CS 25.671(c)(3) requires the evaluation of any failure or event that results in a jam of a flight control surface or pilot control. This subparagraph addresses failure modes that would result in the surface or pilot control being fixed in a position. It should be assumed that the fixed position is the position that is commanded at the time of the failure due to some physical interference. The position at the time of the jam should be at any control position normally encountered during take-off, climb, cruise, normal turn manoeuvres, descent, approach, and landing. In some architectures, component jams within the system may result in failure modes other than a fixed surface or pilot control; those types of jams (such as a jammed valve) are considered under subparagraphs CS 25.671(c)(1) and (c)(2). All single jams must be considered, even if they can be shown to be extremely improbable.

Alleviation means may be used to show compliance with CS 25.671(c)(3). For this purpose, alleviation means include system reconfigurations or any other features that eliminate or reduce the consequences of a jam or permit continued safe flight and landing.

Any runaway of a flight control to an adverse position must be accounted for, as per CS 25.671(c)(1) and (c)(2), if such a runaway is due to:

— a single failure; or

— a combination of failures which are not shown to be extremely improbable.

Some means to alleviate the runaway may be used to demonstrate compliance, such as by reconfiguring the control system, deactivating the system (or a failed portion of it), overriding the runaway by a movement of the flight controls in the normal sense, eliminating the consequences of a runaway to ensure continued safe flight and landing following a runaway. The consideration of a control runaway will be specific to each application and a general interpretation of an adverse position cannot be provided. Where applicable, the applicant is required to assess the resulting surface position after a runaway, if the failure condition is not extremely improbable or can occur due to a single failure.

It is acknowledged that determining a consistent and reasonable definition of normally encountered flight control positions can be difficult. Experience from in-service aeroplanes shows that the overall failure rate for a flight control surface jam is of an order of magnitude between 10^{-6} and 10^{-7} per flight hour. This failure rate may be used to justify a definition of 'normally encountered position' and is not intended to be used to support a probabilistic assessment. Considering this in-service aeroplane data, a reasonable definition of normally encountered positions represents the range of flight control surface deflections (from neutral to the largest deflection) expected to occur in 1 000 random operational flights, without considering other failures, for each of the flight phases addressed in this AMC.

One method of establishing acceptable flight control surface deflections is to use the performance-based criteria outlined in this AMC (see sub-paragraph 7.b. below) that were established to eliminate any differences between aeroplane types. The performance-based criteria prescribe environmental and operational manoeuvre conditions, and the resulting deflections may be considered as normally encountered positions for demonstrating compliance with CS 25.671(c)(3).

All approved aeroplane gross weights and centre-of-gravity locations should be considered. However, only critical combinations of gross weight and centre-of-gravity locations should be demonstrated.

a. Compliance with CS 25.671(c)(2)

When demonstrating compliance with the failure requirements of CS 25.671(c)(2), the following safety analysis/assessment should be considered.

A safety analysis/assessment according to AMC 25.1309 should be supplemented to demonstrate that the aeroplane is capable of continued safe flight and landing following any combination of failures not shown to be extremely improbable.

The aeroelastic stability (flutter) requirements of CS 25.629 should also be considered.

b. Determination of Flight Control System Jam Positions — CS 25.671(c)(3)

The following flight phases should be considered: 'take-off', 'in-flight' (climb, cruise, normal turn manoeuvres, descent, and approach), and 'landing' (refer to the definitions in paragraph 4. DEFINITIONS of this AMC).

CS 25.671(c)(3) requires that the aeroplane be capable of landing with a flight control or pilot control jam. The aeroplane should, therefore, be evaluated for jams in the landing configuration.

Only the aeroplane rigid body modes need to be considered when evaluating the aeroplane response to manoeuvres and continued safe flight and landing.

It should be assumed that, if the jam is detected prior to V_1, the take-off will be rejected.

Although 1 in 1 000 operational take-offs is expected to include crosswinds of 46 km/h (25 kt) or greater, the short exposure time associated with a flight control surface jam occurring between V_1 and V_{LOF} allows usage of a less conservative crosswind magnitude when determining normally encountered lateral and directional control positions. Given that lateral and directional flight controls are continuously used to maintain runway centre line in a crosswind take-off, and that flight control inputs greater than those necessary at V_1 occur at speeds below V_1, any jam in these flight control axes during a crosswind take-off is normally detected prior to V_1. Considering the flight control jam failure rate combined with the short exposure time between V_1 and V_{LOF}, a reasonable crosswind level for the determination of jammed lateral or directional flight control positions during take-off is 28 km/h (15 kt).

