

# IFR STANDARDIZATION SYLLABUS USA

**SFA STAFF TRAINING**

**REV I.1**

**08 Nov 2008**

Name Instructor in Training

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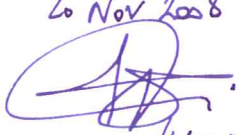
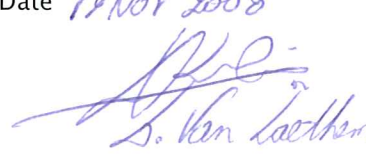


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IFR STANDARDIZATION SYLLABUS USA			
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SIGNATURES

HEAD OF TRAINING	QUALITY MANAGER
Date 20 Nov 2008  K. VAN DEN BERG	Date 18 NOV 2008  S. Van Laethem

BCAA APPROVAL
Date 23.12.2008  M. HAERYNCK Adviseur-generaal



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# G E N E R A L

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## GENERAL

NOTE : IF the instrument flying training will be performed on another aircraft type then for the VFR phase a VFR aircraft conversion course on the new type will precede the IFR training. (See APPENDIX 2)

### 1. AIM OF THE COURSE

The aim of the IFR Instructor conversion course is to train instructors not holding a JAA licence to the level of proficiency necessary to enable them to operate as flight instructor on single-engine aeroplanes or on multi-engine aeroplanes as applicable (see appendix 4) in the IFR SFA flight academy program in the USA.

### 2. STRUCTURE OF THE COURSE

The course comprises 8 hours of classroom instruction and 5 hours of dual IFR instruction. The ME module consists of a minimum of 5 additional hours on a ME aeroplane.

The course is based on pairs, 1 instructor designated to 2 students. The instructor to student ratio will not be less than 1/2.

All instruction will be given by a flight instructor holding a JAR-FCL license and rating in accordance with JAR-FCL 1.330(f).

The skill test be taken by an examiner notified by the Authority, notified for this purpose.

#### **2.1.THEORETICAL TRAINING**

The list of the subjects of the theoretical training is provided in chapter 8. Partly this training is used as a refresher for the candidates, partly the subjects are additional to the knowledge the candidates already have.

##### **2.1.1.BRIEFINGS**

For this course the information provided in the briefings will be additional to the already existing knowledge of the candidate.

It is vital for the optimal use of valuable training time to be prepared as much as possible and therefore everything that can be expected has to be known and imagined.

Giving classroom briefings to groups of student IP's has the advantage of standardization. A qualified flight instructor will conduct all classroom briefings.

During classroom briefing the use of overhead projector and sheets or beamer with for instance power point presentation are encouraged.

A total time of 8:00 hours is required as specified below.

**2.1.2.DEFINITIONS**

Classroom briefing

This is a detailed explanation and discussion conducted by an instructor and covering the major considerations of an exercise.

Pre-flight briefing

The briefing includes an explanation of exactly what air exercises are to be taught by the instructor and practiced by the student during the flight. It should include how the flight will be conducted with regard to who is to fly the airplane and with what airmanship, weather and flight safety aspects currently apply.

The basic components of the briefing will be:

1. The aim
2. Principles of flight (briefest reference only)
3. Airmanship (weather, flight safety etc)

Debriefing

Time devoted by the instructor immediately after a specific flight lesson to consolidate the major points made during the flight clarifying any queries the student instructor might have and indicating progress made by the student, using fault analysis or praise as necessary and finally to indicate the nature of the next lesson.

Special attention shall be given to pre-briefing and post-briefing in relation to performance of the student, efficient use of instruction time.

## 2.2. IFR FLIGHT TRAINING

The student instructor should be able to fly the aircraft in such a manner, so it will be a perfect example for the student.

Purpose of this instruction is:

1. To refresh the knowledge of the candidate.
2. To train pilots of aeroplanes in instrument flying as set in the ATP(A) Integrated Course Training Manual (Completion standards of Mission 127).
3. To let the candidate develop instruction techniques necessary for training instrument flying.
4. To assure the high standard of instrument flying by the candidate.
5. To upgrade to ME IFR if appropriate.

## 3. ENTRY REQUIREMENTS

### SINGLE—ENGINE

**License:** The student instructor must be in possession of a valid FAA CPL license and qualified to instruct on single engine (land) airplanes.

**Experience:** At least 500 hours of flight time, including at least 200 hours of flight instruction and 200 hours of instrument time. 50 hours of this instrument time may be done in a synthetic training device. IFR means: in simulated or real IMC, IR trained as instructor, or on IFR flight plan. Dual IFR received may be included.

**Medical fitness:** Participants must hold a valid FAA medical class I or 2 license.

### MULTI—ENGINE

**License:** The student instructor must be in possession of a valid FAA CPL license and qualified to instruct on multi engine (land) airplanes.

