EASA
European Union Aviation Safety Agency

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# Flight Examiner Manual

## Module 4.1 - CR TR SPA

## CR/TR(A) Skill Test or Proficiency Check (except HPA-Complex) V2021.1

### General Applicable Framework

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|---|---|
| **Flight rules:** | VFR, VFR/IFR |
| **Operational rules:** | Part-NCO |
| **Crew concept:** | SPO, MPO, SPO/MPO |
| **Equipment:** | Aeroplane, FSTD |
| **Applicable type or class:** | SEP, MEP, SET, MET |
| **Required examiner certificate:** | FE(A) or CRE(A), with IR examination privileges, if relevant |

# 1. Introduction

The privileges of the CR/TR holder are to act as PIC on the class or type of aeroplane specified in the rating, within the privileges of the relevant aeroplane pilot license held.

The test 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. Section 3A shall be completed to revalidate a type or multi-engine class rating, VFR only, where the required experience of 10 route sectors within the previous 12 months has not been completed; however, Section 3A does not replace the route sector with examiner required under the applicable regulation. Section 3A is not required if Section 3B is completed. If the test or check includes IR revalidation or renewal, at least one of the approach shall be PBN.

Usually, the Examiner occupies the instructor seat and is the PIC. No other person, if not operationally or organisationally necessary for the conduct of the examination, should be allowed in the aeroplane or simulator. Additionally, ATO limitations, if applicable, should be considered.

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

- Passport or ID
- PPL(A) or higher
- Medical EASA Class 1 or 2, with IR checked if IR revalidation/renewal is included
- Radiotelephony privileges and language proficiency requirements
- EASA logbook, showing the relevant minimum experience and flight instruction
- Relevant CR/TR(A) 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/CR course completion certificate from the ATO
- HPA course, if first HPA CR/TR

Additionally for a revalidation proficiency check:

- for types and multi-engine class, 10 route sectors within the previous 12 months, or
- a route sector flown with an examiner (this sector could be flown before, after, or during the proficiency check)
- this requirement do not apply when the proficiency check is combined with a CAT OPC

Additionally for a renewal proficiency check:

- CR/TR refresher training completion certificate from an ATO

When the Examiner is satisfied that the prerequisite requirements are met; they should seek confirmation that the Candidate is fit and ready for the test. If so, the Examiner formally starts the test; 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-NCO, NAA, ATO, or test requirements)
- Examiner has PIC responsibility; the Candidate acts autonomously as if he was the PIC
- Handling of radiocommunications during specific parts of the test
- 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; selection of take-off rejection point
- Landing performance; selection of 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: unusual attitudes, stalls 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
- Threat and Error Management aspects

# 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. CR/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
- Emergency procedures

# 6. Skill Test and Proficiency Check items

The use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply in all sections. Section 3B and, for multi-engine, Section 6, shall be flown by sole reference to instruments if the revalidation, respectively renewal, of an IR is included in the test/check. Section 5 may be combined with sections 1 to 4; section 6, if applicable, may be combined with sections 1 to 5.

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. Expanded guidance and additional explanations are provided in the right column.

Section 7 (UPRT) relates to training only and shall not be tested. Accordingly, section 7 is not provided hereafter.

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

<table>
<tr><th></th><th>SPO</th><th>MPO</th><th>SPO to MPO (initial)</th><th>MPO to SPO (initial)</th><th>SPO + MPO</th></tr>
<tr><td>Initial Issue</td><td>Sections 1-6</td><td>Sections 1-6</td><td>Sections 1-6</td><td>SE Aeroplanes<br>1.6, 4.5, 4.6, 5.2 and one approach from section 3B, if applicable<br><br>ME Aeroplanes<br>1.6, section 6 and one approach from section 3B, if applicable</td><td>n/a</td></tr>
<tr><td>Revalidation</td><td rowspan="2">Sections 1-6</td><td rowspan="2">Sections 1-6</td><td rowspan="2">n/a</td><td rowspan="2">n/a</td><td rowspan="2">SE Aeroplanes<br>MPO part: sections1-6<br>SPO part: 1.6, 4.5, 4.6, 5.2 and one approach from section 3B, if applicable<br><br>ME Aeroplanes<br>MPO part: sections 1-6<br>SPO part: 1.6, section 6 and one approach from section 3B, if applicable</td></tr>
<tr><td>Renewal</td></tr>
</table>