A similar reasoning applies for the approach and landing flight phases. It leads to consider that a reasonable crosswind level for the determination of jammed lateral or directional control positions during approach and landing is 28 km/h (15 kt).

The jam positions to be considered in demonstrating compliance should include any position up to the maximum position determined by the following manoeuvres. The manoeuvres and conditions described in this paragraph should only be used to determine the flight control surface and pilot control deflections to evaluate the continued safe flight and landing capability, and should not be used for the evaluation of flight test manoeuvres; see paragraph 7.e below.

(1) Jammed Lateral Control Positions

(i) Take-off: The lateral flight control position for wings level at V_1 in a steady crosswind of 28 km/h (15 kt) (at a height of 10 m (35 ft) above the take-off surface). Variations in wind speed from a 10-m (35-ft) height can be obtained using the following relationship:

$V_{alt} = V_{10metres} * (H_{desired}/10.0)^{1/7}$

where:

$V_{10metres}$ = wind speed in knots at 10 m (35 ft) above ground level (AGL)

V_{alt} = wind speed at desired altitude (kt)

$H_{desired}$ = desired altitude for which wind speed is sought (AGL), but not lower than 1.5 m (5 ft)

(ii) In-flight: The lateral flight control position to sustain a 12-degree/second steady roll rate from $1.23V_{SR1}$ to V_{MO}/M_{MO} or V_{FE}, as appropriate, but not greater than 50 % of the control input.

(iii) Landing (including flare): The maximum lateral control position is the greater of:

(A) the peak lateral control position to maintain wings level in response to a steady crosswind of 28 km/h (15 kt), in manual or autopilot mode; or

(B) the peak lateral control position to maintain wings level in response to an atmospheric discrete lateral gust of 16 km/h (15 ft/s) from sea level to 6 096 m (20 000 ft).

Note: If the flight control system augments the pilot's input, then the maximum surface deflection to achieve the above manoeuvres should be considered.

(2) Jammed Longitudinal Control Positions

(i) Take-off: The following three longitudinal flight control positions should be considered:

(A) Any flight control position from that which the flight controls naturally assume without pilot input at the start of the take-off roll to that which occurs at V_1 using the procedures recommended by the aeroplane manufacturer.

Note: It may not be necessary to consider this case if it can be demonstrated that the pilot is aware of the jam before reaching V_1 (for example, through a manufacturer's recommended AFM procedure).

(B) The longitudinal flight control position at V_1 based on the procedures recommended by the aeroplane manufacturer including the consideration for any runway condition for which the aeroplane is approved to operate.

(C) Using the procedures recommended by the aeroplane manufacturer, the peak longitudinal flight control position to achieve a steady aeroplane pitch rate of the lesser of 5°/s or the pitch rate necessary to achieve the speed used for all-engines-operating initial climb procedures (V_2+XX) at 35 ft.

(ii) In-flight: The maximum longitudinal flight control position is the greater of:

(A) the longitudinal flight control position required to achieve steady state normal accelerations from 0.8 to 1.3 g at speeds from $1.23V_{SR1}$ to V_{MO}/M_{MO} or V_{FE}, as appropriate;

(B) the peak longitudinal flight control position commanded by the autopilot and/or stability augmentation system in response to atmospheric discrete vertical gust of 16 km/h (15 ft/s) from sea level to 6 096 m (20 000 ft).

(iii) Landing: Any longitudinal control position required, in manual or autopilot mode, for performing a flare and landing, using the procedures recommended by the aeroplane manufacturer.

(3) Jammed Directional Control Positions

(i) Take-off: The directional flight control position for take-off at V_1 in a steady crosswind of 28 km/h (15 kt) (at a height of 10 m (35 ft) above the take-off surface). Variations in wind speed from a height of 10 m (35 ft) can be obtained using the following relationship:

$V_{alt} = V_{10metres} * (H_{desired}/10.0)^{1/7}$

where:

$V_{10metres}$ = wind speed in knots at 10 m above ground level (AGL)

V_{alt} = wind speed at desired altitude

$H_{desired}$ = desired altitude for which wind speed is sought (AGL), but not lower than 1.5 m (5 ft)

