



HONG KONG AVIATION CLUB

Aeroplane Training Manual

Volume 1

Copy No.

**Issued under authority of the Accountable Manager for and on behalf of
The Hong Kong Aviation Club**


.....
(Giles Haybittle – Accountable Manager)

AL1: 13 November 2020

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Glossary of Abbreviations

AFI	Assistant Flight Instructor
AGL	Above Ground Level
AIC	Aeronautical Information Circulars
AIP	Aeronautical Information Publication
AOB	Angle of Bank
AN(HK)O	Air Navigation (Hong Kong) Order
ATC	Air Traffic Control
CAD 54	Pilot Licences and Associated Ratings Requirements Document
CFI	Chief Flying Instructor
CRM	Crew Resource Management
EFATO	Engine Failure After Take Off
ETA	Estimated Time of Arrival
FI	Flight Instructor
ft	Feet
GC	General Committee
HAT	Height, Altitude, Time
HKAC	Hong Kong Aviation Club
HOT	Head of Training
HDG	Heading
ICAO	International Civil Aviation Organisation
IF	Instrument Flying
IMC	Instrument Meteorological Conditions
KDG	Kadoorie Gap
lbs	Pounds
NEW	New Town
NOTAM	Notice to Airmen
OM	Operations Manual
PFL	Practised Forced Landing
PIC	Pilot in Command
PLO	CAD Personnel Licensing Office
PSH	Port Shelter
ROC	Rate of Climb
ROD	Rate of Descent
RPM	Revolutions per minute
R/T	Radiotelephony
R/W	Runway
SC	Stage Check



S & L	Straight and Level
SKARA	Shek Kong Aerodrome Reporting Area
TEM	Threat and Error Management
TOL	Tolo
TK	Theoretical Knowledge
UCARA	Uncontrolled Airspace Reporting Area
VHSK	ICAO Code for Shek Kong Airfield
V_{s0}	Power-off Stalling Speed (Flaps and Wheels down)
V_{s1}	Power-off Stalling Speed (Flaps and Wheels up)
V_x	Best Angle of Climb
V_y	Best Rate of Climb



List of Effective Pages

Page	Date	Page	Date	Page	Date
1	13/11/2020	42	13/11/2020	83	13/11/2020
2	13/11/2020	43	13/11/2020	84	13/11/2020
3	13/11/2020	44	13/11/2020	85	13/11/2020
4	13/11/2020	45	13/11/2020	86	13/11/2020
5	13/11/2020	46	13/11/2020	87	13/11/2020
6	13/11/2020	47	13/11/2020	88	13/11/2020
7	13/11/2020	48	13/11/2020	89	13/11/2020
8	13/11/2020	49	13/11/2020	90	13/11/2020
9	13/11/2020	50	13/11/2020	91	13/11/2020
10	13/11/2020	51	13/11/2020	92	13/11/2020
11	13/11/2020	52	13/11/2020	93	13/11/2020
12	13/11/2020	53	13/11/2020	94	13/11/2020
13	13/11/2020	54	13/11/2020	95	13/11/2020
14	13/11/2020	55	13/11/2020	96	13/11/2020
15	13/11/2020	56	13/11/2020	97	13/11/2020
16	13/11/2020	57	13/11/2020	98	13/11/2020
17	13/11/2020	58	13/11/2020	99	13/11/2020
18	13/11/2020	59	13/11/2020	100	13/11/2020
19	13/11/2020	60	13/11/2020	101	13/11/2020
20	13/11/2020	61	13/11/2020	102	13/11/2020
21	13/11/2020	62	13/11/2020	103	13/11/2020
22	13/11/2020	63	13/11/2020	104	13/11/2020
23	13/11/2020	64	13/11/2020	105	13/11/2020
24	13/11/2020	65	13/11/2020	106	13/11/2020
25	13/11/2020	66	13/11/2020	107	13/11/2020
26	13/11/2020	67	13/11/2020	108	13/11/2020
27	13/11/2020	68	13/11/2020	109	13/11/2020
28	13/11/2020	69	13/11/2020	110	13/11/2020
29	13/11/2020	70	13/11/2020	111	13/11/2020
30	13/11/2020	71	13/11/2020	112	13/11/2020
31	13/11/2020	72	13/11/2020	113	13/11/2020
32	13/11/2020	73	13/11/2020	114	13/11/2020
33	13/11/2020	74	13/11/2020	115	13/11/2020
34	13/11/2020	75	13/11/2020	116	13/11/2020
35	13/11/2020	76	13/11/2020	117	13/11/2020
36	13/11/2020	77	13/11/2020	118	13/11/2020
37	13/11/2020	78	13/11/2020	119	13/11/2020
38	13/11/2020	79	13/11/2020	120	13/11/2020
39	13/11/2020	80	13/11/2020	121	13/11/2020
40	13/11/2020	81	13/11/2020	122	13/11/2020
41	13/11/2020	82	13/11/2020	-	-



Member Details

Name: _____ Membership Number: _____

Address: _____

Mobile Number: _____

Email Address: _____

Weight in lbs: _____

Emergency Contact Name: _____

Emergency Contact Phone Number: _____

Previous Flying Experience

Aircraft Type	Dual Hours Logged	Solo Hours Logged
_____	_____	_____
_____	_____	_____
_____	_____	_____

Licence Type: _____

Licence Number: _____

Licensing Authority: _____

Medical Class Number (Student) _____

Medical – Date of Expiry (1) _____ (2) _____

(3) _____ (4) _____



TABLE OF CONTENTS

	Page#
Section 1	
1.0 The Training Plan	9
1.1 The Aim of the Course	9
1.2 Pre-Entry/Solo/Area Solo Requirements	9
1.3 Flight Training	9
1.4 Time Scale	11
1.5 Training Programme	11
1.6 Safety Training	13
1.7 Test and Examinations	15
1.8 Training Effectiveness	17
Section 2	
Flight Log	19
2.0 Briefings and Air Exercises	23
2.1 Air Exercises	23
2.2 Air Exercise Reference List	23
2.3 Course Structure	23
2.4 Instructional Methods	24
2.5 Stage Checks	25
Exercises	26-88
Section 3	
3.0 Theoretical Knowledge (TK)	89
3.1 Course Structure	89
3.2 Study Material	89
3.3 Progress Testing	89



Ground Lessons	90-100
Section 4	
4.0 Appendices	101
Appendix 1 – Licence Currency	102
Appendix 2 – Stage Check 3 Section Details	104
Appendix 3 – Student Record Sheet	107
Appendix 4 – Flight Check Continuation	108
Appendix 5 – Stage Check & CAD Examinations Record Form	109
Appendix 6 – EFATO Check Sheet	110
Appendix 7 - Stage Check Written Exams	111



SECTION 1

1.0 The Training Plan

1.1 The Aim of the Course

The aim of the PPL (A) course is to train the flying members of the Hong Kong Aviation Club to act as PIC under Visual Flight Rules. Training is to be conducted by qualified flying instructors who meet requirements that are stated in CAD 54 Part 2, Chapter 3.

1.2 Pre-Entry/Solo/Area Solo Requirements

Prior to commencing flight training the student must demonstrate the ability to read, write, speak and understand the English language in accordance with ICAO Annex 1.

Prior to commencing Solo flight in the circuit, the student must demonstrate the following:

- He/she is at least 17 years of age; and
- Is the holder of a valid medical certificate prior to solo flight and complies with any conditions subject to which the medical was issued
- Has received and understood an EFATO briefing
- Flight has been authorised and signed by an eligible instructor

Prior to commencing an Area-Solo flight, the student must also demonstrate the following:

- Has passed the SC2 written and flight check
- Operations Manual (OM) is read and understood
- Has received and understood the lost procedures briefing
- Is aware of solo area limitations south of Line A, New Town (NEW), Tolo (TOL), Port Shelter (PSH)
- Flight Plan is filed including the words "Solo Student"
- Has acknowledged the requirement to precede any radio transmission to Information in the UCARA's with the word "Student"
- Has received and understood the closed runway contingency briefing

1.3 Flight Training

CAD 54 states that a PPL (A) flight training course must provide for a minimum of 40 hours of total flight time that includes a minimum of HKAC requirement of 20 hours dual instruction and 10 hours of solo. Students must be aware that these requirements are the legal minimums to be eligible for a PPL Flight test but may need to be increased in order for an individual to meet the required standard and successfully complete the licence PPL Flight Test.

1.3.1 The course contains the following exercises and the times shown are the minimum hours required. Instructors may deviate from the sequence as required by weather or serviceability constraints or student progress considerations. However, students are not permitted to start a different stage without first completing the relevant stage check. Detailed lesson plans for the flight training are in part 2 of this manual.



***Once an Exercise has been successfully completed, the actual time Dual/Solo to complete the Exercise will be calculated and transferred from the Flight Log in Section 2 and input into the 'Actual Time Flown' column below:**

Stage #	Exercise	Time		IF	Stall & Spin Awareness	Pilot Nav	Actual Time Flown	
		Dual	Solo				Dual	Solo
1	Ex. 1 – Familiarization with the aircraft	Ground						
1	Ex. 1E – Emergency Drills	Ground						
1	Ex. 2 – Prep. for and action after flight	0.4						
1	Ex.3 - Air experience	0.8						
1	Ex.4A - Effect of Flying Controls	0.8						
1	Ex 4B – Trim, Power & Aux. Controls	0.8						
1	Ex.5 - Taxying	0.6						
1	Ex. 5E - Emergencies	0.2						
1	Ex. 6A - Straight and level	1.0						
1	Ex. 6B – Precision Exercises	1.0						
1	Ex. 7A – Climbing Basic	0.5						
1	Ex 7B – Performance Applications	0.5						
1	Ex 8A - Descending Basic	0.5						
1	Ex.8B – Performance Applications	0.5						
1	Ex. 9 - Turning	1.0						
1	Ex. 10A - Slow flight	1.6						
1	Ex. 10B - Stalling	2.0						
1	EX. 11 - Spin avoidance	0.8						
1	Ex. 12 - Take-off and climb to downwind position	2.6						
1	Ex.13 –Circuit approach & landing	2.6						
1	Ex. 12 & 13E - Emergencies	1.0						
1	Stage Check 1 - Pre Solo	0.8						
2	Ex. 14 - First Solo		0.3					
2	Ex. 12 & 13 Consolidation	1.0	4.0					
2	Ex. 15 - Advanced turning	2.0						
2	Ex. 16 – Operation at minimum level	1.0						
2	Ex. 17A – Forced landing without pwr	2.0						
2	Ex. 17B - Precautionary Landing	0.8						
2	Stage Check 2-Pre 1st Area Solo	0.8						
3	First Area Solo		0.7					
3	Ex. 18 - Navigation	3.0						
3	Supervised Solo		5.0					
3	Ex. 19 - Basic Instrument Flight	4.5						
3	Pre PPL Flight Test Revision	1.0						
3	Stage Check 3 - Graduation	1.0						
	Totals	37.1	10.0					



1.3.2 PPL Theoretical Knowledge Training

The HKAC theoretical knowledge training programme consists of theoretical knowledge instruction that will be delivered in the following format (the hours listed are estimates only and may vary depending on the students rate of progression):

<u>Hours</u>	<u>Method of Delivery</u>
13 hours	Classroom / Hanger based instruction
25 hours	Directed self-study
2 hours	Practical radio telephony ground training
2 hours	Revision for PPL Oral Exam

The HKAC will ensure that all appropriate elements of the Theoretical Knowledge training course have been completed to a satisfactory standard before recommending an applicant for examination.

