

Schedule 8 Tolerances

The following Table of Contents is for guidance only and is not part of the Schedule.

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SECTION 1: FLIGHT TOLERANCES

Table 1: Aeroplane general flight tolerances – private level

1. Applicability

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) recreational pilot licence;
- (b) private pilot licence;
- (c) aircraft class rating;
- (d) Night VFR rating.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Flight path or manoeuvre		Flight tolerances
Taxing aircraft		±1.5 metres of centreline
Nominated heading		±10°
Climb airspeed		-0 / +5 kts
Level off from climb and descent		±150 ft
Straight and level	Altitude	±150 ft
	IAS	±10 kts
Power descent airspeed		±10 kts
Glide		-5 / +10 kts
Turns		Angle of Bank ±5°
Turns onto nominated headings		Heading ±10°
Steep Turn		Heading ±10°
		Height ±150 ft
Final approach airspeed		-0 / +5 kts
Landing	Touchdown	±120 m
	Centreline tracking	±2 m
Asymmetric flight	Heading – initial	±20°
	Heading - sustained	±5°
	IAS	-0 +5 kts
Limited panel instrument flying	Heading	±15°
	IAS	±10 kts or ±M0.02
	Height	±200 ft

Table 2: Aeroplane general flight tolerances – professional level**1. Applicability**

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) commercial pilot licence;
- (b) multi-crew pilot licence;
- (c) air transport pilot licence;
- (d) pilot instructor rating;
- (e) instrument rating;
- (f) private IFR rating;
- (g) flight examiner rating;
- (h) aerial application rating;
- (i) low-level rating;
- (j) aircraft type rating.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Flight path or manoeuvre		Flight tolerances
Taxing aircraft		±1.5 metres of centreline
Nominated heading		±5°
Climb airspeed		-0 / +5 kts
Level off from climb and descent		±100 ft
Straight and level	Altitude	±100 ft
	IAS	±10 kts or ±M.02 Not below minimum approach speed.
Power descent		±10 kts
Glide		-5 / +10 kts
Turns		Angle of Bank ±5°
Turns onto nominated headings		Heading ±5°
Steep Turn		Heading ±10°
		Height ±100 Ft
Final approach airspeed		-0 / +5 kts
Landing	Touchdown	±60 m For ATPL, within the published touchdown zone relevant to the runway landing distance available.
	Centreline tracking	±2 m
Asymmetric flight	Heading – initial	±20°
	Heading – sustained	±5°
	IAS	-0 +5 kts
Limited panel instrument flying	Heading	±15°

Flight path or manoeuvre		Flight tolerances
	IAS	± 10 kts or $\pm M0.02$
	Height	± 200 ft

Table 3: Helicopter general flight tolerances – private level**1. Applicability**

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) recreational pilot licence;
- (b) private pilot licence;
- (c) aircraft class rating;
- (d) NVFR rating.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Flight path or manoeuvre		Flight tolerances
Hover		±1 metre of hover point
Ground taxi/hover taxi and manoeuvring		±1 metre of track
		±5° of nominated heading
		±20% of nominated height
Climbing		-0 +5 kts nominated IAS
Level off from climb and descent		±100 ft of nominated altitude
Straight and level	Altitude	±100 ft
	IAS	±5 kts
	Heading	±5° of nominated heading
Power descent	IAS	±5 kts
	Heading	±5° of nominated heading
Turns	Angle of bank	Angle of bank ±5°
	Altitude	±100 ft of nominated altitude
Exit turn onto a heading	Initial	±15° of heading
	Sustained	±5° of heading
Level speed in IMC – U/A recovery		Not less than V_{min} IMC
Final approach airspeed		-0_+10 kts
Landing (normal)		Within a 5 metre diameter circle of nominated point
Multi-engine – 1 engine disengaged	Heading	±5° of nominated heading
	IAS	±10 kts of nominated speed/not below approach speed for configuration
Control helicopter during advanced manoeuvres – steep turns	altitude	±100 ft
	speed	±5 kts
	Exit on specified heading	±15° initially, then ±5°
	Nominated heading	±15° initially, then ±5° thorough to min descent of 500 ft

Flight path or manoeuvre		Flight tolerances
Autorotation – single engine helicopter	Heading	±5° Able to turn into the last known wind direction and maintain heading within tolerance
	IAS	±5 kts From recommended minimum rate of descent airspeed
Advanced manoeuvre – autorotative flight	Descent at nominated heading	±5°
	Manufacturer's recommended speed	±5 kts
	Steep turn altering heading	360° using 45° bank
	Best range speed and minimum descent rate	±5 kts
	Distance from the nominated touchdown or termination point	±25 m
Advanced manoeuvre – power recovery	Rotor RPM	Within limitation
	Nominated minimum descent altitude	+100 /-0 ft
	Climb speed	±5 kts

Table 4: Helicopter general flight tolerances – professional level**1. Applicability**