(ii) In-flight: The directional flight control position is the greater of:

(A) the peak directional flight control position commanded by the autopilot and/or stability augmentation system in response to atmospheric discrete lateral gust of 16 km/h (15 ft/s) from sea level to 6 096 m (20 000 ft);

(B) maximum rudder angle required for lateral/directional trim from $1.23V_{SR1}$ to the maximum all-engines-operating airspeed in level flight with climb power, but not to exceed V_{MO}/M_{MO} or V_{FE} as appropriate. While more commonly a characteristic of propeller aeroplane, this addresses any lateral/directional asymmetry that can occur in flight with symmetric power; or

(C) for approach, the peak directional control position commanded by the pilot, autopilot and/or stability augmentation system in response to a steady crosswind of 28 km/h (15 kt).

(iii) Landing: The maximum directional control position is the greater of:

(A) the peak directional control position commanded by the pilot, autopilot and/or stability augmentation system in response to a steady crosswind of 28 km/h
(15 kt); or

(B) the peak lateral control position to maintain wings level in response to an atmospheric discrete lateral gust of 16 km/h (15 ft/s) from sea level to 6 096 m (20 000 ft).

(4) Control Tabs, Trim Tabs, and Trimming Stabilisers

Any tabs installed on flight control surfaces are assumed jammed in the position that is associated with the normal deflection of the flight control surface on which they are installed.

Trim tabs and trimming stabilisers are assumed jammed in the positions that are associated with the procedures recommended by the aeroplane manufacturer for take-off and that are normally used throughout the flight to trim the aeroplane from $1.23V_{SR1}$ to V_{MO}/M_{MO} or V_{FE}, as appropriate.

(5) Speed Brakes

Speed brakes are assumed jammed in any position for which they are approved to operate during flight at any speed from $1.23V_{SR1}$ to V_{MO}/M_{MO} or V_{FE}, as appropriate. Asymmetric extension and retraction of the speed brakes should be considered. Roll spoiler jam (asymmetric spoiler panel) is addressed in paragraph 7.b(1).

(6) High-Lift Devices

Leading edge and trailing edge high-lift devices are assumed to jam in any position for take-off, climb, cruise, approach, and landing. Skew of high-lift devices or asymmetric extension and retraction should be considered. CS 25.701 requires a mechanical interconnection (or equivalent means) between flaps or slats, unless the aeroplane has safe flight characteristics with the asymmetric flaps or slats positions.

(7) Load Alleviation Systems

(i) Gust Load Alleviation Systems: At any airspeed between $1.23V_{SR1}$ to V_{MO}/M_{MO} or V_{FE}, as appropriate, the flight control surfaces are assumed to jam in the maximum position commanded by the gust load alleviation system in response to an atmospheric discrete gust with the following reference velocities:

(A) 16 km/h (15 ft/s) equivalent airspeed (EAS) from sea level to 6 096 m (20 000 ft) (vertical gust);

(B) 16 km/h (15 ft/s) EAS from sea level to 6 096 m (20 000 ft) (lateral gust).

(ii) Manoeuvre Load Alleviation Systems: At any airspeed between $1.23V_{SR1}$ to V_{MO}/M_{MO} or V_{FE}, as appropriate, the flight control surfaces are assumed to jam in the maximum position commanded by the manoeuvre load alleviation system during a pull-up manoeuvre to 1.3 g or a push-over manoeuvre to 0.8 g.

c. Considerations for jams just before landing — CS 25.671(c)(3)(i) and (ii)

CS 25.671(c)(3)(ii) requires that failures (leading to a jam) must be assumed to occur anywhere within the normal flight envelope and during any flight phase from take-off to landing. This includes the flight phase just before landing and the landing itself. For the determination of the jam position per CS 25.671(c)(3)(i) and the assessment of continued safe flight and landing, guidance is provided in this AMC. However, there might be exceptional cases where it is not possible to demonstrate continued safe flight and landing. Even jam alleviation means (e.g., disconnection units) might not be efficient because of the necessary time for the transfer of pilot controls.

For these exceptional cases, the compliance to CS 25.671(c)(3)(ii) may be shown by demonstrating that the occurrence of a jam just before landing is extremely improbable.

Therefore, the overall compliance to CS 25.671(c)(3)(ii) for the flight phase just before landing may be performed as follows:

(1) Demonstrate continued safe flight and landing after a jam has occurred just before landing.

