**Syllabus Template**

**Robinson R22 Type Rating**

Appendix S03 to FOCA GM/INFO «Template: Training Manual (TM)»



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R22
type rating

|  |  |
| --- | --- |
| Scope | Syllabus for a Robinson R22 type rating, published as a template in Word format, based on FCL Subpart H and OSD R22 initial issue of 11/12/2015. |
| Who is concerned | Training organisations wishing to certify a new training programme in an ATO or to declare a new training programme in a DTO. |
| Valid from | 01.03.2018 |
| Purpose | The purpose of this template is to assist Approved Training Organisations (ATO) and Declared Training Organisations (DTO) in developing their training programme. It covers the major aspects of the required structure and content of a training syllabus and has been developed on the basis of the FOCA GM/INFO «Operations and Training Manual Certification Leaflet». |

|  |  |
| --- | --- |
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| Released by | SBFL/bid, Swiss Helicopter Association SHA |
| Distribution  | Internal / External  |

**Completion guidance**

The information provided solely represent a possible means of how to provide the required information. An organisation must add further information or adapt the template to **their specific needs**.

* The first two pages of this Word template are to be deleted by the organisation when adapting this template by clicking the red button below.
* Text shown in blue *italic* indicates where the organisation needs to provide its own specific information or data.
* In addition, all references to manuals, chapters and sub-chapters are shown in blue and are to be verified to ensure compliance with the ATO specific and own documentation.



Cover Page

Name of organisation

Address

Contact information

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LoR Log of Revision

LoR REV0 / TBD

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Issue | Revision (REV) | Changes |
| dd.mm.yyyy | 1 | 0 | Initial issue |
| … |  |  |  |

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LoA List of Abbreviations

LoA REV0 / TBD

The following abbreviations are within this syllabus:

| Abbreviation | Definition |
| --- | --- |
| ADF | Automatic Direction Finding |
| AGL | Above Ground Level |
| ATC | Air Traffic Control |
| ATO | Approved Training Organisation |
| AUM | All Up Mass |
| BAK | Basic Aviation Knowledge |
| CFI | Chief Flight Instructor |
| CDI | Course Deviation Indicator |
| CG | Centre of Gravity |
| CTR | Control zone |
| DABS | Daily Airspace Bulletin Switzerland |
| DF | Direction Finder |
| DME | Distance Measuring Equipment |
| DVE | Degraded Visual Environment |
| DTO | Declared Training Organisation |
| EASA | European Aviation Safety Agency |
| ERPM | Engine Revolution Per Minute |
| ETA | Estimated Time of Arrival |
| FCL | Flight Crew Licence |
| FFS | Full Flight Simulator |
| FNPT | Flight and Navigation Procedure Trainer |
| FOCA | Federal Office of Civil Aviation |
| FSTD | Flight Simulation Training Devices |
| ft | feet |
| G | Gravity acceleration |
| GNSS | Global Navigation Satellite System |
| (H) | Helicopter |
| H/V | Height / Velocity diagram |
| HIGE | Hover In Ground Effect |
| HT | Head of Training |
| HOGE | Hover Out of Ground Effect |
| IAS | Indicated Air Speed |
| ICAO | International Civil Aviation Organisation |
| IMC | Instrument Meteorological Conditions |
| km | kilometre |
| LoA | Log of Abbreviations |
| LoC | List of Effective Chapters |
| LoR | Log of Revisions |
| MET | Multi Engine Turbine |
| min | minimum |
| NAV | Navigation |
| NOTAM | Notice To Airmen |
| OBS | Omni Bearing Selector |
| OFP | Operational Flight Plan |
| OSD | Operational Suitability Data |
| PAPI | Precision Approach Path Indicator |
| PIC | Pilot In Command |
| PPL | Private Pilot Licence |
| QDM | Magnetic bearing to a station |
| QDR | Magnetic bearing from a station |
| RECO | Reconnaissance of landing site |
| REV | Revision |
| RFM | Rotorcraft Flight Manual |
| RPPAA | Rotor RPM / Power / Performance / Analyse / Action |
| RRPM | Rotor Revolution Per Minute |
| ROC | Rate of climb |
| SBFL | BAZL Abteilung Sicherheit Flugbetrieb (SB), Sektion Flugschulen und Leichtaviatik |
| SEP | Single Engine Piston |
| SET | Single Engine Turbine |
| TM | Training Manual |
| TMA | Terminal area |
| ToC | Table of Content |
| TOC | Top Of Climb |
| TOD | Top Of Descend |
| VAC | Visual Approach Chart |
| VASI | Visual Approach Slope Indicator |
| VDF | VHF Direction Finding |
| VFR | Visual Flight Rules |
| VHF | Very High Frequency |
| VMC | Visual Meteorological Conditions |
| VOR | VHF Omnidirectional Range |
| VClimb | Climb speed |
| VY | Best rate of climb speed |
| WAHIBELU | Wind / Anflugachse / Hindernisse / Beleuchtung / Umgebung |

