



# Flight Examiner Manual

**Module 5.1 - MPA**



## Multi Pilot Aeroplane (MPA) Type and Class Rating

V2021.1

### General Applicable Framework

<b>Flight rules:</b>	VFR/IFR
<b>Operational rules:</b>	Part-CAT, Part-NCC
<b>Crew concept:</b>	MPA
<b>Equipment:</b>	Aeroplane/FSTD
<b>Applicable type or class:</b>	Aircraft to be specified in the rating
<b>Required examiner certificate:</b>	TRE/SFE/CRE(A)



# 1. Introduction

The purpose of the MPA test is to establish that a candidate has acquired or maintained the standard of proficiency necessary for the safe operation of the applicable aeroplane in:

1. controlled or uncontrolled airspace under instrument or visual flight rules as applicable;
2. both normal and non-normal operations.



## 2. Test Administration

Test profiles should be planned to make efficient use of time and airspace. The Examiner may choose between different skill test or proficiency check scenarios to ensure the mandatory items of the applicable test schedule are completed. Full-flight simulators and other training devices shall be used, as established in this Annex (Part-FCL).

Examiner's should plan 120 minutes for the test profile and 4 hours for the whole examination, avoiding protracted flight time beyond that reasonably required for the Candidate to display the required skills.

Before proceeding with the test, the Examiner shall verify that the prerequisites are met, including the skill test recommendation. The ATO/DTO shall make available the training records for verification if requested. The Examiner should verify the Candidates credentials and check documentation such as:

- Valid ID or passport;
- Medical certificate class 1 or 2, as applicable;
- Applicable pilot license and associated rating pages;
- Valid English language proficiency;
- Type rating course completion certificate;
- Confirmation of Advanced UPRT course, if applicable.

For initial MPA TR only check that the Candidate:

- Holds or has held an ME IR;
- Has passed the ATPL(A) theory exams;
- Hold an MCC course certificate or has the experience required by FCL.720.A(b)(4).

The Examiner should formally start the test when satisfied that the prerequisite requirements are met, and the Candidate is fit and ready.



## 3. Examiner Briefing

The Examiner should clearly define the roles of Examiner and Candidate during the test to ensure no ambiguity exists.

The Examiner should brief at least the following elements:

- Purpose of the test
- Applicable weather minimum
- Pass, fail, and partial pass criteria, repeat items option, and examination termination rules
- Examiner responsibility
- Freedom for the Candidate to ask questions
- Any assumptions/points of note (e.g. icing conditions in a FSTD, limitations of an FSTD)
- Flight Details – start point, intended route, fuel on board etc.

When covering the pass/fail criteria, the Examiner should brief and agree with the Candidate the minimum standards for successful completion of the test items defined in Section 7 of this module.



## 4. Candidate Flight Briefing

The Examiner should allow the Candidate adequate time to prepare for the skill test or proficiency check scenario using actual or simulated flight information as appropriate. The Examiner should facilitate an uninterrupted briefing on the flight details from the Candidate.

## 5. Oral Examination on Ground

The Examiner should verify the relevant theoretical knowledge of the Candidate during the briefing by asking questions related, as far as possible, to the planned Part-FCL appendix test items.



## 6. Skill Test and Proficiency Check items

The use of checklists, airmanship, CRM concept and control of aeroplane by external and internal visual reference apply in all sections.

The mandated skill test items are stated in the left column. Expanded guidance and additional explanations are provided in the right column.

Section 1 - Flight Preparation		
1.1	Performance calculation	<ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of performance and limitations, including a thorough knowledge of the adverse effects of exceeding any limitation.</i></li><li>• <i>Demonstrates proficient use of (as appropriate to the aeroplane) performance charts, tables, graphs or electronic versions if applicable.</i></li><li>• <i>Describes (as appropriate to the aeroplane) the airspeeds used during specific phases of flight.</i></li><li>• <i>Describes the effects of meteorological conditions upon performance characteristics and correctly applies these factors to a specific chart, table, graph or other performance data.</i></li><li>• <i>Demonstrates good planning and knowledge of procedures in applying operational factors affecting aeroplane performance.</i></li></ul>
1.4	Use of checklist prior to starting engines, starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies	<ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of the correct engine start procedures including the use of an auxiliary power unit (APU) or external power source (GPU and/or ASU), starting under various atmospheric conditions, normal and abnormal starting limitations, and the proper action required in the event of a malfunction.</i></li><li>• <i>Ensures the ground safety procedures are followed during the before-start, start, and after-start phases.</i></li><li>• <i>Ensures the use of appropriate ground crew personnel during the start procedures.</i></li><li>• <i>Performs all items of the start procedures by systematically following the approved briefing/checklist items for the before-start, start, and after-start phases.</i></li><li>• <i>Demonstrates sound judgement and operating practices in those instances where specific instructions or briefing/checklist items are not published.</i></li><li>• <i>Completes the appropriate briefing/checklist.</i></li></ul>



