



Flight Examiner Manual

Module 5.3 – TR SP/MP(H)

**TR(H) Skill Test or Proficiency Check**

V2023.1

General Applicable Framework**SPH TR Skill Test or Proficiency Check**

Flight rules:	VFR, VFR/IFR
Operational rules*:	Part-CAT, SPA, NCO or Part-SPO
Crew concept:	SPO, MPO, SPO/MPO
Equipment:	Helicopter, FSTD
Applicable type or class**:	SEP, SET, MET (Other than complex-motor powered single-pilot helicopter)
Required examiner certificate:	FE/TRE/SFE with IR privileges when test / check is combined with an IR proficiency check

SPH / MPH TR Skill Test or Proficiency Check

Flight rules:	VFR, VFR/IFR
Operational rules*:	Part-CAT, SPA, NCC or Part-SPO
Crew concept:	SPH, MPH, MPH/SPH
Equipment:	FFS; Helicopter combined with FSTD; Helicopter.
Applicable type or class**:	SET, MET (Complex-motor powered helicopter)
Required examiner certificate:	TRE/SFE with IR privileges when test / check is combined with an IR proficiency check

Note (*): It is in the responsibility of the examiner to comply with the operational rules.

Note ():** Refer to EASA Type Rating & License Endorsement Lists - Helicopters, which indicate whether aircraft are defined as Complex-motor-powered aircraft in accordance with the Basic Regulation and Part-FCL.



1. Introduction

The purpose of TR test/check is to establish that the candidate has acquired or maintained the standard skill and knowledge required for the safe operation of the applicable type of helicopter under VFR and IFR (if the IR rating is included). The TR test/check should be pertinent to the crew concept and duties of a PIC or a co-pilot as applicable, within the privileges of the relevant pilot license held.

When a type rating test is scheduled with limited privileges as “co-pilot”, “VFR only” or “Multi-pilot operation only” (other than complex-motor powered single-pilot helicopter), such limitation should be recorded by the examiner in the skill test or proficiency check report form.

For complex motor-powered helicopters, the skill test or proficiency check should be accomplished according single-pilot type rating or multi-pilot type rating. A combination of both single / multi-pilot type rating is possible only in the case of proficiency check and it may be combined with IR privileges, unless the credit criteria of Appendix 8 are met.

The test/check content for the different possible crew concepts is provided in subpart 6.



2. Test Administration

The Examiner should provide the Candidate with advance information regarding the examination flight routing, taking into account weather forecasts and local restrictions, to afford the Candidate with sufficient time to prepare for the skill test, respectively proficiency check.

If the type rating test / check is combined with the IR(H) privileges extension to further helicopter types or IR revalidation / renewal, at least one of the approach shall be PBN and as far as possible be accomplished in a simulated commercial air transport environment.

Test / Check Flight Crew Pairing Requirement

Candidates shall be required to fly the FSTD / helicopter from a position where the PIC or co-pilot functions, as relevant, can be performed.

- Under **single-pilot** conditions, the test/check shall be performed as if there was no other crewmember present.
- Under **multi-pilot** conditions, the test/check for a multi-pilot helicopter or a single-pilot helicopter when operated in multi-pilot operations shall be performed in a multi-crew environment. Another applicant or another type rated pilot with MPH/MPO privilege of a SFI may function as the second pilot. If a helicopter is used, the second pilot shall be the examiner or an instructor.

No other person, if not operationally or organisationally necessary for the conduct of the examination, should be allowed in the helicopter or simulator. Additionally, ATO limitations, if applicable, should be considered.

Prerequisites verification

Before proceeding with the test or check, the Examiner shall verify that the prerequisites are met; if applicable, the ATO shall make available the training records for verification if requested. Accordingly, the following documents and conditions shall be verified:

- Passport or ID
- PPL(H) or higher
- Medical EASA Class 1 [including Operational Multi-pilot Limitation OML (valid only as or with qualified co-pilot)] or Class 2 [including Operational Safety pilot Limitation (OSL)]
- Radiotelephony privileges and language proficiency requirements
- EASA logbook, showing the relevant minimum experience and flight instruction
- Relevant TR(H) skill test form filled, endorsed by the ATO if applicable
- Aircraft documents
- Current navigation charts, and database if applicable
- Insurance of aircraft covering check flights
- Specific equipment for the flight part (e.g. sight-limiting device)

Additionally for a **skill test**:

- TR course completion certificate (specifying single or multi-pilot training) from the ATO
- For a MPO privileges test, in other than complex-motor powered helicopter only, hold an MCC certificate, or meet the MCC credit requirements. It is no longer applicable the requirement to have passed the ATPL(H) theoretical knowledge examinations.



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Additionally for a **revalidation proficiency check**:

- Complete at least 2 hours as a pilot of the relevant helicopter type, within the validity period of the rating. The duration of the proficiency check may be counted towards the 2 hours
- Complete EBT practical assessment in accordance with Appendix 10 at an operator for the relevant type rating shall receive full credits for the proficiency check

Additionally for a **renewal proficiency check**:

- TR refresher course completion certificate (specifying single or multi-pilot training) from an ATO
- Candidate hold a valid type rating entitled to exercise the privileges of that rating on a pilot licence issued by a third country in accordance with ICAO Annex 1, they are exempted from carrying out TR refresher training

When the Examiner is satisfied that the prerequisite requirements are met; they should seek confirmation that the Candidate is fit and ready for the skill test/proficiency check. If so, the Examiner formally starts the test / check; it is a good practice to take this opportunity to show the examiner credentials.