# Student

Part 1 REV0 / TBD

## Records

1.1 REV0 / TBD

Personal data

|  |  |
| --- | --- |
| last name: | first name: |
| licence number (if available): | signature: |

Pre-entry requirements fulfilled

|  |  |
| --- | --- |
| HT / CFI signature: | date: |

Documents to be stored

|  |  |
| --- | --- |
| 🞏 «Chapter 1» of this syllabus | 🞏 theoretical examination Robinson R22 |
| 🞏 logbook page with Robinson R22 endorsement | 🞏 FOCA form 61.525 and attachments (if required) |
| *HT / CFI* signature: | date: |

Theoretical examination Robinson R22

|  |  |
| --- | --- |
| result (min 75%): | instructor signature: |

## Attendance theoretical knowledge

1.2 REV0 / TBD

|  | ITR theory hours | ATR theory hours | Date | Instructor signature |
| --- | --- | --- | --- | --- |
| Lesson 1 Classroom theoryRobinson R22 systems (1) | 2:00 | 2:00 |  |  |
| Lesson 2 Classroom theoryRobinson R22 systems (2) | 2:00 | 1:30 |  |  |
| Lesson 3 Classroom theoryLimitationsPerformance, flight planning and monitoringWeight and balanceEmergency procedures | 0:300:300:300:30 | 0:300:150:150:30 |  |  |
| Lesson 4 Classroom theoryAwareness trainingGround operations | 1:001:00 | 1:000:30 |  |  |
| Lesson 5 Classroom theoryOptional equipment | Additional | Additional |  |  |
|  Classroom examinationTheoretical examination Robinson R22 | 1:00 | 1:00 |  |  |
|  |  |  |  |  |
| Totals: | 9:00 | 7:30 |  |  |

## Attendance flight instruction

1.3 REV0 / TBD

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ITR flight session | ATR flight session | Date | Instructor signature |
| 1.1 Familiarisation 1  | (1:15) | (1:15) |  |  |
| 1.2 Familiarisation 2 | (1:15) | (1:15) |  |  |
| 2.1 Abnormal and emergency 1  | (1:30) | (1:30) |  |  |
| 2.2 Abnormal and emergency 2 | (1:00) | (1:00) |  |  |
|  |  |  |  |  |
| Totals: | (5:00) | (5:00) |  |  |

# Introduction

Part 2 REV0 / TBD

## Syllabus

2.1 REV0 / TBD

This syllabus, produced by ATO / DTO Name for the Robinson R22 type rating, conforms to the requirements of the OSD, initial issue of 11/12/2015, and Part-FCL. The purpose of this syllabus is to provide all required information to the student and the instructors who are involved in the training course.

