EASA Proposed CM-CS-002 Issue 01 – Access to and Opening of Type III and IV Exits on Aeroplanes with Passenger Seating Capacities of 19 or Fewer - Comment Response Document

Comment				Comment summary	Suggested resolution	Comment is an observation or is a suggestion	Comment is substantive or is an objection	EASA comment disposition	EASA response
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1	*Dassault Aviation*	Overall	Overall	For decades, interpretation of 25.813 has been based on the assumption that passengers comply with placards. As a consequence, emergency exit accessibility has been assessed with the cabin in TTOL. Thousands of airplanes are safely flying accordingly, many of them being EASA approved, without adverse record. The EASA is now proposing a deep change to this interpretation, significantly impacting interior designs, costs, and at the end customer satisfaction. A Certification Memo is not the adequate vehicle for such a change. When comparable rules were proposed on airplanes with 20+ passengers, the EASA reasonably included them in NPA 2008-4. Similarly, the changes subject of this Certification Memorandum should rather be the subject of an NPA. This would permit better involvement of interested parties, substantiated cost/benefit analysis, adequate decisions on retroactivity.	Withdraw the Certification Memorandum and propose this new rule/interpretation following the NPA process.	NO	YES	Not accepted	The proposed Certification Memorandum (CM) was prompted by the experience of the FAA (see FAA Memorandum ANM-115-08-02). The FAA explains in this memorandum that a survey indicated that interior approval practice had not in every case followed their expectations. EASA suspected that this had also been the case in Europe and the commenter is now confirming this suspicion. The EASA CM was issued to clarify what has always been the EASA rule's intent, not to introduce a new interpretation.
2	*Dassault Aviation*	Overall	Overall	A working group is being set up to work on Executive Interior Regulations. It is recommended to assign this working group the task to work on this proposal.	Withdraw the Certification Memorandum and add to the EIR WG Terms of Reference that FAA Interim Policy ANM-115-08-02 should be one of the WG inputs.	NO	YES	Not accepted	EASA is of the opinion that the issue covered by the EASA CM is so fundamental that it needs to be issued now. EASA also welcomes the upcoming working group as a further opportunity to discuss this and other issues.
3	*Dassault Aviation*	Overall	Overall	If the NPA process is not followed, implementation of the requirements contained in this Certification Memo on a new airplane type will have to follow the CRI process. Retroactive implementation on type certificated airplane will need to be justified based on adverse experience with this airplane model. This will induce many additional delays, discussions, efforts and costs for the EASA as well as for the Industry.	Withdraw the Certification Memorandum and propose this new rule/interpretation following the NPA process.	NO	YES	Not accepted	Irrespective of any bureaucratic issues involved, EASA feels that the EASA CM concerns an important safety issue.
4	*Dassault Aviation*	2	5, 7	It is unclear in the "background" section where the FAA policy statement summary stops and where the EASA rationale begins. It is assumed that the EASA rationale is not limited to the endorsement of an FAA decision, and that the EASA made its own analysis of the proposed text. Consequently, the following comments assume that the complete background section represents the results of the EASA analyses and rationales.	Clarify what belongs to the FAA position summary and what belongs to the EASA analysis and rationales for the change.	YES	NO	Not accepted	As explained above, the EASA CM was prompted by FAA's survey and experience, which was suspected to be reflected in Europe too. Much of the text of the FAA memo was thus found to be appropriate and used in the EASA CM.

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5	*Dassault Aviation*	2	5, 7	The policy is essentially based on the consideration that passengers will not comply with placards. This consideration is substantiated by the Investigation Report A05Q0024. This Investigation Report represents one case where placards were not followed by the passengers. While there may be other cases where passengers disregarded placards, they remain exceptions which should not trigger an EASA over-reaction. Due to the heavy impact of this policy, more data should be analyzed before making any change decision. NPA 2008-4 was based on much deeper analyses, providing quite a comprehensive substantiation.	The policy is essentially based on the consideration that passengers will not comply with placards. This consideration is substantiated by the Investigation Report A05Q0024. This Investigation Report represents one case where placards were not followed by the passengers. While there may be other cases where passengers disregarded placards, they remain exceptions which should not trigger an EASA over-reaction. Due to the heavy impact of this policy, more data should be analyzed before making any change decision. NPA 2008-4 was based on much deeper analyses, providing quite a comprehensive substantiation. Provide and analyze more data showing how passengers comply with placards before stating that placards are not an acceptable means of ensuring that the cabin is in the TTOL configuration when needed.	NO	YES	Not accepted	The changes to CS25, for aircraft with 20 or more seats, introduced as a result of NPA 2008-4 have the end result of not accepting crew procedures or placards to control the access to and operation of type III exits. It is difficult to see how "more data" could be produced to alter this position for aircraft with less than 20 passengers.