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<b>1.5</b>	<b>Taxiing in compliance with ATC instructions or instructions of instructor</b>	<ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of safe taxi procedures (as appropriate to the aeroplane including push-back or powerback, as may be applicable).</i></li><li>• <i>Demonstrates proficiency by maintaining correct and positive aeroplane control.</i></li><li>• <i>Maintains proper spacing on other aeroplane, obstructions, and persons.</i></li><li>• <i>Accomplishes the applicable briefing/checklist items and performs recommended procedures.</i></li><li>• <i>Complies with instructions issued by ATC (or the examiner simulating ATC).</i></li><li>• <i>Observes runway hold lines, localizer and glide slope critical areas, beacons, and other surface control markings and lighting.</i></li><li>• <i>Demonstrate awareness of factors that may cause runway incursions.</i></li><li>• <i>Maintains constant vigilance and aeroplane control during taxi operation.</i></li></ul>
<b>1.6</b>	<b>Before take-off checks</b>	<ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of the pre-takeoff checks.</i></li><li>• <i>Divides attention properly inside and outside cockpit.</i></li><li>• <i>Ensures that all systems are within their normal operating range prior to beginning, during the performance of, and at the completion of those checks required by the approved checklist.</i></li><li>• <i>Determines if the aeroplane is safe for the proposed flight</i></li><li>• <i>Determines the aeroplane's takeoff performance, considering such factors as wind, density altitude, weight, temperature, pressure altitude, and runway condition and length.</i></li><li>• <i>Completes the appropriate checklist.</i></li></ul>





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## Section 2 - Take-offs

## 2.1

Normal take-offs with different flap settings, including expedited take-off

- The Candidate exhibits adequate knowledge of normal take-offs and climbs including (as appropriate to the aeroplane) airspeeds, configurations, and emergency/ abnormal procedures.
- Notes any surface conditions, obstructions or other hazards that might hinder a safe takeoff.
- Verifies and correctly applies correction for the existing wind component to the takeoff performance.
- Completes required checks prior to starting takeoff to verify the expected engine performance. Performs all required pre takeoff checks.
- Aligns the aeroplane on the runway centreline.
- Applies the controls correctly to maintain longitudinal alignment on the centreline of the runway prior to initiating and during the takeoff.
- Adjusts the engine controls as recommended by the approved guidance for the existing conditions.
- Monitors engine controls, settings, and instruments during takeoff to ensure all predetermined parameters are maintained.
- Adjusts the controls to attain the desired pitch attitude at the predetermined airspeed to obtain the desired performance.
- Performs the required pitch changes and, as appropriate, performs or calls for and verifies the accomplishment of, gear and flap retractions, power adjustments, and other required pilot-related activities at the required airspeeds within the tolerances established in the Pilot's Operating Handbook or AFM.
- Uses the applicable noise abatement and wake turbulence avoidance procedures, as required.
- Maintains the appropriate climb airspeeds.
- Completes the appropriate checklist.

## 2.2

Instrument take-off; transition to instrument flight is required during rotation or immediately after becoming airborne

- The Candidate exhibits adequate knowledge of an instrument take-off with instrument meteorological conditions simulated at or before reaching an altitude of 100 feet (30 meters) AGL. due to IMC conditions
- Takes into account, prior to beginning the takeoff, operational factors which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.
- Accomplishes the appropriate briefing/checklist items to ensure that the aeroplane systems applicable to the instrument takeoff are operating properly.
- Sets the applicable radios/flight instruments to the desired setting prior to initiating the takeoff.
- Applies the controls correctly to maintain longitudinal alignment on the centreline of the runway prior to initiating and during the takeoff.
- Transitions smoothly and accurately from visual meteorological conditions to actual or simulated instrument meteorological conditions.
- Maintains the appropriate climb attitude.
- Complies with the appropriate airspeeds and climb segment airspeeds.
- Maintains desired heading and desired airspeeds.
- Complies with ATC clearances and instructions issued by ATC (or the examiner simulating ATC).
- Completes the appropriate briefing/checklist.