3. Examiner Briefing

The Examiner must brief the following elements:

- Freedom for the Candidate to ask questions
- Purpose and aim of the test/check
- Applicable weather minimum (e.g. Part-CAT/NCC/NCO, NAA, ATO, or test requirements)
- Examiner has PIC responsibility; the Candidate acts autonomously as if he was the PIC or co-pilot functions and he shall operate as PF during the test / check, except for abnormal / emergency procedures, which may be conducted as PF or PM in accordance with MCC.
- Handling of radio communications during specific parts of the test / check
- Use of the sight-limiting device
- Examiner role-play in normal operations and simulated emergencies
- Engine failure-simulation (minimum safety height, handling of engine-controls).
- Handling of possible contingencies (technical, weather, ATC)
- Handling of actual emergencies (e.g. engine failure procedures, change of aircraft control)
- Pass, fail, and partial pass criteria, repeat items option, and examination termination rules

When covering pass/fail criteria the examiner should explicate the standards of completion laid down in subpart 7 of this module, including decision-making and airmanship. Some test items may require specific emphasis for the Candidate to understand what is required. The standards of completion should be agreed with the Candidate, and the Examiner should consider actual flight conditions when briefing them. Items which could require special emphasis could be:

- Take-off performance; including OEI situations
- Landing performance; selection of helipad or runway touchdown point and acceptable tolerances for the different types of landings
- Crosswind take-off and landing; expectation on handling and precision
- Navigation accuracy
- Simulated emergencies; expectation on handling, checklist use and what and how to simulate.

In covering the standards of completion, the Examiner should also review how the Candidate has been trained by the ATO, if applicable, as procedures and flight techniques might differ between organisations. This is especially important for manoeuvres such as: recovery from unusual attitudes, IMC autorotation with power recovery and engine-out procedures, etc.



4. Candidate Flight Briefing

The Examiner should allow the Candidate to brief uninterrupted; the Candidate shall conclude their briefing by making a go/no-go decision. The briefing should cover the following aspects:

- Timetable (e.g. slot planning, boarding time)
- Operational navigation flight plan
- Weather situation and forecast
- NOTAMs, including relevant local military restrictions, as applicable
- Fuel planning
- Mass and balance calculation
- Performance calculation
- ATC flight plan, if applicable
- Aircraft status and documents, including maintenance release and MEL when applicable
- Threat and Error Management (TEM) and Crew Resource Management (CRM) principles

5. Oral Examination on Ground

The Examiner should verify the relevant theoretical knowledge of the Candidate during the briefing on the ground by asking questions related, as far as possible, to the planned flight covering, for example, the following areas:

- Follow-up questions to the Candidate's briefing
- Regulations (EU and relevant specific national requirements)
- Licensing (e.g. TR privileges, ratings validity, currency requirements)
- Operational aspects
- Weather information and interpretation
- Airspace structure and limitations
- Aircraft systems, limitations, performance, mass and balance
- Flight planning
- Navigation charts (complete set of IFR chart, when combined with the IR privileges)
- Emergency procedures



6. Skill Test and Proficiency Check items

The use of checklist, airmanship, anti-icing/de-icing procedures, etc., and MCC concept, if applicable, apply in all sections.

When an FSTD is used for parts, or the whole, of the test, the FSTD suitability shall be verified and the applicable limitations considered.

The mandatory items are denoted by an **M** in the left column in accordance with Appendix 9. Expanded guidance and additional explanations are provided in the right column.

If the IR privileges are combined with the extension / revalidation / renewal of a type rating, complete Section 5 of the test / check in accordance with Appendix 9 for the relevant type of helicopter. Starred items (*) shall be flown solely by reference to instruments in actual or simulated IMC.

The following table provides the test content for the different possible crew concepts:

Other than complex-motor powered single-pilot helicopter					
Test / Check	SPO	MPO	SPO to MPO (initial)	MPO to SPO (initial)	MPO + SPO
Initial Issue	Sections 1-5	Sections 1-5	Refer to OSD	Refer to OSD	n/a
Revalidation / Renewal	Sections 1-4 Section 5 IR Sections 6, if applicable	Sections 1-4 Section 5 IR Sections 6, if applicable	n/a	n/a	Complete the check in MPO and additionally in SPO environment: SE Helicopters 2.1 take-off and 2.6 and 2.6.1 autorotative descent and autorotative landing; ME Helicopters 2.1 take-off and 2.4 and 2.4.1 engine failures shortly before and shortly after reaching TDP; IR privileges, in addition to above, one approach of Section 5, unless the criteria of Appendix 8 are met;

Note: In order to remove a restriction to multi-pilot operation from other than complex-motor powered single-pilot helicopter type rating, complete a proficiency check that includes the manoeuvres and procedures referred to the last column in single-pilot environment, as applicable.



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Complex-motor powered single or multi-pilot helicopter				
Test / Check	SPH	MPH	MPH to SPH (initial)	MPO + SPO
Initial Issue	Sections 1-5	Sections 1-5	Refer to OSD	n/a
Revalidation / Renewal	Sections 1-4 Section 5 IR Sections 6, if applicable	Sections 1-4 Section 5 IR Sections 6, if applicable	n/a	Complete the check in MPH and additionally in single-pilot environment: SE Helicopters 2.1 take-off and 2.6 and 2.6.1 autorotative descent and autorotative landing; ME Helicopters 2.1 take-off and 2.4 and 2.4.1 engine failures shortly before and shortly after reaching TDP; IR privileges, in addition to above, one approach of Section 5, unless the criteria of Appendix 8 are met.

Unless otherwise determined in the operational suitability data (OSD), the skill test and the proficiency check shall comply with this Appendix 9.