1.4 Time Scale

Due to the current flight constraints at Shek Kong and changeable meteorological conditions throughout the year in Hong Kong it is estimated that a new student could take up to 24 months to complete their Private Pilot Licence while maintaining a good attendance record. As detailed in this syllabus, each exercise has a completion standard that is to be achieved. In the event that the required standard is not achieved in the minimum time allocated, it will be necessary to repeat all or part of the exercise, which will in turn increase the total amount of flight training hours.

1.5 Training Programme

1.5.1 General

Lessons and aircraft reservations are booked directly through Operations and the student will be given remote access to his/her flight schedule via the internet or phone application. Aircraft will be allocated by Ops by consulting with the instructors and Head of Training. Students must be prepared to fly any of the fleet of aircraft as operational constraints require. As detailed in Section 4 of the Operations Manual if a pilot is unable to fly, they are asked to provide as much notice as possible, 48 hours being the minimum. HKAC enforces a penalty fee for any member that do not adhere to this rule to the value of \$600. This penalty fee also applies to a "no-show" on the flight day where the aircraft will then be allocated to another member. If weather is going to be a potential issue, students are required to contact Operations or their Instructor so that an informed decision can be made about the booking. Slots will be available for booking subject to daylight and instructor availability. First Take off shall not be before 0900 and last landing shall not be after 1800 or later than half an hour before sunset whichever is the earlier time.



1.5.2 Theoretical Knowledge Instruction

Instructors will provide Theoretical Knowledge Instruction (TK) as and when required. The date and duration of the TK lesson will be recorded in the student file.

Students are required to complete Air Law, Radio Telephony and Human Performance written exams prior to the first area solo flight.

Exams are booked through the Pilots Licensing Office (PLO), contact details and the procedure can be found in 1.7.1 of this manual.

1.5.3 Weather Minima

For all weather minimums reference Part A Section 6.4 of the Operations Manual.

1.5.4 Flight Hour Limitations

For all flight hour limitations reference Part A Section 5.5.18 of the Operations Manual.

1.5.5 Training Records

HKAC will provide an individual training record for each student and it will contain the individual forms listed below. All records will be kept in paper format and/or electronically. Any forms completed by hand must be in a legible manner using indelible ink.

List of Forms:

1. Student Personal Details Form
2. Emergencies training checklist and Student's confirmation of completion
3. Flight report for each flight including, duration exercises completed and a narrative report of the student's performance and progress, together with a running total for Dual and Solo flight time
4. Stage Check Written Test Summary
5. Flight Check Continuation
6. Student Record Sheet

Active training records will be kept electronically, and password protected. Where training records are kept in paper format, they will be stored in Operations in an appropriate cabinet and in both cases, access will be given to the Student, Instructor and Club management.

Students will not be given access to the records of other students



1.5.6 Checking of Records & Logbooks

After completion of the training record of each flight, the instructor will cross check the student's logbook to ensure that they agree and have been logged correctly. The total hours dual training, solo and total flight time should agree at each stage. Prior to the recommendation for The PPL Flight Test, the instructor will verify the student's logbook against the student's training record and then notify The Head of Training (HOT) that the student is ready for the PPL Flight Test. Once verified the HOT will sign the student's logbook to certify that the hours recorded are correct as far as the training carried out with the club is concerned.

1.5.7 Standardisation of Entries

Training Records

A flight report for each flight must be completed by the instructor delivering that lesson. Reports should reflect the debrief given and must record items not performed satisfactorily and wherever possible, advice or suggestions on how to achieve the required standard.

Students must initial the comments from each flight to accept the debrief given by the instructor and a date and signature is required once all manoeuvres in the lesson have been completed to standard before moving on to the next lesson.

Grading

As part of the report and debrief each flight will be graded as follows:

Grade 1 Above Standard

Grade 2 To Standard

Grade 3 Repeat Exercise

When a student is awarded grades 1 or 2 the exercise is considered complete.

1.5.8 Log Book Entries

Students' logbooks are to be completed in accordance of Part IV Article 22 of the AN(HK)O, CAD 54 and Part A Section 5 of the Operations Manual.

1.6 Safety Training

The Chief Flying Instructor (CFI) has the overall responsibility for the PPL (A) syllabus and the contents of this manual.



1.6.1 Instructor Responsibilities

Individual instructors are responsible for ensuring that students complete their training in accordance with the following instructions:

- At the beginning of a training course, Instructors are to advise students of the need for a valid medical certificate to be obtained prior to being sent solo.
- Instructors are responsible for delivering the training course in accordance with the PPL (A) syllabus and the contents of this manual.

1.6.2 Students Responsibilities

Students are responsible for ensuring that they comply with any instructions issued by the club or its staff.

Students are responsible for ensuring that they have a current valid medical certificate before embarking on any solo flight.

1.6.3 Emergency Drills

Emergency Drills are to be taught and refreshed as follows:

Emergency drills are introduced during Stage 1 and the student will be taught the correct course of action in the event of each of the aircraft's potential emergencies. Students shall demonstrate the ability to complete a selection of these drills during the Stage 1 check flight and explain the required actions for those simulated emergencies not flown.

1.6.4 Pre-Area Solo qualifying flight

Prior to completing the Stage 2 check flight, the student shall be current and well versed in all emergency procedures and in particular:

- Forced landing techniques (Engine Failure and Engine Fire)
- Dealing with in flight emergencies
- Radio failure procedures
- Emergency Squawk frequencies
- Dealing with deteriorating weather, e.g. thunderstorms
- Closure of Kadoorie Gap due weather
- Oral test on aircraft endurance
- VHSK considerations

Emergency drills will be thoroughly revised during Stage 3 in preparation for the graduation flight prior to the PPL Flight Test. During stage 3 the student will be advised to expect simulated emergencies during the revision phases. Instructors shall always ensure that the aeroplane is in a safe configuration to simulate an emergency and will initiate the drill with the words "SIMULATED EMERGENCY" followed by a description of the symptom(s) to which the student must react appropriately.



1.6.5 Dual Checks

Students on the PPL course are not authorised to complete solo flights without the instructor satisfying his/herself that the student is competent to do so in the prevailing conditions. If the student is out of recency as detailed in Part A Section 5.5.13 they are required to complete a recency flight and ground check with the instructor prior to being released.

1.6.6 Requirements before First Solo

Before being permitted to fly solo for the first time, a student must:

1. Have successfully completed all exercises in Stage 1 of the training programme
2. Have completed at least **20 hours** of dual flight training
3. Have satisfactorily completed the emergency drill training detailed in para.1.6.3
4. Have passed the Stage 1 check flight
5. Be in possession of a minimum of Class Two Medical Certificate

1.6.7 Requirements Before First Area Solo – Navigation

Before being authorised to undertake the first area solo – navigation flight, a student must:

1. Fulfil the requirements in paragraph 1.6.6 above, and
2. Have satisfactorily completed all exercises in Stage 2 of the training programme, and
3. Have demonstrated the ability to perform the requirements of SC2 to a safe standard without significant assistance.
4. Have passed the Air Law, Human Performance, and Radio Telephony Exams??

1.6.8 Requirements to act as PIC following the PPL Flight Test – Fixed Wing

Upon successful completion of the PPL Flight Test a further 15 hours flight training in Advanced Emergency Procedures will be completed and will include but are not limited to:

1. Engine Failure After Take Off (EFATO)
2. Forced Landing Areas in Shek Kong, UCARA and Zone
3. Review of the Operations Manual



1.7 Test & Examinations

Flying

1. Progress Tests

Flight Stage Checks are conducted during the course:

- Prior to first solo flight
- Prior to first area solo
- Prior to PPL Flight Test

Details of the Stage Checks are shown within the Flight Training Syllabus at the end of each stage.

2. PPL Flight Test

- The PPL Flight Test is taken when all the training is complete and the student has passed Stage Check 3. The test will be conducted by a Qualified Examiner that is appointed by either the HOT or CFI.

1.7.1 Theoretical Knowledge

1. Progress Tests

Ground Stage Checks consisting of Club Written Exams that can be found in Appendix 7 followed by a debrief with either the HOT or CFI are conducted during the course:

- Prior to first solo flight
- Prior to first area solo
- Prior to PPL Flight Test

The written tests will be securely kept by the Operations Department and issued at the appropriate time by the instructor.

2. Theoretical Knowledge Examinations

Theoretical Examinations must be completed in accordance with the requirements specified in Part IV of the AN(HK)O and CAD 54 Part 2. Examinations will be administered by the Pilots Licensing Office (PLO) and each exam is assigned to a particular day of the week as stated in the latest update of the Aeronautical Information Circulars (AIC) that can be found in the Operations Library or online at ais.gov.hk.

The Pilot Licencing Office (PLO) requires a minimum of 1 weeks' notice to make a reservation which will be granted subject to availability.

PLO Contact details:

Personnel Licensing Office
Flight Standards and Airworthiness Division
Civil Aviation Department
1 Tung Fai Road
Hong Kong International Airport
Lantau, Hong Kong
+852-39163666

Email: plo@cad.gov.hk.



1.7.2 Authorisation for Test

1. PPL Skill Test

A recommendation for a PPL Flight Test will be made by the Head of Training, CFI or designated FI in their absence. This can only be completed once the following items have been met:

- All training is complete
- The student has signed all lessons
- The student has passed all the theoretical knowledge examinations and the validation periods have not expired

The Head of Training is permitted to nominate his/herself for this purpose provided he/she has not been the students primary instructor

1.7.3 Test Reports & Records

The students TK Study and Examinations will be recorded in Appendix 5 with the outcome of each examination sitting.

1.7.4 Examination Re-sit Procedures

In the event of an examination being failed, the student's TK Study & Examination Form will be updated to that effect.

In the event that a student does not meet the required pass mark, the exam can be sat a further two times before a 3 month wait period is imposed. Following the break period the student will have the ability to make 3 more attempts where failing all three will then result in an individual student assessment by the PLO.

1.8 Training Effectiveness

1.8.1 Identification of Unsatisfactory Progress

Instructors should constantly assess student progress. If an Instructor has concerns about a student's capabilities, these should be raised with the student immediately and a note to that effect placed on the student's record. If a student has completed more than 10 hours' flying training but is not, in the opinion of the Instructor, making adequate progress, a three way conversation between the Head of Training/CFI, the student and the Instructor should take place to explain where the deficiencies lie and advise the estimated number of hours of further training necessary to reach the required standard. A plan to correct the deficiencies should be formulated and a copy of the details retained in the student's flight training records.