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2.3	Crosswind take-off	<ul style="list-style-type: none"><li>• The Candidate exhibits adequate knowledge of crosswind takeoffs and climbs including (as appropriate to the aeroplane) airspeeds, configurations, and emergency/ abnormal procedures.</li></ul>
2.4	Take-off at maximum take-off mass (actual or simulated maximum take-off mass)	<ul style="list-style-type: none"><li>• The Candidate exhibits knowledge of the elements of takeoff and climb at maximum take-off mass by demonstrating and/or describing-</li><li>• How to determine or estimate wind speed and direction.</li><li>• How to determine expected maximum performance.</li><li>• Takeoff and climb hazards, particularly those related to obstacles.</li><li>• The use of wing flaps that is appropriate to achieve the take off and climb performance for the runway in use.</li><li>• How to position and align the aeroplane for maximum utilisation of available takeoff area.</li><li>• Initial positioning of flight controls.</li><li>• Power application.</li><li>• Directional control during acceleration on the surface.</li><li>• Lift-off attitude and airspeed.</li><li>• Initial climb attitude and airspeed until obstacle is cleared (or 50 feet above the surface).</li><li>• Track during climb.</li><li>• Completes the appropriate briefing/checklist.</li></ul>
<b>2.5 - Take-offs with simulated engine failure:</b>		
2.5.2	between V1 and V2	<p>On a multi-engine aeroplane with published V1, VR, and/or V2 speeds, the failure of the most critical engine should be simulated at a point after V1 and prior to V2; or as close as possible after V1 when V1 and V2 or V1 and VR are identical.</p> <ul style="list-style-type: none"><li>• The Candidate exhibits adequate knowledge of the procedures used during engine failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.</li><li>• Takes into account, prior to beginning the takeoff, operational factors which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.</li><li>• Completes required checks prior to starting takeoff to verify the expected engine performance. Performs all required pre-takeoff checks as required by the appropriate checklist items.</li><li>• Aligns the aeroplane on the runway.</li><li>• Applies the controls correctly to maintain longitudinal alignment on the centreline of the runway prior to initiating and during the takeoff.</li><li>• Adjusts the engine controls as recommended by the approved guidance for the existing conditions.</li><li>• Maintains the aeroplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs.</li><li>• Completes the appropriate checklist.</li></ul>



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## 2.6

## Rejected take-off at a reasonable speed before reaching V1

To determine that the Candidate understands when to reject or continue the takeoff and:

- Exhibits adequate knowledge of the technique and procedure for accomplishing a rejected takeoff after engine/system(s) failure/warnings, including related safety factors.
- Takes into account, prior to beginning the takeoff, operational factors, which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, obstructions, and other related factors that could affect takeoff performance and could adversely affect safety.
- Aligns the aeroplane on the runway centreline.
- Performs all required pre-takeoff checks as required by the appropriate briefing/checklist items.
- Adjusts the engine controls as recommended by the approved guidance for the existing conditions.
- Applies the controls correctly to maintain longitudinal alignment on the centreline of the runway.
- Aborts the takeoff if any unsafe situation or failure occurs at a point during the takeoff where the abort procedure can be initiated, and the aeroplane can be safely stopped on the remaining runway/stopway.
- Uses spoilers, propeller reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, maintaining positive control in such a manner as to bring the aeroplane to a safe stop.
- Accomplishes the appropriate engine failure or other procedures and/or briefing/checklists as set forth in the Pilot's Operating Handbook or AFM.
- Completes the appropriate briefing/checklist.



## Section 3 - Flight manoeuvres and procedures

3.4.0  
to  
3.4.14

Normal and  
abnormal  
operations of  
Aircraft systems:

- The Candidate possesses adequate knowledge of the normal and abnormal procedures of the systems, subsystems, and devices relative to the aeroplane type (as may be determined by the examiner); knows immediate action items to accomplish, if appropriate, and proper briefing/checklist to accomplish or to call for, if appropriate.
- Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure.
- Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.
- Demonstrates proper procedures in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items.
- Demonstrates the proper use of the aeroplane systems, subsystems, and devices (as may be determined by the examiner) appropriate to the aeroplane.
- Completes the appropriate checklist.

## 3.6 - Abnormal and emergency procedures:

3.6.1  
to  
3.6.9

Abnormal and  
emergency  
procedures:

Depending on the aeroplane used these items may be checked by other means i.e. oral or by 'touch-drills' if required for safety

*In any case while simulating engine failure on a multi engine aeroplane, the Examiner or the safety pilot must be able to cope with a real failure on another engine.*

*The Examiner or the safety pilot must also know the alarm inhibitions and the inefficacy of a continuous alarm due to any failure simulation.*

Note: A mandatory minimum of three items shall be selected from 3.6.1 to 3.6.9 inclusive.

- The Candidate exhibits adequate knowledge of the emergency procedures (as may be determined by the examiner) relating to the particular aeroplane type.
- Demonstrates the proper emergency procedures (as may be determined by the examiner) relating to the particular aeroplane type.
- Demonstrates the proper procedure for any other emergency outlined (as may be determined by the examiner) in the appropriate approved AFM.
- Completes the appropriate briefing/checklist.