The training consists of theoretical knowledge training and flight instruction by an instructor who is authorized to instruct toward a R22 type rating.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Manufacturer | Helicopter model / name | Differences | Licence endorsement | Complex | OSD report |
| Robinson- SE Piston - | R22R22 AlphaR22 BetaR22 Mariner |  | R22 |  | X |

## The aim of the course

2.2 REV0 / TBD

1. The training course is designed to give the student adequate theoretical knowledge, training in ground handling and flying techniques based on established teaching methods.
2. The aim of the training course is to become proficient in single-engine piston operation in order to operate safely and proficiently the Robinson R22 under normal, abnormal and emergency operations. Therefore, this training course gives the student:
3. a thorough knowledge of the aircraft systems, power plant, avionics and their associated limitations;
4. a knowledge of the positioning and operation of the flight deck controls and indicators for the aircraft and its systems;
5. an understanding of system malfunctions, their effect on aircraft operations and interaction with other systems;
6. an understanding of normal, abnormal and emergency procedures stated in the rotorcraft flight manual; and
7. an understanding of performance and mass and balance charts.
8. During the training course the student is made aware of hazardous attitudes and their effect on flight safety. Safety awareness and risk management are a fundamental part of the course.

## Pre-entry requirements

2.3 REV0 / TBD

Initial type rating (ITR): If the student does not hold a pilot’s licence, this type rating syllabus should be used together with the applicable syllabus for the issue of the licence.

Additional type rating (ATR): The student must hold or have held a SEP(H) type rating.

### Pre-solo requirements

A student who does not hold a helicopter licence must have had a minimum of 20 hours of dual instruction in a Robinson R22 or R44 helicopter prior to operating it in solo flight. In addition, the student must obtain an endorsement from a flight instructor that the student is proficient to solo a Robinson R22. This endorsement is valid for a period of 90 days. The dual instruction must include the following abnormal and emergency procedures flight training:

* enhanced training in autorotation procedures;
* RPM control without the use of the governor; and
* low RPM recognition and recovery.

## Summary of minimum training hours

2.4 REV0 / TBD

No FSTD’s exists at the time of publication of this syllabus.

### Initial type rating (ITR)

The training course includes:

1. 9 hours of theoretical knowledge training; and
2. 5 hours of flight instruction on helicopter, the skill test is additional to the training course time.

### Additional type rating (ATR)

The training course includes:

1. 7:30 hours of theoretical knowledge training; and
2. 5 hours of flight instruction on helicopter, the skill test is additional to the training course time.

## Theoretical knowledge training

2.5 REV0 / TBD

The theoretical knowledge training consists of all instruction given for the purpose of the training course and includes classroom lessons and instructor briefings.

Additional theoretical knowledge necessary for the specific air exercise are covered by the instructor during the instructor’s briefing.

## Flight instruction

2.6 REV0 / TBD

The numbering of air exercises has to be used primarily as an exercise reference list and as a broad instructional sequencing guide: therefore the demonstrations and practices do not necessarily need to be given in the order listed. The actual order and content will depend upon the following interrelated factors:

* the student progress and ability;
* the weather conditions affecting the flight;
* the available flight time;
* instructional technique considerations;
* the local operating environment; and
* the applicability of the exercises to the helicopter variant.

### Air exercises

Air exercises are not independent, therefore sessions can be combined; times reported on the air exercise table are indicative only. Each of the exercises involves the need for the applicant to be aware of good airmanship and look-out, which should be emphasised at all times.

### Flight instructor pre-requites

A flight instructor may provide instruction in a Robinson R22 only if that instructor:

* completes the awareness training in Chapter 3.1;
* has a minimum of 200 flight hours in helicopter, a minimum of 50 flight hours of which were in the Robinson R22 or R44;
* has completed flight training in a Robinson R22 on the following abnormal and emergency procedures:
* enhanced training in autorotation procedures;
* RPM control without the use of the governor; and
* low RPM recognition and recovery.

## Teaching materials

2.7 REV0 / TBD

The following list represents the reference material that covers the subject details shown in the main body of the syllabus:

* R22 POH Pilot’s operating handbook (Robinson)
* OSD Flight crew data R22 (Robinson / EASA)

…

## Time scale

2.8 REV0 / TBD

The applicant shall pass the skill test within a period of 6 months after commencement of the Robinson R22 type rating training course and within a period of 6 months preceding the application for the issue of the R22 type rating.

