operation and procedures, ability to transmit and receive messages by radio and knowledge of the radio communication regulations (e.g.

use of different appropriate frequencies, interference, etc.) and especially those relating to the safety of human life.

5.1.2 Communications Regulating Authority of Namibia: Proficiency in operating a radio installation including changing frequency, transmitting and receiving messages using the prescribed procedures, identification of Morse code beacons and clearing minor external faults.

5.1.3 The NCAA: requirements are based on documents issued by the International Civil Aviation Organisation (ICAO) dealing with procedures, abbreviations and flight planning, the various aeronautical information circulars (AIC) in force, the Namibian Aeronautical Information Publication (AIP), Civil Aviation Regulations (CAR) and Civil Aviation Technical Standards (CATS) and also other relevant regulations or rules in force.

5.1.4 Applicants for a General Radio Certificate shall pass a theoretical General Radio Examination at an approved NCAA examination centre. The training syllabus for a General Radio Certificate is contained in Appendix 1.5a to Document NAM-CATS-FCL 61.

5.2. Applicants for a General Radio Certificate shall in addition to the theoretical knowledge examination pass a practical communication test including the identification of radio beacons using morse code conducted by a Designated Radio Examiner (General). The practical test shall include the full completion of an ATC IFR Flight Plan and examine, at minimum, the following aspects for an IFR flight departing on a standard or non-standard departure from a controlled aerodrome, into a CTR/TMA, flying in both controlled and uncontrolled airspace en route to a controlled airfield as destination, complying with a standard arrival (STAR) and the completion of an instrument approach procedure (precision or non-precision):

(a) Use of Radio on the Ground –

(i) Obtaining start clearance

(ii) Obtaining taxi clearance

(iii) Acceptance and read back of ATC departure clearance (Standard/non-standard)

(b) Departure procedure –

(i) Take-off clearance

(ii) Use of SID chart/compliance with non-standard departure procedure

(iii) Selection of departure frequency and contact with relevant ATSU

(iv) Use of area chart if applicable

(c) En route procedures –

(i) Use of radio navigation chart

(ii) Selection of frequencies appropriate to the route

(iii) Passing and revising estimates

(iv) Complying with onward clearance time (OCT)

(d) Arrival procedures –

(i) Use of area chart if applicable

(ii) Acceptance and review of STAR and instrument approach charts

(iii) Radar vectors to ILS localiser or

Holding beacon for non-precision approach including expected approach time (EAT)

(iv) Establishing weather minima at landing aerodrome and compliance with Approach Ban

(v) Completion of instrument approach procedure using IAC and correct radio procedures

(e) Radio communication failure –

Emphasis shall be placed on correct use of aviation words and phrases as well as the avoidance of slang terms.

61.17.4 THEORETICAL KNOWLEDGE EXAMINATION

1. The applicant for an instrument rating shall pass the written theoretical knowledge examinations in the subjects prescribed in TS 61.18.3(3.2)

2. The written theoretical knowledge examination shall be conducted by the SACAA on behalf of the NCAA. A mark of 75 % or higher is required in each of the subjects listed below in order to achieve a pass for the examination.

61.17.5 SKILLS TEST

The Skills Test shall be conducted in accordance with the Practical Test Standard contained in Appendix 2.5 to Document NAM-CATS-FCL 61, as appropriate, using the skills test Form FSS PEL 61-41. The skill test shall include a Line Operational Evaluation (LOE). If the RNAV (GNSS) endorsement is sought, the skills test shall include a RNAV (GNSS) approach.

61.17.6 APPLICATION FOR INSTRUMENT RATING

1. The application for an instrument rating shall be made on the relevant licence application form, if the application is made together with the licence application or if made independently, then on Form FSS PEL 61-07. The form contains the temporary rating certificate.

2. The instrument rating shall be endorsed in the applicant's license.

61.17.7 ISSUING OF INSTRUMENT RATING

The instrument rating shall be issued in the form determined by the Executive Director .

61.17.11 RENEWAL OF AN INSTRUMENT RATING

1. Renewal proficiency check

The proficiency check shall be conducted in accordance with the Practical Test Standard contained in Appendix 2.5 to Document NAM-CATS-FCL 61, as appropriate, using the skills test Form FSS PEL 61-41. The revalidation check shall include a Line Operational Evaluation (LOE). If the RNAV (GNSS) endorsement is sought, the revalidation check shall include a RNAV (GNSS) approach.

2. Theoretical knowledge examination

The theoretical knowledge examinations shall be the examinations indicated in TS 61.18.3.

3. Application for renewal

The application for the renewal an instrument rating shall be made on Form FSS PEL 61-07.

4. Endorsement of Logbook

The endorsement in the logbook of the applicant shall contain the following –

(a) the stamp of the Designated Flight Examiner, which shall indicate the name, licence number and designation of the Designated Flight Examiner;

(b) the date of the proficiency test;

(c) the description of the proficiency test;

(d) the result of the test as reflected on the test Form FSS PEL 61-41; and

(e) the signature of the Designated Flight Examiner.

5. Form of the instrument rating

The form of the instrument rating shall be determined by the Executive Director .

61.17.12 REISSUE OF AN INSTRUMENT RATING

1. Proficiency check

The proficiency check shall be conducted in accordance with the Practical Test Standard contained in Appendix 2.5 to Document NAM-CATS-FCL 61, as appropriate, using the skills test Form FSS PEL 61-41. The proficiency check shall include a Line Operational Evaluation (LOE). If the RNAV (GNSS) endorsement is sought, the revalidation check shall include a RNAV (GNSS) approach.

3. Application for reissue of instrument rating

The application for the reissue of an instrument rating shall be made on Form FSS PEL 61-07, which contains the temporary rating form.

4. Form of the instrument rating

The form of the instrument rating shall be determined by the Executive Director .

61.18.3 TRAINING FOR GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The applicant must complete a training course with a training organisation approved by the Executive Director . The detailed syllabus is contained in Appendix 18.0 to Document NAM-CATS-FCL 61.

(2) The applicant must pass an oral examination on the subjects contained in Appendix 18.0 to Document NAM-CATS-FCL 61.

61.18.4 THEORETICAL KNOWELDGE EXAMINATION FOR GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

The applicant must complete a theoretical knowledge examination with a training organization or other institution approved by the Executive Director . The pass mark is 75%.

61.18.5 SKILLS TEST FOR GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

The skills test shall be conducted in accordance with the Practical Test Standard contained in the relevant skills test Form FSS PEL 61-42 (A).

61.18.6 APPLICATION FOR GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The application for a Grade I aeroplane flight instructor rating shall be made on Form FSS PEL 61-08.

(2) The aeroplane Flight Instructor Grade I rating shall be endorsed in the applicant’s licence on receipt of the relevant skill test Form, FSS PEL 61-42 (A).

61.18.7 ISSUING OF GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

The Grade I aeroplane flight instructor rating shall be issued in the form determined by the Executive Director

.

61.18.10 RENEWAL OF GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.18.5 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of the Grade 1 aeroplane flight instructor rating shall be determined by the Executive Director .

61.18.11 REISSUE OF GRADE I AEROPLANE FLIGHT INSTRUCTOR RATING

1. The Skills Test shall be conducted in accordance with the Practical Test Standard contained in the skills test Form FSS PEL 61-42 (A). This form, completed by the Designated Flight Examiner, shall accompany the application form.

2. When required by regulation 61.19.6, the applicant for a reissue of a Grade I flight instructor rating shall complete the flight instructor refresher seminar as detailed below –

    2.1 *Flight Instructor refresher seminar*

        2.1.1 Flight Instructor refresher seminars will be co-ordinated and arranged by the NCAA at various centres, taking due regard of the distribution of instructors in Namibia.