**Experience:**

- At least 500 hours of flight time, including at least 200 hours of flight instruction and 200 hours of instrument time. 50 hours of this instrument time may be done in a synthetic training device. IFR means: in simulated or real IMC, IR trained as instructor, or on IFR flight plan. Dual IFR received may be included.
- Completed at least 30 hours as pilot-in-command on the applicable type or class of aeroplane of which at least 10 hours shall be in the last 12 months .

**Medical fitness:** Participants must hold a valid FAA medical class I or 2 license.

#### **4. TEACHING METHODS AND MATERIALS**

Manuals to be used:

- IFR Standardization Syllabus USA
- ATP(A) Integrated Course—Training Manual
- IFR Manual
- Operations Manual
- Applicable Aircraft Manuals

It is the responsibility of both the student Instructor and the instructor to ensure that all items of a particular training session have been demonstrated and practiced. It is therefore necessary to comply with the sequence and contents of the syllabus for maximum results.

An exception can be made at instructor’s discretion to mix simulator sessions with flight exercises.

#### **5. SYMBOLS**

0 = To be indicated when an exercise is not performed, use a √ when that item is performed.

#### **6. SUPERVISION**

The HT will supervise the training program.

#### **7. TRAINING EVALUATION**

The module check must meet at least the required level as mentioned in appendix 5, a maximum of two exercises may be graded as S- and no exercise may be graded BS.

1. Pre entry written test minimum score (80%) only if a type conversion is scheduled.
2. Oral briefing of a given subject.
3. De-briefing by the trainee.
4. Module check by a flight examiner.



The module check consists of:

1. Oral briefing of a given subject
2. General knowledge questions
3. Demonstrate the subject as briefed under (1) in an aircraft whereby the instructor acts as a student
4. Other air exercises as discussed in pre-flight briefing and specified in the syllabus
5. Debriefing by the applicant
6. Debriefing of the applicant's performance during the exam

### **8. CLASSROOM BRIEFING**

A total of 8:00 classroom briefings on the following subjects will be performed.

The instructor is free to determine the time spent on each subject based on the trainee's experience and knowledge level.

TOPIC	DURATION
Introduction briefing	Up to instructor
Basic attitude flying	Up to instructor
Mass & Balance	Up to instructor
Turns, stalls and slow flight, unusual attitudes	Up to instructor
Use of checklist	Up to instructor
VOR interceptions	Up to instructor
NDB interceptions	Up to instructor
Point to point navigation	Up to instructor
Course reversal procedures & holding (entry)	Up to instructor
Take-off & SID's	Up to instructor
Approaches	Up to instructor
Emergency Handling	Up to instructor
Navigation	Up to instructor
Workshop IFR planning	Up to instructor
<b>Total briefing time</b>	<b>8:00 hours</b>

## 9. FLIGHT TRAINING FOOTPRINT

### Aircraft basic conversion course VFR (Optional)

DAY 1		DAY 2	
Conv 1		Conv 2	
<ul style="list-style-type: none"> <li>General Airwork</li> </ul>		<ul style="list-style-type: none"> <li>PFL</li> <li>Circuits</li> </ul>	
M1	1:30	M2	1:30
Actual	1:30	Actual	3:00

### Flight Training

DAY 1		DAY 2		DAY 3	
Mission 1		Mission 2		Mission 3	
<ul style="list-style-type: none"> <li>Up to instructor</li> </ul>		<ul style="list-style-type: none"> <li>Up to instructor</li> </ul>		<ul style="list-style-type: none"> <li>Up to instructor</li> </ul>	
M1	1:30	M2	1:30	M3	2:00
Actual	1:30	Actual	3:00	Actual	5:00

## 10. APPENDICES

- Appendix 1: Briefing items
- Appendix 2: Aircraft basic conversion course VFR
- Appendix 3: Time table VFR training
- Appendix 4: Multi engine program
- Appendix 5: Completion standards at the end of the training

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# FLIGHT TRAINING

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MISSION 1					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	0:00	HOURS	
STUDENT INSTR		FLIGHT TIME	1:30	FLIGHT TIME	
2 <sup>ND</sup> PILOT		TOTAL	1:30	TOTAL	

HOMework ASSIGNMENT	EXERCISES	√-0
	UP TO INSTRUCTOR	
	TAKE OFF	
	• NORMAL	
	• SHORT FIELD	
	• ABORTED	
	URNS	
	• RATE 1	
	• TIMED TURNS	
	• STEEP	
	STALLS	
	• SLOW FLIGHT	
	• CLEAN CONFIG	
	• TO CONFIG	
	• LANDING CONFIG	
	AIRWORK	
	• ATTITUDE FLYING	
	• PARTIAL PANEL	
	• UNUSUAL ATTITUDE	
	TRAFFIC PATTERN	
	• NORMAL	
	• CIRCLING	
	NAVIGATION	
	• INTERCEPTIONS VOR/NDB	
	• TRACKING VOR/NDB	