Note: The assessment of continued safe flight and landing in paragraph 7.e. below also applies to jams occurring just before landing;

(2) If continued safe flight and landing cannot be demonstrated, perform a qualitative assessment of the design, relative to jam prevention features and jam alleviation means, to show that all practical precautions have been taken; or

(3) As a last resort, after agreement by EASA, use data from in-service aeroplanes to support an extremely improbable argument (without use of at-risk time).

The typical means of jam prevention/alleviation include low-friction materials, dual-rotation bearings, clearances, jack catchers, priority switch on sidestick.

d. Jam Combinations Failures — CS 25.671(c)(3)

In addition to the demonstration of jams at 'normally encountered position', compliance with CS 25.671(c)(3) should include an analysis that shows that a minimum level of safety exists when a jam occurs. This additional analysis must show that in the presence of a jam considered under CS 25.671(c)(3), the failure conditions that could prevent continued safe flight and landing have a combined probability of 1/1 000 or less.

As a minimum, this analysis should include elements such as a jam breakout or override, disconnection means, alternate flight surface control, alternate electrical or hydraulic sources, or alternate cable paths. This analysis should help to determine the intervals for scheduled maintenance activity or the operational checks that ensure the availability of the alleviation or compensation means.

e. Assessment of Continued Safe Flight and Landing — CS 25.671(c)

Following a flight control system failure of the types discussed in paragraphs 7.a., 7.b., 7.c. and 7.d. of this AMC, the manoeuvrability and structural strength criteria defined in the following paragraphs should be considered to determine the capability of continued safe flight and landing of the aeroplane. Additionally, a pilot assessment of the aeroplane handling qualities should be performed, although this does not supersede the criteria provided below.

A local structural failure (e.g. via a mechanical fuse or shear-out) that could lead to a surface departure from the aeroplane should not be used as a means of jam alleviation.

(1) Flight Characteristics

(i) *General.* Following a flight control system failure, appropriate procedures may be used including system reconfiguration, flight limitations, and flight crew resource management. The procedures for safe flight and landing should not require exceptional piloting skills or strengths.

Additional means of control, such as a trim system, may be used if it can be shown that the system is available and effective. Credit should not be given to the use of differential engine thrust to manoeuvre the aeroplane. However, differential thrust may be used after the recovery in order to maintain lateral/directional trim.

For the cases of longitudinal flight control surface and pilot control jams during take-off prior to rotation, it is necessary to show that the aeroplane can be safely rotated for lift-off without consideration of field length available.

(ii) *Transient Response.* There should be no unsafe conditions during the transient condition following a flight control system failure. The evaluation of failures or manoeuvres that lead to a jam is intended to be initiated from 1-g wings level flight conditions. For this purpose, continued safe flight and landing (within the transition phase) is generally defined as not exceeding any one of the following criteria:

(A) a load on any part of the primary structure sufficient to cause a catastrophic structural failure;

(B) catastrophic loss of flight path control;

(C) exceedance of V_{DF}/M_{DF};

(D) catastrophic flutter;

(E) excessive vibration or excessive buffeting conditions;

(F) bank angle in excess of 90 degrees.

In connection with the transient response, compliance with the requirements of CS 25.302 should be demonstrated. While V_F is normally an appropriate airspeed limit to be considered regarding continued safe flight and landing, temporary exceedance of V_F may be acceptable as long as the requirements of CS 25.302 are met.

Paragraph 7.b. of this AMC provides a means to determine flight control surface deflections for the evaluation of flight control jams. In some cases, aeroplane roll, pitch rate, or normal acceleration is used as a basis to determine these deflections. The roll or pitch rate and/or normal acceleration that is used to determine the flight control surface deflection need not be included in the evaluation of the transient condition. For example, the in-flight lateral flight control position determined in paragraph 7.b.(1)(ii) is based on a steady roll rate of 12°/s. When evaluating this condition, either by analysis, simulation, or in-flight demonstration, the resulting flight control surface deflection is simply input while the aeroplane is in wings level flight, at the appropriate speed, altitude, etc. During this evaluation, the actual roll or pitch rate of the aeroplane may or may not be the same as the roll or pitch rate used to determine the jammed flight control surface position.

(iii) *Delay Times.* Due consideration should be given to the delays involved in pilot recognition, reaction, and operation of any disconnection systems, if applicable.