It is strictly forbidden to disengage circuit breakers to simulate any kind of system failure(s) /malfunction(s) in the aeroplane



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**3.8 - Instrument flight procedures:****3.8.1****Adherence to departure and arrival routes and ATC instructions**

- *The Candidate in actual or simulated instrument conditions, exhibits adequate knowledge of SIDS, Enroute Low and High-Altitude Charts, STARS, and related pilot/controller responsibilities.*
- *Uses the current and appropriate navigation publications for the proposed flight.*
- *Selects and uses the appropriate communications frequencies, and selects and identifies the navigation aids associated with the proposed flight.*
- *Performs the appropriate briefing/checklist items.*
- *Establishes communications with ATC, using proper phraseology.*
- *Complies, in a timely manner, with all instructions and airspace restrictions.*
- *Exhibits adequate knowledge of two-way radio communications failure procedures.*
- *Intercepts, in a timely manner, all courses, radials, and bearings (QDM/QDR's) appropriate to the procedure, route, clearance, or as directed by the examiner or by ATC*
- *Conducts the departure phase to a point where, in the opinion of the examiner, the transition to the enroute environment is complete.*
- *Completes the appropriate briefing/checklist.*

**3.8.3\*****3D operations to DH/A of 200 ft (60 m) or to higher minima if required by the approach procedure****PRECISION APPROACH**

NOTE: Precision approaches, using aeroplane NAVAID equipment for centreline and glideslope guidance, may be accomplished in simulated or actual instrument conditions to Decision Altitude/Height (DA/DH) and must be flown manually

The simulated engine failure should occur before initiating the final approach segment and must continue to touchdown or throughout the missed approach procedure. For the aeroplane equipped with a normal scale, the acceptable performance is a half scale deflection for the localizer/glideslope indicators, for the aeroplane equipped with an expanded scale on the localizer, the acceptable performance is inside a maximum full scale deflection for the localizer and a half scale deflection for the glideslope.

- *The Candidate exhibits adequate knowledge of the precision instrument approach procedures with all engines operating, and with one engine inoperative.*
- *Accomplishes the appropriate precision instrument approaches as selected by the examiner.*
- *Establishes two-way communications with ATC using the proper communications phraseology and techniques, either personally, or, if appropriate, directs co-pilot/safety pilot to do so, as required for the phase of flight or approach segment.*
- *Complies, in a timely manner, with all clearances, instructions, and procedures.*



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		<ul style="list-style-type: none"><li>• Advises ATC anytime the candidate is unable to comply with a clearance.</li><li>• Establishes the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions.</li><li>• Completes the aeroplane briefing/checklist items appropriate to the phase of flight or approach segment, including engine out approach and landing briefing/checklists, if appropriate.</li><li>• Prior to beginning the final approach segment, maintains the desired altitude, the desired airspeed with one engine inoperative) headings with one engine inoperative); and accurately tracks radials, courses, and bearing (QDM/QDR's).</li><li>• Selects, tunes, identifies, and monitors the operational status of ground and aeroplane navigation equipment used for the approach.</li><li>• Applies the necessary adjustments to the published DA/DH and visibility criteria for the aeroplane approach category as required, such as:<ul style="list-style-type: none"><li>• Notices to Airmen, including Flight Data Centre Procedural NOTAM'S.</li><li>• Inoperative aeroplane and ground navigation equipment.</li><li>• Inoperative visual aids associated with the landing environment.</li><li>• Weather Service reporting factors and criteria.</li><li>• Cold temperature corrections if applicable.</li></ul></li><li>• Establishes a predetermined rate of descent at the point where the electronic glide slope begins which approximates that required for the aeroplane to follow the glide slope.</li><li>• Maintains a stabilised final approach, arriving at DA/DH with no more than the maximum value described above and the airspeed with one engine inoperative) of that desired.</li><li>• Avoids descent below the DA/DH before initiating a missed approach procedure or transitioning to a landing.</li><li>• Initiates immediately the missed approach when at the DA/DH, and the required visual references for the runway are not unmistakably visible and identifiable.</li><li>• Transitions to a normal landing approach only when the aeroplane is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal manoeuvring.</li><li>• Maintains localizer and glide slope during the visual descent from DA/DH to a point over the runway where glide slope must be abandoned to accomplish a normal landing.</li><li>• Completes the appropriate briefing/checklist.</li></ul>
3.8.3.1	Manually, without flight director	<ul style="list-style-type: none"><li>• The Candidate exhibits adequate knowledge of precision approach manually, without flight director</li><li>• Demonstrates proper briefings in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items.</li></ul>