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Section 1 - Pre-flight preparations and checks

1.1 M	Helicopter exterior visual inspection; location of each item and purpose of inspection. M (if performed in the helicopter)	<ul style="list-style-type: none">• check that all documents required for the flight are carried and correct• check helicopter serviceability record and technical log• confirm that the helicopter is in a serviceable and safe condition for flight• complete an appropriate passenger emergency procedure briefing• use an approved checklist to perform all the elements of the helicopter pre-flight inspection, identifying components and functions as required by the examiner
1.2 M	Cockpit inspection	<ul style="list-style-type: none">• ensure that all loose items in the cockpit are secured• complete all elements of the helicopter internal and cockpit pre-flight inspections as detailed in the checklist, Flight Manual or other appropriate document.
1.3 M	Starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies	<ul style="list-style-type: none">• ensure that all loose items in the cockpit are secured• complete all elements of the helicopter internal and cockpit pre-flight inspections as detailed in the checklist, Flight Manual or other appropriate document• complete all recommended communication and navigation equipment test procedures• select and set the appropriate frequencies and transponder codes• correctly set all displays and instruments such as HSI, RMI, OBS, CDI and FD, as appropriate
1.4 M	Taxiing/air taxiing in compliance with ATC instructions or with instructions of an instructor	<ul style="list-style-type: none">• complete all recommended taxiing checks and procedures• comply with ATC instructions, airport markings, and signals• maintain adequate spacing from other aircraft and obstacles• use standard RTF procedures and phraseology
1.5 M	Pre-take-off procedures and checks	<ul style="list-style-type: none">• complete all recommended pre-take-off checks using an approved checklist• obtain ATC clearance and follow ATC instructions• complete all necessary post-take-off checks• use charts or other published information as required• use correct lookout techniques• observe the Rules of the air and ATC regulations• use standard R/T procedures and phraseology• comply with ATC instructions• complete passenger and crew brief, as necessary• operate on the ground and in the air with particular regard to passenger safety and comfort



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Section 2 - Flight Manoeuvres and Procedures

2.1 M	Take-offs (various profiles)	<ul style="list-style-type: none">• demonstrate a take-off/transition from the hover as detailed by the examiner• maintain directional control and balance throughout• complete all necessary checks and drills throughout• maintain lookout throughout• obtain ATC clearance, when required
2.2 M	Sloping ground or crosswind take-offs and landings	<ul style="list-style-type: none">• identify a landing area on slope, and conduct reconnaissance• maintain HDG, ground position and prevent movement of helicopter on slope• centralise controls after landing• pre-position controls prior to take-off• complete all necessary checks and drills throughout• maintain lookout throughout
2.3 M	Take-off at maximum take-off mass (actual or simulated maximum take-off mass)	<ul style="list-style-type: none">• use an appropriate technique in order to take off and transition from the hover ensuring that the helicopter is flown within the limits set by the examiner• maintain directional control and balance throughout• complete all necessary checks and drills throughout• maintain lookout throughout
2.4 M	Take-off with simulated engine failure shortly before reaching TDP or DPATO	<ul style="list-style-type: none">• stop the tendency to drift and roll• stop the yaw tendency• control RRPM• cushion the touchdown with available RRPM: centralises cyclic, lowers collective, applies brakes (for wheeled undercarriage helicopters), and stops aircraft in minimum distance• maintain operating engine(s) within the limits• analyse emergency or abnormal situation and execute appropriate plan• execute abnormal or emergency drills• use the appropriate abnormal or emergency checklist to confirm actions when time permits• transmit appropriate emergency R/T calls (simulated to the examiner)
2.4.1 M	Take-off with simulated engine failure shortly after reaching TDP or DPATO	<ul style="list-style-type: none">• optimise helicopter performance by selecting best speed and RRPM for the phase of flight• control RRPM and maintain operating engine(s) within the limits• adhere to an approved/recommended OEI profile• analyse emergency or abnormal situation and execute appropriate plan• execute abnormal or emergency drills• plan and execute further actions to ensure safe recovery of helicopter, passengers and crew• use the appropriate abnormal or emergency checklist to confirm actions when time permits• transmit appropriate emergency R/T calls (simulated to the examiner)



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2.5 M	Climbing and descending turns onto specified heading	<ul style="list-style-type: none">• establish climb/descent and turns onto nominated height, headings, and rates of bank• control the helicopter's altitude and heading using visual attitude flying technique• maintain control and balance throughout• complete all necessary checks and drills throughout• maintain lookout throughout
2.5.1 M	Turns with a 30-degree bank, 180 to 360 degrees left and right, by sole reference to instruments	<p>With the use of sight-limiting device or in DVE/IMC in FFS:</p> <ul style="list-style-type: none">• establish steep turns (with a 30-degree angle of bank) onto nominated headings whilst maintaining altitude/height and speed• control the helicopter's altitude, speed, and heading using instrument-scanning techniques• use the trim system, where appropriate• maintain balance throughout
2.6 M	Autorotative descent	<ul style="list-style-type: none">• select an area and height/altitude for the nominated autorotation• conduct HASEL (or other appropriate) checks• initiate autorotation manoeuvre (with verbal warning)• achieve the appropriate parameters for the nominated technique• control the RRPM during autorotation through movement of the collective or throttle, if applicable (only if appropriate and if briefed by the examiner)• consider engine restart procedures• make MAYDAY call (simulated to the examiner)• maintain directional control and balance throughout• complete all necessary checks and drills throughout• maintain lookout throughout
2.6.1 M	For single-engine helicopters (SEH) autorotative landing or power recovery, or for multi-engine helicopters (MEH) power recovery	<ul style="list-style-type: none">• identify a suitable landing area, and if appropriate conduct reconnaissance (size, shape, surrounds, slope and surface)• establish final approach (into wind), with minimum drift by 300 feet AGL• apply appropriate flare at suitable height for helicopter/environmental conditions• cushion the touchdown, with a running landing if appropriate, whilst maintaining heading or terminate autorotation to a stabilized hover at the recommended hovering altitude or to the surface in a safe area, as appropriate• carefully lower the collective and control RRPM throughout• complete all necessary checks and drills throughout• maintain lookout throughout• maintain directional control and balance throughout
2.7 M	Landings, various profiles	<ul style="list-style-type: none">• demonstrate an approach profile nominated by the examiner• obtain ATC clearance, as required• maintain a stable decelerative descent path from cruise to hover• maintain directional control and balance throughout• arrive over the nominated aiming/landing position• land vertically from hover• complete all necessary checks and drills throughout• maintain lookout throughout