Note: a conversion course SPO to MPO, respectively MPO to SPO, could only take place after the initial training, including skill test, is completed either in SPO or MPO

| Section 1 - Departure | | |
|---|---|---|
| 1 | **Pre-flight, including documentation, mass and balance, weather briefing, NOTAMs** | • *check that all documents required for the flight are carried and correct*<br>• *obtain and assess all elements of the prevailing and forecast weather conditions*<br>• *obtain and assess all aeronautical information and NOTAMS*<br>• *complete an appropriate flight navigation log, chart and flight plan*<br>• *determine that the aeroplane is correctly fuelled for the flight*<br>• *complete mass and balance schedule and establish performance criteria* |
| 2 M | **Pre-start checks: external and internal** | • *check aeroplane serviceability record and technical log*<br>• *perform all elements of the aeroplane pre-flight inspections as detailed*<br>• *confirm that the aeroplane is in a serviceable and safe condition for flight*<br>• *check and complete all necessary documentation*<br>• *complete an appropriate passenger emergency procedure briefing* |
| 3 M | **Engine starting: normal, malfunctions** | • *complete engine starting and after starting procedures as per the applicable checklist*<br>• *execute abnormal engine start procedures and analyse situation* |
| 4 M | **Taxiing** | • *complete all recommended taxiing checks and procedures*<br>• *comply with airport markings and signals*<br>• *maintain adequate spacing from other aircraft and obstacles* |
| 5 M | **Pre-departure checks: engine run-up (if applicable)** | • *ensure all systems are operating normally, respectively comply with MEL provisions, if applicable*<br>• *complete all departure checks and drills including engine operation*<br>• *ensure the aeroplane is correctly configured for departure*<br>• *obtain ATC departure clearance* |
| 6 M | **Take-off procedure: normal with flight manual flaps setting, and crosswind (if conditions are available)** | • *confirm any aeroplane performance criteria including crosswind condition*<br>• *position the aeroplane correctly for take-off and advance the power-lever/s to take off power with appropriate checks*<br>• *use the correct take-off technique using the recommended speeds for rotation/lift-off and initial climb*<br>• *ensure a safe climb and departure adjusting power and aeroplane configuration as appropriate*<br>• *complete all necessary after take-off checks* |

| | | |
|---|---|---|
| **7 M** | **Climbing: Vx/Vy, turns onto headings, level off** | • *achieve target speeds and headings*<br>• *comply with ATC instructions*<br>• *use correct and effective lookout techniques*<br>• *complete all necessary climb checks*<br>• *maintain the aeroplane in trim* |
| **8 M** | **ATC compliance and R/T procedures** | • *demonstrate standard R/T procedures and phraseology*<br>• *demonstrate compliance with ATC instructions* |