1.8.2 Actions to Correct Unsatisfactory Progress

After re-briefing, the relevant exercises should be repeated. If the student continues to perform unsatisfactorily, The Head of Training/CFI and the student will then discuss the situation and agree a way forward. Should a change of instructor be considered advantageous, the HOT/CFI will arrange for an alternative instructor to continue the training. The position will be reviewed after each lesson.

1.8.3 Reporting & Documentation

Details of the debriefing and subsequent discussions and the action plan shall be recorded on the Student Record Sheet in Appendix 3 together with copies of any written communication with the student.



SECTION 2

Flight Log

Date	Exercise #	Manoeuvre #'s Complete	Lesson Flight Time	IF	Stall & Spin	Flight Time to Date		Grade	Instructor
						Dual	Solo		
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Date	Exercise #	Manoeuvre #'s Complete	Lesson Flight Time	IF	Stall & Spin	Flight Time to Date		Grade	Instructor
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Date	Exercise #	Manoeuvre #'s Complete	Lesson Flight Time	IF	Stall & Spin	Flight Time to Date		Grade	Instructor
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HKAC Aeroplane Training Syllabus
 AL1 - 13 November 2020

Date	Exercise #	Manoeuvre # s Complete	Lesson Flight Time	IF	Stall & Spin	Flight Time to Date		Grade	Instructor
						Dual	Solo		
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2.0 Briefings & Air Exercises

2.1 Air Exercises

During each Air Exercise, instructors shall take the opportunity to emphasise the principles of:

- Threat and Error Management (TEM)
- Crew Resource Management (CRM)
- Collision Avoidance
- Flight in deteriorating conditions and the need to avoid this potentially fatal flight regime.

2.2 Air Exercise Reference List

For an abbreviated Air Exercise list, see table contained in Section in 1.3

2.3 Course Structure

2.3.1 Phases of Training

The course is divided into three stages, each terminating in a Stage Checks as follows:

PPL (A)			
Stage	Lessons	Min. Hours	Completion
1	1-15	20	Stage Check 1
2	16-21	10.9	Stage Check 2
3	22-26	16.2	Stage Check 3

Flight exercises will normally be taught in numerical order, however if deviation is necessary due to weather or aircraft unserviceability this is acceptable.

Please note that with the exception of the Air Experience Flight, no actual flight training can commence until Ground Lessons 1, 2 & 3 are completed and signed.

Having completed Flight Lessons 1 through 25, Lesson 26 is left to ensure that all sections of the training manual (detailed in Appendix 2) have been covered and can include several flights as required. The student must be able to carry out a practical demonstration of the required procedures (or by discussion in the case of items so designated) to the standard required of a PPL (A) holder. The duration and number of these review flights will be at the discretion of the Instructor until they are satisfied that the Student has reached the standard required to attempt Stage Check 3 and be recommended for test.



2.3.2 Integration of Syllabi

Instructors shall take care to cross relate theoretical knowledge to flying training wherever possible. It is important that the student is familiar with the normal operation of systems before learning emergency procedures associated with that system's failure. Consequently, Instructors must ensure that they teach normal operations before addressing system failures.

2.3.3 Student Progress

Before progressing from one stage of training to the next, a student must have:

- Completed all the flight exercises to a satisfactory standard
- Completed at least the minimum hours indicated in the 2.3.1 table above
- Passed the relevant Stage Check

2.4 Instructional Methods

2.4.1 Pre-flight Briefings

Long Briefing – Each flight lesson will be preceded by a ground briefing that will contain a detailed explanation of the exercises to be covered. This can take place on a different day but must be prior to the flight.

Pre-Flight Briefing – On the day of the flight, an abbreviated pre-flight brief will be given by the instructor which will recap on all the important points of the lesson ahead and will include TEM and CRM.

During the briefing, the Instructor will also review areas from the previous lesson including any element that needs to be re-covered.

In Stage 3 of the course, the student should be able to brief the instructor on the current meteorological conditions and whether conditions are suitable.

2.4.2 Post Flight Debriefing

The student should be debriefed as soon as practicable after each flight. The debriefing must match the subsequent entry in the student's training record, which the student must initial.

2.4.3 Adherence to Syllabus

Instructors are to give instruction in accordance with the flight training syllabus in this Part and the theoretical knowledge syllabus in Section 3. It is essential that instruction is standardised to avoid confusion if the student should fly with more than one instructor. Any examples of a lack of standardisation are to be brought to the attention of the HOT or CFI.

2.4.4 Authorisation for Solo Flight

Students are to be authorised for solo flights only after they have received a thorough pre-flight briefing from the authorising instructor. Assistant Flying Instructors (AFI) are not permitted to authorise the first solo flight or first area solo.



2.5 Stage Checks

2.5.1 Stage Check 1

Stage Check 1 (SC1) is a test of the student's ability to fly the aircraft safely and to a standard suitable to fly as PIC. The check flight is conducted by either the HOT (if qualified), CFI (A) or designated FI and must be successfully completed before the student is authorised for the first solo flight. The content of SC1 can be found within the flight training syllabus immediately after lesson 15.

2.5.2 Stage Check 2

Stage Check 2 (SC2) is a test of the student's ability to conduct an area navigation flight under VFR and to complete other flight manoeuvres with an acceptable degree of accuracy. The check flight is conducted by either the HOT (if qualified), CFI (A) or designated FI and must be successfully completed before the student is authorised for the first area solo flight. The content of SC2 can be found within the flight training syllabus immediately after lesson 21.

2.5.3 Stage Check 3

Stage Check 3 (SC3) is designed to ensure that the student can complete all of the relevant exercises to the standard required during the PPL Flight Test. The check flight must be successfully completed before a recommendation is made for the student to attempt the PPL Flight Test. The test is conducted by an Authorised TRE nominated by the HOT or CFI. The Content of SC3 can be found within the flight training syllabus immediately after lesson 26.

2.5.4 Nominated Examiner

An instructor that has fulfilled the role of a student's primary instructor is not permitted to act as the flight examiner for that student's PPL Flight Test.

2.5.5 Conduct of Stage Checks

A stage check forms part of the training process and instructors must endeavour to conduct the test in an informal and constructive manner. For Stages 1 & 2 all manoeuvres should be conducted safely and the student should demonstrate good airmanship and captaincy. Verbal prompts from the instructor are permitted but physical intervention should not be necessary. For the Stage 3 check, no prompting should be necessary and the individual manoeuvres should be carried out by the student to the standard expected of a PPL holder. The test tolerances for each manoeuvre are detailed in each flight exercise within the training syllabus. Where students fail to meet the required standard on a Stage Check, the checking instructor shall debrief the student and then separately debrief the students course instructor. The purpose of such a debrief being to examine the underlying reasons and identify any gaps in training and any remedial training that might be considered necessary for the student to improve their performance.



Lesson Numbers & Exercise Allocation

Lesson Number	Exercise Number
1	2
2	3
3	4A
4	4B & 5E
5	6A
6	6B
7	7A & 8A
8	7B & 8B
9	9
10	10A
11	10B
12	11
13	12 & 13
14	12, 12E, 13 & 13E
15	12 & 13
16	14
17	12 & 13
18	15
19	16
20	17A
21	17B
22	First Area Solo
23	18
24	Supervised Solo
25	19
26	PPL Flight Test Revision



Lesson 1

Exercise 2 – Prep. For & Action After Flight

Objective

To introduce the student to the preparation necessary before commencing a flight

Threat and Error Management

- The Active Ramp (Area X-ray)
- Equipment required
- Maps

Exercise Briefing

- Documentation
- Equipment
- Pre-flight Checks
- Start-up procedure
- Shut down procedure
- Logging flight time

Flight Manoeuvre

N/A

Completion Standard

N/A



Lesson 2

Exercise 3 – Air Experience

Objective

To introduce the student to single engine piston flying.

Threat and Error Management

- ❑ Flight control handover process

Exercise Briefing

- ❑ Introduction to safety around the aircraft
- ❑ Emergency and evacuation brief
- ❑ Preparation for flight
- ❑ Handover/Takeover/Follow through procedures

Flight Manoeuvre

1. Aircraft familiarisation
2. Introduction to attitude flying

Completion Standard

N/A



Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 3

Exercise 4A – Effects of Controls

Objective

To learn the effects of the primary controls. To select and hold and altitude.

Threat and Error Management

- ❑ The Active Ramp (Area X-ray)
- ❑ Equipment required
- ❑ Maps
- ❑ Weather conditions
- ❑ Lookout
- ❑ Handover/Takeover/Follow through procedures
- ❑ Aircraft limitations

Exercise Briefing

- ❑ Function and effect of controls
- ❑ Taxying (Ex. 5)
- ❑ Pre-flight paperwork
- ❑ Aircraft External Checks
- ❑ Cockpit preparation
- ❑ Use of ventilation and heating controls
- ❑ Use of checklists

Flight Manoeuvre

1. Datum attitude
2. Primary effect of the:
 - a. Elevators
 - b. Ailerons
 - c. Rudder
3. Effect of airspeed on the primary controls
4. Effect of slipstream on the primary controls
5. Further effect of the:
 - a. Ailerons
 - b. Rudder
6. Demonstration of adverse yaw and the need for coordinated use of controls when rolling
7. Introduction to taxying during taxi after landing.

Completion Standard

Demonstrate:

- ❑ Correct technique to control the aircraft in all three axes



Lesson 4

Exercise 4B & 5E – Effects of Controls 2

Objective

To set an engine RPM and operate the supplementary controls whilst maintaining the datum attitude in trim.

Threat and Error Management

- ❑ The Active Ramp (Area X-ray)
- ❑ Equipment required
- ❑ Maps
- ❑ Weather conditions
- ❑ Use of checklists
- ❑ Handover/Takeover/Follow through procedures
- ❑ Lookout – scanning technique and clock system when reporting traffic
- ❑ Aircraft limitations – Flaps, Engine, Trim

Exercise Briefing

- ❑ Pre-flight brief on Effects of Controls
- ❑ Taxying Emergencies (Ex. 5E)
- ❑ Introduction to weather interpretation and NOTAM decoding
- ❑ Student to practice: Items covered by instructor previously
- ❑ Instructor to teach:
 - Operation of radio (tailored to the individual)
 - Taxy (continued)
 - Power checks and pre take off checks
- ❑ Instructor to demo:
 - Normal take off

Flight Manoeuvre

1. Revision of effects of controls
2. Effect and use of trim – Select – Hold - Trim
3. Use of throttle and the engine gauges
4. Effect of power
5. Effect and use of flap: Limitation – Operation – Indication
6. Supplementary controls: Use of mixture and carb heat
7. Set an engine RPM
8. Return to aerodrome. Instructor to demo:
 - a. Approach checks
 - b. Arrival procedures
 - c. Aerodrome orientation
9. Introduction to Taxying emergencies



Lesson 5

Exercise 6A – Straight & Level 1

Objective

To learn to fly straight and level, in balance and in trim, at a constant power setting.