        2.1.2 The seminars will run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups/workshops.

        2.1.3 The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

        2.1.4 The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

        2.1.5 The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

            (a) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR's as applicable to the job of the flight instructor;

            (b) teaching and learning;

            (c) instructional techniques;

            (d) the role of the instructor;

(e) human factors;

(f) topical and recent accidents and their probable cause;

(g) flight safety, incident and accident prevention;

(h) airmanship;

(i) legal aspects and enforcement procedures;

(j) navigational skills including new/current radio navigation aids;

(k) teaching instrument flying;

(l) weather related topics including methods of distribution of aeronautical information; and

(m) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

2.1.6 The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

3. The Skills Test report referred to is the relevant skills test Form FSS PEL 61-42 (A).

4. The result of the skills test shall be endorsed in the pilot logbook as per Appendix A to this Document.

5. Application for reissue of the rating shall be made on form FSS PEL 61-08.

6. The form of the Grade 1 aeroplane flight instructor rating shall be determined by the Executive Director .

61.19.3 TRAINING FOR GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

1. Training

The aim of the Grade II Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade II flight instructor rating.

2. Contents and requirements of training course

1. The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2. A Namibian Air Force pilot or navigator instructor may be exempted from attending the theoretical knowledge course. The Air Force pilot instructor is furthermore exempted from the requirement to conduct 20 hours of patter.

3. Practical instruction course

The detailed syllabus is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

4. Ground evaluation

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be nominated by the Executive Director ;

(c) the candidate shall present a full briefing on a subject given to him or her in advance by the nominated Designated Flight Examiner.

61.19.4 THEORETICAL KNOWELDGE EXAMINATIONS FOR GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

61.19.5 SKILLS TEST FOR GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

The Skills Test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in the relevant skills test forms PEL 61-42 (A).

61.19.6 APPLICATION FOR GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

1. The application for a Grade II aeroplane flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Grade II aeroplane flight instructor rating shall be endorsed in the applicant's licence.

61.19.7 ISSUING OF GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

The Grade II aeroplane flight instructor rating shall be issued in the form determined by the Executive Director

.

61.19.9 PRIVILEGES OF GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

1. Multi-engine training

For the multi-engine instructor rating, the instructor must show evidence of having completed a ME course at an approved aviation training organisation as described in Appendix 13.2 of NAMCATS 61, or an equivalent course acceptable to the Executive Director ;

2. Experience requirement for Multi-engine endorsement

For the multi-engine endorsement, the instructor must –

(i) have given at least 100 hours of instruction in an aircraft or flight simulation training device;

(ii) have accumulated at least 20 hours of flight time as pilot-in-command of a multi-engine aircraft;

(iv) have accumulated at least 5 hours as pilot-in command in the specific make and model of the multi-engine aircraft used for training; and

(vi) have his or her logbook endorsed by the designated flight examiner with the words: "Authorised to give instruction for multi-engine class ratings".

61.19.10 RENEWAL OF GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.19.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of the Grade II aeroplane flight instructor rating shall be determined by the Executive Director .

61.19.11 REISSUE OF A GRADE II AEROPLANE FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars will be co-ordinated and arranged by the NCAA at various centres, taking due regard of the distribution of instructors in Namibia.

(b) The seminars will run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups/workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor.

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(e) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

(1) The proficiency check is the skills test referred to in technical standard 61.19.4 above.

(2) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of the Grade II aeroplane flight instructor rating shall be determined by the Executive Director

.

61.20.2 TRAINING FOR GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

The aim of the Grade III Aeroplane Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade III aeroplane flight instructor rating.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 A Namibian Air Force pilot or navigator instructor may be exempted from attending the theoretical knowledge course. The Air Force pilot instructor is furthermore exempted from the requirement to conduct 20 hours of patter.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

The detailed *syllabus* is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.20.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

The applicant for a Grade III flight instructor rating shall pass the commencement of practical class and flight training the written theoretical knowledge examinations in the subjects listed below –

(a) Applied Meteorology and Navigation;

(b) Principles of Flight and Legislation.

61.20.4 SKILLS TEST FOR GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in skills test forms PEL 61-42 (A).

61.20.5 APPLICATION FOR GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

1. The application for a Grade III aeroplane flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Grade III aeroplane flight instructor rating shall be endorsed in the applicant's licence.

61.20.6 ISSUING OF GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

The form for the Grade III aeroplane flight instructor rating shall be determined by the Executive Director.

61.20.8 PRIVILEGES AND LIMITATIONS OF A GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The authorization to conduct training as per subregulation 61.20.2 shall be submitted to the NCAA on skill test Forms FSS PEL 61-42 (A) and shall be endorsed in the pilot's logbook.

(2) The training syllabi for Multi-engine Training is contained in Appendix 13.2 to Document NAM-CATS FCL-61.

61.20.9 RENEWAL OF GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.20.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of the Grade III aeroplane flight instructor rating shall be determined by the Executive Director.

61.20.10 REISSUE OF A GRADE III AEROPLANE FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor;

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

(1) The proficiency check is the skills test referred to in technical standard 61.20.4 above.

(2) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of the Grade III aeroplane flight instructor rating shall be determined by the Executive Director.

61.21.2 REQUIREMENTS FOR AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

1. Training

1. *Aim*

The aim of the aeroplane simulator flight Instructor course is to train a candidate to the level of proficiency required for the issue of a simulator Instructor certificate.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in Appendix 19.0 to Document NAM-CATS-FCL 61.

4. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.21.3 THEORETICAL KNOWLEDGE EXAMINATION FOR AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

The applicant for an aeroplane simulator flight Instructor certificate shall pass a theoretical knowledge examination upon completion of the training course syllabus contained in Appendix 19.0.

61.21.4 SKILLS TEST FOR AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in the relevant skills test form FSS PEL 61-42 (A).

61.21.5 APPLICATION FOR AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

1. The application for an aeroplane simulator flight Instructor certificate shall be made on Form FSS PEL 61-08.

2. The applicant shall be issued with an aeroplane simulator flight Instructor certificate.

61.21.6 ISSUING OF AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

The form for an aeroplane simulator flight Instructor certificate shall be determined by the Executive Director.

61.21.9 RENEWAL OF AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

(1) The proficiency check is the skills test referred to in technical standard 61.21.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of the aeroplane simulator flight Instructor certificate shall be determined by the Executive Director.

61.21.10 REISSUE OF AEROPLANE SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

(1) The proficiency check is the skills test referred to in technical standard 61.21.4 above.

(2) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-42 (A).

(3) The form of an aeroplane simulator flight Instructor certificate shall be determined by the Executive Director.

61.22.3 TRAINING FOR GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

(1) The applicant must complete a training course with a training organisation approved by the Executive Director. The detailed syllabus is contained in Appendix 18.0 to Document NAM-CATS-FCL 61.

(2) The applicant must pass an oral examination on the subjects contained in Appendix 18.0 to Document NAM-CATS-FCL 61.

61.22.4 THEORETICAL KNOWELDGE EXAMINATION FOR GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

The applicant must complete a theoretical knowledge examination with a training organization or other institution approved by the Executive Director. The pass mark is 75%.

61.22.5 SKILLS TEST FOR GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

The skills test shall be conducted in accordance with the Practical Test Standard contained in the relevant skills test form FSS PEL 61-43 (H).

61.22.6 APPLICATION FOR GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

(1) The application for a Grade I helicopter flight instructor rating shall be made on Form FSS PEL 61-08.