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3.8.3.4	<p>Manually, with one engine simulated inoperative during final approach, either until touchdown or through the complete missed approach procedure (as applicable), starting:</p> <p>(i) before passing 1 000 ft above aerodrome level; and</p> <p>(ii) after passing 1 000 ft above aerodrome level.</p>	<ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of altitude, speed heading control (stabilised approach)</i></li><li>• <i>Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities in compliance with published approach procedures and approach timing.</i></li><li>• <i>Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.</i></li><li>• <i>Demonstrates proper briefings in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items.</i></li><li>• <i>Completes the appropriate briefing/checklist.</i></li></ul>
3.8.4	2D operations down to the MDH/A	<p><b>NON PRECISION APPROACH</b></p> <p>NOTE: The applicant must accomplish at least one non-precision approach in simulated or actual weather conditions</p> <ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of non-precision approach procedures representative of those the applicant is likely to use.</i></li><li>• <i>Accomplishes the non-precision instrument approaches described in the scenario and/or selected by the examiner.</i></li><li>• <i>Establishes the appropriate aeroplane configuration and airspeed and completes all applicable briefing/checklist items.</i></li><li>• <i>Selects, tunes, identifies, and monitors the operational status of ground and aeroplane navigation equipment used for the approach.</i></li><li>• <i>Applies the necessary adjustments to the published Minimum Descent Altitude (MDA) and visibility criteria for the aeroplane approach category when required, such as:</i></li><li>• <i>Inoperative visual aids associated with the landing environment.</i></li><li>• <i>Weather Service reporting factors and criteria.</i></li><li>• <i>Cold temperature corrections if applicable.</i></li><li>• <i>Establishes a rate of descent that will ensure arrival at the MDA (at, or prior to reaching, the visual descent point if published) with the aeroplane in a position from which a descent from MDA to a landing on the intended runway can be made at a normal rate using normal manoeuvring.</i></li><li>• <i>Crosschecks altitude versus distances as applicable to the approach type.</i></li><li>• <i>Execute the appropriate procedure on reaching MDA</i></li><li>• <i>Executes the missed approach if the required visual references for the intended runway are not unmistakably visible and identifiable at the missed approach point.</i></li><li>• <i>Executes a normal landing from a straight-in approach</i></li><li>• <i>Completes the appropriate briefing/checklist.</i></li></ul>



## Section 4 - Missed approach procedures

### 4.4

Manual go-around with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt

- *The Candidate exhibits adequate knowledge of a go-around procedure with one engine simulated inoperative, including the conditions that dictate a rejected landing, the importance of a timely decision, the recommended airspeeds.*
- *Makes a timely decision to reject the landing for actual or simulated circumstances and makes appropriate notification when safety-of-flight is not an issue.*
- *Applies the appropriate power setting for the flight condition and establishes a pitch attitude necessary to obtain the desired performance.*
- *Establishes a positive rate of climb and climb at the appropriate airspeed to the correct acceleration altitude.*
- *Retracts the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence,*
- *Trims the aeroplane as necessary and maintains the proper ground track and altitudes during the rejected landing procedure.*
- *Accomplishes the appropriate briefing/checklist items in a timely manner in accordance with approved procedures.*
- *Completes the appropriate briefing/checklist.*





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## Section 5 - Landings

5.5	Landing with critical engine simulated inoperative	<ul style="list-style-type: none"><li>• The Candidate exhibits adequate knowledge of the flight characteristics and controllability associated with manoeuvring to a landing with (a) engine(s) inoperative (or simulated inoperative) including the controllability factors associated with manoeuvring, and the applicable emergency procedures.</li><li>• Maintains positive aeroplane control as per the AFM.</li><li>• Sets engine controls, reduces drag as necessary,</li><li>• Maintains the operating engine(s) within acceptable operating limits.</li><li>• Follows the prescribed aeroplane briefing/checklist and verifies the procedures for securing the inoperative engine(s).</li><li>• Proceeds toward the nearest suitable airport.</li><li>• Maintains, prior to beginning the final approach segment, the desired altitude the desired airspeed the desired heading and accurately tracks courses, radials, and bearing (QDM/QDR's).</li><li>• Establishes the approach and landing configuration appropriate for the runway and meteorological conditions; and adjusts the engine controls as required.</li><li>• Maintains a stabilised approach and the desired airspeed.</li><li>• Accomplishes a smooth, positively controlled transition from final approach to the touchdown area.</li><li>• Maintains positive directional control and crosswind corrections during the after-landing roll.</li><li>• Uses spoilers, propeller reverse, thrust reversers, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop after landing.</li><li>• Completes the applicable after-landing briefing/checklist items in a timely manner, after clearing the runway if appropriate, and as recommended by the manufacturer.</li></ul>
5.6	Landing with two engines inoperative: – aeroplanes with three engines: the centre engine and one outboard engine as far as practicable according to data of the AFM; and – aeroplanes with four engines: two engines at one side	<ul style="list-style-type: none"><li>• The Candidate exhibits adequate knowledge of the flight characteristics and controllability associated with manoeuvring to a landing with (a) engine(s) inoperative (or simulated inoperative) including the controllability factors associated with manoeuvring, and the applicable emergency procedures.</li><li>• Maintains positive aeroplane control.</li><li>• Establishes a bank of approximately 5°, if required, or as recommended by the manufacturer, to maintain co-ordinated flight, and properly trims for that condition.</li><li>• Sets engine controls, reduces drag as necessary,</li><li>• Correctly identifies and verifies the inoperative engine(s) after the failure (or simulated failure).</li><li>• Maintains the operating engine(s) within acceptable operating limits.</li><li>• Follows the prescribed aeroplane briefing/checklist and verifies the procedures for securing the inoperative engine(s).</li><li>• Proceeds toward the nearest suitable airport.</li><li>• Maintains, prior to beginning the final approach segment, the desired altitude the desired airspeed the desired heading and accurately tracks courses, radials, and bearing (QDM/QDR's).</li></ul>