HOMEWORK ASSIGNMENT	EXERCISES	√-0
	• HOLDING VOR/NDB	
	• DME	
	<b>APPROACHES</b>	
	• ILS	
	• ILS BCK CRS	
	• VOR APP	
	• NDB APP	
	• GO AROUND / MISSED APPROACH	
	<b>LANDING</b>	
	• NORMAL	
	• FLAPLESS	
	• SHORT FIELD	

REMARKS

<b>INSTRUCTOR</b>	<b>STUDENT INSTRUCTOR</b>
NAME	NAME
SIGNATURE	SIGNATURE

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FNPT TRAINING

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MISSION 2					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	1:30	HOURS	
STUDENT INSTR		FLIGHT TIME	1:30	FLIGHT TIME	
2 <sup>ND</sup> PILOT		TOTAL	3:00	TOTAL	

HOMEWORK ASSIGNMENT	EXERCISES	√-0
	UP TO INSTRUCTOR	
	TAKE OFF	
	• NORMAL	
	• SHORT FIELD	
	• ABORTED	
	URNS	
	• RATE 1	
	• TIMED TURNS	
	• STEEP	
	STALLS	
	• SLOW FLIGHT	
	• CLEAN CONFIG	
	• TO CONFIG	
	• LANDING CONFIG	
	AIRWORK	
	• ATTITUDE FLYING	
	• PARTIAL PANEL	
	• UNUSUAL ATTITUDE	
	TRAFFIC PATTERN	
	• NORMAL	
	• CIRCLING	
	NAVIGATION	
	• INTERCEPTIONS VOR/NDB	
	• TRACKING VOR/NDB	



HOMework ASSIGNMENT	EXERCISES	√-0
	• HOLDING VOR/NDB	
	• DME	
	<b>APPROACHES</b>	
	• ILS	
	• ILS BCK CRS	
	• VOR APP	
	• NDB APP	
	• GO AROUND / MISSED APPROACH	
	<b>LANDING</b>	
	• NORMAL	
	• FLAPLESS	
	• SHORT FIELD	

REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

MISSION 3					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	3:00	HOURS	
STUDENT INSTR		FLIGHT TIME	2:00	FLIGHT TIME	
2 <sup>ND</sup> PILOT		TOTAL	5:00	TOTAL	

HOMESCHOOL ASSIGNMENT	EXERCISES	√-0
	UP TO INSTRUCTOR	
	TAKE OFF	
	• NORMAL	
	• SHORT FIELD	
	• ABORTED	
	URNS	
	• RATE 1	
	• TIMEDURNS	
	• STEEP	
	STALLS	
	• SLOW FLIGHT	
	• CLEAN CONFIG	
	• TO CONFIG	
	• LANDING CONFIG	
	AIRWORK	
	• ATTITUDE FLYING	
	• PARTIAL PANEL	
	• UNUSUAL ATTITUDE	
	TRAFFIC PATTERN	
	• NORMAL	
	• CIRCLING	
	NAVIGATION	
	• INTERCEPTIONS VOR/NDB	
	• TRACKING VOR/NDB	

HOMEWORK ASSIGNMENT	EXERCISES	√-0
	<ul style="list-style-type: none"> <li>• HOLDING VOR/NDB</li> </ul>	
	<ul style="list-style-type: none"> <li>• DME</li> </ul>	
	<b>APPROACHES</b>	
	<ul style="list-style-type: none"> <li>• ILS</li> </ul>	
	<ul style="list-style-type: none"> <li>• ILS BCK CRS</li> </ul>	
	<ul style="list-style-type: none"> <li>• VOR APP</li> </ul>	
	<ul style="list-style-type: none"> <li>• NDB APP</li> </ul>	
	<ul style="list-style-type: none"> <li>• GO AROUND / MISSED APPROACH</li> </ul>	
	<b>LANDING</b>	
	<ul style="list-style-type: none"> <li>• NORMAL</li> </ul>	
	<ul style="list-style-type: none"> <li>• FLAPLESS</li> </ul>	
	<ul style="list-style-type: none"> <li>• SHORT FIELD</li> </ul>	

REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

MODULE CHECK					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	5:00	HOURS	
STUDENT		FLIGHT TIME		FLIGHT TIME	
LOGBOOK		TOTAL		TOTAL	