6	*Dassault Aviation*	2	5, 7	The Certification Memorandum states that passengers of 19- pax airplane interiors require more comfort and therefore tend to mishandle the interior and disregard placards. On another hand, those passengers are frequent flyers who are quite familiar with air transport. They would take the appropriate actions to configure the interior in the TTOL configuration each time it is required.	Reconsider this change taking into account the air transport experience of the population using 19- pax airplanes.	YES	NO	Not accepted	The ability to operate and have access to a Type III/IV exit is seen by EASA to be so fundamentally important, particularly when an aircraft has only one exit on each side of the fuselage, that arguments regarding the behaviour of "frequent flyers" are seen as inadequate.
7	*Dassault Aviation*	2	6, 7	The Certification Memorandum states that TTOL positions may be so uncomfortable that the passengers will not comply with the placards. This argument supports a need to rule on the adequacy of TTOL positions, but it does not permit to conclude that passengers disregard placards.	Address the problem of TTOL position discomfort in a specific rulemaking effort.	NO	YES	Not accepted	The point regarding passengers seeking a more comfortable, but perhaps less safe, seat position is just one part of the overall rationale behind the EASA CM's clarification of the rule's intent. EASA remains of the opinion that this is a valid point, and does not see how the airworthiness code entering into the arena of "comfort" can be of benefit.
8	*Dassault Aviation*	2	6, 7	The Certification Memorandum states that passengers could still modify the cabin configuration after the flight crew procedures are accomplished. This seems irrelevant here. If we consider that passengers are so unmanageable that they tamper with the cabin as soon as the crew stops looking at them, then passenger transport should be forbidden.	Reconsider the need for this change taking into account that passengers are not irresponsible.	NO	YES	Not accepted	Again, it must be pointed out that EASA feels that the ability to operate and have access to a Type III/IV exit is fundamentally important, particularly when an aircraft has only one exit on each side of the fuselage. EASA is firmly of the opinion that it is unacceptable that passenger action can compromise the usability of any exit.
9	*Dassault Aviation*	2	6, 7	The Certification Memorandum proposes a scenario where a passenger sits in a seat near an emergency exit during cruise, then goes to another seat and leaves the first seat in an adverse position for TTOL. This scenario can be addressed by modifying each seat placard to require the seat to be put in TTOL position when not in use, just like drawers and cabinet doors. The rule proposed by this Certification Memorandum is an unjustified over-reaction to this scenario.	Reconsider the need for this change taking into account reasonable corrective actions.	NO	YES	Not accepted	See reply to comment #8.

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10	*Dassault Aviation*	Overall	Overall	If a placard non compliance issue exists, and more generally a passenger discipline issue, it should be addressed in a comprehensive manner involving the complete airplane. It makes no sense to address only the seat position in the vicinity of a type III emergency exit and not the other seats, curtains, cabinetry doors, drawers which are all placarded for a specific TTOL position in order to comply with the aisle width requirement of 25.815. Also, the passenger cabin luggage, which is required to be stowed for TTOL, should be considered.	If a passenger discipline issue exists, a working group should be set with each interested party to address it comprehensively.	NO	YES	Not accepted	See reply to comment #8.
11	*Swiss FOCA*			Applicability. It is suggested to clearly state across the document that the CM applies also to aircraft with certification basis JAR 25.				Accepted	It will be clarified that this policy also applies to aircraft with a Certification Basis under JAR 25.
12	*Swiss FOCA*			Applicability. The proposed CM only references CS-25 requirements: what about CS 23.813 (commuter category)?				Noted	In general the principal of using placards and crew procedures to limit or avoid obstructions also applies on CS23 commuter categories. In case of CS23 commuters the rule is actually excluding any obstruction. (Compare CS 23.807 b) and CS 23.813) However, this EASA CM is concentrating on CS25 category.