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- *Establishes the approach and landing configuration appropriate for the runway and meteorological conditions; and adjusts the engine controls as required.*
- *Maintains a stabilised approach and the desired airspeed*
- *Accomplishes a smooth, positively controlled transition from final approach to touchdown.*
- *Maintains positive directional control and crosswind corrections during the after-landing roll.*
- *Uses spoilers, propeller reverse, thrust reversers, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop after landing.*
- *Completes the applicable after-landing briefing/checklist items in a timely manner, after clearing the runway, and as recommended by the manufacturer.*



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**Section 6 – Additional authorisation on a type rating for instrument approaches down to a DH of less than 60 m (200 ft) (CAT II/III)**

6.1	<b>Rejected take-off at minimum authorised runway visual range (RVR)</b>	<ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of Low Visibility operations: aborted take-off at minimum RVR.</i></li><li>• <i>Demonstrates the correct decision making and AFM technique for the aeroplane manoeuvring capabilities in compliance with published CAT II/III only: aborted take-off at minimum RVR.</i></li><li>• <i>Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.</i></li><li>• <i>Demonstrates proper briefings in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items.</i></li></ul>
6.2	<b>CAT II/III approaches: in simulated instrument flight conditions down to the applicable DH, using flight guidance system. Standard procedures of crew coordination (task sharing, call-out procedures, mutual surveillance, information exchange and support) shall be observed.</b>	<b>CAT II/III ONLY: ILS APPROACHES DOWN TO THE APPLICABLE DH</b> <ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge CAT II/III only: ILS approach down to the applicable DH</i></li><li>• <i>Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities in compliance with published CAT II/III only: ILS approach down to the applicable DH.</i></li><li>• <i>Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.</i></li><li>• <i>Demonstrates proper briefings in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items</i></li></ul>
6.3	<b>Go-around: after approaches as indicated in 6.2 on reaching DH. The training shall also include a go-around due to (simulated) insufficient RVR, wind shear, aeroplane deviation in excess of approach limits for a successful approach, ground/airborne equipment failure prior to reaching DH, and go-around with simulated airborne equipment failure.</b>	<b>CAT II/III ONLY: GO AROUND ON REACHING DH</b> <ul style="list-style-type: none"><li>• <i>The Candidate exhibits adequate knowledge of CAT II/III only: Go around on reaching DH</i></li><li>• <i>Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities in compliance with published CAT II/III only: Go around on reaching DH</i></li><li>• <i>Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.</i></li><li>• <i>Demonstrates proper briefings in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items</i></li></ul>



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6.4

Landing(s) with visual reference established at DH following an instrument approach. Depending on the specific flight guidance system, an automatic landing shall be performed.

**CAT II/III ONLY:  
LANDING WITH VISUAL REFERENCE ESTABLISHED AT DH**

- Exhibits adequate knowledge of CAT II/III only: Landing with visual reference established at DH
- Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities in compliance with published CAT II/III only: Landing with visual reference established at DH.
- Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.
- Demonstrates proper briefings in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items

**NOTE:** CAT II/III operations shall be accomplished in accordance with the applicable air operations requirements.



## 7. Standard of Completion

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 judgement, airmanship & decision making;
- 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 always assured;
- f) understand and apply TEM techniques, crew coordination and incapacitation procedures; and
- g) communicate effectively with the other crew members.

The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aeroplane used:

Height	
Generally,	± 100 ft
Starting a go-around at decision height/altitude	+ 50 ft/- 0 ft
Minimum descent height/MAPt/altitude	+ 50 ft/- 0 ft
Tracking	
On radio aids	±5°
For 'angular' deviations	Half-scale deflection, azimuth and glide path (e.g. LPV, ILS, MLS, GLS)
2D (LNAV) and 3D (LNAV/VNAV) 'linear' lateral deviations	cross-track error/deviation shall normally be limited to ± ½ of the RNP value associated with the procedure. Brief deviations from this standard up to a maximum of one time the RNP value are allowable.
3D linear vertical deviations (e.g. RNP APCH (LNAV/VNAV) using BaroVNAV)	not more than - 75 ft below the vertical profile at any time, and not more than + 75 ft above the vertical profile at or below 1 000 ft above aerodrome level.
Heading	
all engines operating	± 5°
with simulated engine failure	± 10°
Speed	
all engines operating	± 5 knots
with simulated engine failure	+ 10 knots/- 5 knots