Threat and Error Management

- The Active Ramp (Area X-ray)
- Weather conditions
- Lookout – scanning technique and clock system when reporting traffic
- Use of checklists
- Handover/Takeover/Follow through procedures
- Aircraft limitations
- System/Engine problems

Exercise Briefing

- Weather and NOTAM
- Student to practice items covered by instructor previously
- Introduction to R/T
- Normal take-off.

Flight Manoeuvre

1. Revision of effects of controls (Select/Hold/Trim to Attitude)
2. Straight and level flight
 - a. Power, Attitude, Trim (PAT)
3. Balance
Regular 10 min checks and use of Carb Heat
4. Lookout (Scanning technique)
5. Maintenance of S & L (Lookout/Attitude/Instruments)
6. Correct to datums (Constant power - +/- 150' - +/- 10°)
7. Return to aerodrome. Instructor to demo:
 - a. FREDA /Approach checks
 - b. Arrival procedures
 - c. Aerodrome orientation

Completion Standard

Demonstrate:

- An understanding of the relationship between power, attitude and trim
- Recognition of the correct attitude 'pictures', i.e. The Straight and Level Attitude
- An understanding of principles achieving S&L flight with reference to attitude
- Ability to maintain balanced flight
- Ability to select the appropriate power setting for cruise speed



Lesson 6

Exercise 6B – Straight & Level 2

Objective

To learn to fly the aircraft straight and level at different power settings, speeds and with flap.

Threat and Error Management

- ❑ The Active Ramp (Area X-ray)
- ❑ Use of checklists
- ❑ Weather conditions
- ❑ Lookout – scanning technique and clock system when reporting traffic
- ❑ Handover/Takeover/Follow through procedures
- ❑ Aircraft limitations – Speed limitations for Flaps

Exercise Briefing

- ❑ Pre-flight brief on Straight & Level Part 2
- ❑ Weather and NOTAM brief
- ❑ The Lift Formula
- ❑ Brake failure and steering failure

Flight Manoeuvre

1. Revision of straight and level 1
2. Deceleration & acceleration
3. Straight & level at different power settings and speeds
 - a. Power, Attitude, Trim (PAT)
4. Straight & level with flaps
5. Slow safe cruise
 - a. Enroute / 10 min checks
 - b. Use of Carb Heat
6. Return to aerodrome. Student to practice:
 - a. FREDA checks
 - b. Arrival procedures
 - c. Aerodrome orientation
7. Return to aerodrome. Instructor to demo:
 - a. Landing

Completion Standard

Demonstrate:

- ❑ Speed stability
- ❑ Slow safe cruise
- ❑ Maintain S&L when adjusting power
- ❑ Maintain S&L when changing speed
- ❑ Maintain S&L when changing configuration



- Retrim following changes
- Adopt slow safe cruise & return to normal cruise
- Ability to maintain 150ft +/- of the chosen altitude
- Ability to maintain chosen heading +/- 10° of chosen heading
- Ability to maintain +/- 10knots of chosen speed

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 7

Exercise 7A & 8A – Climbing & Descending 1

Objective

To climb and glide the aircraft to specified altitudes at recommended speeds.

Threat and Error Management

- ❑ Weather conditions
- ❑ Lookout – Aircraft above and below and potential blind spots
- ❑ Engine cooling/heating/carb ice
- ❑ Loss of reference
- ❑ Handover/Takeover/Follow through procedures

Exercise Briefing

- ❑ Climbing & Descending
- ❑ Weather and NOTAM's

Flight Manoeuvre

1. Entry into the climb (Power, Attitude, Trim – PAT)
2. Maintain the climb (inc. control of IAS and engine management)
3. Direction, Attitude/Airspeed, Balance, Lookout, Engine (DABLE)
4. Level off at specified altitudes (Attitude, Power, Trim – APT)
5. Maintain the glide (inc. control of IAS and engine management)
6. Entry into the glide (Power Attitude, Trim - PAT)
7. From glide to climb (Attitude, Power, Trim - APT)
8. Develop aerodrome orientation

Completion Standard

This early lesson in climbing and descending requires an essential understanding of the use of power and attitude to control airspeed to attain best rate of climb (V_y) and the glide descent. Recognition of the correct attitude 'pictures' and the correct use of elevator and rudder trim are essential.

Demonstrate:

- ❑ Climbing at best rate (V_y)
- ❑ Enter a climb and recover to S&L
- ❑ Enter the glide and recover to S&L
- ❑ Maintain balance and heading in climb/descent
- ❑ Make transition from glide to climb
- ❑ Ability to level off 150ft +/- of the chosen altitude
- ❑ Ability to maintain chosen heading +/- 10° of chosen heading
- ❑ Ability to maintain +/- 5knots of chosen speed



Lesson 8 Exercise 7B & 8B – Climbing & Descending 2

Objective

To learn climb and descent techniques used in the circuit.

Threat and Error Management

- ❑ Weather conditions
- ❑ Lookout – Aircraft above and below and potential blind spots
- ❑ Engine cooling/heating/carb ice
- ❑ Loss of reference
- ❑ Handover/Takeover/Follow through procedures
- ❑ Descending too low
- ❑ Aircraft limitations - Misuse of flaps

Exercise Briefing

- ❑ Climbing & Descending
- ❑ Weather and NOTAM brief
- ❑ Cabin fire and electrical fire on the ground

Flight Manoeuvre

1. V_x and V_y climbs
2. Effect of flaps in the climb
3. Effect of flaps in the glide
4. Effect of power in the descent
5. Approach & landing configurations – control of descent
6. Climb entry from full flap descent
7. Introduction to landing

Completion Standard

Demonstrate:

- ❑ Climbing at best angle (V_x)
- ❑ Effect of flaps in the climb
- ❑ Effect of flaps on the glide
- ❑ Effect of power in the descent
- ❑ Level off at pre-determined altitudes
- ❑ Descend in approach configuration
- ❑ Descend in landing configuration
- ❑ Perform a go round
- ❑ Ability and level off 150ft +/- of the chosen altitude
- ❑ Ability to maintain chosen heading +/- 10° of chosen heading
- ❑ Ability to maintain +/- 10knots of chosen speed



Lesson 9

Exercise 9 – Turning

Objective

To learn to execute a medium turn at 30° AOB or less, maintain and roll out onto specific landmark and headings.

Threat and Error Management

- ❑ Weather conditions
- ❑ Handover/Takeover/Follow through procedures
- ❑ Lookout – Aircraft above and below and potential blind spots
- ❑ Engine cooling/heating
- ❑ Carb icing
- ❑ Orientation – Loss of landmarks

Exercise Briefing

- ❑ Medium Level Turns
- ❑ Weather and NOTAM

Flight Manoeuvre

1. Entry into a medium level turn
2. Maintain a medium level turn
3. Roll out of a medium level turn onto specific landmark/headings
4. Climbing turn (Max. of 15°AOB)
5. Adjust attitude to maintain airspeed. Note reduced ROC.
6. Descending turn (Max. of 30° AOB)
7. Adjust attitude to maintain airspeed. Note increased ROD.
8. FREDA, Arrival procedures, After landing checks

Completion Standard

Demonstrate:

- ❑ A medium level 30° turn +/-5° of bank
- ❑ Climbing turn +/-5° AOB
- ❑ Descending turn +/-5° AOB
- ❑ Climbing turns & return to S&L
- ❑ Descending turns & return to S&L
- ❑ Turn, recovering by ref to landmarks
- ❑ Turn, recovering onto specified headings
- ❑ Ability to maintain 150ft +/- of the chosen altitude
- ❑ Ability to maintain roll out of the turn at chosen heading +/- 10°
- ❑ Ability to maintain +/- 10knots of chosen speed



Lesson 10

Exercise 10A – Slow Flight

Objective

To become familiar with the aircraft handling characteristics at low speed, and to learn to recognise and recover from the full and approaching stall with minimum loss of height.

Threat and Error Management

- ❑ Lookout
- ❑ Weather conditions
- ❑ Handover/Takeover/Follow through procedures
- ❑ HASELL Checks
- ❑ Carb icing

Exercise Briefing

- ❑ Stalling
- ❑ Weather and NOTAM brief

Flight Manoeuvre

- ❑ Introduction to Slow Flight:
 - Maintain straight & level, climb, turn, and descent at $V_{s1} + 10\text{kts}$
 - Repeat exercises with flap down in stages & $V_{so} + 10\text{kts}$
 - Repeat exercise at $V_{sl} + 5\text{kts}$ & $V_{so} + 5\text{kts}$
- ❑ Introduction to the stall:
 - HASELL and entry
 - Instructor to demonstrate full stall and recovery
 - Signs of the approaching stall
 - Full stall features
- ❑ Recovery from the stall:
 - Recovery at the wing drop stage
 - Standard Stall Recovery
 - Recovery without power
 - Checks after stalling

Completion Standards

Demonstrate:

- ❑ Carry out HASELL checks
- ❑ Maintain slow flights at selected speeds $+5\text{kts}/-0\text{kts}$
- ❑ Recognition of the signs and symptoms of a stall



Lesson 11

Exercise 10B – Stalling

Objective

To learn to recognise and recover from the full and approaching stall in the approach and landing configuration with minimum loss of height.

Threat and Error Management

- Lookout
- Weather conditions
- Handover/Takeover/Follow through procedures
- HASELL Checks
- Carb icing
- Aircraft limitations

Exercise Briefing

- Stalling Part 2
- Weather and NOTAM brief

Flight Manoeuvre

- Clean, power off stall - recovery at wing drop stage.
- Stalling with power/flap/landing configuration:
 - Teach/practise effect of power on the stall
 - Teach/practise effect of flap (include wing drop)
 - Teach/practise full stall in landing configuration
- Recovery from the stall at the wing drop stage:
 - Recovery at the wing drop stage in landing configuration (simulated final approach)
 - Recovery at the wing drop stage in the turn with approach configuration (simulated base to final turn)
 - Recovery at the wing drop stage in the departure turn with and without take-off flap setting (simulated turn after take-off)
 - Checks after stalling

Completion Standards

Demonstrate:

- Recovery from more realistic situations that might be encountered
- Effect of power & flap on the stall
- Recognition of the signs of the stall in approach configuration
- Recognition the signs of the stall in landing configuration
- Recovery at the wing drop stage in simulated final approach
- Recovery at the wing drop stage in simulated base to final turn
- Recovery at the wing drop stage in simulated turn after take off
- Minimum height loss standard stall recovery with less than 200ft height loss



Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 12

Exercise 11 – Spin Avoidance

Objective

To learn to recognise and recover the aircraft safely from a wing drop prior to a spin with minimum height loss.