(2) The helicopter Flight Instructor Grade I rating shall be endorsed in the applicant's licence on receipt of the relevant skill test Form, FSS PEL 61-43 (H)

61.22.7 ISSUING OF GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

The Grade I helicopter flight instructor rating shall be issued in the form determined by the Executive Director.

61.22.10 RENEWAL OF GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.22.5 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

(3) The form of the Grade 1 helicopter flight instructor rating shall be determined by the Executive Director.

61.22.11 REISSUE OF GRADE I HELICOPTER FLIGHT INSTRUCTOR RATING

1. The Skills Test shall be conducted in accordance with the Practical Test Standard contained in the skills test Form FSS PEL 61-43 (H). This form, completed by the Designated Flight Examiner, shall accompany the application form.

2. When required by regulation 61.22.6, the applicant for a reissue of a Grade I helicopter flight instructor rating shall complete the flight instructor refresher seminar as detailed below –

2.1 *Flight Instructor refresher seminar*

2.1.1 Flight Instructor refresher seminars will be co-ordinated and arranged by the NCAA at various centres, taking due regard of the distribution of instructors in Namibia.

2.1.2 The seminars will run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups/workshops.

2.1.3 The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

2.1.4 The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

2.1.5 The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(a) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR's as applicable to the job of the flight instructor;

(b) teaching and learning;

(c) instructional techniques;

(d) the role of the instructor;

(e) human factors;

(f) topical and recent accidents and their probable cause;

(g) flight safety, incident and accident prevention;

(h) airmanship;

(i) legal aspects and enforcement procedures;

(j) navigational skills including new/current radio navigation aids;

(k) teaching instrument flying;

(l) weather related topics including methods of distribution of aeronautical information; and

(m) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

2.1.6 The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

3. The Skills Test report referred to is the relevant skills test Form FSS PEL 61-43 (H).

4. The result of the skills test shall be endorsed in the pilot logbook as per Appendix A to this Document.

5. Application for reissue of the rating shall be made on form FSS PEL 61-08.

6. The form of the Grade 1 helicopter flight instructor rating shall be determined by the Executive Director.

61.23.3 TRAINING FOR GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

1. Training

The aim of the Grade II helicopter Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade II flight instructor rating.

2. Contents and requirements of training course

1. The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2. A Namibian Air Force pilot instructor may be exempted from attending the theoretical knowledge course. The Air Force pilot instructor is furthermore exempted from the requirement to conduct 20 hours of patter.

3. Practical instruction course

The detailed syllabus is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

4. Ground evaluation

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be nominated by the Executive Director ;

(c) the candidate shall present a full briefing on a subject given to him or her in advance by the nominated Designated Flight Examiner.

61.23.4 THEORETICAL KNOWELDGE EXAMINATIONS FOR GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

61.23.5 SKILLS TEST FOR GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

The Skills Test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in the skills test forms FSS PEL 61-43 (H).

61.23.6 APPLICATION FOR GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

1. The application for a Grade II helicopter flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Grade II helicopter flight instructor rating shall be endorsed in the applicant's licence.

61.23.7 ISSUING OF GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

The Grade II helicopter flight instructor rating shall be issued in the form determined by the Executive Director.

61.23.9 PRIVILEGES OF GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

1. Multi-engine training

For the multi-engine instructor rating, the instructor must show evidence of having completed a ME course at an approved aviation training organisation as described in Appendix 13.2 of NAMCATS 61, or an equivalent course acceptable to the Executive Director.

2. Experience requirement for Multi-engine endorsement

For the multi-engine endorsement, the instructor must –

(i) have given at least 100 hours of instruction in an aircraft or flight simulation training device;

(ii) have accumulated at least 20 hours of flight time as pilot-in-command of a multi-engine helicopter;

(iv) have accumulated at least 5 hours as pilot-in command in the specific make and model of the multi-engine helicopter used for training; and

(vi) have his or her logbook endorsed by the designated flight examiner with the words: "Authorised to give instruction for multi-engine class ratings".

61.23.10 RENEWAL OF GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.23.5 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

(3) The form of the Grade II helicopter flight instructor rating shall be determined by the Executive Director.

61.23.11 REISSUE OF A GRADE II HELICOPTER FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars will be co-ordinated and arranged by the NCAA at various centres, taking due regard of the distribution of instructors in Namibia.

(b) The seminars will run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups/workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor.

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

a. The proficiency check is the skills test referred to in technical standard 61.23.5 above.

b. Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

c. The form of the Grade II helicopter flight instructor rating shall be determined by the Executive Director.

61.24.2 TRAINING FOR GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

The aim of the Grade III helicopter Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade III helicopter flight instructor rating.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 A Namibian Air Force pilot instructor may be exempted from attending the theoretical knowledge course. The Air Force pilot instructor is furthermore exempted from the requirement to conduct 20 hours of patter.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

The detailed *syllabus* is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.24.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

The applicant for a Grade III helicopter flight instructor rating shall pass the commencement of practical class and flight training the written theoretical knowledge examinations in the subjects listed below –

(a) Applied Meteorology and Navigation;

(b) Principles of Flight and Legislation.

61.24.4 SKILLS TEST FOR GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in skills test form FSS PEL 61-43 (H).

61.24.5 APPLICATION FOR GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

1. The application for a Grade III helicopter flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Grade III helicopter flight instructor rating shall be endorsed in the applicant's licence.

61.24.6 ISSUING OF GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

The form for the Grade III helicopter flight instructor rating shall be determined by the Executive Director.

61.24.9 RENEWAL OF GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.24.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

(3) The form of the Grade III helicopter flight instructor rating shall be determined by the Executive Director.

61.24.10 REISSUE OF A GRADE III HELICOPTER FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor;

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

(a) The proficiency check is the skills test referred to in technical standard 61.24.4 above.

(b) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

(c) The form of the Grade III helicopter flight instructor rating shall be determined by the Executive Director .

61.25.2 REQUIREMENTS FOR HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

1. Training

1. *Aim*

The aim of the helicopter simulator flight Instructor course is to train a candidate to the level of proficiency required for the issue of a simulator Instructor certificate.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in Appendix 19.0 to Document NAM-CATS-FCL 61.

4. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.25.3 THEORETICAL KNOWLEDGE EXAMINATION FOR HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

The applicant for a helicopter simulator flight Instructor certificate shall pass a theoretical knowledge examination upon completion of the training course syllabus contained in Appendix 19.0.

61.25.4 SKILLS TEST FOR HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in the skills test form FSS PEL 61-43 (H).

61.25.5 APPLICATION FOR HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

1. The application for a helicopter simulator flight Instructor certificate shall be made on Form FSS PEL 61-08.

2. The applicant shall be issued with a helicopter simulator flight Instructor certificate.

61.25.6 ISSUING OF HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

The form for a helicopter simulator flight Instructor certificate shall be determined by the Executive Director.

61.25.9 RENEWAL OF HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

(1) The proficiency check is the skills test referred to in technical standard 61.25.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

(3) The form of the helicopter simulator flight Instructor certificate shall be determined by the Executive Director.

61.25.10 REISSUE OF HELICOPTER SIMULATOR FLIGHT INSTRUCTOR CERTIFICATE

(1) The proficiency check is the skills test referred to in technical standard 61.25.4 above.

(2) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-43 (H).

(3) The form of a helicopter simulator flight Instructor certificate shall be determined by the Executive Director.

61.26.2 TRAINING FOR GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

The aim of the Grade I Microlight Aeroplane Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade I Microlight aeroplane flight instructor rating and to obtain a high level of theoretical knowledge, practical flying skills proficiency, safety, airmanship, and the ability to convey and teach these to a student pilot.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

2.2 The course must be comprised of the following aspects running in parallel-

(a) Theoretical tuition; and

(b) Practical flying tuition.