13	*Swiss FOCA*			Required vs. in excess emergency exits. Does the policy apply to any Type III and IV emergency exit or only to those specifically identified as "required" based on CS 25.807(d) (and previous CS/JAR 25.807(c))? In this respect FAA AC 20-60 provides for additional guidance.				Noted	This aspect is already covered in CS25. CS 25.807(h) states that "excess exits" do not need to comply with CS 25.813 but do need to be "readily accessible". In an assessment of "readily accessible" features might be acceptable that would otherwise be rejected in the case of a "required" exit.
14	*Airbus Corporate Jet Center*	Overall	Overall	This Certification Memorandum proposal is very similar to the FAA Policy Memo ANM-115-08-02 of October 17th 2008 except that the EASA is using the words "*not acceptable*" whereas the FAA is using the words "*not sufficient*". Whereas the EASA Proposed CM–CS–002 seems to be a "copy/paste" of the FAA Policy Memo ANM-115-08-02, this change in wording has an importance and differs from the interpretation of an identical requirement made by a major Certification Authority as the FAA (FAR 25.813(c)(2)(ii) is identical to CS 25.813(c)(4)(ii) Amendment 9). ACJ Centre requests clarification on why the EASA is strengthening the interpretation of the CS 25.813(c)(4)(ii) and its predecessor requirements with respect to the FAA interpretation of the identical FAA requirement (less stringent FAA Memo)? In addition, the CS 25.813(c)(4)(ii) states: "there may be minor obstructions in this region, if there are compensating factors to maintain the effectiveness of the exit". ACJ Centre requests clarification on the EASA interpretation of this second part of CS 25.813(c)(4)(ii) in the light of the certification memo.	Amendment of the Certification Memorandum: Modify the wording and use the words "not sufficient" instead of "not acceptable".	YES	YES	Accepted	It was not EASA's intention to change the intent of the EASA CM in relation to that of the FAA Policy Memo and it is agreed that perhaps the change has made it unclear as to whether procedures/placards are acceptable at all. Therefore, "not acceptable" will be changed back to "not sufficient" as suggested. However, it must be clarified that whilst EASA does not wish to prevent the provision of crew procedures or placards, they will not be accepted as contributing to a means of compliance to the subject JAR/CS requirements. The EASA CM is not intended to provide guidance in regards to what may or may not be deemed as "minor obstructions". It can be clarified however, that "minor obstructions" are allowed, as clearly stated in the subject requirement. It is not acceptable however, that justification of an obstruction being "minor" relies on particular positioning of seats or any other moveable cabin feature.

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15	*Airbus Corporate Jet Center*	Overall	Overall	This Certification Memorandum proposal bases its argumentation on the sole rationale that Operational Regulations do not require the presence of trained cabin crew on board for A/C up to 19 PAX, and that as a consequence nobody is responsible for setting the cabin in its TTOL configuration. ACJ Centre believes that this can be easily solved by mandating the presence of a trained cabin crew in the Flight Manual (or Flight Manual Supplement for STC) unless no passenger is carried. Therefore, the actions to set up the cabin in its TTOL configuration are not overloading the Flight Crew, and continuous management of the cabin is ensured by the systematic presence of the trained cabin crew. The addition of a specific requirement for a trained cabin crew in the Flight Manual (or Flight Manual Supplement for STC) is adequate as any operator shall comply with the requirements contained in the operational manuals, whether operating in Private or Public Transportation.	Amendment of the Certification Memorandum: Indicate in the Certification Memorandum that the EASA considerations of this Certification Memorandum about "minor obstruction" of CS 25.813(c)(4)(ii) and its predecessor requirements applies only to the TTOL flight phases when the presence of a trained cabin crew is mandated in the Flight Manual (or Flight Manual Supplement for STC) and when appropriate crew procedures and placards are set up to clear the access to and opening of the exits in TTOL configuration.	YES	YES	Not accepted	The comment is incorrect to state that the absence of a cabin crew member is the "sole rationale" for this EASA CM. There are still opportunities for passengers to place seats or other cabin features into positions other than those placarded, on aircraft which do have a cabin crew on board.