## 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 - Flight Preparation	
a) planning and preparation of a safe and compliant flight, including the usage of TEM b) safe and compliant usage of the aircraft on the ground and during the transition to flight	
<b>Knowledge</b>	<ul style="list-style-type: none"><li>• Applicable regulations (rules of the air, operational, licensing)</li><li>• Weather information interpretation and understanding</li><li>• Notams interpretation and understanding</li><li>• Aircraft flight manual structure, relevant information usage</li><li>• Aeronautical charts interpretation and usage</li><li>• Radio communication procedures and standard phraseology</li><li>• Taxi instructions/clearances, if applicable.</li></ul>
<b>Skill</b>	<ul style="list-style-type: none"><li>• Flight preparation information retrieval</li><li>• Searching in official reference documents (e.g. AFM, AIP)</li><li>• Standard SOP and checklist usage</li><li>• Smooth aircraft handling</li><li>• Communicate clearly and assertive.</li><li>• Obtain taxi instructions, acknowledge taxi clearances, and review taxi routes on the airport diagram.</li><li>• Comply with ATC clearances, as appropriate</li><li>• Coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi</li></ul>
<b>Attitude</b>	<ul style="list-style-type: none"><li>• Looking for information and assess them critically</li><li>• Safety-minded rather than mission-minded</li><li>• Takes effective decisions</li><li>• Assertive when in doubt</li><li>• Aware of their limited experience and abilities</li><li>• Failure to complete checklist(s).</li><li>• Entering or crossing runways awareness</li><li>• Maintain situational awareness.</li></ul>



## Section 2 - Take-offs

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

<b>Knowledge</b>	<ul style="list-style-type: none"><li>• Effects of atmospheric conditions, including wind, on takeoff and climb performance.</li><li>• Appropriate V-speeds for takeoff and climb.</li><li>• Appropriate aircraft configuration and power setting for takeoff and climb.</li><li>• Runway markings and lighting.</li><li>• Recovery procedures from an unusual aircraft state</li></ul>
<b>Skill</b>	<ul style="list-style-type: none"><li>• Coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to takeoff in a timely manner.</li><li>• Verify the airplane is configured for takeoff.</li><li>• Establish stabilised flight path in trim, with the required power, airspeed, or vertical speed, as required</li><li>• Smooth, precise, and coordinated aircraft handling</li><li>• Retract the landing gear and flaps in accordance with manufacturer or operator procedures and limitations, as appropriate.</li><li>• Smooth flight path changes, following the established SOP.</li><li>• Follow noise abatement procedures, as practicable.</li><li>• Correct and systematic application of recovery drills</li></ul>
<b>Attitude</b>	<ul style="list-style-type: none"><li>• Acquire and update their knowledge about their position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution</li><li>• Set priorities (Fly, Navigate, Communicate, Manage)</li><li>• Assertive, seek clarification of doubts and misunderstandings before acting</li><li>• Improper aircraft configuration or settings</li><li>• Distractions, loss of situational awareness, or improper task management</li><li>• Failure to complete checklist(s)</li></ul>



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### Section 3 - Flight manoeuvres and procedures

Recognising, 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

<b>Knowledge</b>	<ul style="list-style-type: none"><li>• Emergency drills memory items</li><li>• Understanding of all emergency and abnormal procedures</li><li>• Standard phraseology for emergency and abnormal situation</li><li>• Transponder codes for emergency or com-loss situations</li><li>• Priority setting tools (e.g. TDODAR or PIOSEE)</li><li>• Engine failure emergency procedure</li><li>• Specific systems operation and limitations</li></ul>
<b>Skill</b>	<ul style="list-style-type: none"><li>• Instrument scanning for advanced information of an impending issue</li><li>• Timely execution of emergency drills memory items</li><li>• Proper use of the applicable checklist</li><li>• Ability to deal with a system failure according to the AFM</li><li>• Situation assessment, decision and solution implementation</li></ul>
<b>Attitude</b>	<ul style="list-style-type: none"><li>• Information gathering and problem solving</li><li>• Timely, informed decision making and effective implementation</li><li>• Set priorities (Fly, Navigate, Communicate, Manage)</li><li>• Appropriate evaluation of the developing situation</li></ul>

### Section 4 - Missed approach procedures

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.

<b>Knowledge</b>	<ul style="list-style-type: none"><li>• Arrival procedures, standard pattern, visual approach chart reading, briefing structure and purpose</li><li>• Engine-out pattern and key positions</li><li>• Go around procedures and applicable SOPs</li><li>• Radiotelephony requirements, procedures, and applicable standard phraseology</li></ul>
<b>Skill</b>	<ul style="list-style-type: none"><li>• Timely decision to abort the approach or landing</li><li>• Correct and systematic application of go-around procedure</li><li>• Safe engine-out approach and landing</li></ul>
<b>Attitude</b>	<ul style="list-style-type: none"><li>• Awareness of the other traffics, their intentions, and the resulting impact</li><li>• Mindful of the environment and its impact</li><li>• Assertive radiotelephony communication</li><li>• Appropriate management of the situation</li></ul>