The co-ordination of ground and flight training is a necessary and important part of any pilot course. Particular care should be given in ensuring that flying training sessions are appropriate to the student’s level of theoretical knowledge.

## Course completion standards and skill test

2.9 REV0 / TBD

Upon completion of the training course, the student has the experience, the competence in flying and the knowledge for the initial issue of a R22 type rating and is aware of the privileges of the rating and of the responsibilities and duties as pilot-in-command. The written examination consists of multiple-choice questions, performance and mass and balance calculations. The pass mark for the examination is 75%.

The applicant for a R22 type rating shall demonstrate to an examiner the ability to handle the helicopter safely and confidently under normal, abnormal and emergency operations, including pre-flight and post-flight.

## Renewal

2.10 REV0 / TBD

Refer to FCL.740 “Validity and renewal of class and type ratings”.

## Difference requirements tables

2.11 REV0 / TBD

Difference levels are summarised in the table below regarding training, checking, and currency:

|  |  |  |  |
| --- | --- | --- | --- |
| Difference level | Training | Checking | Currency / recurrent training |
| A | Self-instruction | Not applicable (or integrated with next PC) | Not applicable |
| B | Aided instruction | Task or system check | Self-review |

For additional information refer to EASA CS-FCD.

### Training, checking and recurrent training difference requirements

|  |  |
| --- | --- |
|  | FROM |
| TO | Models | R22, R22 Alpha, R22 Beta | R22 Mariner |
| R22, R22 Alpha, R22 Beta |  | A / B / B |
| R22 Mariner | B / B / B |  |

### Operator difference requirement (ODR) table

|  |
| --- |
| Operator difference requirements table |
| Difference helicopter: R22 MarinerBase Helicopter: R22, R22 Alpha, R22 Beta | Compliance method |
| Design feature | Remarks | Flight characteristics | Procedures change | Training | Chk/Curr |
| Float landing gear | Addition of fixed float landing gear | Minor:Adverse roll characteristics.Operations on water. | Minor:Operation on water. | Level B:aided instruction | Not applicable |

# Theoretical knowledge training

Part 3 REV0 / TBD

## Theoretical knowledge subjects and time scale

3.1 REV0 / TBD

|  |  |  |
| --- | --- | --- |
|  | ITR theory hours | ATR theory hours |
| Robinson R22 systems | 4:00 | 3:30 |
| Helicopter generalDimensionsHelicopter structure and equipment | 0:30 | 0:30 |
| Power plant (Lycoming model O-320 or O-360)Type of engineGeneral function of the following systems or components:* engine
* oil system
* fuel system
* ignition system
* starting system
* generators and generator drives
* power indication

Engine controls (including starter), engine instruments and indications in the cockpit, their function, interrelation and interpretationEngine operation, during engine start, start and engine malfunctions, procedures for normal operation in the correct sequenceTransmission systemType of rotor system | 0:45 | 0:45 |
| Fuel systemLocation of the fuel tanks, fuel pumps, fuel lines to the engines, tank capacities, valves and measuringLocation of the following systems:* filtering
* fuelling
* venting

In the cockpit:* monitors and indicators of the fuel system
* quantity and flow indication
* interpretation