| Section 2 - Airwork (VMC) | | |
|---|---|---|
| 1 | Straight and level flight at various airspeeds including flight at critically low airspeeds with and without flaps (including approach to Vmca when applicable) | • *demonstrate control of heading, altitude and airspeed in straight and level flight by visual attitudes while maintaining a correct lookout technique*<br>• *demonstrate correct technique for visual flight manoeuvring within the specified limits*<br>• *maintain balance and trim*<br>• *demonstrate an understanding of Vmca and control recovery procedure* |
| 2 M | Steep turns (360° left and right at 45° bank) | • *demonstrate the correct lookout technique before, during and after turns*<br>• *establish and maintain throughout the turn the nominated altitude and speed*<br>• *establish and maintain a coordinated turn with the specified bank*<br>• *coordinate the recovery from turns to straight and level flight as directed by the Examiner without loss/gain of height* |
| 3 M | Stalls and recovery:<br>i. clean stall<br>ii. approach to stall in descending turn with approach configuration and power<br>iii. approach to stall in landing configuration and power<br>iv. approach to stall in climbing turn with take-off flaps and climb power (single-engine aeroplanes only) | • *consider safety checks before the manoeuvres where necessary*<br>• *establish the stall entry as appropriate from straight or turning flight and select the required aeroplane configuration*<br>• *recognise the symptoms of incipient and full stalls*<br>• *recover systematically by reducing the AoA and then re-establishing a safe and stable flight path*<br>• *complete all necessary checks and drills*<br>• *maintain lookout throughout* |
| 4 M | Handling using autopilot and flight director (may be conducted in Section 3), if applicable | • *complete correctly the necessary AP/FD pre-flight checks*<br>• *know the AP/FD limitations*<br>• *demonstrate correct operating procedures of AP/FD in all applicable modes* |
| 5 M | ATC compliance and R/T procedures | *during this section the Examiner will be responsible for most of the ATC liaison and R/T procedures but this does not absolve the applicant from taking responsibility for the management of his aeroplane and for collision avoidance* |

| Section 3A - En-route Procedures VFR | | |
|---|---|---|
| 1 | Flight plan, dead reckoning, and map reading | • *navigate by means of calculated headings, ground speed and time*<br>• *identify position visually by reference to ground features and map* |
| 2 | Maintenance of altitude, heading and speed | • *control aeroplane using visual attitude flying techniques*<br>• *maintain the heading, altitude and speed as computed in navigation log*<br>• *maintain systematic lookout* |
| 3 | Orientation, timing and revision of ETAs | • *maintain awareness of surrounding terrain, obstacles and restricted airspaces*<br>• *make appropriate adjustment to maintain, regain or correct back to track*<br>• *overfly fixes within 3 minutes of ETA* |
| 4 | Use of radio navigation aids (if applicable) | • *select and identify appropriate radio and navigation aids as required or nominated by Examiner*<br>• *intercept and maintain given tracks or radials using the navigation aids nominated* |
| 5 | Flight management (flight log, routine checks including fuel, systems and icing) | • *maintain a navigation log to monitor flight progress and fuel situation*<br>• *set engine power for cruise or endurance performance in accordance with AFM*<br>• *set and cross check altimeters to local QNH or standard pressure setting, as appropriate*<br>• *complete all necessary checks and drills* |
| 6 | ATC compliance and R/T procedures | • *maintain two way R/T communication using correct phraseology throughout*<br>• *obtain ATC clearances or flight information, as appropriate*<br>• *comply with ATC clearances and instructions when required* |

| Section 3B - Instrument Flight | | |
|---|---|---|
| 1 M | Departure IFR | • *establish the climb, complete a smooth transition to instrument flight and complete after take-off checks and drills*<br>• *follow the cleared SID or ATC departure instructions*<br>• *maintain aeroplane control, speed, heading, level and balance*<br>• *apply appropriate drift corrections to maintain assigned departure track*<br>• *identify any navigation aids used*<br>• *complete all necessary climb checks including altimeter setting procedures and ice precautions* |
| 2 M | En route IFR | • *follow the flight-planned route, or cleared ATC route, within the operating limits specified*<br>• *identify and use navigation systems correctly*<br>• *use the correct altimeter setting procedures, show awareness of minimum altitudes and temperature effects*<br>• *maintain a flight log for navigation, monitor flight progress and fuel situation*<br>• *monitor OAT and the aeroplane surfaces for ice, and take the appropriate actions if necessary* |
| 3 M | Holding procedures | • *use correct holding entry*<br>• *make the necessary wind and time corrections*<br>• *comply with applicable speed restrictions* |
| 4 M | 3D operations to DA (autopilot may be used to GS/GP intercept) | • *complete the checks and drills for landing and configure the aircraft correctly*<br>• *set and identify relevant navigation aids, respectively load and verify the applicable procedure*<br>• *confirm the availability and serviceability of selected navigation equipment, respectively GNSS/SBAS and approach activation*<br>• *comply with the published arrival and approach procedures*<br>• *establish the appropriate aeroplane configuration and airspeed for the different approach phases*<br>• *crosscheck GS/GP intercept position and altimeter settings*<br>• *establish the final approach and maintain the approach path in horizontal and vertical profile to DH/A*<br>• *control the aeroplane to achieve a stable and trimmed final approach path with the defined configuration*<br>• *acquire visual references and continue to land or initiate missed approach by DA*<br>• *if going around, establish aeroplane in a safe climb and reconfigure accordingly*<br>• *follow assigned missed approach procedure* |