16	*Airbus Corporate Jet Center*	Overall	Overall	This Certification Memorandum proposal bases its argumentation on the fact that "*passengers can still move the seats after [the cabin crew] has completed his/her preparatory duties*". ACJ Centre believes that this is true, but not limited to seats that would potentially obstruct an exit in flight phases other than TTOL. For example, deployable items may not be qualified to sustain the crash loads when deployed, and may be the source of emergency exit obstructions slowing emergency evacuation, or even worst become projectiles in the cabin... More generally, the list of safety hazards whose origin is the voluntary non-respect by passengers of safety instructions provided by the flight or cabin crew is endless, not limited to A/C with passenger occupancy of 19 or fewer, and cannot be subject to transport category considerations (public or private). Typical examples include: - other "classical" seats instructions for setting seats in their TTOL position: (E)TSOs exist for seats that can rotate but are qualified only in a specific TTOL configuration (generally forward / aft or side facing). A passenger moving its seat outside the qualified TTOL configuration "after [the cabin crew] has completed his/her preparatory duties" may be in danger himself, but may also represent a safety hazard for the other A/C occupants since its seat may deform / detach under crash loads and result in fatalties / egress blocking... - PED use restriction instructions: Disregarding instructions to switch off PEDs not authorized during TTOL phases may result in interferences with the flight deck instruments that may lead to a hazardous or catastrophic situation... - ...	Withdrawal of the Certification Memorandum proposal: ACJ Centre believes that it is not appropriate to partially address the EASA concerns raised in the EASA argumentation (Cabin Crew presence or qualification, non-respect of placarded instructions by passengers) and focus only on consequences in interpretation of the "minor obstruction" for type III & type IV emergency exits of CS 25.813(c)(4)(ii) and its predecessor requirements. ACJ Centre believes that the "Certification" Authority shall work at Expertise Panel with the basic principle in mind that: - Cabin Crew is appropriately trained and qualified, and - Passengers respect the placarded instructions. It is not the responsibility of the "Certification" Authority to question the cabin crew qualification and respect of placarded instructions by passengers as it is indeed the responsibility of the Pilot in Command and the Operator of the aircraft, and ultimately the responsibility of the State of Registration. Therefore, a Certification Memorandum on the subject is not appropriate	NO	YES	Not accepted	See reply to Comment No. 8

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				Example are numerous and infinite, and Authorities' Certification Directorates cannot "partially" address the issue of non respect of instructions by passengers with the limited view on Type III / Type IV exit obstruction case. In conclusion, ACJ Centre believes that the EASA is wrongly addressing its concerns by an action from the "Certification" Directorate which should indeed work at Expertise Panels level on finding the conditions for safety of the proposed designs based on basic working principles that crew procedures and placards are acceptable means of compliance (even if it means setting the presence of a cabin crew "mandatory"), and that passengers respect the safety instructions of the flight / cabin crew.					
17	*Airbus Corporate Jet Center*	Overall	Overall	This Certification Memorandum proposal indicates that crew procedures or placards that specify a required TTOL configuration are "*not acceptable*" to ensure access to, or openability of, Type III and IV exits (...) on aeroplanes with 19 or fewer passenger seats. In the case of aircraft intended for private (non commercial) operations only (limitation for "Private Use" indicated in the Flight Manual (Supplement) limitation section), this EASA position is not consistent with other EASA and FAA positions published: In FAA SFAR 109, as in several EASA CRIs, crew procedures or placards are often required to manage the cabin in a way the FAA and the EASA find necessary for allowing the requested customization flexibility of an interior arrangement. As a typical example, this is particularly obvious when reading EASA position on CRI for "Width of Aisle" (identical with FAA position in SFAR 109) where it is indicated for example that a deviation from 25.815 may be granted for aisles width that may be reduced to zero inch provided that in phases of flight other than Taxi, Take-off and Landing (...) "*Additionally, instructions must be provided at each passenger seat for restoring the aisle width required by 25.815. Procedures must be established and documented in the AFM to ensure that the required aisle widths are provided during taxi, takeoff, and landing.*" ACJ Centre believes that the EASA cannot have inconsistent approach in the interpretation of safety rules for cabin evacuation and conclude in the same time that crew procedures or placards that specify a required TTOL configuration are: - "not acceptable" for compliance with §25.813, and - "required" to grant a deviation from §25.815. Especially when using as a justification for its position that crew procedures or placards will not be respected either by passenger, or by cabin crew that is not required and / or not sufficiently qualified.	Withdrawal of the Certification Memorandum proposal: EASA cannot have inconsistent approach in the interpretation of safety rules for cabin evacuation and conclude in the same time that crew procedures or placards that specify a required TTOL configuration are: - "not acceptable" for compliance with §25.813, and - "required" to grant a deviation from §25.815. Especially when using as a justification for its position that crew procedures or placards will not be respected either by passenger, or by cabin crew that is not required and / or not sufficiently qualified. ACJ Centre believes that the "Certification" Authority shall work at Expertise Panel with the basic principle that: - Cabin Crew is appropriately trained and qualified, and - Passengers respect the placarded instructions It is not the responsibility of the "Certification" Authority to question the cabin crew qualification and respect of placarded instructions by passengers as it is indeed the responsibility of the Pilot in Command and the Operator of the aircraft, and ultimately the responsibility of the State of Registration. Therefore, a Certification Memorandum on the subject is not appropriate.	NO	YES	Not accepted	See reply to comment #8. Please note that deviations from CS 25.815 are not granted automatically without any substantiation by test.