3. *Theoretical tuition course*

Theoretical tuition syllabus is contained in APPENDIX R 62.10 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

Candidate instructors must be taught ground briefings and patter in the air according to APPENDIX R62.11 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

61.26.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

The applicant for a Grade I microlight aeroplane flight instructor rating shall pass the written theoretical knowledge examinations in the subjects as mentioned in APPENDIX R62.10 to Document NAM-CATS-FCL 61.

61.26.4 SKILLS TEST FOR GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in skills test form FSS PEL 62-21.

Before conducting this test the applicant must be given a particular air exercise as the main aspect of training to be briefed and pattered upon, as a new, first time simulated exercise.

61.26.5 APPLICATION FOR GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

1. The application for a Grade I microlight aeroplane flight instructor rating shall be made on Form FSS PEL 62-05.

2. The Grade I microlight aeroplane flight instructor rating shall be endorsed in the applicant's licence.

61.26.6 ISSUING OF GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

The form for the Grade I microlight aeroplane flight instructor rating shall be determined by the Executive Director.

61.26.9 RENEWAL OF GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.26.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 62-05 accompanied by the relevant skills test Form FSS PEL 62-21.

(3) The form of the Grade I microlight aeroplane flight instructor rating shall be determined by the Executive Director.

61.26.10 REISSUE OF A GRADE I MICROLIGHT AEROPLANE FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a Grade 1 microlight flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) Refresher courses must include, but are not limited to:

i. Advancement in instructional techniques.

ii. Statutory changes/additions

iii. Human factors

iv. Applicable aspects of existing statutes.

v. Analyses of root causes and trends of occurrences.

vi. Open book quiz on various aspects of commercial aviation, flight and ground instruction, and aviation in general.

vii. flight safety, incident and accident prevention;

viii. airmanship;

ix. legal aspects and enforcement procedures;

x. weather related topics including methods of distribution of aeronautical information; and

xi. feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The results of the open book quiz is mainly for self-evaluation, and is to be kept in hard copy format on the instructor's file at the flight training school where he is employed.

2. General

a. The proficiency check is the skills test referred to in technical standard 61.26.4 above.

b. Application for reissue of the rating shall be made on form FSS PEL 62-05 accompanied by the relevant skills test Form FSS PEL 62-21.

c. The form of the Grade I microlight aeroplane flight instructor rating shall be determined by the Executive Director.

61.27.2 TRAINING FOR GLIDER FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

   The aim of the Glider Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Glider flight instructor rating.

2. *Contents and requirements of training course*

   2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. *Theoretical knowledge course*

   Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

   The detailed *syllabus* is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

   The ground evaluation shall comprise the following:

   (a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

   (b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

   (c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

   (d) the candidate shall be assessed on their basic instrument training aspects.

61.27.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GLIDER FLIGHT INSTRUCTOR RATING

The applicant for a Glider flight instructor rating shall pass the commencement of practical class and flight training the written theoretical knowledge examinations in the subjects listed below –

(a) Applied Meteorology and Navigation;

(b) Principles of Flight and Legislation.

61.27.4 SKILLS TEST FOR GLIDER FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in skills test form FSS PEL 61-44 (G).

61.27.5 APPLICATION FOR GLIDER FLIGHT INSTRUCTOR RATING

1. The application for a Glider flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Glider flight instructor rating shall be endorsed in the applicant's licence.

61.27.6 ISSUING OF GLIDER FLIGHT INSTRUCTOR RATING

The form for the Glider flight instructor rating shall be determined by the Executive Director.

61.27.9 RENEWAL OF GLIDER FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.27.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-44 (G).

(3) The form of the Glider flight instructor rating shall be determined by the Executive Director.

61.27.10 REISSUE OF A GLIDER FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor;

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

(a) The proficiency check is the skills test referred to in technical standard 61.27.4 above.

(b) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-44 (G).

(c) The form of the Glider flight instructor rating shall be determined by the Executive Director.

61.28.2 TRAINING FOR GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

The aim of the Grade I Free Balloon Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade III aeroplane flight instructor rating.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

The detailed *syllabus* is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.28.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

The applicant for a Grade I Free Balloon flight instructor rating shall pass the commencement of practical class and flight training the written theoretical knowledge examinations in the subjects listed below –

(a) Applied Meteorology and Navigation;

(b) Principles of Flight and Legislation.

61.28.4 SKILLS TEST FOR GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in skills test form FSS PEL 61-45 (FB).

61.28.5 APPLICATION FOR GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

1. The application for a Grade I Free Balloon flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Grade I Free Balloon flight instructor rating shall be endorsed in the applicant’s licence.

61.28.6 ISSUING OF GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

The form for the Grade I Free Balloon flight instructor rating shall be determined by the Executive Director.

61.28.9 RENEWAL OF GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.28.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-45 (FB).

(3) The form of the Grade I Free Balloon flight instructor rating shall be determined by the Executive Director.

61.28.10 REISSUE OF A GRADE I FREE BALLOON FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor;

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

a. The proficiency check is the skills test referred to in technical standard 61.28.4 above.

b. Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-45 (FB).

c. The form of the Grade I Free Balloon flight instructor rating shall be determined by the Executive Director .

61.29.2 TRAINING FOR GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

The aim of the Grade I Airship Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade III aeroplane flight instructor rating.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in Appendix 13.0 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

The detailed *syllabus* is contained in Appendix 13.1 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.29.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

The applicant for a Grade I Airship flight instructor rating shall pass the commencement of practical class and flight training the written theoretical knowledge examinations in the subjects listed below –

(a) Applied Meteorology and Navigation;

(b) Principles of Flight and Legislation.

61.29.4 SKILLS TEST FOR GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard contained in skills test form FSS PEL 61-46 (AS).

61.29.5 APPLICATION FOR GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

1. The application for a Grade I Airship flight instructor rating shall be made on Form FSS PEL 61-08.

2. The Grade I Airship flight instructor rating shall be endorsed in the applicant's licence.

61.29.6 ISSUING OF GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

The form for the Grade I Airship flight instructor rating shall be determined by the Executive Director.

61.29.9 RENEWAL OF GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.29.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-46 (AS).

(3) The form of the Grade I Airship flight instructor rating shall be determined by the Executive Director.

61.29.10 REISSUE OF A GRADE I AIRSHIP FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) The content of the Flight Instructor refresher seminar will generally be selected from the following topics –

(i) new and/or current rules/regulations, with emphasis on knowledge of Namibian CAR as applicable to the job of the flight instructor;

(ii) teaching and learning;

(iii) instructional techniques;

(iv) the role of the instructor;

(v) human factors;

(vi) topical and recent accidents and their probable cause;

(vii) flight safety, incident and accident prevention;

(viii) airmanship;

(ix) legal aspects and enforcement procedures;

(x) navigational skills including new/current radio navigation aids;

(xi) teaching instrument flying;

(xii) weather related topics including methods of distribution of aeronautical information; and

(xiii) feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(g) The seminar will consist of formal sessions, which will typically allow for a presentation time of 45 minutes and 15 minutes for questions. Group breakouts and discussions will be facilitated and summarised at the end of the day's proceedings.

2. General

(1) The proficiency check is the skills test referred to in technical standard 61.29.4 above.

(2) Application for reissue of the rating shall be made on form FSS PEL 61-08 accompanied by the relevant skills test Form FSS PEL 61-46 (AS).

(3) The form of the Grade I Airship flight instructor rating shall be determined by the Executive Director.

61.30.2 TRAINING FOR GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

1. Training

1. *Aim*

The aim of the Grade I Gyroplane Flight Instructor rating course is to train a candidate to the level of proficiency required for the issue of a Grade I gyroplane flight instructor rating.