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<p>2.7.1 M</p>	<p>Go-around or landing following simulated engine failure before LDP or DPBL</p>	<ul style="list-style-type: none">• <i>optimise helicopter performance by selecting best speed and RRPM for the phase of flight</i>• <i>maintain operating engine(s) within the limits</i>• <i>adhere to an approved/recommended OEI profile</i>• <i>analyse emergency or abnormal situation and execute appropriate plan</i>• <i>execute abnormal or emergency drills</i>• <i>plan and execute further actions to ensure safe recovery of helicopter, passengers, and crew</i>• <i>for landing, plan for a running landing whilst minimising drift and ensuring that the helicopter is lined up with the landing direction</i>• <i>cushions the touchdown with the available RRPM: centralises cyclic, lowers collective, applies brakes (for wheeled undercarriage helicopters), and stops aircraft in minimum distance</i>• <i>use the appropriate abnormal or emergency checklist to confirm actions when time permits</i>• <i>transmit appropriate emergency R/T calls (simulated to the examiner)</i>
<p>2.7.2 M</p>	<p>Landing following simulated engine failure after LDP or DPBL</p>	<ul style="list-style-type: none">• <i>optimise helicopter performance by selecting best speed and RRPM for continued approach</i>• <i>adhere to an approved/recommended OEI profile</i>• <i>analyse emergency or abnormal situation and execute appropriate plan</i>• <i>plan for a running landing by minimising drift and ensuring that the helicopter is lined up with the landing direction</i>• <i>cushions the touchdown with available RRPM: centralises cyclic, lowers collective, applies brakes (for wheeled undercarriage helicopters), and stops aircraft in minimum distance</i>• <i>use the appropriate abnormal or emergency checklist to confirm actions when time permits</i>• <i>transmit appropriate emergency R/T calls (simulated to the examiner)</i>



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Section 3 - Normal and abnormal operations of the following systems and procedures		
3	Normal and abnormal operations of the following systems and procedures	A mandatory “ M ” minimum of 3 items shall be selected from this section
3.1	Engine	<ul style="list-style-type: none">• use systems appropriate to checklists or operational requirements (for normal and abnormal operations)• analyse abnormal situations and formulate appropriate plan• execute abnormal drills in accordance with the Flight Manual or other appropriate document (touch drills only)• plan, execute, and demonstrate further actions to ensure safe recovery of helicopter, passengers, and crew to an airfield/LS as appropriate• use checklist to confirm actions when time permits• make suitable emergency R/T calls (given to the examiner but not transmitted)
3.2	Air conditioning (heating, ventilation)	
3.3	Pitot/static system	
3.4	Fuel System	
3.5	Electrical system	
3.6	Hydraulic system	
3.7	Flight control and trim system	
3.8	Anti-icing and de-icing system	
3.9	Autopilot/Flight director	
3.10	Stability augmentation devices	
3.11	Weather radar, radio altimeter, transponder	
3.12	Area navigation system	
3.13	Landing gear system	
3.14	Auxiliary power unit (APU)	
3.15	Radio, navigation equipment, instruments and FMS	



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Section 4 - Abnormal and emergency procedures

4	Abnormal and emergency procedures	A mandatory “ M ” minimum of 3 items shall be selected from this section
4.1	Fire drills (including evacuation if applicable)	<ul style="list-style-type: none">• <i>control the helicopter’s flight path</i>• <i>analyse emergency or abnormal situation and formulate appropriate plan</i>• <i>execute abnormal or emergency drills in accordance with the Flight Manual or other appropriate document (touch drills only)</i>• <i>plan, execute and demonstrate further actions to ensure safe recovery of helicopter, passengers and crew to an airfield/LS as appropriate</i>• <i>use check list to confirm actions when time permits</i>• <i>recognize incapacitation and apply appropriate procedure correctly</i>• <i>maintain aircraft control and manage consequences</i>• <i>make suitable emergency R/T calls (given to the examiner but not transmitted)</i>
4.2	Smoke control and removal	
4.3	Engine failures, shutdown and restart at a safe height	
4.4	Fuel dumping (simulated)	
4.5	Tail rotor control failure (if applicable)	
4.5.1	Tail rotor loss (if applicable) A helicopter shall not be used for this exercise	
4.6	Incapacitation of crew member – MPH only	
4.7	Transmission malfunctions	
4.8	Other emergency procedures as outlined in the appropriate flight manual	