| | | |
|---|---|---|
| **5 M** | **2D operations to DA/MDA (normally CDFA technique is to be used)** | • *complete the checks and drills for landing and configure the aircraft correctly*<br>• *set and identify relevant navigation aids, respectively load and verify the applicable procedure*<br>• *confirm the availability and serviceability of selected navigation equipment, respectively GNSS/SBAS and approach activation*<br>• *comply with the published arrival and approach procedures*<br>• *establish the appropriate aeroplane configuration and airspeed for the different approach phases*<br>• *establish the final approach segment and maintain the approach track and vertical profile; achieve steady and stable rates of descent and adhere to the published distance/altitude profile*<br>• *control the aeroplane to achieve a stable and trimmed final approach path with the defined configuration*<br>• *acquire visual references and continue to land or initiate missed approach by DA/MDA*<br>• *if going around, establish aeroplane in a safe climb and reconfigure accordingly*<br>• *follow assigned missed approach procedure* |
| **6 M** | **Flight exercises including simulated failure of the compass and attitude indicator: rate one turns, and recoveries from unusual attitudes** | • *recognise failure promptly*<br>• *control the aeroplane by sole reference to partial or limited instruments*<br>• *controlled straight and level flight and turns flown at rate one onto nominated headings, using the correct technique and demonstrating correct instrument scan and interpretation*<br>• *recover systematically from unusual attitudes and then re-establishing a safe and stable flight path* |
| **7** | **Failure of localiser or glideslope** | • *recognise failure promptly*<br>• *re-brief for a degraded approach and continue accordingly, or conduct a missed approach* |
| **8 M** | **ATC compliance and R/T procedures** | • *demonstrate standard R/T procedures and phraseology*<br>• *demonstrate compliance with ATC instructions* |

| Section 4 - Arrivals and landings | | |
|---|---|---|
| 1 M | Aerodrome arrival procedure | • *set altimeters and cross check as required*<br>• *comply with published arrival procedure or clearance*<br>• *maintain adequate lookout and collision avoidance*<br>• *adjust circuit pattern and speed to maintain spacing with other traffic* |
| 2 M | Normal landing | • *consider weather and wind conditions, landing surface and obstructions*<br>• *establish the recommended approach configuration, adjusting speed and rate of descent to maintain a stabilised approach*<br>• *select and achieve the appropriate touchdown area at the calculated speed*<br>• *adjust descent and flare to achieve a safe landing with little or no float with appropriate drift correction*<br>• *maintain directional control after touchdown and apply brakes for a safe roll out* |
| 3 M | Flapless landing | • *consider the increased landing distance required*<br>• *establish and maintain normal approach path*<br>• *stabilise the aeroplane at the calculated approach speed for the configuration*<br>• *adjust descent and flare to achieve a safe landing with little or no float with appropriate drift correction*<br>• *maintain directional control after touchdown and apply brakes for a safe roll out* |
| 4 | Crosswind landing (if suitable conditions) | • *consider approach speed increment*<br>• *adjust descent and flare to achieve a safe landing with little or no float with appropriate drift and crosswind correction*<br>• *utilises appropriate technique to minimise drift and undercarriage load upon landing*<br>• *maintain directional control after touchdown and apply brakes for a safe roll out* |
| 5 | Approach and landing with idle power from up to 2,000 ft AAL (single-engine aeroplane only) | • *promptly establish best glide speed*<br>• *visualise flight path to touch down and adjust trajectory and configuration accordingly*<br>• *conduct go around if the landing will not take place inside the touch down zone* |
| 6 M | Go-around from minimum height | • *execute a timely decision to discontinue the approach either when instructed or as considered necessary*<br>• *apply appropriate power and control aeroplane attitude to initiate a safe climb maintaining balance and heading*<br>• *adjust configuration and speed to achieve a positive climb at VY or VX as appropriate*<br>• *maintain take off power until a safe manoeuvring altitude is reached and then adjust to a normal climb configuration and speed*<br>• *complete all necessary checks and drills* |