2. *Contents and requirements of training course*

2.1 The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. *Theoretical knowledge course*

Theoretical knowledge syllabus is contained in APPENDIX R62.10 to Document NAM-CATS-FCL 61.

4. *Practical Instruction course*

The detailed *syllabus* is contained in APPENDIX R62.11 to Document NAM-CATS-FCL 61.

5. *Ground evaluation*

The ground evaluation shall comprise the following:

(a) a class teaching evaluation test conducted by a Designated Flight Examiner and the instructor responsible for the training of the candidate;

(b) the DFE conducting such test shall be specifically nominated for FIC by the Executive Director ;

(c) the candidate shall present a full briefing on a subject that was given in advance to him or her by the Designated Flight Examiner;

(d) the candidate shall be assessed on their basic instrument training aspects.

61.30.3 THEORETICAL KNOWLEDGE EXAMINATIONS FOR GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

The applicant for a Grade I Gyroplane flight instructor rating shall pass the commencement of practical class and flight training the written theoretical knowledge examinations in the subjects listed below –

(a) Applied Meteorology and Navigation;

(b) Principles of Flight and Legislation.

The written theoretical knowledge examination shall be invigilated by the CFI or his delegated official at the Part 141 aviation training organisation.

The pass mark for the theoretical knowledge examination is 75%.

61.30.4 SKILLS TEST FOR GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

The skills test shall be conducted by the nominated Designated Flight Examiner in accordance with the Practical Test Standard of APPENDIX R 62.11 and as per skills test form FSS PEL 62-20.

61.30.5 APPLICATION FOR GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

1. The application for a Grade I Gyroplane flight instructor rating shall be made on Form FSS PEL 62-04.

2. The Grade I Gyroplane flight instructor rating shall be endorsed in the applicant's licence.

61.30.6 ISSUING OF GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

The form for the Grade I Gyroplane flight instructor rating shall be determined by the Executive Director.

61.30.9 RENEWAL OF GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

(1) The proficiency check is the skills test referred to in technical standard 61.30.4 above.

(2) Application for renewal of the rating shall be made on form FSS PEL 62-04 accompanied by the relevant skills test Form FSS PEL 62-20.

(3) The form of the Grade I Gyroplane flight instructor rating shall be determined by the Executive Director.

61.30.10 REISSUE OF A GRADE I GYROPLANE FLIGHT INSTRUCTOR RATING

1. Flight Instructor refresher seminar

(a) Flight Instructor refresher seminars should be arranged by ATOs as part of their training programme. Attendance by a Grade 1 gyroplane flight instructor of the bi-annual instructor seminar conducted regionally by the Authority will substitute this requirement.

(b) The seminars should run for between one and two days, and if credit is required in terms of this Part, attendance from participants will be required for the whole duration of the seminar including breakout groups or workshops.

(c) The Executive Director will make use of the services of experienced flight instructors and Designated Flight Examiners who are well versed in various levels of flying training to participate in, or to provide lectures and group discussions at the seminars.

(d) The attendance form shall be completed and signed by the organiser of the Seminar and shall accompany the revalidation application.

(e) Refresher courses must include, but are not limited to:

i. Advancement in instructional techniques.

ii. Statutory changes/additions

iii. Human factors

iv. Applicable aspects of existing statutes.

v. Analyses of root causes and trends of occurrences.

vi. Open book quiz on various aspects of commercial aviation, flight and ground instruction, and aviation in general.

vii. flight safety, incident and accident prevention;

viii. airmanship;

ix. legal aspects and enforcement procedures;

x. weather related topics including methods of distribution of aeronautical information; and

xi. feedback on knowledge and skills deficiencies revealed in the prescribed theoretical and practical examinations and tests, for improvement in instruction.

(f) The results of the open book quiz is mainly for self-evaluation, and is to be kept in hard copy format on the instructor's file at the flight training school where he is employed.

2. General

(a) The proficiency check is the skills test referred to in technical standard 61.30.4 above.

(b) Application for reissue of the rating shall be made on form FSS PEL 62-04 accompanied by the relevant skills test Form FSS PEL 62-20.

(c) The form of the Grade I Gyroplane flight instructor rating shall be determined by the Executive Director.

61.31.3 THEORETICAL KNOWLEDGE EXAMINATION FOR A NIGHT RATING

1. Theoretical Knowledge Instruction

1.1 *Night rating: General*

The aim of the night rating theoretical knowledge instruction syllabus is to ensure that the applicant has a thorough understanding of the theoretical aspects surrounding the night rating. Night flying takes place in a potentially hostile environment and applicants must understand each element of the environment in which they are operating.

(a) Air Law –

(i) The definition of night flying;

(ii) The privileges and limitations associated with the night rating;

(iii) The pilot-in-command's responsibilities;

(iv) The equipment to be carried on board for night flying;

(v) Aircraft lighting including navigation lights;

(vi) VFR differences from day flying;

(vii) Aerodrome requirements for night flying.

(b) Meteorology –

(i) The formation of fog;

(ii) Various types of fog;

(iii) Katabatic winds;

(iv) Mixing, veering and backing of winds at night;

(v) Formation of ice and frost;

(vi) Nocturnal Thunderstorms.

(c) Human performance –

(i) Factors affecting night vision; the preservation of night vision;

(ii) Visual illusions;

(iii) Hypoxia;

(iv) Vertigo;

(v) Autokinesis.

(d) Lighting systems –

(i) External aircraft lighting;

(ii) Internal cockpit lighting;

(iii) Taxiway lighting;

(iv) Runway lighting;

(v) Approach lighting systems;

(vi) Obstruction lighting;

(vii) Aerodrome identification beacons;

(viii) Where to find information on lighting systems;

(ix) Pilot-operated lighting.

2. Training

2.1 *Contents and requirements of training course*

The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141. However, the theoretical knowledge course and the practical training course may be completed at different aviation training organisations.

3. Practical Instruction

For the detailed practical training syllabus, refer to Appendix 11.0 to Document NAM-CATS-FCL 61.

3.1 *Helicopter*

In the case of an applicant for a night rating for a helicopter the practical instruction referred to in paragraph (ii) of sub-regulation 61.24.2(e)(i) must include –

(a) Pre-flight Operations;

(b) Take-off Procedures;

(c) In-flight Manoeuvres;

(d) Approach and Landing; and

(e) Non-normal Emergency Operations

3.2 *Aeroplane*

In the case of an applicant for a night rating for an aeroplane the practical instruction referred to in paragraph (i) of sub-regulation 61.24.2(e)(ii) must include –

(a) Pre-flight Operations;

(b) Take-off Procedures;

(c) In-flight Manoeuvres;

(d) Approach and Landing; and

(e) Non-normal Emergency Operations.

4. Theoretical knowledge examination

The theoretical knowledge examination must be completed under the auspices of an approved Part 141 aviation training organisation, and test the knowledge gained from the training.

61.31.4 SKILLS TEST

1. Skills Test Standard

The Skills Test standard is incorporated in the skills test Form FSS PEL 61-47.

61.31.5 APPLICATION FOR NIGHT RATING

1. The application form for the issuing of a night rating is either forms FSS PEL 61-02, FSS PEL 61-03 when the application is made together with the licence application, or Form FSS PEL 61-10 when the application is made independently.
2. The skills test report that must accompany an application for a night rating is the Form FSS PEL 61-47.
3. Successful applicant's licences will be endorsed with a night rating.

61.31.6 ISSUING OF NIGHT RATING

Successful applicant's licences will be endorsed with a night rating.