Threat and Error Management

- ❑ Lookout
- ❑ Weather conditions
- ❑ Handover/Takeover/Follow through procedures
- ❑ HASELL Checks
- ❑ Carb icing
- ❑ Aircraft limitations

Exercise Briefing

- ❑ Spin Avoidance
- ❑ Weather and NOTAM brief
- ❑ Student to practice Normal or crosswind take off

Flight Manoeuvre

1. Revise climbing (Cruise/ V_Y) and climbing turns on to headings
2. Revision of Full Stall, Clean, Power off
3. Spin Avoidance:
 - a. Stalling and recovery
 - b. From straight and level to wing drop
 - c. From stall in a climbing turn with full power
 - d. From stall in a steep, level turn.
 - e. Instructor induced distractions during the stall
4. Recovery to base student to practise:
 - a. Cruise descent on recovery
 - b. Approach checks, FREDAs
 - c. R/T and arrival procedures
 - d. Landing
 - e. Actions after flight



Completion Standard

Demonstrate:

- ❑ Ability to recognise the conditions that are likely to lead to an unintentional spin, and to take recovery action promptly at the wing drop stage in order to recover the aircraft safely with minimum height loss.
- ❑ Recover the Aircraft Safely from wing drop prior to a stall

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 13

Exercise 12 & 13 – Take off, Approach & Landing

Objective

To learn to fly the standard circuit pattern and the normal landing technique.

Threat and Error Management

- ❑ EFATO
- ❑ Lookout
- ❑ Concentration of aircraft (max number of aircraft in circuit)
- ❑ Wind direction and strength
- ❑ Bank angles (climbing and descending turns)
- ❑ Speed control
- ❑ Aircraft limitations (speed when using flaps)
- ❑ Unstable Approach

Exercise Briefing

- ❑ Standard circuit and normal landing
- ❑ Weather briefing

Flight Manoeuvre

1. Revise pre take-off and runway checks
2. Short field take-off, Climb upwind and crosswind to circuit height
3. Revise after take-off checks; drift correction.
4. Upwind climb to 400ft and past the end of R/W
5. Turn to crosswind; lookout and climbing turn a max. 15° bank
6. Check position on crosswind, i.e. 90° to R/W
7. Turn to downwind and level at circuit height
 - a. Spacing from runway / Spacing against other aircraft / Drift correction
 - b. Tracking parallel to R/W
 - c. Reference points / RT Call
 - d. Downwind checks
 - e. Carb Heat to ON
 - f. Medium turn to base, i.e. 30° bank
8. Base leg
 - a. Configuring the aircraft
 - b. Drift correction
 - c. Assessment of rate of descent/flight path
 - d. Anticipation and technique for turn onto Final Approach
9. Final Approach – Stable Approach



- a. Control of approach path / Landing Configuration / Correct IAS Clearance received (if appropriate)
 - b. Decision Height 300ft AGL, Stable approach and Runway correct and clear. Carb Heat to OFF
10. If not stable or R/W not clear by 300'agl go around
11. Landing flare
- a. Where to look
 - b. Throttle/attitude control
12. Ground roll - Use of flying controls and brakes
13. Touch and Go procedures

Completion Standards

Demonstrate:

- Pre T/O and runway checks
- Normal take-off
- Climb upwind and crosswind at a speed of +/- 5kts and heading +/- 10°
- Aircraft Spacing – 1 aircraft per leg
- Downwind leg at a speed of +/- 10kts, +/- 150ft
- Checks
- Use of Carb Heat
- Base leg
- Final Approach at a speed of +/- 5kts
- Stabilised Approach
- Landing flare
- Ground roll
- Touch and go
- Use of standard RT



Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



INTENTIONALLY BLANK



Lesson 14

Exercise 12, 12E, 13 & 13E – Take Off, Approach, Landing & Emergency Procedures

Objective

To continue practising the circuit. Introduction of flapless and glide approaches plus introduction of circuit emergencies.

Threat and Error Management

- ❑ Lookout
- ❑ Concentration of aircraft (max number of aircraft in circuit)
- ❑ Wind direction and strength
- ❑ Bank angles (climbing and descending turns)
- ❑ Speed control
- ❑ Aircraft limitations (speed when using flaps)
- ❑ Unstable Approach
- ❑ Simulated Engine Failure – EFATO
- ❑ Pre-landing checks
- ❑ Emergency Procedures

Exercise Briefing

- ❑ Introduction of emergencies and flapless & glide approach
- ❑ Weather and NOTAM brief

Flight Manoeuvre

1. Revise general circuit procedures
2. Flapless approach:
 - a. Nose attitude
 - b. Speed control / revised VREF / less power required
 - c. Approach flight path same but nose attitude higher
 - d. Landing flare
3. Glide approach (Final stage of Forced Landing procedure):
 - a. Position to close the throttle
 - b. Judgement of touchdown point (point of constant reference)
 - c. Undershoot/overshoot corrections – Flap/S-Turns
 - d. Speed control
 - e. Landing flare
4. Short field Take-off and landings
 - a. Speed control
 - b. Landing and braking
5. Circuit emergency(s)



Lesson 15 Exercise 12 & 13 – First Solo Preparation

Objective

To review all parts of Exercise 12 & 13 in preparation for the first solo flight.

Threat and Error Management

- ❑ EFATO
- ❑ Lookout
- ❑ Concentration of aircraft (max number of aircraft in circuit)
- ❑ Wind direction and strength
- ❑ Bank angles (climbing and descending turns)
- ❑ Speed control
- ❑ Aircraft limitations (speed when using flaps)
- ❑ Unstable Approach
- ❑ Baulked / ballooned landings
- ❑ Circuit Checks and drills

Exercise Briefing

- ❑ Review of all previous Exercises
- ❑ Weather and NOTAM brief

Flight Manoeuvre

1. Revise pre take-off and runway checks
2. Short field take-off, Climb upwind and crosswind to circuit height
3. Revise after take-off checks; drift correction.
4. Upwind climb to 400ft and past the end of R/W
5. Turn to crosswind; lookout and climbing turn a max. 15° bank
6. Check position on crosswind, i.e. 90° to R/W
7. Turn to downwind and level at circuit height
 - a. Spacing from runway / Spacing against other aircraft / Drift correction
 - b. Tracking parallel to R/W
 - c. Reference points / RT Call
 - d. Downwind checks
 - e. Carb Heat to ON
 - f. Medium turn to base, i.e. 30° bank
8. Base leg
 - a. Configuring the aircraft
 - b. Drift correction
 - c. Assessment of rate of descent/flight path
 - d. Anticipation and technique for turn onto Final Approach



14. Final Approach – Stable Approach
 - a. Control of approach path / Landing Configuration / Correct IAS Clearance received (if appropriate)
 - b. Decision Height 300ft AGL, Stable approach and Runway correct and clear. Carb Heat to OFF
15. If not stable or R/W not clear by 300'agl go around
16. Landing flare
 - a. Where to look
 - b. Throttle/attitude control
17. Ground roll - Use of flying controls and brakes
18. Touch and Go procedures

Completion Standards

- Consistency in performing an acceptable landing
- Ability to recover from a ballooned landing
- Ability to maintain 150ft +/- of the chosen altitude
- Ability to maintain roll out of the turn at chosen heading +/- 10°
- Ability to maintain +/- 10knots of chosen speed



INTENTIONALLY BLANK



Stage Check 1 – Pre-Solo

Stage 1 HKAC written exam must be completed with the required pass mark achieved prior to this flight

Objective

To review the students' progress and ensure that all manoeuvres covered in the previous lessons can be performed to standard in readiness for the students first solo.

Check List

- Minimum Age
- Valid Medical
- Key parts of the Operations Manual are read and understood
- Handing Over & Shutdown Procedures

TEM Check

The following will be covered by the instructor, but it is at their discretion if additional manoeuvres are to be included.

- Cockpit security
- EFATO
- Open door and / or open oil filler cover
- Radio failure
- Flap failure
- Finals check and "Decision Height" (300ft)
- Baulked landing / Go-around
- Recovery form a "ballooned" landing
- Flapless approach and landing

***Check each box for every item completed to standard**



Lesson 16

Exercise 14 – First Solo

Objective

To safely fly a circuit of the airfield for the first time unaccompanied.

Threat and Error Management

- ❑ EFATO
- ❑ Lookout
- ❑ Concentration of aircraft (max number of aircraft in circuit)
- ❑ Bank angles (climbing and descending turns)
- ❑ Speed control
- ❑ Unstable Approach
- ❑ Baulked / ballooned landings
- ❑ Circuit Checks and drills
- ❑ Emergencies
- ❑ Aviation Medical
- ❑ EFATO briefed and signed (Appendix 6)
- ❑ Flight authorized & signed

Exercise Briefing

- ❑ Suitable weather and traffic levels for a First Solo
- ❑ Requirements for the flight
- ❑ Action in the event of an unsatisfactory approach or baulked landing
- ❑ Ensure cockpit secured for solo flight

Flight Manoeuvre

1. Perform Taxi, take off and fly one solo circuit initially conforming to published procedures and land safely back to the runway.
2. Instructor will then decide if further circuits can be completed by the student or additional instruction is required

Completion Standard

Demonstrate:

- ❑ Display appropriate airmanship
- ❑ Fly the circuit
- ❑ Use of R/T



Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 17 Exercise 12 & 13 – Consolidation

Objective

To review all parts of Exercise 12 & 13. The time spent on this lesson will be a mixture of dual and solo flying.

Threat and Error Management

- ❑ EFATO
- ❑ Lookout
- ❑ Concentration of aircraft (max number of aircraft in circuit)
- ❑ Bank angles (climbing and descending turns)
- ❑ Speed control
- ❑ Unstable Approach
- ❑ Baulked / ballooned landings
- ❑ Circuit Checks and drills
- ❑ Emergencies

Exercise Briefing

- ❑ Revise general circuit procedures

Flight Manoeuvre

- ❑ Revise general circuit procedures
- ❑ Flapless approach:
 - Nose attitude
 - Speed control /more – less power required
 - Approach flight path same but nose attitude higher
 - Landing flare
- ❑ Glide approach:
 - Wind considerations
 - Position to close the throttle
 - Judgement of touchdown point (point of constant reference)
 - Undershoot/overshoot corrections – Flap/S-Turns
 - Speed control
 - Landing flare
- ❑ Short field Take-off and landings
 - Speed control
 - Landing and braking
- ❑ Circuit emergency(s)



Completion Standard

- ❑ During this exercise the student will continue to acquire the skills necessary to operate an aircraft within the Aerodrome Traffic Zone and to take-off and land safely. Introduction of circuit emergencies add additional learning points.
- ❑ Fly the standard circuit
- ❑ Flapless circuit & approach
- ❑ Glide circuit & approach
- ❑ Selected emergencies
- ❑ Use of standard RT

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 18

Exercise 15 – Advanced Turning

Objective

To learn to fly level 45° AOB Turns and descending 45° AOB Turns.