| | | |
|---|---|---|
| 7 | Night go-around and landing (if applicable) | |
| 8 M | ATC compliance and R/T procedures | • *demonstrate standard R/T procedures and phraseology*<br>• *demonstrate compliance with ATC instructions*<br>• *maintain awareness of other traffic through R/T and lookout* |

| Section 5 - Abnormal and Emergency Procedures | | |
|---|---|---|
| 1 M | Rejected take-off at a reasonable speed | • *recognise need to discontinue take-off*<br>• *swiftly take the necessary actions to stop safety within remaining runway, and inform ATC*<br>• *analyse situation and decide on follow-up actions* |
| 2 M | Simulated engine failure after take-off (single-engine aeroplanes only) | • *establish safe flight speed without delay*<br>• *execute emergency drills (touch drills) without error*<br>• *time permitting, investigate possible cause of engine failure/fire and take corrective action*<br>• *plan and execute further actions to ensure safe recovery of aeroplane, passengers and crew* |
| 3 M | Simulated forced landing without power (single-engine aeroplanes only) | • *choose a suitable landing area with due regard for landing surface, surroundings and wind velocity*<br>• *plan descent to achieve a safe approach to chosen landing area such that a safe landing would be likely*<br>• *prepare for evacuation and brief passengers* |
| 4 | Simulated emergencies: i) fire or smoke in flight; and ii) systems' malfunction as appropriate | • *identify and analyse situation, and formulate appropriate plan*<br>• *execute emergency drills, if any*<br>• *execute emergency or abnormal checklist*<br>• *plan and execute further actions to ensure safe recovery of aeroplane, passengers and crew*<br>• *make appropriate emergency R/T calls (simulated)* |
| 5 | N/A (training only) | *N/A* |
| 6 | ATC compliance and R/T procedures | • *inform ATC and maintain two way R/T communication using correct phraseology*<br>• *request assistance if necessary* |

| Section 6 – Simulated Asymmetric Flight | | |
|---|---|---|
| 1 M | **Simulated engine failure during take-off (at a safe altitude unless carried out in an FFS or an FNPTII)** | • *maintain control of aeroplane direction and speed following simulated engine failure*<br>• *identify failed engine*<br>• *complete checks and drills*<br>• *establish safe climb at $V_{YSE}$ in trim* |
| 2 M | **Asymmetric approach and go-around** | • *fly a visual circuit, respectively instrument approach, with asymmetric power to establish a final approach*<br>• *maintain a stable (trimmed) approach in the correct configuration*<br>• *make a clear decision to land/go-around at or before appropriate asymmetric committal altitude/height (ACH)*<br>• *at ACH or when instructed, carry out a go-around to establish a safe climb in the recommended configuration at $V_{YSE}$* |
| 3 M | **Asymmetric approach and full stop landing** | • *fly a visual circuit, respectively instrument approach, with asymmetric power to establish a final approach*<br>• *maintain a stable (trimmed) approach in the correct configuration*<br>• *make a clear decision to land at or before ACH*<br>• *execute a safe landing at the recommended speed/configuration in the appropriate landing area* |
| 4 M | **ATC compliance and R/T procedures** | • *inform ATC of abnormal flight condition and any assistance required*<br>• *comply with ATC procedures and instructions; assertiveness* |