EXERCISES—SEE NOTE	BS	S-	S	S+	AS	REMARKS
<b>GENERAL ASSESSMENT:</b>						
<b>EVALUATED ITEMS</b>						
<b>A. FLIGHT PREPARATION AND PLANNING</b>						
1. WEATHER AND ATIS						
2. MASS AND BALANCE FORM						
3. PERFORMANCE CALCULATIONS						
4. FUEL CALCULATIONS						
<b>B. TAKEOFF AND CLIMB</b>						
1. COCKPIT PREPARATION						
2. NORMAL TAKEOFF						
3. OBSTACLE TAKEOFF						
4. CLIMB						
5. BEST ANGLE OF CLIMB						
6. SID						
<b>C. CRUISE AND MANOEUVRING</b>						
1. STEEP TURN						
2. CLIMBING TURN						
3. APPROACH TO STALL IN LANDING CONFIG.						
4. SLOW FLIGHT						
5. UNUSUAL ATTITUDES						
<b>D. EN ROUTE NAVIGATION &amp; DESCEND</b>						
1. PROCEDURE TURN						
2. INTERCEPTIONS						
3. WIND CORRECTION ON INTERCEPTIONS						
4. TRACKING						

EXERCISES—SEE NOTE	BS	S-	S	S+	AS	REMARKS
5. POINT TO POINT NAVIGATION						
6. USE OF ANTI AND DE-ICING						
7. DESCEND PLANNING						
8. DESCEND						
<b>E. APPROACHES</b>						
1. APPROACH PREPARATION						
2. HOLDING OR HOLDING ENTRY						
3. WIND, TIME CORR. IN HOLDING						
4. PRECISION APPROACH						
5. NON PRECISION APPROACH						
6. GO AROUND OR MISSED APPROACH						
<b>F. ABNORMAL &amp; EMERGENCY OPERATION</b>						
1. SIMULATED FAILURES (ANY)						
2. FAILURE/CRISIS MANAGEMENT						
<b>G. SINGLE PILOT OPERATION &amp; CREW CONCEPT</b>						
1. CREW BRIEFING						
2. USE OF CHECKLISTS (INCL. ECL)						
3. FLIGHT REPORTING & ADMIN.						
4. FLIGHT REGISTRATION						
5. SYLLABUS & FLIGHT HOURS ADMIN.						



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EXTRA MISSION A					
DATE		PLANNED		ACTUAL	
<b>INSTRUCTOR</b>		<b>HOURS</b>	N/A	<b>HOURS</b>	
<b>STUDENT INSTR</b>		<b>FLIGHT TIME</b>	N/A	<b>FLIGHT TIME</b>	
<b>2<sup>ND</sup> PILOT</b>		<b>TOTAL</b>	N/A	<b>TOTAL</b>	

EXERCISES—TO BE COMPLETED BY INSTRUCTOR	REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

EXTRA MISSION B					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	N/A	HOURS	
STUDENT INSTR		FLIGHT TIME	N/A	FLIGHT TIME	
2 <sup>ND</sup> PILOT		TOTAL	N/A	TOTAL	

EXERCISES—TO BE COMPLETED BY INSTRUCTOR	REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

EXTRA MISSION C					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	N/A	HOURS	
STUDENT INSTR		FLIGHT TIME	N/A	FLIGHT TIME	
2 <sup>ND</sup> PILOT		TOTAL	N/A	TOTAL	

EXERCISES—TO BE COMPLETED BY INSTRUCTOR	REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

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IFR BRIEFING		
SUBJECT	TOPIC	DURATION
INTRODUCTION BRIEFING		
	<ul style="list-style-type: none"> <li>• Planning schedule</li> <li>• Flight authorization</li> <li>• Ships/personal papers</li> <li>• Tests:               <ul style="list-style-type: none"> <li>- IFR test</li> </ul> </li> </ul>	
BASIC ATTITUDE FLYING		
	<ul style="list-style-type: none"> <li>• Use of checklists</li> <li>• Instrument scan:               <ul style="list-style-type: none"> <li>- level flight</li> <li>- Climb &amp; descent</li> <li>- Level off</li> </ul> </li> <li>• Attitude flying versus needle chasing</li> <li>• Pitch for glide slope, power for speed</li> <li>• Reference power settings</li> </ul>	
MASS & BALANCE		
	<ul style="list-style-type: none"> <li>• W&amp;B form</li> <li>• Fuel calculation               <ul style="list-style-type: none"> <li>- Taxi fuel</li> <li>- Trip fuel</li> <li>- Alternate fuel</li> <li>- Hold</li> <li>- Extra fuel</li> <li>- Blok fuel</li> <li>- Normal phase</li> <li>- Abnormal phase</li> <li>- Emergency phase</li> </ul> </li> <li>• Standard weights/ actual weights</li> <li>• Take-off and landing distance ( graph)</li> <li>• Take-off and landing distance form.</li> </ul>	