Fuel procedures distribution into the various tanks and fuel supply | 0:30 | 0:30 |
| Skids fixed and floatsMain components | 0:15 | 0:15 |
| Flight controlsCyclicCollectiveThrottle and governorPedals | 0:45 | 0:30 |
| Electrical power supplyNumber, power, voltage, frequency and location of the main power system (AC or DC)Location of the controls, monitors and indicators in the cockpit;Flight instruments, communication and navigation systems, main and back-up power sourcesLocation of vital circuit breakersGenerator operation and monitoring procedures of the electrical power supply | 0:45 | 0:30 |
| Instrumentation, communication and navigation equipmentVisible antennasControls and instruments of the following equipment in the cockpit during normal operation:* flight instruments
* communication and navigation systems
* warning systems
 | 0:15 | 0:15 |
| Emergency equipmentOperation and correct application of the mobile emergency equipment in the helicopter:* portable fire extinguisher
* first-aid kits
* portable oxygen equipment
* life-jacket
* emergency transmitters
 | 0:15 | 0:15 |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Limitations | 0:30 | 0:30 |
| General limitationsAirspeed limitsRotor speed limitsPowerplant limitationsWeight limitsKind of operation limitationsFuel limitationsInstrument markings and colour codePlacards | 0:20 | 0:20 |
| Minimum equipment listStructure and philosophyApplication | 0:10 | 0:10 |
|  |  |  |
| Performance, flight planning and monitoring | 0:30 | 0:15 |
| Performance calculationHIGE ceilingHOGE ceilingH/V diagramAir speed indicator correction | 0:30 | 0:15 |
|  |  |  |
| Weight and balance | 0:30 | 0:15 |
| Weight and balanceLoad and trim sheet on the maximum masses for take-off and landingCentre of gravity limits | 0:30 | 0:15 |
|  |  |  |
| Emergency procedures | 0:30 | 0:30 |
| Emergency proceduresPower failure - generalPower failure above 500 ft/AGLPower failure between 8 ft and 500 ft/AGLPower failure below 8 ft/AGLMaximum glide distance configurationAir restart procedureEmergency water landing - power OFFEmergency water landing - power ONLoss of tail rotor thrust in forward flightLoss of tail rotor thrust in hoverEngine fire during start on groundEngine fire in flightElectrical fire in flightTachometer failureGovernor failureWarning / caution lightsLow RPM horn and caution light | 0:30 | 0:30 |
|  |  |  |
| Awareness training | 1:00 | 1:00 |
| Low-G hazardsLoss of controlMast bumping | 0:30 | 0:30 |
| RRPM decayEnergy managementBlade stall | 0:30 | 0:30 |

|  |  |  |
| --- | --- | --- |
| Ground operations | 1:00 | 0:30 |
| Pilot pre-flight walk around | 0:15 | 0:05 |
| Ground handling | 0:15 | 0:10 |
| Equipment installation / removal | 0:15 | 0:05 |
| Servicing on the groundServicing connections for:* fuel
* oil

Safety regulations for servicing | 0:15 | 0:10 |
|  |  |  |
| Optional equipment | Additional | Additional |
| Several instrument console layouts for the Robinson R22 exist, however all utilize standard analogue gauges for basic flight instruments. Familiarisation with optional instruments and avionics equipment should be made through self-study of manuals or online training material. |  |  |
| ... |  |  |
|  |  |  |
| Theoretical examination | 1:00 | 1:00 |
| Theoretical examination Robinson R22 | 1:00 | 1:00 |
|  |  |  |
| Totals: | 9:00 | 7:30 |

## TASE / training methodology for pilots and instructors

3.2 REV0 / TBD

The student and instructor must thoroughly study all safety tips and safety notices listed in the R22 POH.

Liftoff

* To avoid dynamic rollover, a two-step liftoff technique should always be used with just enough collective pulled to be light on the skids and equilibrium felt before the helicopter is then gently lifted into the air.

Hovering

* Hovering exercises should not be practiced close to the ground or obstacles, and maintaining a skid height of at least 1.5 m (5 ft) above the ground when practicing sideward or rearward flight.

Autorotation / autorotative landings

* Autorotation training as detailed in Section 4 of the POH shall be conducted within gliding distance of a suitable landing area.
* Autorotation training shall be performed with a trainee and an instructor only.
* When conditions conducive to carburetor icing are suspected, full carburetor heat must be applied prior to entry to an autorotation regardless of the carburetor air temperature gauge indication.
* Practice autorotation entry:
* collective lever should be lowered to the down stop and the throttle adjusted to give a small tachometer needle split. The throttle is then held fully closed to override the governor (inactive below 80%). To avoid inadvertent engine stoppage, the throttle should not be “chopped” and the engine must be recovered immediately if the engine is running roughly or the engine RPM continues to decrease;
* to initiate the autorotation above 4000 ft the throttle should be reduced slightly before lowering the collective to prevent engine overspeed; and
* recommended airspeed of 60-70 KIAS should be maintained with the RPM in the green.