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Section 5 - Instrument Flight Procedures (to be performed in IMC or simulated IMC)		
5.1	Instrument take-off: transition to instrument flight is required as soon as possible after becoming airborne	<ul style="list-style-type: none">• take over control of the helicopter at agreed point in flight using pre-briefed 'handover' protocol• establish the climb, complete a smooth transition to instrument flight, and complete post-take-off checks and drills• complete the Standard Instrument Departure (SID) procedure or follow the ATC departure instructions• maintain helicopter control, speed, heading, level, and balance• apply appropriate drift corrections to maintain published departure track or as instructed by ATC• complete all necessary climb checks including altimeter-setting procedures and ice precautions• use the trim system, as appropriate• use the autopilot and fight director functions as allowed by the examiner• use instrument-scanning technique
5.1.1 M	Simulated engine failure during departure	<ul style="list-style-type: none">• maintain the desired flight path using the maximum power available• demonstrate smooth and accurate RRPM, ROC, Vmini and power management• secure the failed engine at an appropriate time• re-plan the flight taking into account OEI performance
5.2 M	Adherence to departure and arrival routes and ATC instructions	<ul style="list-style-type: none">• follow the flight-planned route, or cleared ATC route, within the operating limits specified• identify and use navigation systems correctly• use the correct altimeter setting procedures, show awareness of minimum altitudes and temperature effects• maintain a flight log for navigation, monitor flight progress and fuel situation• use the autopilot and Flight Director functions as allowed by the examiner
5.3	Holding procedures	<ul style="list-style-type: none">• use correct holding entry• make the necessary wind and time corrections• comply with applicable speed restrictions
5.4	3D operations to DH/A of 200 ft (60 m) or to higher minima if required by the approach procedure	<ul style="list-style-type: none">• verify suitability of current weather conditions• set and identify relevant navigation aids, respectively load and verify the applicable procedure• confirm the availability and serviceability of selected navigation aids, respectively GNSS/SBAS level of service, or RAIM availability, if applicable• verify that the correct procedure has been loaded in the FMS, cross-check waypoints and constraints with the relevant arrival chart



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		<ul style="list-style-type: none">• Application of temperature compensation to the final approach segment linear vertical deviation (BaroVNAV only, if applicable)• Comply with maximum approach angle• brief approach and go-around path, including altitudes and speeds• complete the checks for 3D operations approach• comply with the published arrival and approach procedures
5.4.1 M	Manually, without flight director. Note: According to the RFM, RNP APCH procedures may require the use of autopilot or Flight Director. The procedure to be flown manually shall be chosen taken into account such limitations (for example, choose an ILS for 5.4.1 in the case of such RFM limitation)	<ul style="list-style-type: none">• control the helicopter to achieve a stable and trimmed final approach path with the defined configuration• maintain LOC and GS indications within the prescribed limits, the same applies for RNP APCH to LPV and LNAV/VNAV minimums• use the trim system, as appropriate;• use applicable 3D “raw data” technique to remain inside flight path limits• in the event of radio/navigation aid/display/equipment failure; acquire visual references and continue to land or initiate missed approach by DA• obtain ATC clearances as required, and comply with all ATC instructions
5.4.2 M	Manually, with flight director	<ul style="list-style-type: none">• demonstrate appropriate use flight director command bars to maintain the specified flight path, as appropriate• understand the control logic and command bars functions employed, collective cue included, if applicable
5.4.3	With coupled autopilot	<ul style="list-style-type: none">• maintain mode awareness of auto flight system(s), including engagement and automatic transitions• revert to different modes when appropriate• detect deviations from the desired aircraft state (flight path, speed, attitude, etc.) and take appropriate action• recognize mishandled auto flight system• consider the specific limitations associated with the use of higher level of augmentation
5.4.4 M	Manually, with one engine simulated inoperative; engine failure has to be simulated during final approach before passing 1000 ft above aerodrome level until touchdown or until completion of the missed approach procedure	<ul style="list-style-type: none">• demonstrates manual aircraft control skills with smoothness and accuracy as appropriate to the situation• detects deviations through instrument scanning• maintains spare mental capacity during manual control of the helicopter• applies knowledge of the relationship between helicopter attitude, speed, and RRPM throughout power setting
5.5 M	2D operations down to the MDA/H	<ul style="list-style-type: none">• verify suitability of current weather conditions• set and identify relevant navigation aids, respectively load and verify the applicable procedure• confirm the availability and serviceability of selected navigation aids, RAIM availability when using RNAV system, if applicable



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		<ul style="list-style-type: none">• verify that the correct procedure has been loaded in the FMS, cross-check waypoints and constraints with the relevant arrival chart• Application of temperature compensation to the final approach segment, if applicable• brief approach and go-around path, including altitudes and speeds• complete the checks for 2D operations approach• maintain a stabilised approach path from FAF to MDA/H approach minima, at in such a position that a landing or go-around can be accomplished safely• comply with the published arrival and approach procedures• complete the checks and drills for landing and configure the aircraft correctly
5.6	Go-around with all engines operating on reaching DA/H or MDA/MDH	<ul style="list-style-type: none">• initiating the go-around procedure promptly by the timely application of power, establishing the proper climb attitude, and reconfiguring the helicopter in accordance with the approved procedures• complying with the appropriate missed approach procedure or ATC clearance• using RNAV guidance and automation where applicable• inform ATC when time permit
5.6.1	Other missed approach procedures	<ul style="list-style-type: none">• Refer to 5.6
5.6.2 M	Go-around with one engine simulated inoperative on reaching DA/H or MDA/MDH	<ul style="list-style-type: none">• initiate a safe OEI go-around to a OEI climb, with the appropriate configuration• demonstrates manual aircraft control skills with smoothness and accuracy as appropriate to the situation• demonstrate RRPM, speed, ROC, and power management• secure the failed engine at an appropriate time• comply with applicable altitude and speed restriction• inform ATC when time permit
5.7 M	IMC autorotation with power recovery	<ul style="list-style-type: none">• enter into autorotation whilst maintaining RRPM within the limits• adjust and maintain speed for minimum ROD• recognize adverse wind conditions and unsafe terrain clearance• complete emergency drills during descent• consider engine restart procedures• promptly recovery from autorotation without descent below the safe altitude pre-agreed with the examiner
5.8 M	Recovery from unusual attitudes	<ul style="list-style-type: none">• recognize upset condition• take appropriate action and initiate prompt and correct recovery action• demonstrate instrument-scanning technique• maintain or restore a safe flight path