IFR BRIEFING		
SUBJECT	TOPIC	DURATION
<p>URNS &amp; STALLS AND SLOW FLIGHT</p> <ul style="list-style-type: none"> <li>• Indicated rate one turns</li> <li>• Timed rate one turns</li> <li>• Steep turns</li> <li>• Minimum altitude</li> <li>• Limited panel</li> <li>• Unusual attitudes</li> <li>• Stalls</li> <li>• Briefing</li> <li>• Use of checklist</li> <li>• Characteristics of an approaching stall.</li> <li>• Approach to stall in approach, landing and clean configuration (if applicable)</li> <li>• Use of the trim</li> <li>• Slow flight</li> <li>• Unstable area, explanation by power/speed graph.</li> <li>• Recovery</li> </ul>		
<p>USE OF CHECKLIST</p> <ul style="list-style-type: none"> <li>• On blocks</li> <li>• Off blocks</li> <li>• Checklist in crew concept</li> </ul>		
<p>VOR INTERCEPTIONS</p> <ul style="list-style-type: none"> <li>• Outbound interception (OBS only)</li> <li>• Inbound interceptions (OBS only)</li> <li>• Visualising method on the RMI</li> <li>• Tracking</li> <li>• Drift calculations</li> <li>• Practicing the interceptions with use of a computer program</li> </ul>		

IFR BRIEFING		
SUBJECT	TOPIC	DURATION
NDB INTERCEPTIONS		
	<ul style="list-style-type: none"> <li>• Outbound interceptions</li> <li>• Inbound interceptions</li> <li>• Visualising method on the RMI</li> <li>• Tracking</li> <li>• Drift calculation</li> <li>• Intercept corrections for known wind.</li> </ul>	
POINT TO POINT NAVIGATION		
	<ul style="list-style-type: none"> <li>• Visualising on the RMI</li> <li>• Interception of a DME arc</li> <li>• Maintaining a DME arc with RMI</li> </ul>	
COURSE REVERSAL PROCEDURES & HOLDING (ENTRY)		
	<ul style="list-style-type: none"> <li>• 45°/180° Procedure turn</li> <li>• Base turn</li> <li>• Race track</li> <li>• Holding</li> <li>• Holding entry               <ul style="list-style-type: none"> <li>– Parallel</li> <li>– Offset</li> <li>– Direct</li> </ul> </li> </ul>	

IFR BRIEFING		
SUBJECT	TOPIC	DURATION
APPROACHES	<ul style="list-style-type: none"> <li>• Approach preparation</li> <li>• Briefing</li> <li>• Position awareness</li> </ul> <p><i>Use actual approach plates.</i></p> <ul style="list-style-type: none"> <li>• ILS approach</li> <li>• VOR/DME approach</li> <li>• NDB approach</li> <li>• MDA /DA</li> <li>• Missed approach procedure</li> <li>• Circling procedure</li> </ul>	
TAKE-OFF SID's	Departure briefing Standard / non standard Vx and Vy Climb gradient SID's Crew concept procedures	
EMERGENCY LANDING	<ul style="list-style-type: none"> <li>• In crew concept</li> <li>• Single pilot operation</li> <li>• Example:               <ul style="list-style-type: none"> <li>– Engine failure in flight</li> <li>– Electrical smoke or fire</li> </ul> </li> </ul>	

IFR BRIEFING		
SUBJECT	TOPIC	DURATION
NAVIGATION	<ul style="list-style-type: none"> <li>• Navigation log</li> <li>• Alternate planning</li> <li>• Route               <ul style="list-style-type: none"> <li>- MOCA</li> <li>- MEA</li> <li>- MSA</li> <li>- MAA</li> <li>- MVA</li> <li>- MRA</li> <li>- MHA</li> <li>- MDA</li> <li>- DA</li> </ul> </li> <li>• Chart notams</li> <li>• En route               <ul style="list-style-type: none"> <li>- Danger/restricted/prohibited area's</li> <li>- (Grid) MORA's</li> </ul> </li> <li>• TA procedure ( TA &lt;+++&gt; FL) Entry requirements</li> <li>• Airport directory</li> <li>• Tables and codes</li> <li>• Terminal               <ul style="list-style-type: none"> <li>- symbols</li> </ul> </li> <li>• Weather minimums</li> <li>• IFR planning checklist</li> </ul>	
WORKSHOP IFR PLANNING	<ul style="list-style-type: none"> <li>• Plan an given route including:               <ul style="list-style-type: none"> <li>- Mass &amp; Balance</li> <li>- Take-off and landing form</li> <li>- Flight plan</li> <li>- Navigation log</li> <li>- IFR planning checklist</li> </ul> </li> </ul>	
TOTAL CLASSROOM BRIEFNG TIME		08:00