Threat and Error Management

- ❑ Weather
- ❑ Lookout – Aircraft above and below and potential blind spots
- ❑ Orientation – Loss of landmarks
- ❑ Speed control
- ❑ Spiral dive
- ❑ Inadvertent Stall / Spin
- ❑ Aircraft limitations

Exercise Briefing

- ❑ Advanced Turning
- ❑ Weather and NOTAM brief
- ❑ Student to practice:
 - Engine fire on start drill
 - Short-field take off over 50ft obstacle

Flight Manoeuvre

1. Revise climbing (V_x/V_y) and climbing turns on to headings
2. Student revises 30° AOB turns
3. Advanced Turning
 - a. Level 45° Bank Turns (Introduce 60° Bank Turn)
 - b. Steep descending turns 45° AOB
 - c. Stalling in the turn and recovery
 - d. Recoveries from undesired aircraft states, including spiral dives
4. Recovery to base student to practice:
 - a. Cruise descent on recovery
 - b. R/T and arrival procedures
 - c. Flapless landing
 - d. Actions after flight
5. Recovery to base – instructor to teach Overhead join



Completion Standard

Demonstrate:

- Level Flight at +/- 10kts & +/-150ft
- Descending 45° AOB turns at +/- 10kts
- Ability to recognise and recover the aircraft from unusual Attitudes (including Spiral Dives), and having stalled in the turn.
- Stalling in the turn and Recovery
- Unusual Attitudes and Spiral Dives
- Use of Magnetic Compass
- Recover the aircraft having stalled in the turn
- Recover the aircraft safely from unusual attitudes (including Spiral Dives)

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 19

Exercise 16 – Operation at Minimum Level

Objective

To learn how to navigate and operate at low level <1000' AGL

Threat and Error Management

- Lookout
- Weather
- Bank and speed control
- Carb icing
- Altimetry, Map Reading & Planning
- Correct use of instruments
- Time Keeping
- DI Synchronization
- Not below 500ft

Exercise Briefing

- Low Level Navigation
- Weather and NOTAM brief
- Student completes pre-flight planning

Flight Manoeuvre

1. Student carries out departure
2. Once established on track, teach actions prior to descent to low-level.
3. Descent and revise slow, safe cruise configuration
4. Navigation technique (ground features)
5. Student practise of descent to low-level and navigation
6. Wind effect on turning at low-level
7. Student practice en-route diversion at low-level
8. Recovery to base instructor to teach:
 - a. Bad weather re-join into circuit and bad weather circuit
9. Recovery to base student to practice:
 - a. Bad weather circuit and short-field landing

Completion Standard

Demonstrate:

- Understanding of the principles involved and the techniques to be applied for low level navigation
- Which features are visible at low level and apply this to map reading technique
- The effect of wind & turbulence at low level
- Noise abatement awareness



- The student demonstrates the correct use of the requisite techniques to:
- Completing the safety checks before descending into low level navigation
- Correct altimetry procedures & situational awareness to ensure terrain clearance
- Operation in poor visibility
- Joining the circuit for a bad weather circuit and applying short field landing technique
- Maintain level flight at +/- 10kts & +/-150ft

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 20

Exercise 17A – Forced Landings Without Power

Objective

To learn how to carry out a safe forced landing following an engine failure

Threat and Error Management

- ❑ Use of checklists
- ❑ Lookout
- ❑ Location - Suitable landing area
- ❑ Carb icing
- ❑ Engine warming every 500ft
- ❑ W/V
- ❑ Minimum height rule (500ft)
- ❑ Verbal Warning – “Simulated”

Exercise Briefing

- ❑ Forced Landings Without Power
- ❑ Weather and NOTAM brief

Flight Manoeuvre

1. During transit to training area at low-level (1000' AGL) teach field selection
2. Revise climbing at best angle
3. *insert emergency relevant to the flight*
4. Demonstrate a PFL (total failure) from a suitable altitude (3000')
 - a. Teach planning and flying pattern only
 - b. Student practise – PFL pattern only
 - c. Student to practise climb at V_x and V_y between PFLs
 - d. Teach PFL, instructor introduces checks, restart drill and Mayday
 - e. Student practise - PFL with checks, restart drill and Mayday
 - f. Further student practise of full procedure
 - g. Teach actions in the event of a partial engine failure.
 - h. Use of carb heat
5. Recovery to base student to practise:
 - a. Items as seen appropriate from the overview
 - b. Overhead join PFL from overhead if traffic permits, or
 - c. Glide approach & landing



Completion Standard

Demonstrate:

- Management of an engine failure at altitude with consideration given to time available followed by the correct actions required (appropriate checklists must be used)
- Suitable field selection (SWAT)
- Planning
- Executing a planned approach
- Perform relevant checklists
- Making a Distress R/T call
- Passenger briefing

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 21

Exercise 17B – Precautionary Landing

Objective

To learn when a precautionary landing is appropriate and how to execute a safe approach to a selected landing area.

Threat and Error Management

- ❑ Lookout
- ❑ Choosing appropriate landing area
- ❑ Carb icing
- ❑ Weather
- ❑ Minimum height rule (500ft)

Exercise Briefing

- ❑ Precautionary Landing
- ❑ Weather and NOTAM brief

Flight Manoeuvre

1. Revise short-field take-off over 50ft obstacle
2. Revise PFL (Partial or total engine failure from suitable altitude)
3. Precautionary landing:
 - a. Field/landing area selection
 - b. Revise converting to slow, safe cruise configuration
 - c. Turning technique in the slow safe cruise configuration.
 - d. Precautionary landing pattern
 - e. Student practices at different locations as appropriate with different simulated scenarios (wx, engine, fuel shortage, etc)
4. Recovery to base student to practise: Items as seen appropriate from the overview but to include:
 - a. Cruise descent on recovery
 - b. Appropriate checks, e.g. FRED A
 - c. Overhead join/ practise precautionary landing pattern if traffic permits
 - d. Short field landing

Completion Standard

Demonstrate:

- ❑ Ability to manage changing conditions (environment or systems)
- ❑ Consideration of the time available and exercise sound decision making and prioritise the actions required.
- ❑ Suitable field selection (SWAT)
- ❑ Planning & decision making
- ❑ Safe slow flight



- Executing a planned approach
- Perform relevant checklists
- Making a relevant R/T call
- Passenger briefing

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Stage Check 2 – Pre-Area Solo

Stage 2 HKAC written exam must be completed with the required pass mark achieved prior to this flight

Objective

To review the students' progress and ensure that all manoeuvres covered in the previous lessons can be performed to standard in readiness for the students first solo.

Check List

- Valid Medical
- Key parts of the Operations Manual are read and understood
- EFATO briefed and signed (Appendix 6)
- Flight authorized & signed
- NOTAMs and Weather
- Maintaining lookout
- Rejoin procedures
- Knowledge of maximum aircraft in circuit
- Knowledge of Radio and Emergency SQUAWK frequencies
- Radio failure procedures
- Aircraft endurance
- VHSK Considerations

TEM Check

The following will be covered by the instructor, but it is at their discretion if additional manoeuvres are to be included.

- Practice forced landing without power
- Radio failure
- Knowledge and significance of Line A
- Closure of Kadoorie Gap due to weather
- VHSK Considerations

***Check each box for every item completed to standard**



Lesson 22 First Area Solo

Objective

To safely fly a departure to the local area, practise general handling, then rejoin the circuit to land.

Threat and Error Management

- ❑ NOTAMS Wind and weather
- ❑ Lookout
- ❑ Orientation of the local area
- ❑ Carb icing
- ❑ Radio failure
- ❑ Emergency procedures

Exercise Briefing

- ❑ Instructor to be satisfied that weather and traffic levels are suitable for a solo sector recce
- ❑ Brief before solo:
 - Requirements for the flight
 - Dealing with emergencies, e.g. Radio failure / Engine failure / Kadoorie Gap closure
 - Checks and use of Carb Heat
 - Action in the event of an unsatisfactory approach or baulked landing
 - Action in the event of uncertainty of position
- ❑ Ensure cockpit secured for solo flight

Flight Manoeuvre

1. Student to fly a short specified solo sector nav exercise and carry out general handling as authorized by the instructor
2. Rejoin the circuit and land

Completion Standard

Demonstrate:

- ❑ A safe level of flying skill to be able to fly to and from the local area.
- ❑ Fly the departure
- ❑ Rejoin the circuit
- ❑ Fly the circuit following the join
- ❑ Use of standard RT



Lesson 23

Exercise 18 – Navigation

Objective

To plan a navigation route and to learn the visual navigation technique.

Threat and Error Management

- ❑ NOTAMS and Weather
- ❑ Lookout
- ❑ Navigation data and calculations
- ❑ Orientation of the local area
- ❑ En-route Obstacles
- ❑ Safety Altitude
- ❑ Special Airspace
- ❑ Carb icing

Exercise Briefing

- ❑ Visual Navigation
- ❑ Weather and NOTAM brief
- ❑ Lookout
- ❑ Teach / Practise planning a triangular route (Flight time approx. 1.0 hour)
- ❑ Carb Heat

Flight Manoeuvre

1. Student climbs towards starting point – practise cruise climb
2. Teach start point actions – Identify, HAT check, cross over start point on HDG and planned altitude, note time/start stopwatch, gross error check, post HAT, calculate ETA at next fix
3. S & L revision
4. ETA of fix –2 minutes, instructor takes control – teach fix identification
 - a. Big features to small
 - b. Relate clock to map to ground
5. Appropriate method to regain track – adjust HDG and ETA as required
6. Once steady on HDG give student control to maintain S&L –FREDA / ENROUTE Check
7. ETA turning point -2 mins, teach identification & HAT
8. Student practise all navigation actions for 2nd leg whilst instructor flies
9. Student takes full control during remainder of route. Teach other methods of regaining track as opportunity allows.
10. RT call as necessary, e.g. Ops Normal call
11. Enroute checks every 10 mins
12. Recovery to base student to practise: Items as seen appropriate from the overview but to include a PFL practice from overhead if desired on rejoin.



Completion Standard

Demonstrate:

- Understanding of the techniques to be applied in basic visual navigation
- Map preparation
- Navigation planning calculations and completing a navigation log
- Basic visual navigation technique and work cycle
- Obtaining weather information and extracting data relevant to nav planning
- Obtaining and interpreting NOTAMS
- Departing the airfield using previously taught techniques and procedures
- Maintain level flight at +/- 10kts & +/-150ft
- Maintain chosen heading +/- 10°

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the flight and the student must initial each comment following the post flight briefing.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Lesson 24 **Supervised Solo**

Objective

To practise basic DR navigation - solo

Threat and Error Management

- ❑ Use of checklists
- ❑ Lookout – other aircraft
- ❑ Weather
- ❑ Carb icing
- ❑ Emergency Procedures

Exercise Briefing

- ❑ Student to plan a triangular route under supervision from the instructor
- ❑ Weather and NOTAM brief
- ❑ Completion of Solo Navigation Briefing
- ❑ Emergencies

Flight Manoeuvre

1. Student conducts the flight solo completing an en-route flight log
2. Recovery to base student to practise: Items solo as seen appropriate from the overview.

Completion Standard

Demonstrate:

- ❑ Ability to act as commander
- ❑ Obtaining weather information and extracting data relevant to nav planning
- ❑ Obtaining and interpreting NOTAMS
- ❑ Map preparation
- ❑ Navigation planning calculations and completing a flight log
- ❑ Conduct of checks, e.g, Enroute, FREDAs, Downwind, etc
- ❑ Use of radio



Lesson 25

Exercise 19 – Basic Instrument Flight

Objective

To learn to fly the aircraft by sole reference to instruments.