# 7. Standard of Completion

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

(a) operate the aeroplane 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 aeroplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt;

(f) 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 aeroplane used:

| | |
|---|---|
| height: | |
| generally | ± 100 ft |
| starting a go-around at DA | + 50/-0 ft |
| minimum descent altitude | + 50/-0 ft |
| | |
| 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) |
| | |
| 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<br>< 75 ft above the vertical profile when less than 1'000 ft AAL |

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 - Departure | |
|---|---|
| **planning and preparation of a safe and compliant flight, including the usage of TEM. Safe and compliant usage of the aircraft on the ground and during the transition to flight** | |
| **Knowledge** | • applicable regulations (rules of the air, operational, licensing)<br>• weather information interpretation and understanding<br>• Notams interpretation and understanding<br>• aircraft flight manual structure, relevant information usage<br>• aeronautical charts interpretation and usage<br>• radio communication procedures and standard phraseology |
| **Skill** | • flight preparation information retrieval<br>• searching in official reference documents (e.g. AFM, AIP)<br>• standard SOP and checklist usage<br>• smooth aircraft handling<br>• communicate clearly and assertively |
| **Attitude** | • looking for information and assess them critically<br>• safety-minded rather than mission-minded<br>• takes effective decisions<br>• assertive when in doubt<br>• aware of his limited experience and abilities |

## Section 2 - Airwork (VMC)

**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** | • aircraft pitch-power-configuration values<br>• recovery procedures from an unusual aircraft state (stall, approach to stall, spiral dive)<br>• spin prevention and spin recovery procedure<br>• causes of load-factor increase and effect on stall speed<br>• critical airspeeds (e.g. Vs, Vne, Vno, Va) and respective ASI markings |
| **Skill** | • establish stabilised flight path in trim, with the required power, airspeed, or vertical speed, as required<br>• smooth, precise, and coordinated aircraft handling<br>• smooth flight path changes, following the established SOPs<br>• correct and systematic application of recovery drills |
| **Attitude** | • acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution<br>• set priorities (Fly, Navigate, Communicate, Manage)<br>• assertive, seek clarification of doubts and misunderstandings before acting |

## Section 3A - En-route Procedures VFR

**navigating safely and effectively between A and B, in compliance with the regulation; monitoring the flight and maintaining an awareness of the changing environment; implementing adequate solutions as necessary**

| | |
|---|---|
| **Knowledge** | • navigation charts legend and charts interpretation<br>• operational flight plan usage<br>• onboard navigation and communication equipment use and limitation<br>• applicable regulation (airspace class, weather minima)<br>• radiotelephony requirements, procedures, and applicable standard phraseology |
| **Skill** | • chart and ground reading (reconciliation of ground features and chart information)<br>• proficient usage of onboard navigation and communication equipment<br>• smooth tracking of the required ground track or radio-navigation track, while maintaining altitude<br>• communicate clearly, assertively, and in due time<br>• flight replanning and diversion implementation<br>• ability to fly and navigate in simulated IMC |
| **Attitude** | • aware of the current situation and its possible evolution, and proactively generating options<br>• set priorities (Fly, Navigate, Communicate, Manage) and manage workload<br>• takes effective decisions, displaying leadership<br>• considerate about other traffics and the potential threat<br>• ready and willing to seek assistance as necessary (e.g. from ATC) |