Delay = Recognition + Reaction + Operation of Disconnection

Recognition is defined as the time from the failure condition to the point at which a pilot in service operation may be expected to recognise the need to take action. Recognition of the malfunction may be through the behaviour of the aeroplane or a reliable failure warning system, and the recognition point should be identified but should not normally be less than 1 second. For flight control system failures, except the types of jams addressed in CS 25.671(c)(3), control column or wheel movements alone should not be used for recognition.

The following reaction times should be used:

Flight condition	Reaction time
On ground	1 second*
In air (< 300 m (1 000 ft) above ground level (AGL))	1 second*
Manual flight (> 300 m (1 000 ft) AGL)	1 second*
Automatic flight (> 300 m (1 000 ft) AGL)	3 seconds
*3 seconds if the control must be transferred between the pilots.	

The time required to operate any disconnection system should be measured either through ground test or flight test. This value should be used during all analysis efforts. However, flight test or manned simulation that requires the pilot to operate the disconnection includes this extra time, therefore, no additional delay time would be needed for these demonstrations.

(iv) *Manoeuvre Capability for Continued Safe Flight and Landing.* If, using the procedures recommended by the aeroplane manufacturer, the following manoeuvres can be performed following the failure, it will generally be considered that continued safe flight and landing has been shown:

(A) A steady 30° banked turn to the left or right;

(B) A roll from a steady 30° banked turn through an angle of 60° so as to reverse the direction of the turn in not more than 11 seconds (in this manoeuvre, the rudder may be used to the extent necessary to minimise side-slip, and the manoeuvre may be unchecked);

(C) A push-over manoeuvre to 0.8 g, and a pull-up manoeuvre to 1.3 g;

(D) A wings level landing flare in a 90° crosswind of up to 18.5 km/h (10 kt) (measured at 10 m (33 ft) above the ground); and

(E) The aeroplane remains on the paved runway surface during the landing roll, until reaching a complete stop.

Note: In the case of a lateral or directional flight control system jam during take-off as described in paragraph 7.b(1) or 7.b(3) of this AMC, it should be shown that the aeroplane can safely land on a suitable runway, without crosswind and with crosswind in the same direction as during take-off and at speeds up to the value at which the jam was established.

(v) *Control Forces.* The short- and long-term control forces should not be greater than 1.5 times the short- and long-term control forces allowed by CS 25.143(d) or CS 25.143(k) as applicable.

Short-term forces have typically been interpreted to mean the time required to accomplish a configuration or trim change. However, taking into account the capability of the crew to share the workload, the short-term forces provided in CS 25.143(d) or CS 25.143(k), as applicable, may be appropriate for a longer duration, such as the evaluation of a jam on take-off and return to landing.

During the recovery following the failure, transient control forces may exceed these criteria to a limited extent. Acceptability of any exceedance will be evaluated on a case-by-case basis.

(2) Structural Strength for Flight Control System Failures.

(i) Failure Conditions *per* CS 25.671(c)(1) and (c)(2). It should be shown that the aeroplane maintains structural integrity for continued safe flight and landing. This should be accomplished by demonstrating compliance with CS 25.302, where applicable, unless otherwise agreed with EASA.

(ii) Jam Conditions per CS 25.671(c)(3). It should be shown that the aeroplane maintains structural integrity for continued safe flight and landing. Recognising that jams are infrequent occurrences and that margins have been taken in the definition of normally encountered positions in this AMC, an acceptable means of compliance for structural substantiation of jam conditions is provided below in paragraph 7.e.(2)(iii).

(iii) Structural Substantiation. The loads considered as ultimate should be derived from the following conditions at speeds up to the maximum speed allowed for the jammed position or for the failure condition:

(A) Balanced manoeuvre of the aeroplane between 0.25 and 1.75 g with high-lift devices fully retracted and in en-route configurations, and between 0.6 and 1.4 g with high-lift devices extended;

(B) Vertical and lateral discrete gusts corresponding to 40 % of the limit gust velocity specified at V_c in CS 25.341(a) with high-lift devices fully retracted, and a 5.2-m/s (17-ft/s) vertical and a 5.2-m/s (17-ft/s) head-on gust with high-lift devices extended. The vertical and lateral gusts should be considered separately.

A flexible aeroplane model should be used for load calculations, where the use of a flexible aeroplane model is significant for the loads being assessed.