# A P P E N D I X 2

CONV 1					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	0:00	HOURS	
STUDENT INSTR		FLIGHT TIME	01:30	FLIGHT TIME	
2 <sup>ND</sup> STUDENT INSTR		TOTAL	01:30	TOTAL	

HOMEWORK ASSIGNMENT	EXERCISES	√-0
<b>AIRCRAFT MANUALS</b>	USE OF CHECKLIST	
EXPANDED NORMAL CHECKLIST	START-UP & TAXI PROCEDURES	
TAKEOFF CONFIGURATIONS	NORMAL TAKE OFF	
TAKEOFF GENERAL	<b>CLIMB</b>	
NORMAL TAKEOFF	• ATTITUDE REFERENCE	
REJECTED TAKE OFF	• AFTER TAKE OFF CHECKLIST	
MANOEUVRING AFTER TAKE OFF	• CRUISE CLIMB	
CLIMB	– USE OF TRIM	
CRUISE	– POWER/ATTITUDE COORDINATION	
TURNS	– COORDINATED FLIGHT	
STEEP TURNS	– CLEARING TURNS	
STALLS	<b>LEVEL FLIGHT:</b>	
SLOW FLIGHT	• SPEED CHANGES	
TRAFFIC PATTERN	– USE OF TRIM	
LANDING	– POWER/ATTITUDE COORDINATION	
• NORMAL	– COORDINATED FLIGHT	
• FLAPS UP	<b>TRANSITIONS:</b>	
• PRECISION	• LEVEL FLIGHT TO CLIMB	
• SHORT FIELD	• CLIMB TO LEVEL FLIGHT	
• GLIDE IN	• LEVEL FLIGHT TO DESCENT	
• AFTER TOUCH DOWN	• DESCENT TO LEVEL FLIGHT	
	– POWER/ATTITUDE COORDINATION	
	– COORDINATED FLIGHT	
	<b>TURNS:</b>	
	• NORMAL TURNS	
	• STEEP TURNS (45°)	
	– POWER/ATTITUDE COORDINATION	
	– COORDINATED FLIGHT	



HOMEWORK ASSIGNMENT	EXERCISES	√-0
	<b>CIRCUIT:</b>	
	• CIRCUIT JOINING	
	• NORMAL LANDING	
	• FLAPLESS LANDING	
	• PRECISION LANDING	
	• GO AROUND	
	<b>ACTIONS AFTER FLIGHT</b>	

**AIRCRAFT BASIC CONVERSION COURSE**

**NOTE :** IF the instrument flying training will be performed on another aircraft type then for the VFR phase a VFR aircraft conversion course on the new type will precede the IFR training. (See APPENDIX 4)

REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

CONV 2					
DATE		PLANNED		ACTUAL	
INSTRUCTOR		HOURS	01:30	HOURS	
STUDENT INSTR		FLIGHT TIME	01:30	FLIGHT TIME	
2 <sup>ND</sup> STUDENT INSTR		TOTAL	03:00	TOTAL	

HOMework ASSIGNMENT	EXERCISES	√-0
AIRCRAFT MANUALS	LOCAL FLIGHT	
OBSTACLE TAKEOFF		
SOFT FIELD TAKEOFF	OBSTACLE TAKEOFF	
ENGINE FAILURE DURING TAKE OFF ROLL	LEVEL FLIGHT:	
ENGINE FAILURE (SHORTLY) AFTER TAKE OFF	• SPEED CHANGES	
STALLS:	• SLOW FLIGHT	
• CLEAN	• NORMAL TURNS	
• APPROACH TO STALL IN CLEAN CONFIGURATION	• CLIMBING TURNS	
• APPROACH TO STALL IN APPROACH CONFIG.	• STEEP TURNS (45°)	
• APPROACH TO STALL IN LANDING CONFIG.	STALLS:	
SLOW FLIGHT	• FULL STALL IN CLEAN CONFIGURATION	
ENGINE FAILURE IN VMC (AT HIGHER ALTITUDE)	• APPROACH TO STALL IN CLEAN CONFIG.	
PRACTICE FORCED LANDING	• APPROACH TO STALL IN APPROACH CONFIG.	
DESCENT:	• APPROACH TO STALL IN LANDING CONFIG.	
• POWER ON	PRACTICE FORCED LANDING	
• NORMAL	CIRCUIT:	
• HIGH SPEED	• CIRCUIT JOINING	
• IDLE POWER	• NORMAL LANDING	
• GLIDE	• GLIDE IN	
TOUCH AND GO	• PRECAUTIONARY LANDING	
GO AROUND	• WAVE-OFF	
CROSSWIND LANDING	• ENGINE FAILURE ON TAKE OFF	
SOFT FIELD LANDING		