61.32.3 TRAINING FOR CLASS I TEST FLIGHT RATING

1. Training

1. *Aim of training course*

The aim of the training course is to train a candidate to the level of proficiency required for the issue of Class I Test flight rating, and to provide the training necessary to act as pilot-in-command of an aircraft engaged in test flights.

2. *Contents and requirements of training course*

(a) The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141.

(b) The training course shall include the following:

i. Test flight procedure/s required to verify aircraft conformance with type design data, in accordance with the manufacturer's requirements as contained in the airplane flight manual.

ii. The critical engine inoperative en-route climb for multiple engine aircraft or the maximum rate of climb for single engine aircraft and settings for "inoperative engines" impact en-route climb.

iii. The methods for determining whether the aircraft can be released to service where performance and the functioning of power plant operation, or flight characteristics cannot be checked on the ground.

iv. Weather and wind conditions and its effect on skills tests/proficiency checks.

v. The data required to be collected on the aircraft configuration requirements as defined in the airplane flight manual and by the NCAA.

vi. Any other skills tests/proficiency checks necessary to certify the design, such as: Aircraft mass, Climb speed, Power setting, Engine RPM, Flap configuration, Temperature or torque setting, Inoperative engine feathered, Anti icing status, Air conditioning status, and Aircraft degrees of bank.

61.32.4 APPLICATION FOR CLASS I TEST FLIGHT RATING

(1) Application for a Class I Test flight Rating shall be made on either forms FSS PEL 61-02, FSS PEL 61-03 when the application is made together with the licence application, or Form FSS PEL 61-10 when the application is made independently.

(2) A Class I Test flight rating shall be endorsed on the pilot's licence.

61.32.5 ISSUING OF CLASS I TEST FLIGHT RATING

Successful applicant's licences will be endorsed with a Class I Test flight Rating rating.

61.33.3 REQUIREMENTS FOR CLASS II TEST FLIGHT RATING

1. Training

1. *Aim of training course*

The aim of the training course is to train a candidate to the level of proficiency required for the issue of Class II Test flight rating, and to provide the training necessary to act as pilot-in-command of an aircraft engaged in test flights.

2. *Contents and requirements of training course*

(a) The applicant must complete a training course with an aviation training organisation approved by the Executive Director in terms of Part 141.

(b) The training course shall include the following:

i. Test flight procedure/s required to verify aircraft conformance with type design data, in accordance with the manufacturer's requirements as contained in the airplane flight manual.

ii. The critical maximum rate of climb for single engine.

iii. The methods for determining whether the aircraft can be released to service where performance and the functioning of power plant operation, or flight characteristics cannot be checked on the ground.

iv. Weather and wind conditions and its effect on skills tests/proficiency checks.

v. The data required to be collected on the aircraft configuration requirements as defined in the airplane flight manual and by the NCAA.

vi. Any other skills tests/proficiency checks necessary to certify the design, such as: Aircraft mass, Climb speed, Power setting, Engine RPM, Flap configuration, Temperature or torque setting, Inoperative engine feathered, Anti icing status, Air conditioning status, and Aircraft degrees of bank.

61.33.4 APPLICATION FOR CLASS II TEST FLIGHT RATING

Application for a Class II Test flight Rating shall be made on either forms FSS PEL 61-02, FSS PEL 61-03 when the application is made together with the licence application, or Form FSS PEL 61-10 when the application is made independently.

61.33.5 ISSUING OF CLASS II TEST FLIGHT RATING

Successful applicant's licences will be endorsed with a Class II Test flight Rating rating.

61.34.3 APPLICATION FOR TUG PILOT RATING

Notification of competency to act as a tug pilot shall be made on Form FSS PEL 61-56 together with application for a Tug Pilot rating, which shall be made on Form FSS PEL 61-10.

61.35.3 TRAINING FOR EXTERNAL-LOAD RATING (HELICOPTER)

1. Training

1. *Aim of training course*

   The aim of the training course is to train a candidate to the level of proficiency required for the issue of an external-load rating - helicopter, and to provide the training necessary to act as pilot-in-command of a helicopter engaged in external load (sling load) operations.

2. *Contents and requirements of training course*

2.1 The course must be conducted by the holder of an aviation training organisation approval, issued by the Executive Director in terms of Part 141.

2.2 The course comprises –

(a) a theoretical knowledge course; and

(b) a practical training course.

3. *Theoretical knowledge course*

The theoretical knowledge course must comprise instruction on the following –

(a) the significance of operations within and outside ground effect, and the correct use of the relevant performance charts;

(b) the possible fore and aft C of G changes when picking up and releasing sling loads;

(c) the pre-flight checking and correct operation of the helicopter cargo hook equipment, including the emergency release;

(d) the importance of a full and correct briefing for all flight and ground crew members participating in the operation as regards to –

(i) pick-up and drop-off points;

(ii) load preparation and flight characteristics of different loads;

(ii) oscillation characteristics and their control;

(e) the care, selection, preparation and correct use of lifting equipment, including strops of various lengths, swivels, shackles, nets, and safety harnesses for cabin crew, as applicable;

(f) responsibilities and duties of cabin crew;

(g) aircraft-generated static, use of the static discharge pole and the correct procedure in this regard;

(h) marshalling signals;

(i) correct radio procedures and terminology for intercom communications between the pilot and cabin crew;

(j) pick-up and release procedures;

(k) safety and other equipment, including hand-held transceivers, hard hats, safety goggles, durable gloves, overalls and whistles;

(l) emergency procedures, including engine failure in the hover, strops getting fouled either with the helicopter or with other items, loads becoming difficult or impossible to control in flight, and jettisoning of loads; the effects of buildings and obstruction on prevailing winds, escape routes in the event of downdrafts, turbulence and engine failure;

(m) the pre-flight briefing which is given just before each flight, and which consists of a brief summary of the principal parts of the theoretical knowledge course, together with any particular points of airmanship, air traffic control, and meteorology pertaining to the flight; and

(n) the relevant air law aspects.

4. *Practical training course*

4.1 In-flight instruction

A full briefing must be given during flight, covering the following:

(a) Airmanship –

(i) The suitability of pick-up and drop areas in respect of size, shape, surface, slope, approach and take-off paths and obstructions;

(ii) Helicopter operation with due regard to such matters as power in the hover, power limitations, hovering into the wind, position of ground crew, and obstructions;

(iii) The limits for the relevant conditions;

(iv) Good lookout at all times;

(v) Built-up areas and gatherings of people must be avoided when a load is suspended below the helicopter, provided that where the operation is to be conducted within be a built-up area, safe flight routes must be established and approved by the Executive Director and local municipality;

(vi) Cabin crew, if used, must be safely secured to the helicopter at all times by means of a safety harness or seat belt.

(b) Hook-up and transition –

(i) Demonstrate the positioning of the helicopter accurately above the load using the techniques of marshalling either by radio, visual signals, mirror or cabin crew intercom;

Note: When a cabin crew member is used for marshalling, the pilot must strictly obey his or her instructions at all times, except if the helicopter and its occupants would be placed in jeopardy by doing so;

(ii) Demonstrate the pick-up and the transition to forward flight when at a safe height;

(iii) The appropriate cruise speed should take into account the load's flight characteristics, the environment, level of turbulence and engine power available;

(iv) Demonstrate control of the load during flight and procedure to be followed if the load becomes difficult or impossible to control. For example, if the load starts oscillating, the pilot should reduce power and enter a gentle turn left or right, or bring the helicopter to a stationary hover; this generally will alleviate the condition. The load should only be jettisoned in extreme cases when the helicopter or its occupants are at risk and then only over uninhabited areas.