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) commercial pilot licence;
- (b) multi-crew pilot licence;
- (c) air transport pilot licence;
- (d) pilot instructor rating;
- (e) private IFR rating;
- (f) instrument rating;
- (g) flight examiner rating;
- (h) aerial application rating;
- (i) low-level rating;
- (j) aircraft type rating.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Flight path or manoeuvre		Flight tolerances
Hover		±0.5 metre of hover point
Ground taxi/hover taxi and manoeuvring		±1 metre of track
		±5° of nominated heading
		±20% of nominated height
Climbing		-0 +5 kts nominated IAS
Level off from climb and descent		±100 ft of nominated altitude
Straight and level	Altitude	±100 ft
	IAS	±5 kts
	Heading	±5° of nominated heading
Power descent	IAS	±5 kts
	Heading	±5° of nominated heading
Turns	Angle of bank	Angle of bank ±5°
	Altitude	±100 ft of nominated altitude
Exit turn onto a heading	Initial	±15° of heading
	Sustained	±5° of heading
Level speed in IMC – U/A recovery		Not less than V_{min} IMC
Final approach airspeed		-0, +10 kts
Landing (normal)		Within a 5 metre diameter circle of nominated point
Multi-engine – 1 engine disengaged	Heading	±5° of nominated heading
	IAS	±10 kts of nominated speed/not below approach speed for configuration

Flight path or manoeuvre		Flight tolerances
Control helicopter during advanced manoeuvres – steep turns	Altitude	±100 ft
	Speed	±5 kts
	Exit on specified heading	±15° initially, then ±5°
	Nominated heading	±15° initially, then ±5° thorough to min descent of 500 ft
Autorotation – single engine helicopter	Heading	±5° Able to turn into the last known wind direction and maintain heading within tolerance
	IAS	±5 kts From recommended minimum rate of descent airspeed
Advanced manoeuvre – autorotative flight	Descent at nominated heading	±5°
	Manufacturer's recommended speed	±5 kts
	Steep turn altering heading	360° using 45° bank
	Best range speed and minimum descent rate	±5 kts
	Distance from the nominated touchdown or termination point	±25 m
Advanced manoeuvre – power recovery	Rotor RPM	Within limitation
	Nominated minimum descent altitude	+100 /-0 ft
	Climb speed	±5 kts

Table 5: Instrument approach tolerances**1. Applicability**

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) instrument rating;
- (b) multi-crew pilot licence;
- (c) air transport pilot licence.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Parameter	Tolerance
2D approach Lateral Path Tracking	± 5° of nominated track using azimuth guidance
	± ½ scale deflection of nominated track using lateral course deviation indicator guidance
	Within the RNP value specified for the published minimum altitude
	± 2nm of a DME or GNSS arc
3D Approach Lateral Path Tracking	As above for the lateral path guidance being used
3D Approach Vertical Path	± ½ scale deflection or +/- 75 ft for RNP BARO VNAV procedure
	For an RNP LPV transients associated with aircraft configuration changes above +1/2 scale are acceptable
	Transients associated with aircraft configuration changes above +75 ft are acceptable
Minimum Altitude	+100 ft, -0 ft at published minima descent altitude Missed approach initiated not below decision altitude

Table 6: Gyroplane class rating tolerances – private**1 Applicability**

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) recreational pilot licence;
- (b) private pilot licence;
- (c) aircraft class rating;
- (d) NVFR rating.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Flight path or manoeuvre		Flight tolerances
Ground taxi/hover taxi and manoeuvring		±1.5 metres of track/centreline
		±10° of nominated heading
Climbing	Best rate	-0 +5 kts of nominated airspeed
	Best angle	±5 kts of nominated airspeed
	Heading	±5° of nominated heading
Level off from climb and descent		±100 ft of nominated altitude
Straight and level	Altitude	±100 ft
	IAS	±10 kts
	Heading	±10° of nominated heading
Power descent Airspeed/Autorotation	IAS	±10 kts
	Heading	±10° of nominated heading
	Rate of descent	±150 ft/min
Turns	Angle of bank	Angle of bank ±5°
	Altitude	±100 ft of nominated altitude
Exit turn onto a heading	Initial	±15° of heading
	Sustained	±10° of heading
Final approach airspeed		±5 kts
Touchdown		±2 metres of centreline
Landing (normal)		±50 metres of selected touchdown point

Table 7: Gyroplane class rating tolerances – professional**1. Applicability**

1.1 The flight tolerances in this subsection apply to the following licences and ratings:

- (a) commercial pilot licence;
- (b) pilot instructor rating;
- (c) instrument rating;
- (d) private IFR rating;
- (e) flight examiner rating;
- (f) aerial application rating;
- (g) low-level rating;
- (h) aircraft type rating.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Flight Path or Manoeuvre		Flight tolerances
Ground taxi and manoeuvring		±1.5 metres of track/centreline
		±10° of nominated heading
Climbing	Best rate	-0 +5kts of nominated airspeed
	Best angle	±5 kts of nominated airspeed
	Heading	±5° of nominated heading
Level off from climb and descent		±100 ft of nominated altitude
Straight and level	Altitude	±100 ft
	IAS	±5 ts
	Heading	±5° of nominated heading
Power descent Airspeed/Autorotation	IAS	±10 kts
	Heading	±10° of nominated heading
	Rate of descent	±150 ft/min
Turns	Angle of bank	Angle of bank ±5°
	Altitude	±100 ft of nominated altitude
Exit turn onto a heading	Initial	±15° of heading
	Sustained	±10° of heading
Final approach airspeed		-±5 kts
Touchdown		±2 metres of centreline
Landing (normal)		Within a 100 metre of selected touchdown point

Table 8: Aerobatics**1. Applicability**

1.1 The flight tolerances in this subsection apply to the aerobatics endorsements.

2. Requirements

2.1 A person is required to perform flight manoeuvres within the flight tolerances mentioned in this table to be assessed as competent in the associated unit of competency.