Power recovery procedure

* At approximately 40 ft/AGL a cyclic flare should be commenced to reduce forward speed and rate of descent, and smoothly roll throttle full on to recover engine power
* At 8 ft/AGL the aircraft should be levelled and collective applied to control descent.

Autorotative landing

* Practice autorotative landings to the ground should be performed in the same manner as a power recovery except the throttle should be kept closed throughout the maneuver. Always contact the ground heading straight ahead with skids level.

Simulated Power Failure

* Before simulating a power failure, it is critical that communication and understanding are established between instructor and student. To prevent the students from being surprised, they should be given a few minutes advance notice that a power failure will be simulated. The power failure should be loudly announced as the throttle is rolled off. The manifold pressure should be less than 1 inches and the throttle rolled off smoothly, never “chopped”.

Low "G" mast bumping

* Low-G cyclic pushovers are prohibited. Excessive rotor flapping can be caused by low-G conditions leading to catastrophic rotor hub impact with mast, or blade impact with airframe.
* Never attempt to demonstrate or experiment with low-G maneuvers regardless of pilot skill or experience level.
* Avoid abrupt forward cyclic movements and initiate descent with collective.
* In the event of inadvertent low-G condition, recover thrust by aft cyclic (to reload the disks) rather than lateral cyclic roll, then correct laterally.
* Ensure smooth input on controls; not abrupt, full range, un-coordinated input.
* If turbulence is expected, reduce power and use a slower than normal cruise speed (60-70 KIAS). Mast bumping is less likely at lower airspeeds. Firmly rest right forearm on right leg to prevent unintended control inputs. Allow aircraft to go with the turbulence then restore level flight with smooth, gentle control inputs.

Low RPM recognition and recovery

* Low RPM warning horn and light activates when RPM decays below 97%.
* The recovery technique for low RPM condition is simultaneous lowering of the collective and rolling-on of the throttle.
* In forward flight, aft cyclic may also be used to recover RPM.

Use of carburetor heat

* When conditions conducive to carburetor icing are suspected, carburetor heat shall be applied. Carburetor ice can occur at OAT as high as 30°C. Even in generally dry air, local conditions such as a nearby body of water can be conducive to carburetor ice. When in doubt, assume conditions are conducive to carburetor ice and apply carburetor heat as required.
* On aircraft equipped with the carb heat assist system, the control knob should be left unlatched unless it is obvious that conditions are not conducive to carburetor ice.

Governor-off flight

* In normal operation, rotor speed is controlled through an engine governor. The governor senses engine RPM changes and applied corrective inputs to the throttle.
* In the event of a governor failure, the pilot must monitor rotor speed and adjust the throttle as necessary to maintain the nominal rotor speed.
* A “correlator” applies throttle changes to compensate for changes in collective control input and thereby reduces the amount of throttle adjustment necessary for the pilot to maintain the nominal rotor speed.
* Note that governor-off flight is prohibited except for in-flight system malfunction or emergency procedures training.

Initial training flights

* Before allowing someone to manipulate the controls they should be fully briefed about the extreme sensitivity of the controls. They must be instructed to never make large or sudden control movement of the controls. The instructor must be prepared to instantly grip the controls should the student start to make a wrong move.

High winds or turbulence encounters

* In accordance with Safety Notice SN-32, when encountering high winds or turbulence reduce power and fly at a slower than normal cruise speed (60-70 KIAS), avoid over control, and avoid flying on the downwind side of hills, ridges or tall buildings.