HOMework ASSIGNMENT	EXERCISES	√-0

**AIRCRAFT BASIC CONVERSION COURSE**  
**NOTE :** IF the instrument flying training will be performed on another aircraft type then for the VFR phase a VFR aircraft conversion course on the new type will precede the IFR training. (See APPENDIX 4)

REMARKS

INSTRUCTOR	STUDENT INSTRUCTOR
NAME	NAME
SIGNATURE	SIGNATURE

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# A P P E N D I X 3

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SCHEDULE BASIC VFR CONVERSION COURSE		
DAY	TOPIC	DURATION
DAY 1	Familiarization with aeroplane	01:00
	CONV 1	01:30
	Student pilot briefing	01:00
Day 2	CONV 2	01:30
	Student pilot briefing	01:00

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# A P P E N D I X 4

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## APPENDIX 4

### MULTI ENGINE program:

The applicant will receive at least 5 hours of instruction in the aircraft. The responsible instructor will make a selection of flight instruction air exercises as laid down in the AMC-FCL 1.380 in function of the experience of the applicant. This will be combined with instrument exercises as laid down in the training sheet (see below).

### Completion standards at the end of the training:

See completion standards of the SE IRI Program.

### Instructor Progress Sheet:

This sheet allows a follow up of the training of the instructors.

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MULTI ENGINE PROGRAM		DATE														
SUBJECT																
TAKE OFFS	ABORT															
	NORMAL															
	SHORT FIELD															
TURNS	RATE 1															
	STEEP															
STALLS	SLOW FLIGHT															
	CLEAN CONF.															
	LANDING CONFIG.															
AIRWORK	VMC DEMO															
	ENG. SHUTDOWN															
	AIRSTART															
	EMERG. DESCENT															
	UNUSUAL ATT.															
	PARTIAL PANEL															
TRAFFIC PATTERN	2 ENGINES															
	1 ENGINE															
	2 ENG. CIRCLING															
	1 ENG; CIRCLING															
NAVIGATION	PARTIAL PANEL															
	INTERCEPTION VOR/NDB															
	TRACKING VOR/NDB															
	HOLDING VOR/NDB															
APPROACHES	ILS 2 ENGINES															
	ILS 1 ENGINE															
	VOR APP.															
	NDB APP.															
	G.A. / MISSED APP.															
LANDING	NORMAL															
	SHORTFIELD															
	FLAPLESS															
	1 ENG. INOP.															

MULTI ENGINE PROGRAM	DATE												
SUBJECT													
Ldg's													
TOTAL													
FLT. TIME													
TOTAL													
INSTRUCTOR INITIALS													

S = Satisfactory	SI = Should I mprove	U = Unstaisfactory	SI & U= Put remarks below
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REMARKS

# APPENDIX

# 5

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<b>IFR COMPLETION STANDARDS AT THE END OF THE TRAINING</b>
<b>BLIND TAKEOFF</b>
<ul style="list-style-type: none"> <li>no swings during takeoff roll.</li> <li>examiner not intervening with heading commands.</li> <li>aileron input for known X-wind.</li> <li>smooth liftoff with wings level.</li> </ul>
<b>INSTRUMENT DEPARTURE</b>
<ul style="list-style-type: none"> <li>candidate instructor reads back clearance correctly, in a timely manner, in the sequence received, using correct phraseology.</li> <li>radio setup to SATC standards, as published in IFR Manual.</li> <li>correct lateral IFR navigation (e.g. wind correction during climbout if required, no overshoot of radial, ...).</li> <li>correct vertical IFR navigation (e.g. turn at 400' AGL).</li> </ul>
<b>TIMED TURN</b>
<ul style="list-style-type: none"> <li>during 1st half of turn, on full panel: ability to determine correct bank angle for rate 1.</li> <li>during 2nd half of turn, when DG covered: constant bank angle.</li> <li>altitude +/- 100 FT, airspeed: -0/+5 KIAS.</li> <li>rollout within 10° of initial heading.</li> </ul>
<b>STEEP TURN</b>
<ul style="list-style-type: none"> <li>altitude +/- 100 FT, airspeed -0/+5 KIAS.</li> <li>rollout within 10° of assigned heading.</li> <li>transition L --&gt; R or R --&gt; L within altitude &amp; airspeed limits using appropriate pitch and power corrections.</li> </ul>
<b>SLOW FLIGHT</b>
<ul style="list-style-type: none"> <li>level flight +/- 100 FT, heading +/- 5 degrees.</li> <li>if a stall occurs, this is disqualifying.</li> </ul>
<b>STALLS</b>
<ul style="list-style-type: none"> <li>secondary stall, spin entry or excessive slip are disqualifying.</li> <li>altitude loss less than 300 FT.</li> </ul>
<b>PARTIAL PANEL</b>
<ul style="list-style-type: none"> <li>altitude +/- 100 feet, heading +/- 5°, speed -0/+5 KIAS.</li> <li>use of timing and magnetic compass for turns.</li> <li>correct recovery sequence from both nose high and nose low unusual attitudes.</li> </ul>