(c) Approach and drop-off –

(i) The approach should be cautious and fairly shallow, taking into account the distance the load is beneath the aircraft and above the surface;

(ii) The transition to the hover should be made high, to ensure adequate clearance between the load and the surface or ground obstacles;

(iii) Directional information should be provided by the radio, visual signals or cabin crew during the final stages of the approach;

(iv) Demonstrate positioning the load over the drop-off point and lowering it to the surface or its position, using the techniques of marshalling either by radio, visual signals, mirror or cabin crew intercom;

(v) Demonstrate releasing the load, using the normal release method and the emergency release method.

(d) Common faults –

(i) Lack of precision when hovering inside ground effect or outside ground effect;

(ii) Lack of appreciation for ground clearance with an underslung load;

(iii) Vertical drift when lifting and lowering the load;

(iv) Horizontal drift when lifting and lowering the load;

(v) Jerky pick-up and drop-off;

(vi) Pilot-induced oscillations due to over-controlling on the cyclic;

(vii) The effects of trying to counter oscillations in flight using cyclic instead of power and speed.

4.2 Air exercises

Exercise 1: Hook-up procedure

(a) Approach the hook-up area using –

(i) ground marshaller;

(ii) radio;

(iii) cabin crew intercom; and

(iv) helicopter mirror.

(b) Establish a steady hover using –

(i) short strop;

(ii) long strop.

(c) Once the load has been hooked up, take up the slack while monitoring the power required to hover before lifting the helicopter vertically until the load is well clear of the surface or obstacles, as communicated/established by each of the methods listed under paragraph (a) above.

(d) Once the load is clear, transit to forward flight.

Exercise 2: In-flight

(a) Observe V_{ne} as established from the flight manual or dictated by the load, while handling the controls as smoothly as possible;

(b) Reduce power and enter a gentle turn to either left or right, or bring the helicopter to a stationary hover, to demonstrate the technique for bringing an oscillating load under control;

(c) Avoid any built-up or inhabited areas during flight with a sling load.

Exercise 3: Drop-off procedure

(a) Approach the drop-off area at a shallow angle using –

(i) ground marshaller;

(ii) radio;

(iii) cabin crew intercom; and

(iv) helicopter mirror;

(b) Terminate the approach in a high hover with the load well clear of the surface or ground obstacles as communicated/established by each of the methods listed under paragraph (a) above;

(c) Maintain a steady inside ground effect hover or outside ground effect hover while monitoring the power required to hover;

(d) Position the load over the drop-off point;

(e) Once in position, lower the load vertically until it contacts the surface and then jettison it using –

(i) the normal release system; or

(ii) the emergency release system.

Note: Both normal and emergency release methods are to be practised.

4.3 Post-flight discussion

The post-flight discussion reviews the exercise and can be used to amplify or clarify any particular point or difficulty, thus consolidating the exercise as a whole.

5. *Skills test*

The applicant shall *demonstrate* competency in the aspects of subparagraph 4.2 using either form FSS PEL 61-31, FSS PEL 61-33 or FSS PEL 61-36, depending on the level of the licence held.

61.35.4 APPLICATION FOR EXTERNAL-LOAD RATING (HELICOPTER)

(1) The application for an external-load rating - helicopter shall be made on Form FSS PEL 61-10.

(2) The external-load rating - helicopter shall be endorsed in the applicant's licence.

61.35.5 ISSUING OF EXTERNAL-LOAD RATING (HELICOPTER)

The external-load rating - helicopter shall be endorsed in the applicant's licence.

61.36.3 TRAINING FOR HELICOPTER WINCHING RATING

1. Training

1. *Aim of training course*

The aim of the training course is to train a candidate to the level of proficiency required for the issue of a helicopter winching rating, and to provide the training necessary to act as pilot-in-command of a helicopter engaged in winching operations.

2. *Contents and requirements of training course*

2.1 The course must be conducted by the holder of an aviation training organisation approval, issued by the Executive Director in terms of Part 141.

2.2 The course comprises –

(a) a theoretical knowledge course; and

(b) a practical training course.

3. *Theoretical knowledge course*

3.1 The theoretical knowledge course must comprise instruction on the following –

(a) The significance of operations inside ground effect and outside ground effect and the correct use of the relevant performance charts;

(b) the pre-flight checking and correct operation of the helicopter winching equipment, including the emergency cable cutter;

(c) the marked lateral C of G shift that takes place when winching;

(d) the importance of a full and correct briefing for all flight and ground crew members participating in the operation as regards to –

(i) pick-up and drop-off points;

(ii) the care, selection, preparation and correct use of winching equipment, including inspection of cables, nets, strops, and safety harness for winch operator, as applicable;

(e) responsibilities and duties of cabin crew;

(f) marshalling signals;

(g) load preparation and flight characteristics of different loads;

(h) aircraft-generated static, use of the static discharge pole and the correct procedures in this regard;

(i) correct radio procedures and terminology for intercom communication between the pilot and the winch operator;

(j) pick-up and release procedures;

(k) emergency procedures, including engine failure in the hover, cables getting fouled either with the helicopter or with other items, loads becoming difficult or impossible to control in flight and cable cutting; the effects of buildings and obstruction on prevailing winds, escape routes in the event of downdrafts, turbulence and engine failure;

(l) safety and other equipment including hand held transceivers, hard hats, safety goggles, durable gloves, overalls and whistles;

(m) the relevant air law aspects;

(n) the pre-flight briefing which is given just before each flight, and which consists of a brief summary of the principal parts of the theoretical knowledge course, together with any particular points of airmanship, air traffic control, and meteorology pertaining to the flight.

4. *Practical training course*

4.1 In-flight instruction

A full briefing must be given during flight, covering the following:

(a) Airmanship –

(i) The suitability of pick-up and drop areas in respect of size and shape, surface, slope, approach and take-off paths, and obstructions;

(ii) Helicopter to be operated within its V_{ne} for winching operations at all times. Transition into forward flight should only be undertaken once the winch cable has been safely stowed;

(iii) The limits for the relevant conditions;

(iv) Good lookout at all times;

(v) Built up areas and gatherings of people must be avoided when a load is suspended below the helicopter, provided that where the operation is to be conducted within a built up area, safe flight routes must be established and approved by Executive Director and the local municipality;

(vi) Personnel must only be raised or lowered by means of the winch from a stationary hover in relation to the surface and never while the helicopter has any apparent forward, sideward or rearward speed unless deemed necessary in the interests of safety;

(vii) The winch operator must be safely secured to the helicopter by a safety harness, particularly when the doors are open during, or have been removed for the operation, and while manoeuvring people into or out of the helicopter cabin;

(viii) The helicopter should never transit to forward flight with people suspended on the winch cable unless deemed necessary in the interests of safety;

(ix) The helicopter must be operated with due regard for such matters as power limitations, hover power, hovering into the wind, and position of obstructions;

(x) While in the hover during hoisting operations, the pilot must strictly obey the hoist operator's instructions at all times, except if the helicopter and its occupants would be placed in jeopardy by doing so.

(b) Hook-up and transition

(i) Demonstrate the approach and accurate positioning of the helicopter over the pick-up point, guided via the intercom by a flight crew member acting as winch operator;

(ii) Demonstrate the pick-up and the pronounced lateral C of G shift when the winch takes up the weight;

(iii) Demonstrate the transition to forward flight only when the winching operation has been completed. The winching operation is completed when the winched persons or cargo are safely aboard, the winch cable is safely stowed and, where applicable, the cabin doors have been closed.

(c) Approach and drop-off

(i) The approach should be normal;

(ii) Control should be handed over to the winch operator when still some distance short of the drop-off point;

(iii) Demonstrate positioning the helicopter, following the instructions given by the winch operator over the intercom;

(iv) Demonstrate the drop-off and the pronounced C of G shift when the load is removed from the winch cable.