## Section 3B - Instrument Flight

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

| | |
|---|---|
| **Knowledge** | • instrument procedures, instrument chart reading, briefing structure and purpose<br>• radiotelephony requirements, procedures, and applicable standard phraseology<br>• onboard navigation and communication equipment use and limitation<br>• governing minima and conditions to start and continue an approach<br>• Part-NCO, particularly subparts OP, IDE and SPEC<br>• PBN operation |
| **Skill** | • flight preparation information retrieval and usage of official reference documents<br>• aeroplane control by sole reference to instruments, stabilised flight path in trim<br>• IFR charts reading (understanding and usage of information)<br>• proficient usage of onboard navigation and communication equipment<br>• adherence to instrument procedures<br>• applicable standard communication phraseology |
| **Attitude** | • 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<br>• set priorities (Fly, Navigate, Communicate, Manage)<br>• assertive, seek clarification of doubts and misunderstandings before acting<br>• ready and willing to seek assistance as necessary (e.g. from ATC)<br>• importance of throughout preparation and knowledge of IFR procedures<br>• workload anticipation and management |

## Section 4 - Arrival and Landing

**safe arrival and entry into an airport area in compliance with the regulation; structured pattern and stable approach leading to a safe landing in different configurations; discontinuation of the approach or landing**

| | |
|---|---|
| **Knowledge** | • arrival procedures, standard pattern, visual approach chart reading, briefing structure and purpose<br>• engine-out pattern and key positions<br>• applicable landing techniques with different winds and configurations<br>• go around procedures and applicable SOPs<br>• radiotelephony requirements, procedures, and applicable standard phraseology<br>• post-flight actions (e.g. post-flight inspection, logbook entry, flight plan closing, occurrence reporting) |
| **Skill** | • systematic configuration changes, operated within the applicable limitations<br>• precise and stable approach path<br>• positive touch down within the designated touch down zone, at the correct speed<br>• timely decision to abort the approach or landing<br>• correct and systematic application of go-around drills<br>• safe engine-out approach and landing |
| **Attitude** | • awareness of the other traffics, their intentions, and the resulting impact<br>• mindful about the environment and its impact (e.g. wind, sun, impending fog, night)<br>• considerate for other traffics<br>• assertive radiotelephony communication |

## Section 5 - Abnormal and Emergency Procedures

**spotting, assessing, and addressing emergencies or abnormals using the appropriate procedures, maintaining a safe flight throughout; decisions to discontinue the flight to ensure safety, if necessary**