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# Flight instruction

Part 4 REV0 / TBD

List of air exercises sections:

1 Normal operation

2 Abnormal operation

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1.1 Familiarisation 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Instructor briefing | ITR flight session | ATR flight session | Instructor debriefing | Equipment |
| 0:30 | 1:15 | 1:15 | 0:15 | R22 |

Program

Introduction to the Robinson R22

Exercise content

Acclimatization to the helicopter

* Helicopter exterior inspection
* Cockpit inspection
* Starting procedures
* Pre-take off/landing procedures
* Characteristics and general handling of the helicopter
* Taxiing, air taxiing
* Climbing/descending/turns
* Circuits

Theoretical basis

RFM chapters: 1, 2, 4, 6, 7, 8…

…

Targets

1. The student is comfortably installed and has a good feeling with the helicopter
2. The student is familiar with the normal procedures
3. Personal:

Targets

|  |  |  |
| --- | --- | --- |
| 🞏 Achieved | 🞏 Partially achieved | 🞏 Not achieved |
|  |

Good points

|  |
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Points to improve

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Targets for the next session

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|  |

Open items

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1.2 Familiarisation 2

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| --- | --- | --- | --- | --- |
| Instructor briefing | ITR flight session | ATR flight session | Instructor debriefing | Equipment |
| 0:30 | 1:15 | 1:15 | 0:15 | R22 |

Program

Local flight exercises, slope operations and crosswinds

Exercise content

* Take-off / landing of various profiles
* Simulated maximum take-off mass
* Sloping ground
* Crosswind take-off and landings

Theoretical basis

RFM chapters: 2, 4, 5, 6, 10 …

…

Targets

1. The student is comfortable with normal procedures under more challenging conditions
2. Personal:

Targets

|  |  |  |
| --- | --- | --- |
| 🞏 Achieved | 🞏 Partially achieved | 🞏 Not achieved |
|  |

Good points

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Points to improve

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Targets for the next session

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Open items

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2.1 Abnormal and emergency 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Instructor briefing | ITR flight session | ATR flight session | Instructor debriefing | Equipment |
| 0:30 | 1:30 | 1:30 | 0:15 | R22 |

Program

Introduction to abnormal and emergency procedures

Exercise content

* Basic autorotations
* Advanced autorotations
* Recognition and recovery from low RPM
* Steep turns

Theoretical basis

RFM chapters: 2, 3, 7, 10 …

…

Targets

1. The student is familiar with the abnormal and emergency procedures
2. The student is applying normal procedures with confidence
3. Personal:

Targets

|  |  |  |
| --- | --- | --- |
| 🞏 Achieved | 🞏 Partially achieved | 🞏 Not achieved |
|  |

Good points

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Points to improve

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Targets for the next session

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Open items

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2.2 Abnormal and emergency 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Instructor briefing | ITR flight session | ATR flight session | Instructor debriefing | Equipment |
| 0:30 | 1:00 | 1:00 | 0:15 | R22 |

Program

Advanced abnormal and emergency procedures

Exercise content

* Abnormal and emergency procedures
* Governor-off
* Simulated instrument flight

Theoretical basis

RFM chapters: 2, 3, 7, 10 …

…

Targets

1. The student is applying normal, abnormal and emergency procedures with confidence
2. The student is applying the knowledge gained from the RFM
3. Personal:

*Note:* the training must be performed in VMC conditions; to simulate IMC conditions the student shall wear «foggles».

Targets

|  |  |  |
| --- | --- | --- |
| 🞏 Achieved | 🞏 Partially achieved | 🞏 Not achieved |
|  |

Good points

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Points to improve

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Targets for the next session

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| --- |
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Open items

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## Time scale

4.1 REV0 / TBD

The table on the following page shows the breakdown of hours for flight instruction of the Robinson R22 type rating training course.

| No | Air exercise | Instructor briefing | ITR flight session | ATR flight session | Instructor debriefing |
| --- | --- | --- | --- | --- | --- |
| 1.1 | Familiarisation 1 | 0:30 | 1:15 | 1:15 | 0:15 |
| 1.2 | Familiarisation 2 | 0:30 | 1:15 | 1:15 | 0:15 |
| 2.1 | Abnormal and emergency 1 | 0:30 | 1:30 | 1:30 | 0:15 |
| 2.2 | Abnormal and emergency 2 | 0:30 | 1:00 | 1:00 | 0:15 |
| Totals: | 2:00 | 5:00 | 5:00 | 1:00 |

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