Threat and Error Management

- ❑ Instrument limitations
- ❑ Physiological sensations
- ❑ Carb icing
- ❑ Aircraft limitation
- ❑ Suction failure
- ❑ DI Synchronization

Exercise Briefing

- ❑ Basic Instrument Flying
- ❑ Weather and NOTAM brief

Flight Manoeuvre

1. Revise selected climbing technique and climbing turns on to headings
2. Basic Instrument Flying;
3. Physiological Sensations
4. Attitude Instrument Flight, Instrument Appreciation
5. Instrument Limitations
6. Basic Manoeuvres (S+L / IAS / Configuration)
7. Climbing and descending
8. Standard rate turns (Climbing/descending/on to HDGs)
9. Teach & Student Practice - recoveries from unusual attitude
10. Teach & Student Practice – escape from IMC
11. Recovery to base student to practise: Items as seen appropriate from the overview but to include:
 - a. Cruise descent on recovery
 - b. Overhead join/ practise precautionary landing pattern if traffic permits
 - c. Short field landing

Completion Standard

Demonstrate:

- ❑ An understanding of Basic IF and of the Selective Radial Scan.
- ❑ Physiological Sensations
- ❑ Instrument Appreciation / Attitude Instrument Flight
- ❑ Instrument Limitations
- ❑ Basic Manoeuvres on Instruments
- ❑ Control the aircraft and monitor its performance by sole reference to Instruments



Lesson 26 **Pre PPL Flight Test Revision**

Objective

To revise all manoeuvres within the syllabus to the standard required to pass the PPL Flight Test PPL (A) in preparation for Stage Check 3 and then the PPL Flight Test.

Threat and Error Management

- NOTAMS and Weather
- Lookout & HASELL checks
- W/V
- Carb icing
- EFATO
- Engine failure
- Other Aircraft Emergencies

Exercise Briefing

- Review Exercise briefings within the syllabus as required paying particular attention to any student weaknesses

Manoeuvres Sections – For the complete list of Manoeuvres under each section, instructors should reference Appendix 2

- Pre flight ops and departure
- General Upper Airwork including stalls, recovery from a wing drop prior to a spin and steep turns
- Practice Forced Landings (without power)
- Engine fire in flight
- Enroute Procedures and Checks, including use of Carb Heat
- Approach / FREDA checks
- Approach and Landing Procedures and Checks
- Abnormal and Emergency
- Different circuits, e.g. normal, flapless, glide approach and short field take-off and landing

Completion Standard

Demonstrate:

Complete all manoeuvres to the required standards as stated in each individual lesson



Stage Check 3 – Pre PPL Flight Test

Stage 3 HKAC written exam must be completed with the required pass mark achieved prior to this flight

Objective

To review the students' level of ability and airmanship in all manoeuvres within the PPL (A) syllabus.

Manoeuvres Sections – For the complete list of Manoeuvres under each section, pilots should reference Appendix 2

- Pre flight ops and departure
- General Airwork
- Enroute Procedures
- Approach and Landing Procedures
- Abnormal and Emergency
- Relevant Class or Type Items

Completion Standard

Demonstrate:

Complete all manoeuvres to the required standards as stated in each individual lesson

***Check each box for every item completed to standard**

Instructor Comments

Date _____ Flight Time _____ Student Signature _____

Flight Instructor Name (Conducting the Check): _____

Flight Instructor Signature (Conducting the Check): _____

***In the event that the stage check needs to be repeated The Continuation Form in Appendix 4 should be inserted here and steps followed.**



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SECTION 3

3.0 Theoretical Knowledge (TK)

3.1 Course Structure

The theoretical knowledge training course for a Private Pilot's Licence Aeroplane contains Formal Classroom Work both one to one and group sessions along with guided home study.

Within the TK specified in the PPL (A) syllabus, there is a requirement for enhanced Awareness & Emergency Training on specified subjects. These will be covered during the PPL (A) course incorporated into the relevant Air Exercise Briefings and through TK Training as contained in the syllabus.

3.2 Study Material

The following reference books are available through Operations at the beginning of the training course, including:

- Flying Training (Pooley's Volume 1)
- Aviation Law & Meteorology (Pooley's Volume 2)
- Air Navigation (Pooley's Volume 3)
- The Aeroplane Technical (Pooley's Volume 4)
- PPL Questions & Answers (Pooley's Volume 5)
- Human Factors for Pilots (Roger Green)
- Radio Telephony (Pooley's Volume 7)
- Pilots Information Manual for all Club aircraft
- Hong Kong Flying Chart
- HKAC check lists

3.3 Progress Testing

At the end of each stage, a club written exam will be administered to assess student knowledge and identify any weak areas that need to be re-covered. The pass mark for each exam is 70%.



Ground Lesson 1 – Aircraft Familiarisation (Long Brief 1)

Lesson Content

- Airframe
- Flying Controls
- Aircraft Systems
- Cabin Safety Equipment

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 2 – Emergency Procedures (Long Brief 1E)

Lesson Content

- Action in the event of a fire in the air or on the ground
- Engine, cabin and electrical system fires
- System failures
- Escape drills, location and use of emergency equipment and exits

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 3 – Preparation & Action After Flight (Long Brief 2)

Lesson Content

- Flight Authorisation and aircraft acceptance
- Serviceability documents
- Equipment required including maps
- External checks
- Internal checks
- Seat, harness and flight control adjustment
- Starting and warm up checks
- Power checks
- Cool down, system checks and turning the engine off
- Parking, securing and picketing
- Completion of the Flight Authorisation Log

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
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Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 4 – Human Performance

Lesson Content

- Definition
- Hypoxia
- Hyperventilation
- Pressure Sickness
- Spatial Disorientation
- Motion Sickness
- Decompression Sickness
- Alcohol & Drugs
- Stress
- Fatigue

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 5 – Aviation Law

Lesson Content

- Introduction to the AN(HK)O
- Pilot Certification
- Medical Certification
- Personnel Licencing – Privileges & Limitations
- Solo Requirements & Limitations
- Acting as and the Responsibility of the PIC
- Logging Flight Time
- Rules of the Air
- Radio Telephony
- AIP

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 6 – Radio Telephony

Lesson Content

- Radio Communication
- Non-Towered / Non-Controlled Airport Procedures
- Towered Airport Procedures
- Emergency Radio Calls
- Review

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____

Language Proficiency Check – (Reference Appendix 1)

Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 8 – Meteorology

Lesson Content

- Properties of the Atmosphere
- Wind
- Clouds & Precipitation
- Visibility
- Fronts & Pressure Systems
- Icing
- Altimetry
- Forecasts, Reports & Warnings

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 9 – Aircraft (General)

Lesson Content

- ❑ Properties of Air
- ❑ Principles of Flight
- ❑ Flying Controls
- ❑ Engines
- ❑ Systems
- ❑ Loading & Performance
- ❑ Emergencies
- ❑ Aircraft Airworthiness
- ❑ Structural Limitations

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



Ground Lesson 10 – Aircraft Type

Lesson Content

- Airframe
- Flying Controls (including flaps)
- Engine
- Systems:
 - Fuel (Carburettor and Fuel Injection)
 - Oil
 - Ignition
 - Mixture
 - Cabin Heating and ventilation
 - Carburettor Heat
 - Vacuum
 - Instruments (Pressure & Vacuum)
 - Electrical System
 - Steering and Braking
- Limitations
- Normal Procedures
- Emergency Procedures

Date	Ground Lesson Duration	Grade	Student Signature	Instructor Signature
/ /				
/ /				
/ /				
/ /				

Instructor Comments & Recommendations

*Instructor to start each comment with the date of the ground lesson and the student must initial each comment.

Lesson Completion Date _____ Student Signature _____

Instructor Name _____ Instructor Signature _____



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SECTION 4

4.0 Appendices

- 1. Licence Currency**
- 2. Stage Check 3 Section Details**
- 3. Student Record Sheet**
- 4. Flight Check Continuation**
- 5. Stage Check & CAD Examinations Record Form**
- 6. EFATO Check Sheet**
- 7. Stage Check Written Exams**



APPENDIX 1

LICENCE CURRENCY

Medical Expiry

Whilst it is a student's responsibility to ensure that they have a valid medical, the Club will also monitor the validity of each student's certificate. When a PPL student first obtains a medical, a copy must be provided to Ops which will be retained in the student's file. The expiry date will be entered into the booking software with an "alert" reminder set for two months before expiry. On receipt of an alert, the student will receive a reminder to arrange for a revalidation of the medical. The student will also lose the permissions to make an online booking until the revalidation has taken place. Students may not fly solo unless they have a valid medical certificate. Instructors are required to check that a student has a valid medical certificate as part of the pre solo checks prior to authorising any solo detail.

Language Proficiency

A language assessment of each flying member that intends to complete his/her PPL will be implemented by either a member of the GC or a FI using the structure detailed below. The goal is to measure speaking and listening skill, language proficiency in an aviation-related environment and the ability to assess voice only messages responding with the use of appropriate phraseology.

The test will be completed after the Radio Telephony Ground Class, before student solo and will consist of:

1. An informal interview on general and aviation related topics
2. A discussion based on a picture with aviation contents
3. A role play radiotelephony interaction task

If the person conducting the test is not satisfied with the level of English demonstrated, a recommendation for further education in the English language will be made which the student must satisfy before he/she is allowed to continue.



Flying Beyond Hong Kong Boundaries

In Accordance with Article 20A of the AN(HK)O and CAD 54 Section 3.2 the HKAC will complete a language assessment of any new pilot who intends to obtain a Hong Kong Private Pilots Licence with the intention of using the licence and privileges outside the borders of Hong Kong. For this task, the HKAC employs the services of a third party whose contact details are listed below.

There is a grading system that is capped at level 6 (Expert) which does not require renewal. Every other grade comes with an expiry which is linked to the level achieved and counted from the date the proficiency check was completed.

Details of the grade awarded must be given to Operations and where an expiry date is applicable, a reminder will be set up in the booking software with an “alert” reminder set for two months before expiry. On receipt of an alert, the student will receive a reminder to arrange for another language proficiency check. The student will also lose the permissions to make an online booking until the check has taken place.