8. EVALUATION OF ALL-ENGINES-FAILED CONDITION — CS 25.671(d)

a. Explanation.

The intent of CS 25.671(d) is to assure that in the event of failure of all engines, the aeroplane will be controllable, an approach and a flare to a landing and to a ditching is possible, and, assuming that a suitable runway is available, the aeroplane is controllable on ground and can be stopped.

In this context:

— 'flare to a landing/ditching' refers to the time until touchdown;

— 'suitable runway' is a hard-surface runway or equivalent for which the distance available following touchdown is consistent with the available aeroplane ground deceleration capability.

Although the rule refers to 'flare to a landing' with the implication that the aeroplane is on a runway, it is recognised that, with all engines inoperative, it may not be possible to reach a suitable runway or landing surface. In this case, the aeroplane must still be able to make a flare to a landing attitude.

Compliance with CS 25.671(d) effectively requires that the aeroplane is equipped with a source(s) of emergency power, such as an air-driven generator, windmilling engines, batteries, or other power source, capable of providing adequate power to the systems that are necessary to control the aeroplane.

Analysis, simulation, or a combination of analysis and simulation may be used to demonstrate compliance where the methods are shown to be reliable.

b. Procedures.

(1) The aeroplane should be evaluated to determine that it is possible, without requiring exceptional piloting skill or strength, to maintain control following the failure of all engines and attain the parameters provided in the operational procedure of the aeroplane flight manual (AFM), taking into account the time necessary to activate any backup systems. The aeroplane should also remain controllable during restart of the most critical engine, whilst following the AFM recommended engine restart procedures.

(2) The most critical flight phases, especially for aeroplanes with emergency power systems dependent on airspeed, are likely to be the take-off, the landing, and the ditching. Credit may be taken from the hydraulic pressure and/or the electrical power produced while the engines are spinning down and from any residual hydraulic pressure remaining in the system. Sufficient power must be available to complete a wings level approach and flare to a landing, and flare to a ditching.

Analyses or tests may be used to demonstrate the capability of the control systems to maintain adequate hydraulic pressure and/or electrical power during the time between the failure of the engines and the activation of any power backup systems. If any of the power backup systems rely on aerodynamic means to generate the power, then a flight test should be conducted to demonstrate that the power backup system can supply adequate electrical and/or hydraulic power to the control systems. The flight test should be conducted at the minimum practical airspeed required to perform an approach and flare to a safe landing and ditching attitude.

(3) The manoeuvre capability following the failure of all engines should be sufficient to complete an approach and flare to a landing, and flare to a ditching. Note that the aeroplane weight could be extremely low (e.g. the engine failures could be due to fuel exhaustion). The maximum speeds for approach and landing/ditching may be limited by other CS-25 specifications (e.g. tyre speeds, flap or landing gear speeds, etc.) or by an evaluation of the average pilot ability to conduct a safe landing/ditching. At an operational weight determined for this case and for any other critical weights and positions of the centre of gravity identified by the applicant, at speeds down to the approach speeds appropriate to the aeroplane configuration, if the following manoeuvres can be performed, it will generally be considered that compliance has been shown:

(i) a steady 30° banked turn to the left or right;

(ii) a roll from a steady 30° banked turn through an angle of 60° so as to reverse the direction of the turn in not more than 11 s (in this manoeuvre, the rudder may be used to the extent necessary to minimise side-slip, and the manoeuvre may be unchecked);

(iii) a push-over manoeuvre to 0.8 g, and a pull-up manoeuvre to 1.3 g;

(iv) a wings level landing flare in a 90° crosswind of up to 18.5 km/h (10 kt) (measured at 10 m (33 ft) above the ground).

Note: If the loss of all engines has no effect on the flight control authority of the aeroplane, then the results of the flight tests of the basic handling qualities with all engines operating may be used to demonstrate the satisfactory handling qualities of the aeroplane with all engines failed.

(4) It should be possible to perform a flare to a safe landing and ditching attitude, in the most critical configuration, from a stabilised approach using the recommended approach speeds, pitch angles, and the appropriate AFM procedures, without requiring exceptional piloting skills or strengths. For transient manoeuvres, forces are allowed up to 1.5 times those specified in CS 25.143(d) or CS 25.143(k) as applicable for temporary application with two hands available for control.

Similarly to paragraph 7.e.(1)(v) of this AMC, the acceptability of any exceedance will be evaluated on a case-by-case basis.