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18	*Airbus Corporate Jet Center*	Overall	Overall	This Certification Memorandum proposal bases its argumentation on the fact that "passengers can still move the seats after [the cabin crew] has completed his/her preparatory duties", mainly because of "comfort" issues for the passengers. The notion of "comfort" is highly subjective, and there is several cabin configuration examples where the EASA consideration is not true, and therefore raising questions on the appropriateness of the EASA conclusions. However, it is true that the notion of comfort is predominant on several market segments as the ACJ or other similar products, and it has to be considered by the EASA that strengthening its position with regards to Type III / Type IV emergency exit obstruction is very likely to result in deactivation of such exits to maintain the level of comfort requested by the end users (as outlined by EASA, only one exit on each side of the fuselage is required by §25.807 on large aeroplane as the ACJ with 19PAX or less, and Type III emergency exits can be considered in excess of remaining floor level exits on the same side of the fuselage). While staying within the limits defined by the regulation would allow deactivating a Type III exit, keeping such exit active is an obvious benefit for safety, and ACJ Centre believes that this safety benefit is largely compensating the very unlikely case of wrong cabin configuration reported and at the origin of this Certification Memorandum (only one occurrence is reported, which compared to the number of flight hours may be considered as "extremely remote"). ACJ Centre believes that prior strengthening EASA position on such subject, a safety impact assessment should be made (as would a Rulemaking group do) to weigh the safety benefit of an exit active but presenting an obstruction with a cabin in non-TTOL configuration only, versus an exit deactivated for cabin interior comfort considerations.	Evaluation of the pertinence of the Certification Memorandum: Perform a safety impact assessment (as would a Rulemaking group do) to weigh the safety benefit of an exit active but presenting an obstruction with a cabin in non-TTOL configuration only, versus an exit deactivated for cabin interior comfort considerations.	YES	YES	Not accepted	See reply to comment #8. Furthermore, EASA realises that policies likely to lead to exit deactivation are not in the interests of safety. However, exits that are "in excess" of the requirements of JAR/CS25 are covered by CS 25.807(h) which specifically exempts them from CS 25.813 compliance.