Section 6 - Use of optional equipment

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Use of optional equipment

- *ACAS RA or TA anticipate potential loss of separation and recognize loss of separation*
- *EGPWS or TAWS recognize unsafe terrain clearance and restore safe flight path*



7. Standard of Completion

To pass the TR Skill Test, respectively Proficiency Check, the Candidate shall demonstrate the ability to:

- (a) operate the helicopter within its limitations;
 - (b) complete all manoeuvres with smoothness and accuracy;
 - (c) exercise good judgment and airmanship; that is, to consistently use good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives;
 - (d) apply aeronautical knowledge;
 - (e) maintain control of the helicopter at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt;
 - (f) understand and apply crew coordination and incapacitation procedures, if applicable;
- and
- (g) communicate effectively with the other crew members, if applicable
 - (h) stay within the following limits. Those tolerances are for general guidance; the Examiner should make allowance for turbulent conditions and the handling qualities and performance of the helicopter used:

IFR flight limits

Height	
Generally	± 100 ft
Starting a go-around at DA/H	+ 50/-0 ft
Minimum descent altitude/height/MAP	+ 50/-0 ft
Tracking	
On radio aids	± 5°
angular deviation (e.g. ILS, LPV)	½ scale lateral and vertical
linear lateral deviation (e.g. LNAV)	½ RNP value of the procedure
linear vertical deviation (e.g. LNAV/baro VNAV)	< 75 ft below the vertical profile, and < 75 ft above the vertical profile when less than 1'000 ft AAL
Heading	
all engines operating	± 5°
with simulated engine failure	± 10° (ME only)
Speed	
all engines operating	± 5 knots
with simulated engine failure	+ 10/-5 knots (ME only)

**Module 5.3 – TR SP/MP(H)****VFR flight limits**

Height	
Generally	±100 ft
Heading	
Normal operations	±5°
Abnormal operations/emergencies	±10°
Speed	
Generally	±10 knots
With simulated engine failure	+10 knots/-5 knots
Ground drift:	
T.O. hover I.G.E.	±3 ft
Landing	±2 ft (with 0 ft rearward or lateral flight)

Compared to requirement (a) and (f), completion standards (b) to (e) don't rely on quantitative tolerance, but on qualitative one. Usage of guidance provided in subpart 8 should provide for a fact-based and consistent assessment and decision of those qualitative requirements.



8. Knowledge, Skills and Attitude Assessment Guidance

The following tables are designed to give the Examiner guidance when assessing the Knowledge, Skills and Attitudes required by the Candidate to successfully complete each section of the test. It should aid the Examiner to assess the standard of completion elements laid down in subpart 7 under (b) to (e), and determine the result.

For each section a brief narrative of the section's objectives is provided, together with the most relevant KSAs.

Section 1 - Pre-flight preparations and checks

Planning and preparation of a safe and compliant flight, including the usage of TEM. Safe and compliant usage of the helicopter on the ground and during the transition to flight

Knowledge	<ul style="list-style-type: none">• applicable regulations (rules of the air, operational, licensing)• weather information interpretation and understanding• Notams interpretation and understanding• RFM/POH structure, relevant information usage• aeronautical charts interpretation and usage• the inspection the helicopter in accordance with an appropriate checklist and ground-safety procedures• the verification that the helicopter is in a safe condition for flight
Skill	<ul style="list-style-type: none">• flight preparation information retrieval• searching in official reference documents (e.g. RFM, AIP)• standard SOP and checklist usage• complete an appropriate passenger emergency procedure briefing for the examiner• smooth aircraft handling• communicate clearly and assertively
Attitude	<ul style="list-style-type: none">• looking for information and assess them critically• safety-minded rather than mission-minded• aware of his limited experience and abilities• aware of airframe components and equipment• allocates appropriate time for the walk round procedure and completes all required tasks at an appropriate time• determines a suitable resolution when faced with discrepancies and identifies possible defects and threats, and takes corrective action• makes a correct passenger briefing



Section 2 - Flight Manoeuvres and Procedures

Safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur

Knowledge	<ul style="list-style-type: none">• approved/recommended take-off profiles• recommended speeds V_{toss}, V_y, etc.• RRPM and engine/power limitations• sloping ground limitations• causes of dynamic rollover and preventative techniques• flying control techniques using autopilot functions, where allowed by the examiner• approved/recommended approach profiles• flare height appropriate for prevailing conditions• safe landing attitude limits
Skill	<ul style="list-style-type: none">• use an appropriate technique in order to take off and transition from the hover ensuring that the helicopter is flown within the limits set by the examiner• establish stabilised flight path in trim, with the required power, airspeed, or vertical speed, as required• maintain directional control and balance throughout• maintain lookout throughout• optimise helicopter performance by selecting best speed and RRPM for the phase of flight• adhere to an approved/recommended OEM profile• control the helicopter's altitude and heading using visual attitude flying technique• complete all necessary checks and drills throughout
Attitude	<ul style="list-style-type: none">• acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution• set priorities (Fly, Navigate, Communicate, Manage)• assertive, seek clarification of doubts and misunderstandings before acting• demonstrates orientation throughout the manoeuvre• recognises errors and takes timely and appropriate corrective action• divides attention appropriately inside and outside the cockpit• completes all required tasks at an appropriate time• identifies possible threats and takes mitigatory action• obtains appropriate ATC clearance, reads back correctly and, when necessary, requests clarification or change