(d) Common faults

(i) Lack of precision when hovering inside ground effect or outside ground effect;

(ii) Vertical drift when lifting and lowering the load;

(iii) Horizontal drift when lifting and lowering the load;

(iv) Pilot-induced oscillations due to lateral C of G shift and over-controlling on the cyclic when hovering during the pick-up and drop-off.

4.2 Air exercises

4.2.1 Exercise 1: Pick-up procedure

(a) Approach the pick-up area guided by instructions received over the intercom from the winch operator;

(b) Establish a steady inside ground effect hover or outside ground effect hover over the pick-up point following the winch operator's instructions while he or she lowers the winch cable;

(c) Indicate the pronounced C of G shift experienced when picking up the load;

(d) Once the load has been picked up, monitor the power required to hover until the load is safely stowed inside the helicopter, the winch cable is secure and, if applicable, the cabin doors have been closed, before transitioning to forward flight.

4.2.2 Exercise 2: In-flight

Observe V_{ne} as established from the flight manual.

4.2.3 Exercise 3: Drop-off procedure

(a) Approach the drop-off area normally, following instructions by the winch operator given over the intercom;

(b) Terminate the approach in a high hover and follow the winch operator's instructions for the positioning of the helicopter while he or she is lowering the winch cable;

(c) Indicate the pronounced C of G shift when the load is released;

(d) Once the load has been released, maintain the hover until the winch is safely stowed and, if applicable, the cabin doors have been closed;

(e) Only then transit to forward flight.

4.3 Post-flight discussion

The post-flight discussion reviews the exercise and can be used to amplify or clarify any particular point or difficulty, thus consolidating the exercise as a whole.

5. *Skills test*

The applicant shall *demonstrate* competency in the aspects of subparagraph 4.2 using either form FSS PEL 61-31, FSS PEL 61-33 or FSS PEL 61-36, depending on the level of the licence held.

61.36.4 APPLICATION FOR HELICOPTER WINCHING RATING

1. The application for a helicopter winching rating shall be made on Form FSS PEL 61-10.

2. The helicopter winching rating shall be endorsed in the applicant's licence.

61.36.5 ISSUING OF HELICOPTER WINCHING RATING

The helicopter winching rating shall be endorsed in the applicant's licence.

61.37.3 TRAINING FOR HELICOPTER GAME OR LIVESTOCK CULL RATING

1. Training

1. *Aim of training course*

The aim of the training course is to train a candidate to the level of proficiency required for the issue of a helicopter game or livestock cull rating, and to provide the training necessary to act as pilot-in-command of a helicopter engaged in game or livestock cull operations.

2. *Contents and requirements of training course*

2.1 The course must be conducted by the holder of an aviation training organisation approval, issued by the Executive Director in terms of Part 141.

2.2 The course comprises –

(a) theoretical knowledge course; and

(b) practical training course.

3. *Theoretical knowledge course*

3.1 The theoretical knowledge course must comprise instruction on the following:

[Under development]

4. *Practical training course*

4.1 In-flight instruction

[Under development]

5. *Skills test*

The applicant shall demonstrate competency in the aspects of paragraph 4 using either form FSS PEL 61-31, FSS PEL 61-33 or FSS PEL 61-36, depending on the level of the licence held.

61.37.4 APPLICATION FOR HELICOPTER GAME OR LIVESTOCK CULL RATING

1. The application for a helicopter game or livestock cull rating shall be made on Form FSS PEL 61-10.

2. The helicopter game or livestock shall be endorsed in the applicant's licence.

61.37.5 ISSUING OF HELICOPTER GAME OR LIVESTOCK CULL RATING

The helicopter game or livestock shall be endorsed in the applicant's licence.

61.38.3 SKILLS TEST FOR AGRICULTURAL PILOT RATING

1. Conducting the Skills Test

The person conducting the skills test shall test an applicant for the issuing of an agricultural pilot rating on his or her ability to perform as pilot-in-command of an aeroplane, helicopter or microlight aeroplane, as the case may be, in the following procedures and manoeuvres with a degree of competency appropriate to the privileges granted to the holder of an agricultural pilot rating:

1.1 The skills test shall be conducted in accordance with the skills test Forms Forms FSS PEL 61-30, FSS PEL 61-31, FSS PEL 61-32, FSS PEL 61-33, FSS PEL 61-34, FSS PEL 61-35, FSS PEL 61-36 or FSS PEL 61-37, depending on the level of the licence held and shall include the following –

(a) Assessment of area to be sprayed

(b) Load sheet

(c) Weather report

1.2 In the case of aeroplanes –

(a) Short-field take-off and landings

(b) Cross-wind and down-wind take-offs and landings;

(c) Flight manoeuvres at minimum air speed;

(d) Accelerated stalls;

(e) Maximum-rate turns;

(i) Incipient spin recoveries entered into inside of and from outside of turns;

(ii) Precision landings, normal, down-wind and cross-wind;

(iii) Exit from application area, turn around and re-entry to application area under various wind conditions;

(iv) Simulated application runs at appropriate heights;

(v) Entry to and exit from applications over obstructions;

- Avoidance of obstructions;
- Emergency procedures.

(vi) Low-level forced landing technique

(vii) Dump load

1.3 In the case of helicopters –

(a) Take-offs and landings at maximum certificated mass for aerial applications;

(b) Cross-wind and down-wind take-offs and landings;

(c) Flight manoeuvres at minimum air speed;

(d) Maximum-rate turns;

(i) recoveries entered into inside of and from outside of turns;

(ii) Precision landings, normal, down-wind and cross-wind;

(iii) Exit from application area, turn around and re-entry to application area under various wind conditions;

(iv) Simulated application runs at appropriate heights;

(v) Entry to and exit from applications over obstructions;

- Avoidance of obstructions;
- Emergency procedures;

(vi) Low-level autorotation technique;

(vii) Dump load.

2. Skills Test Standard

The skills test shall be conducted in accordance with the standard contained in the relevant skills test form.

61.38.4 APPLICATION FOR AGRICULTURAL RATING

1. The application for an agricultural rating shall be made on Form FSS PEL 61-10.
2. Either one of the skills test Forms FSS PEL 61-30, FSS PEL 61-31, FSS PEL 61-32, FSS PEL 61-33, FSS PEL 61-34, FSS PEL 61-35, FSS PEL 61-36 or FSS PEL 61-37, completed by the Designated Flight Examiner, shall accompany the application form, depending on the level of the licence held.
3. Agricultural rating shall be endorsed in the applicant's licence.

61.38.5 ISSUING OF AGRICULTURAL RATING

Agricultural rating shall be endorsed in the applicant's licence.

61.39.3 TRAINING FOR CLOUD FLYING RATING

1. General

Cloud flying may only be permitted once the pilot has undergone cloud flying training and the aircraft is fitted with serviceable blind flying instruments and a radio. For aircraft with speed limiting airbrakes the minimum instrumentation is a turn and slip and for all other aircraft an artificial horizon is to be fitted in addition to a turn and slip.

2. Training

[Reserved]

61.39.4 SKILL TEST FOR CLOUD FLYING RATING

[Reserved]

61.39.5 APPLICATION FOR CLOUD FLYING RATING

Application for a cloud flying rating shall be made in writing to the Executive Director.

61.39.6 ISSUING OF CLOUD FLYING RATING

A cloud flying rating shall be issued in the form determined by the Executive Director.

61.40.3 APPLICATION FOR SAFETY PILOT RATING

Application for a safety pilot rating shall be made in writing to the Executive Director.

61.40.4 ISSUING OF SAFETY PILOT RATING

A safety pilot rating shall be issued in the form determined by the Executive Director.