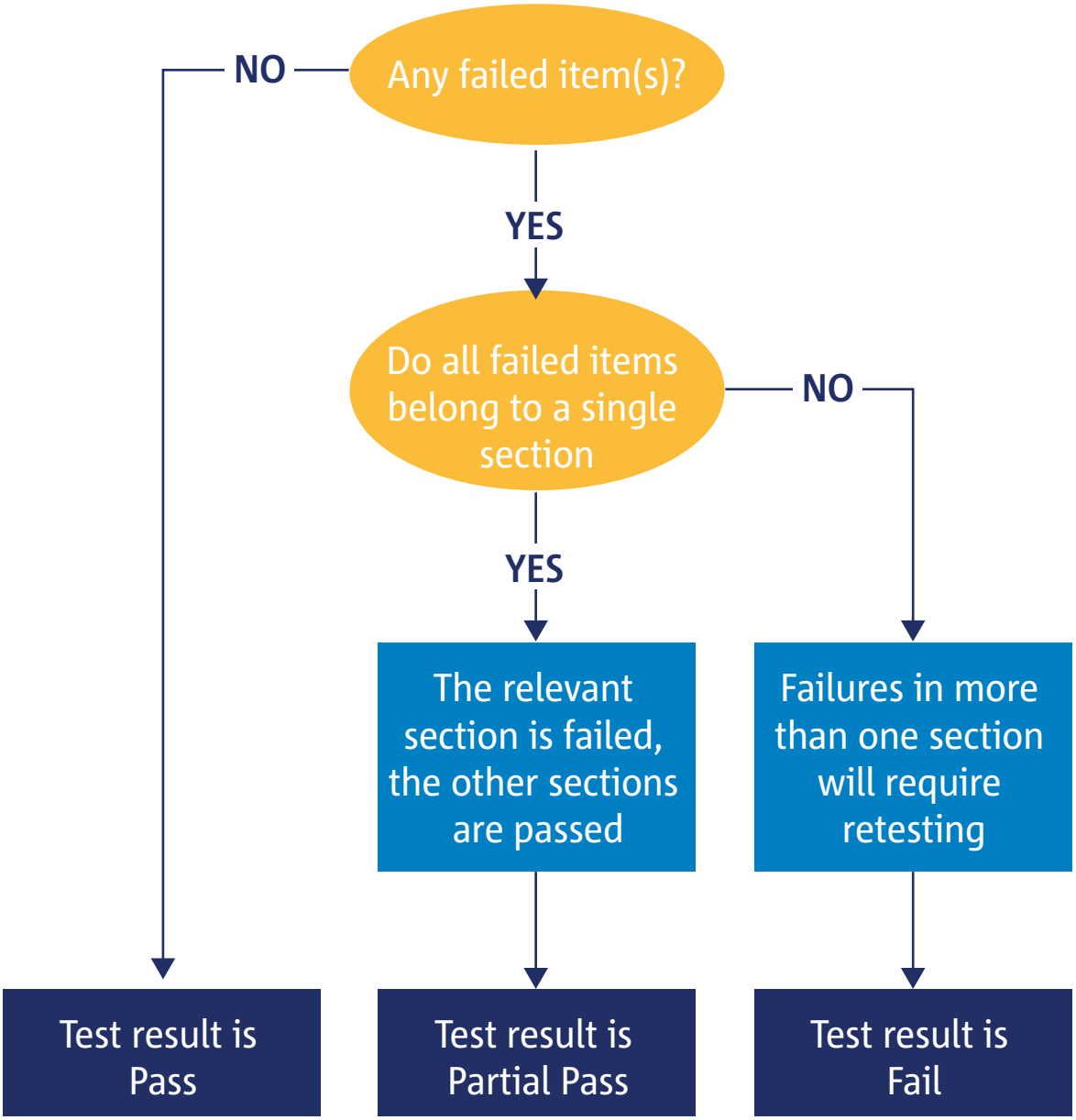
| | |
|---|---|
| **Knowledge** | • emergency drills memory items<br>• understanding of all emergency and abnormal procedures<br>• precautionary landing methodology<br>• standard phraseology for emergency and abnormal situation<br>• transponder codes for emergency or com-loss situations<br>• priority setting tools (e.g. PPAA or FNCM) |
| **Skill** | • instrument scanning for advanced information of an impending issue<br>• timely execution of emergency drills memory items<br>• proper use of the applicable checklist<br>• ability to deal with a system failure according to the AFM<br>• situation assessment, decision and solution implementation |
| **Attitude** | • information gathering and problem solving<br>• informed decision making<br>• awareness of time or height availability and exhaustion<br>• informed decision making and effective implementation<br>• set priorities (Fly, Navigate, Communicate, Manage) |

## Section 6 - Simulated Asymmetric Flight

**safe asymmetric operation during, and after, engine failure; single-engine flight path management during take-off, climb, approach, landing, and go-around; performance limitation issues**

| | |
|---|---|
| **Knowledge** | • difference between single-engine controllability and performance<br>• understanding that performance is related to excess power available<br>• multi-engine specific speeds, relevance and markings (e.g. Vsse, Vxse, Vyse, Vmca)<br>• emergency drills memory items<br>• engine failure emergency procedure<br>• specific systems operation and limitations (e.g. pressurisation, anti/de-icing) |
| **Skill** | • maintain aircraft control, and establish a stable flight path, during and after engine failure-simulation<br>• timely execution of emergency drills memory items<br>• proper use of the applicable checklist<br>• adapt aircraft configuration for single-engine operation<br>• standard phraseology for emergency and abnormal situation (e.i single-engine situation)<br>• proper usage of specific aircraft systems (e.g. pressurisation, anti/de-icing) |
| **Attitude** | • appreciation for the performance limitation and adoption of a conservative planning approach<br>• assessment of the current situation under single-engine operation<br>• realistic and effective decision making<br>• anticipation and workload management |

# 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.