Section 3 - Normal and abnormal operations of the following systems and procedures

Determine that the applicant is able to maintain control of the helicopter whilst carrying out the appropriate drills in relation to these systems as per the Flight Manual or other appropriate document

Knowledge	<ul style="list-style-type: none">• systems knowledge• on-board navigation and communication equipment use and limitation• normal operating procedures• abnormal operating procedures
Skill	<ul style="list-style-type: none">• use systems appropriate to checklists or operational requirements• analyse abnormal situations and formulate appropriate plan• execute abnormal drills in accordance with the Flight Manual or other appropriate document (touch drills only)• plan, execute, and demonstrate further actions to ensure safe recovery of helicopter, passengers, and crew to an airfield/LS as appropriate• use checklist to confirm actions when time permits• make suitable emergency R/T calls (given to the examiner but not transmitted)
Attitude	<ul style="list-style-type: none">• demonstrates terrain awareness• aware of conflicting traffic movements and of the helicopter's position in relation to external references• assesses environmental conditions• aware of the helicopter systems' state• prioritises flying tasks, normal operating procedures, and emergency operating procedures appropriately• informs ATC of situation in a timely manner and requests appropriate priority• coordinates actions with other flight crew members efficiently• recognises errors or system malfunctions, and takes timely and appropriate corrective action• re-plans flight as necessary



Section 4 - Abnormal and Emergency Procedures

Spotting, assessing, and addressing emergencies or abnormal situations using the appropriate procedures, maintaining a safe flight throughout; decisions to discontinue the flight to ensure safety, if necessary

Knowledge	<ul style="list-style-type: none">• emergency drills memory items• understanding of all emergency and abnormal procedures• precautionary landing methodology• standard phraseology for emergency and abnormal situation• transponder codes for emergency or com-loss situations• priority setting tools (e.g. PPAA or FNCM)
Skill	<ul style="list-style-type: none">• control the helicopter's flight path• analyse emergency or abnormal situation and formulate appropriate plan• execute abnormal or emergency drills in accordance with the Flight Manual or other appropriate document (touch drills only)• proper use of the applicable checklist to confirm actions when time permits• situation assessment, decision and solution implementation• make suitable emergency R/T calls (given to the examiner but not transmitted)
Attitude	<ul style="list-style-type: none">• demonstrates terrain awareness• assesses environmental conditions• information gathering and problem solving• informed decision making• awareness of time or height availability and exhaustion• informed decision making and effective implementation• aware of the helicopter systems' state and set priorities (Fly, Navigate, Communicate, Manage)• coordinates actions with other flight crew members efficiently• recognises errors or system malfunctions, and takes timely and appropriate corrective action;• re-plans flight as necessary



Section 5 - Instrument Flight Procedures (to be performed in IMC or simulated IMC)

Safe, structured and compliant IFR operation, including PBN operation, by sole reference to instruments; clear and timely communication with ATC; stable 2D / 3D approaches to MDA / DA and missed approach/landing

Knowledge	<ul style="list-style-type: none">• instrument procedures, instrument chart reading, briefing structure and purpose• radiotelephony requirements, procedures, and applicable standard phraseology• on-board navigation and communication equipment use and limitation• OEI performance limitations• governing minima and conditions to start and continue an approach• Part-CAT/NCC/NCO, particularly subparts OP, IDE and SPEC• regulatory requirements associated with the airspace used• PBN operation, limitations included on the use of GNSS/SBAS-derived navigational information• specific limitations associated with the use of higher level of augmentation
Skill	<ul style="list-style-type: none">• flight preparation information retrieval and usage of official reference documents• helicopter control by sole reference to instruments, stabilised flight path in trim• IFR charts reading (understanding and usage of information)• proficient usage of on-board navigation and communication equipment• adherence to instrument procedures• maintain mode awareness of auto flight system(s), including engagement and automatic transitions• detect deviations from the desired aircraft state (flight path, speed, etc.) and take appropriate action• recognize mishandled auto flight system• detects deviations through instrument scanning• applicable standard communication phraseology
Attitude	<ul style="list-style-type: none">• continuously acquire information and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path, weather, icing) and consider their future evolution• set priorities (Fly, Navigate, Communicate, Manage) to ensure timely completion• assertive, seek clarification of doubts and misunderstandings before acting• recognises tracking errors or system malfunctions, and takes timely and appropriate corrective action, including initiating a 'go-around' manoeuvre if the approach becomes unstable• coordinates actions with other flight crew members efficiently and delegates tasks appropriately• ready and willing to seek assistance as necessary (e.g. from ATC)• importance of throughout preparation and knowledge of IFR procedures• workload anticipation and management



Module 5.3 – TR SP/MP(H)