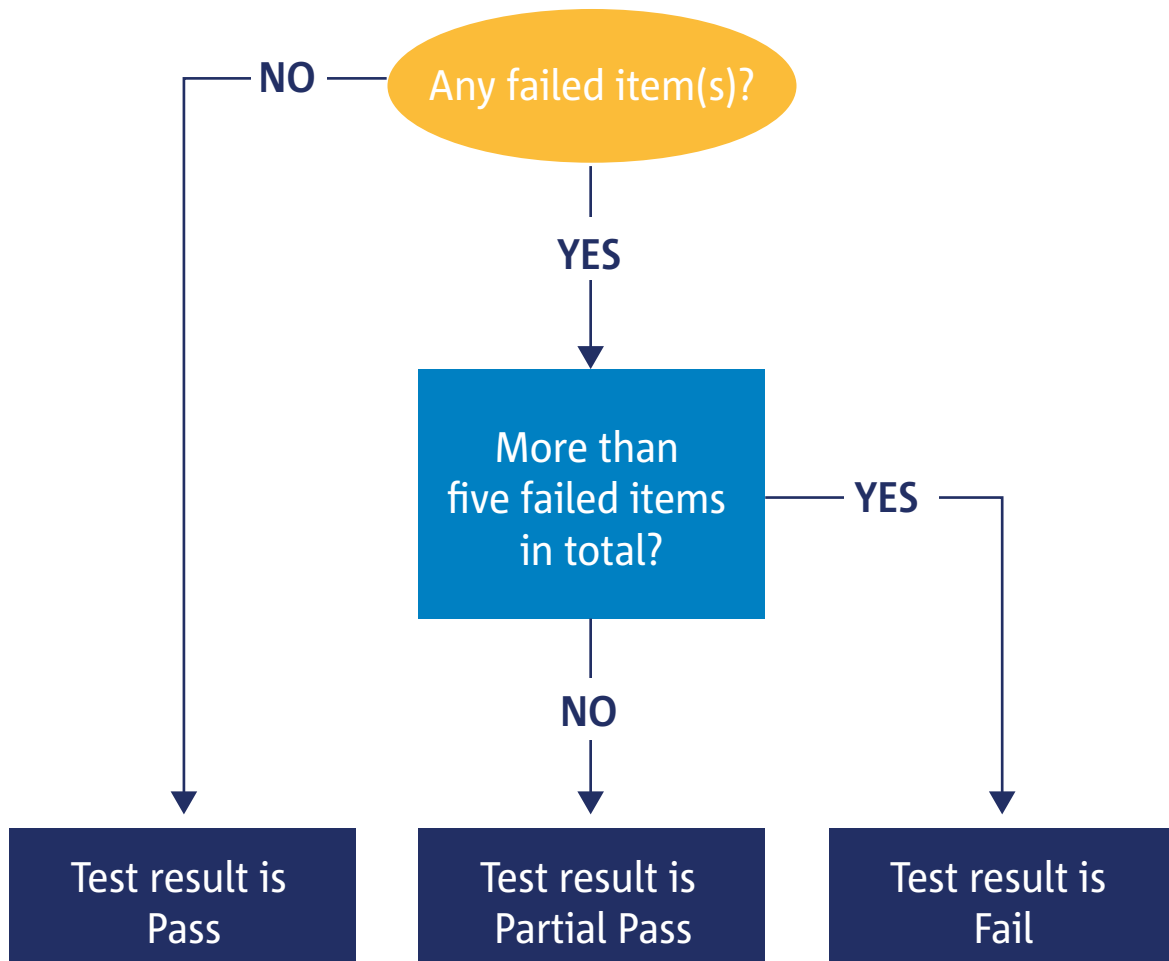


## Section 5 - Landings

<b>Knowledge</b>	<ul style="list-style-type: none"><li>• Applicable landing techniques with different winds and configurations</li><li>• Difference between single-engine controllability and performance</li><li>• Understanding that performance is related to excess power available</li><li>• Multi-engine specific speeds</li></ul>
<b>Skill</b>	<ul style="list-style-type: none"><li>• Systematic configuration changes, operated within the applicable limitations</li><li>• Precise and stable approach path</li><li>• Positive touch down within the designated touch down zone, at the correct speed</li></ul>
<b>Attitude</b>	<ul style="list-style-type: none"><li>• Appreciation for the performance limitation and adoption of a conservative planning approach</li><li>• Assessment of the current situation under single-engine operation</li><li>• Realistic and effective decision making</li><li>• Anticipation and workload management</li></ul>



## 9. Decision Making Flow Chart





## 10. Test Debriefing

The debriefing should begin with the Examiner informing the Candidate of 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 requirements. 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 required by the candidates licencing authority must be completed. Please refer to the EASA Examiner Differences Document.

For any failed or partially pass test result, 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.