3. Flight tolerances

Manoeuvres	Parameter	Tolerances
Looping manoeuvres	Nominated line feature	$\pm 10^\circ$
	Nominated airspeed	± 10 kts
	Entry and recovery heights	± 100 ft
Rolling manoeuvres	Nominated airspeed	± 10 kts
	Direction	$\pm 10^\circ$
	Altitude	± 100 ft
Stall turn-hammerhead	Nominated air speed	± 10 kts
	Nominated line feature 180°	$\pm 15^\circ$

SECTION 2: ENGLISH LANGUAGE PROFICIENCY RATING SCALES

1. Applicability

1.1 The following rating scale applies to Aviation English language proficiency assessments:

- (a) Level 6 – expert level;
- (b) Level 5 – extended;
- (c) Level 4 – operational.

2. Requirements

2.1 Applicants are assessed for aviation English language proficiency against the rating scales in clause 3 below.

3. Rating scales

3.1 Level 6 – Expert

3.1.2 The person must communicate effectively face-to-face using clear and precise English so that each of the following is the case for the person:

- (a) pronunciation, stress, rhythm and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding;
- (b) both basic and complex grammatical structures and sentence patterns are consistently well-controlled;
- (c) vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics;
- (d) vocabulary is idiomatic, nuanced and sensitive to register;
- (e) able to speak at length with a natural, effortless flow;
- (f) varies speech flow for stylistic effect, e.g. to emphasise a point;
- (g) uses appropriate discourse markers and connectors spontaneously;
- (h) comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties;
- (i) interacts with ease in nearly all situations;
- (j) is sensitive to verbal and non-verbal cues and responds to them appropriately.

3.1.3 The person must communicate effectively in voice-only radiotelephone communications, so that each of the following is the case for the person:

- (a) uses plain English effectively;
- (b) receives appropriate responses to transmissions;
- (c) responds to transmissions and takes appropriate action;
- (d) identifies and manages communication errors and misunderstandings promptly and effectively;
- (e) seeks clarification in the time available if the message is unclear or if there is uncertainty about the message;
- (f) reacts appropriately to a variety of regional accents;
- (g) communicates effectively in unexpected, stressful or non-standard situations using standard phraseology or plain English.

3.2 Level 5 – Extended

3.2.1 The person must communicate effectively face-to-face using clear and precise English, so that each of the following is the case for the person:

- (a) stress, rhythm and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding;
- (b) basic grammatical structures and sentence patterns are consistently well-controlled. Complex structures are attempted but with errors which sometimes interfere with meaning;

- (c) vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic;
 - (d) able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors;
 - (e) comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and accent) or registers;
 - (f) interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately;
 - (g) responses are usually immediate, appropriate and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming or clarifying.
- 3.2.2 The person must communicate effectively in voice-only radiotelephone communications, so that each of the following is the case for the person:
- (a) uses plain English effectively;
 - (b) receives appropriate responses to transmissions;
 - (c) responds to transmissions and takes appropriate action;
 - (d) identifies and manages communication errors and misunderstandings promptly and effectively;
 - (e) seeks clarification in the time available if message is unclear or uncertainty exists;
 - (f) reacts appropriately to a variety of regional accents;
 - (g) communicates effectively in unexpected, stressful or non-standard situations using standard phraseology or plain English.

3.3 Level 4 – Operational

- 3.3.1 The person must communicate effectively face-to-face using clear and precise English, so that each of the following is the case for the person:
- (a) stress, rhythm and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding;
 - (b) basic grammatical structures and sentence patterns are used creatively and are usually well-controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning;
 - (c) vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances;
 - (d) produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting;
 - (e) comprehension is mostly accurate on common, concrete and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies;
 - (f) responses are usually immediate, appropriate and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming or clarifying.
- 3.3.2 The person must communicate effectively in voice-only radiotelephone communications, so that each of the following is the case for the person:
- (a) uses plain English effectively;
 - (b) receives appropriate responses to transmissions;
 - (c) responds to transmissions and takes appropriate action;
 - (d) identifies and manages communication errors and misunderstandings promptly and effectively;

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- (e) seeks clarification in the time available if message is unclear or uncertainty exists;
 - (f) reacts appropriately to a variety of regional accents;
 - (g) communicates effectively in unexpected, stressful or non-standard situations using standard phraseology or plain English.
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