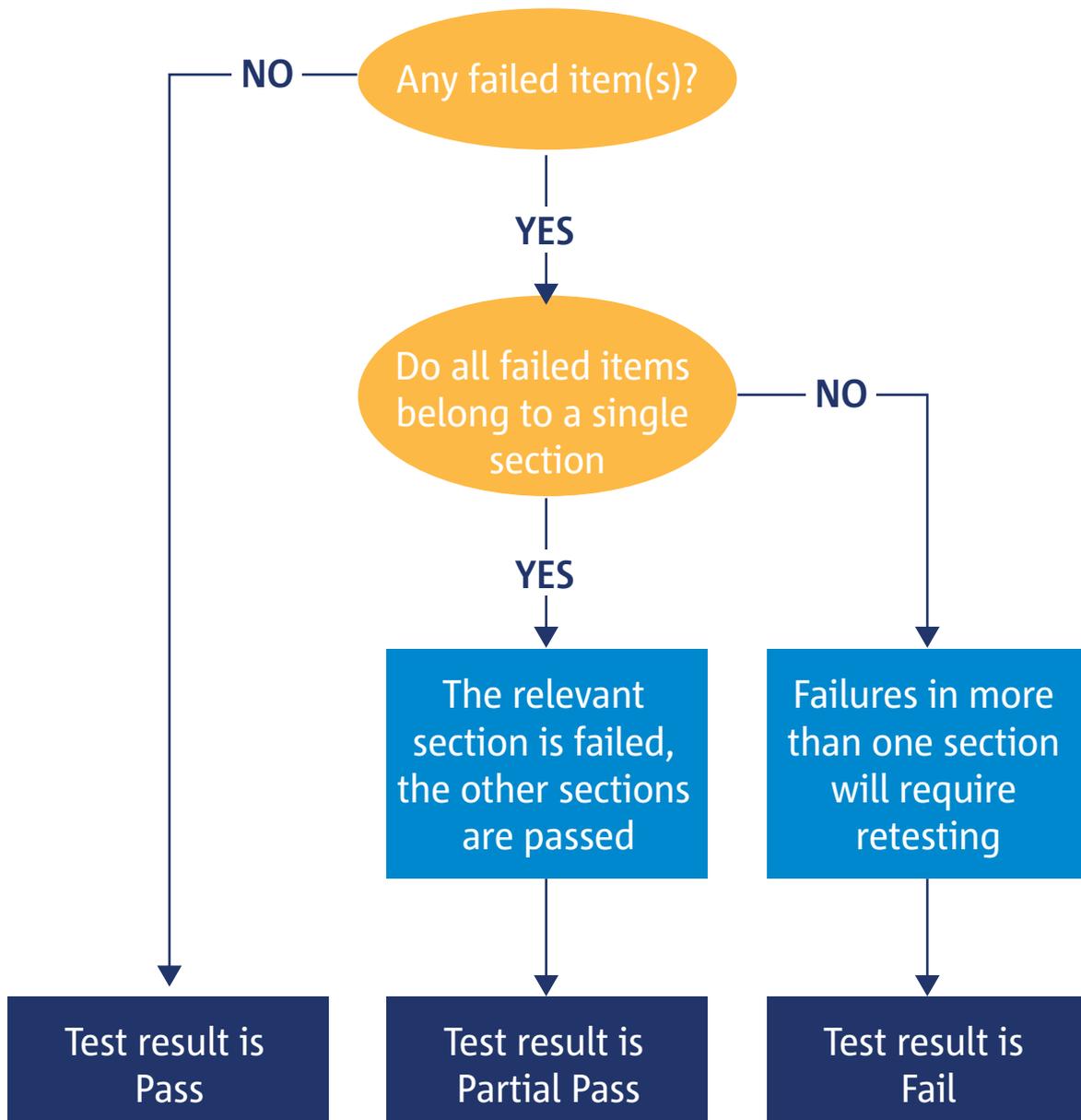
Section 6 - Use of optional equipment

Determine that the applicant is competent to operate optional equipment like EGPWS/TAWS/ACAS as fitted to the helicopter

Knowledge	<ul style="list-style-type: none">• system knowledge;• normal operating procedures• abnormal or emergency operating procedures
Skill	<ul style="list-style-type: none">• use equipment in normal, abnormal and/or emergency procedures
Attitude	<ul style="list-style-type: none">• maintains adequate lookout throughout• demonstrates terrain awareness• aware of conflicting traffic movements• prioritises flying tasks, normal operating procedures, and emergency operating procedures appropriately• coordinates actions with other flight crew members efficiently• delegates tasks appropriately.• identifies possible threats and takes mitigatory action;• recognises errors or system malfunctions, and takes timely and appropriate corrective action



9. Decision Making Flow Chart





10. Test Debriefing

The debriefing should begin with the Examiner informing the Candidate the result of the test. After that, the Examiner should make use of a facilitated discussion and emphasise the relevant strengths and weaknesses demonstrated by the Candidate. If the test is failed, the Examiner shall inform the Candidate and the training organisation regarding any training recommendation. The Candidate shall be explained their right of appeal, according to the procedures set by the Candidate's competent authority. With the agreement of the Candidate, the Examiner may allow, the responsible instructor, a Senior Examiner or an Inspector of the NAA, to take part in the debriefing.



11. Completion of all applicable records

All relevant records must be completed. Which includes, but is not limited to:

- Relevant operational documentation, aircraft logbook, closing ATS flight plan
- Skill test protocol and examiner report
 - original to the applicant, respectively as per the candidate's competent authority instructions
 - 1 copy to the candidate's competent authority
 - 1 copy to the examiner's competent authority
 - 1 copy for the examiner's records
- Candidate logbook

For any failed or partially failed test, the justification for failure must be printed on the examiner report. The ground for failure must be clear and motivated; a mere indication of which item was failed is not adequate nor sufficient. Any re-training recommendation should equally be written in the examiner report.