IFR COMPLETION STANDARDS AT THE END OF THE TRAINING	
<b>INTERCEPTIONS</b>	
<ul style="list-style-type: none"> <li>• candidate instructor correctly identifies the facility.</li> <li>• spatial orientation (e.g. correctly orients radial, does not initially turn in wrong direction).</li> <li>• standard SATC methods, as published in IFR Manual.</li> <li>• follow-up of interception.</li> <li>• airspeed -0/+5 KIAS, altitude +/- 100 FT, heading +/- 5 degrees.</li> </ul>	
<b>TRACKING</b>	
<ul style="list-style-type: none"> <li>• VOR: within half scale deflection.</li> <li>• NDB: within 5 degrees.</li> <li>• average heading + heading bug set on average heading.</li> <li>• candidate instructor recognizes facility failure and, when required, reports the failure to ATC.</li> </ul>	
<b>HOLDINGS</b>	
<ul style="list-style-type: none"> <li>• candidate instructor changes to the holding airspeed when 3 minutes or less from, but prior to arriving at, the holding fix.</li> <li>• correct entry procedure.</li> <li>• correct use of timer.</li> <li>• teardrop radial (or bearing) within 1 dot (or 2 degrees) at the end of the outbound leg.</li> <li>• correct follow-up of 60 degrees check &amp; smooth inbound track interception.</li> <li>• 2nd holding pattern (excluding entry procedure): total time from abeam position to holding fix 3 minutes +/- 10 seconds.</li> <li>• 2nd holding pattern (excluding entry procedure): outbound heading to arrive on teardrop after proper timing.</li> <li>• airspeed -0/+5 KIAS, altitude +/- 100 FT, heading +/- 5 degrees.</li> </ul>	
<b>ILS APPROACH</b>	
<ul style="list-style-type: none"> <li>• candidate instructor correctly identifies the facility.</li> <li>• course reversal: wind corrected for track &amp; timing.</li> <li>• speed &amp; airplane configuration as published in the Archer IFR precision approach pattern.</li> <li>• on final approach: altitude +50/-0 FT, airspeed -0/+5 KIAS.</li> <li>• average heading to keep LOC within half scale.</li> <li>• average rate of descent &amp; never more than 1 dot below the glide.</li> <li>• prompt reaction to deviations from LOC and glide slope.</li> <li>• use of altitude reminder &amp; heading bug.</li> <li>• all SATC callouts, checks (e.g. altimeter-GS check) and check lists, all radiocommunications.</li> <li>• no descent below minimas.</li> <li>• IFR to VFR transition without tuck under or drifting to downwind side.</li> <li>• Candidate instructor initiates missed approach promptly, without sink rate, according to ICAO standards.</li> </ul>	

**IFR COMPLETION STANDARDS AT THE END OF THE TRAINING**

**NON-PRECISION APPROACH**

- Candidate instructor correctly identifies the facility.
- course reversal: wind corrected for track & timing.
- speed & airplane configuration as published in the Archer IFR non-precision approach pattern.
- on final approach: altitude +50/-0 FT, airspeed -0/+5 KIAS.
- average heading to stay within 5 degrees of inbound track.
- correct rate of descent & correct identification of stepdown fixes.
- prompt reaction to deviations from inbound track.
- use of altitude reminder & heading bug.
- all SATC callouts, checks (e.g. altimeter top, HQCB, ...) and check lists, all radiocommunications.
- no descent below minimas.
- interception of the visual slot (reaching MDA on or slightly below slope) & correct identification of MAP.
- Candidate instructor initiates missed approach promptly, without sink rate, according to ICAO standards.

**CIRCLE TO LAND**

- standard SATC method, as published in IFR Manual and INSTRUCTOR NOTE 7.
- correct scan outside-inside.
- candidate instructor stays in circling area.
- no descent below circling altitude until in a position from which a descent to a normal landing can be made.
- no overshoot of runway axis.

**GENERAL**

- sufficient IFR awareness in preflight and in-flight procedures.
- sufficient safety awareness, e.g. ask safety pilot to clear area before turning.
- good aircraft control: basic attitude flying without chasing instruments, control & performance concept.
- good cockpit organization.
- good radio phraseology.

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# Full Throttle Flight Training