Language Proficiency Assessor:

Ms. Karen Mak

E-mail address: karenpymak@gmail.com

HK Mobile No.: 9745 3777



APPENDIX 2

Stage Check 3 Section Details

Section 1 Pre-Flight Ops & departure

- Pre-flight documentation, NOTAMs & weather briefing
- EFATO Briefing
- Mass, balance and performance
- Aeroplane inspection & servicing
- Engine start/post start procedures
- Aerodrome, taxiing & pre-take-off procedures (Engine performance check and VITAL Action Checks)
- Take-off / after take-off procedures
- Aerodrome departure procedures
- ATC liaison/compliance, R/T

Section 2 General Airwork

- ATC liaison, compliance & R/T procedures
- S & L flight with speed changes
- Climbing; best rate, turns & levelling off
- 30° bank turns; lookout & collision avoidance
- Advanced turns, 45° bank turns; recognition & recovery from a spiral dive.
- Flight at critically low airspeed; with & without flaps.
- Stalling; clean & recovery with power.
- Approach to stall in the approach configuration descending turning at 30° bank.
- Approach to stall in the landing configuration
- Stall followed by a wing drop recovery
- Descending; with & without power
- Steep gliding turns
- Levelling off

Section 3 Enroute Procedures

- Flight Plan, dead reckoning and map reading
- Maintenance; altitude, heading & speed
- Orientation, airspace structure, timing, revision of
- ETAs & log keeping
- VHSK Considerations
- Basic instrument flying to include escape from IMC
- Flight management; checks/fuel systems & carburetor Icing etc.
- ATC compliance & R/T procedures



Section 4 Abnormal & Emergency

- EFATO including fire drill
- Forced landing (simulated)
- Precautionary Landing (simulated)
- Simulated emergencies

Section 5 Approach & Land Procedures

- Aerodrome arrival, Procedures, Landings
- Precision
- Crosswind
- Flapless
- Glide
- Go around from low height
- ATC compliance & RT procedures
- Actions after flight

Section 6 Relevant Class or Type Items

- Oral questions (Emergencies, Radio Failure, Holding and diversion due weather, etc.)
- Type technical questions; aeroplane systems: fuel, including capacity, usable and endurance, systems, including electrical, vacuum system, Ignition and Mixture
- Fuel type, oil, and tyre pressures



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APPENDIX 3

Student Record Sheet

Date _____ Student _____

Instructor _____ HOT/CFI _____

The following section will be used to comment on student performance and anything that needs to be addressed in order to satisfactorily move forward with flight training.

Instructor Comments

Student Comments

Date _____ Flight Time _____ Student Signature _____

Stage Check Instructor Name _____ Instructor Signature _____



APPENDIX 4

Flight Check Continuation

Review Flight

Manoeuvres to be Reviewed

- _____
- _____
- _____
- _____
- _____

Date _____ Flight Time _____

Student Signature _____ Instructor Signature _____

Stage Check Retake Flight

Once the student has performed the outstanding manoeuvres listed above to standard he/she is then permitted to move on to the next stage.

Instructor Comments

Date _____ Flight Time _____ Student Signature _____

Stage Check Instructor Name _____ Instructor Signature _____



APPENDIX 5

Stage Check & CAD Examinations Record Form

Subject	Attempt #	Date of Exam	Mark %	Pass/ Fail
Stage Check 1				
Stage Check 2				
Stage Check 3				
Aviation Law				
Human Performance				
Radio Telephony				
Navigation				
Meteorology				
Aircraft (General)				
Aircraft Type				



APPENDIX 6

EFATO Procedure & Briefing Form			
Date:			
Time of Flight:			
Commander's Name:			
Name(s) of Passenger(s):	1.	2.	3.
Aircraft Callsign:			
Aircraft Type:			
Items Briefed			
<input type="checkbox"/>	A passenger Indemnity Form must be completed and signed for any non-members that fly in club aircraft		
<input type="checkbox"/>	Proper use of life jackets		
<input type="checkbox"/>	The dangers of being on an active ramp/runway		
<input type="checkbox"/>	The use of standby firefighting equipment		
<input type="checkbox"/>	Correct placement and activation instructions of life jackets to be worn over water		
<input type="checkbox"/>	Correct door handle operation		
<input type="checkbox"/>	The use of shoulder harnesses or lap belts		
<input type="checkbox"/>	Smoking		
<input type="checkbox"/>	What to do in the event of an emergency		
Commander's Signature:			
Date:			



APPENDIX 7

Stage Check 1

Date: _____ Grade: _____

Student Name: _____ Instructor Name: _____

1. Who holds the responsibility for the airworthiness of the aircraft prior to flight?
 - a. _____
2. What aircraft documents are required to be in the aircraft for flight?
 - a. _____

3. What is the maximum permitted wind speed for a student solo flight at Shek Kong?
 - a. _____

4. What is the minimum cloud ceiling height for student solo flight at Shek Kong?
 - a. _____
5. How and why are the following magneto checks carried out? (a) Dead Cut (b) Check at 1700 RPM (c) Live Check
 - a. _____
 - b. _____
 - c. _____
6. During your magneto check at 1700RPM you identify a RPM drop of 200 RPM. What action would you take?
 - a. _____



7. What frequency should the radio be set to for Circuits at Shek Kong?
- a. _____
8. What should the Transponder be set to for Circuits at Shek Kong?
- a. _____
9. What is the circuit altitude at Shek Kong?
- a. _____
10. What is the maximum number of aircraft allowed in the circuit at the same time?
- a. _____
11. You are about to Line-up R/W 11 for departure when you hear on the Radio another aircraft calling "Base for R/W 11, touch and go". What action would you take?
- a. _____

12. You are about to Line-up R/W 11 for departure when you hear on the Radio a helicopter calling "Finals R/W 11 for the White Spot", what action would you take?
- a. _____

13. You are just started your take-off roll on R/W 11 and you hear on the Radio another aircraft calling "Overhead and commencing descent to join the circuit". What action would you take?
- a. _____

14. After take-off on R/W 11 and Upwind at a height of 200 ft you experience a complete engine failure, what action would you take?
- a. _____

15. What is the recommended minimum height to be attained before turning cross-wind
- a. _____



16. What is your decision height on finals to continue for landing or to perform a 'go-around'?

a. _____

17. Can you continue your approach to land if there is another aircraft (fixed wing or helicopter) backtracking R/W 11 or stationary in the undershoot area of R/W 11?

a. _____

18. During your landing hold-off / flare the aircraft balloons, what action would you take?

a. _____



Stage Check 2

Date: _____ Grade: _____

Student Name: _____ Instructor Name: _____

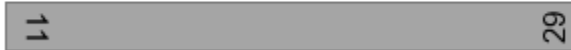
1. How do you check the weather for the route of flight?
 - a. _____

2. What are the wind limitation for a student pilot at VHSK
 - a. _____
3. What is the minimum amount of fuel required in the C152 / C172 for a short flight, e.g. circuit
 - a. _____
4. What is the maximum fuel capacity of a C152 / C172
 - a. _____
5. What is the total usable fuel in a C152 / C172
 - a. _____
6. What is the minimum fuel required for any flight in a C152 / C172
 - a. _____



7. Draw on the picture below to show the correct procedure to follow when departing from Runway 11 in order to reach Kadoorie Gap:

KDG



8. Once airborne and climbing away you notice that your door is open, what would you do?

a. _____

9. What altitude must you attain and maintain when departing the SKARA's via Kadoorie Gap?

a. _____

10. What is the correct radio frequency to set before leaving VHSK and when should you contact HK Information having filed as flight plan to depart Shek Kong via Kadoorie Gap?

a. _____

11. What information are you required to pass to HK Information once radio contact has been established before entering New Town

a. _____

12. What is a SQUAWK Code

a. _____



13. What SQUAWK codes would you set if you had an emergency or a radio failure

a. _____

14. What should you do if you are unable to make contact with ATC on the "Information" Frequency?

a. _____

15. If you identify oncoming traffic at the same altitude what is the correct procedure?

a. _____

16. What are the weather minimums for a flight in VHSK?

a. _____

17. What are the weather minimums for a flight in the UCARAs

a. _____

18. Name the UKARAs student pilots are allowed to fly in.

a. _____

19. What are the height restrictions in the UCARAs students are permitted to fly in?

a. _____

20. What is the minimum permitted height above any vessel, vehicle or structure?

a. _____



21. When and how frequently should you apply Carburetor Heat?

a. _____

22. Name three predominant land marks in Tolo that can be used to identify position.

a. _____

23. If you suspect that the radio has stopped working what is the correct procedure?

a. _____

24. If you get disorientated what should you do?

a. _____

25. If you experience a rough running engine and the oil light comes on what does that indicate and what would you do?

a. _____

26. If the Alternator fails, how long can the battery last and what action should you take?

a. _____



27. When returning to VHSK from Tolo with the intentions of entering the SKARA via Kadoorie Gap what other gap can this sometimes be confused with?

a. _____

28. You have filed a flight plan to ATC showing a departure and return to VHSK via KDG. However, on returning you find that KDG is covered in cloud. What action would you take?

a. _____

29. Draw on the picture below to show the correct procedure to follow when entering SKARA via Kadoorie Gap and the route you will follow to rejoin and land on Runway 11:

KDG



30. What is the maximum permissible tailwind for an aircraft landing on R/W 11 at VHSK

a. _____

31. What is the minimum amount of fuel that you should land back at Shek Kong with?

a. _____



Stage Check 3

Date: _____ Grade: _____

Student Name: _____ Instructor Name: _____

1. What are the privileges and limitations of a private pilot?

a. _____

2. How long does a class 2 medical last for a 35-year-old?

a. _____

3. How long is a Certificate of Test / Experience valid for?

a. _____

4. What are your flying requirements in order to maintain recency at Shek Kong Airfield?

a. _____

5. What relevant weather information is available from the HK Observatory?

a. _____

6. What are the Shek Kong wind limitations for a new PPL with regard to (a) maximum wind strength (b) Maximum tailwind component; and (c) maximum crosswind for a C152 / C172?

a. _____

7. What information should be included in the briefing you give to a person who intends to fly with you as a passenger prior to flight?

a. _____



8. After completing the weight and balance calculations for a flight with a friend you discover that by taking the required amount of fuel for the intended route of flight it will put the aircraft overweight. What would you do?

a. _____

9. What are the three most relevant ATC frequencies for flying in Hong Kong, and how should all radio calls be stated?

a. _____

10. When must pilot self-brief on EFATO?

a. _____

11. Are PPLs allowed to taxi out or into Area Whiskey?

a. _____

12. What is the average hourly fuel consumption for a C152 / C172 in US Gallons

a. _____

13. When should a fuel contamination sample be carried out and what is the procedure for a fuel sample check after heavy rain?

a. _____

14. If you intend to fly in the North Boarder what additional step must you take when filing a flight plan?

a. _____

15. If ATC tells you to "Recycle Transponder" what would you do?

a. _____

16. Which of the emergency procedures are you allowed to practice without an instructor?

a. _____



17. When flying you approach another aircraft at similar altitude travelling in the same direction. You decide to overtake, what are the next steps you would take?

a. _____

18. When flying in Port Shelter you come across a Paraglider that has drifted from his designated area, who has the right of way?

a. _____

19. What are the potential flying hazards posed to an aircraft by a mature Cb cloud? How can you recognize a Cb cloud and what is the best way to avoid it?

a. _____

20. Where are the permitted Control Zone entry points for Club aircraft?

a. _____

21. You are approaching Kadoorie Gap on your way back to Shek Kong and suddenly you notice several strikes of lightening up ahead on the route you intended to fly, what would you do?

a. _____



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