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19	*Airbus Corporate Jet Center*	Overall	Overall	This Certification Memorandum proposal bases its argumentation on the sole rationale that Operational Regulations do not require the presence of trained cabin crew on board for A/C up to 19 PAX, and that as a consequence nobody is responsible for setting the cabin in its TTOL configuration. In addition, the EASA Certification Directorate considers that flight crew procedures are "not acceptable" and "should not require them to ensure" that the cabin is set in the required TTOL configuration, as this duty is considered as a "distraction" from other duties. ACJ Centre does not agree with these considerations and the manner in which it is expressed, as it is in contradiction with the ICAO rules and annexes where it is clear that the responsibility for safe flights is on the shoulders of the A/C Operators, and by delegation on board the A/C on the shoulders of the "Pilot-in-Command". ICAO Annex 6 Part 1 §4.5 "Duties of pilot-in-command" define the responsibilities of the Pilot-in-Command as follows: "The pilot-in-command shall be responsible for the safety of all crew members, passengers and cargo on board when the doors are closed. The pilot-in-command shall also be responsible for the operation and safety of the aeroplane (...)" ACJ Centre believes that the EASA Certification Directorate is not the "Competent Authority" authorized to qualify as a "distraction" the duties of the flight crew related to cabin configuration, as in contradiction with the ICAO rules and annexes. However, should EASA consider that the issue is more related to the "excessive workload" that this particular monitoring represent for a flight crew that cannot further delegate to a cabin crew (because not required to be on board), then the EASA may positively consider design solutions whose objective is to reduce such "excessive workload". Typically, systems that indicate in the flight deck if a particular seat is not in the required TTOL configuration for access to the exits may be developed (similarly as the systems required for internal doors between passenger compartments in private transport category).	Amendment of the Certification Memorandum: Modification of wording to remove the term "distraction" (in contradiction with ICAO rules and annexes) and address instead the notion of "excessive workload". Indicate that the EASA interpretation detailed in the Certification Memorandum apply only in the absence of design considerations aiming at reducing the "excessive workload" that represent the monitoring of the cabin by a flight crew when a cabin crew is not required. Indicate in the Certification Memorandum that the EASA would accept design solutions based on systems that indicate in the flight deck if a particular item (as a seat) is not in the required TTOL configuration for access to the exit (similarly as the systems required for internal doors between passenger compartments in private transport category).	YES	YES	Not accepted	See replies to Comments #8 and #15. It is to be noted that "excessive workload" is not the only issue of concern. Furthermore, the design solution proposed still constitutes a crew procedure and as such is not sufficient.

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20	*UK CAA*			The implementation of this Certification Memorandum is not clear. It is assumed that it would be applied to all new TC and STC but not retrospectively to aircraft in service? It is suggested that this policy should be included in paragraph (CS 25.813(c)(4)(ii); a simple wording change should be sufficient. Consideration should be given to retrospective implementation because aircraft of this operating category tend to remain in service for many years with little change to interior configurations. Should consideration also be given to larger aircraft (20 or more passengers) or is it known that these aircraft already comply? Justification: Addressing the safety risk and standardising the implementation.	Proposed Text (if applicable): CS 25.813(c)(4)(ii),For aeroplanes that have a passenger seating configuration of 19 or less, there may be minor obstructions in this region. However, when evaluating exit accessibility and openability, moveable cabin features (such as seats, cabinets etc.), must be placed in their most adverse positions. Placarding to ensure that a cabin feature is not in an adverse position when the exit is in use during an emergency is not acceptable as a means of compliance.			Not accepted	An EASA CM cannot be used as a vehicle to change a CS25 paragraph. Grandfathered approvals for TC or STC will still be valid unless there is a proof for an unsafe condition.
21	*Lufthansa Technik AG*	2, 3	5, 6	EASA's major argument is an accident of an aircraft with one pair of exits where passengers have failed to stow an interior component before landing resulting in the unavailability of that exit due to deformation. Conclusions drawn from this specific design are then extended to any other design regardless of the type of major or minor obstruction and exit configuration without further justification. The proposed memorandum does not adequately acknowledge compensating factors like- seats vs. interior components- private vs. commercial operation- excess exits- a flight attendant being required by designEASA argues that an unoccupied seat might have been left in an in-flight comfortable position blocking an exit. The argument ignores the fact that an unoccupied seat is loaded far below its proven strength during emergency landing conditions. It will be able to be put in a compliant position with the controls that are known to all passengers and does therefore constitute a compliant and minor obstruction as long as the seat controls are manual or have a manual override. Many aircraft having a maximum passenger seating capacity of less than 20 passengers feature excess exits. Moreover, these excess exits are often Type I or larger. Not alone that they compensate a blocked Type III emergency exit, their usage is even preferred over Type III exits. In such conditions, a misplaced occupied seat constitutes a minor obstruction since seats can be moved after having encountered the specified emergency landing conditions and there are more effective exits available on the same side of the fuselage. Some aircraft interior designs rely on a flight attendant being carried for other reasons than the maximum passenger capacity. In such cases EASA requires the flight attendant to have a direct view of the cabin, especially of the area of Type III exits. The flight attendant will ensure that requirements for exit access and openability will be complied, supported by respective placards where necessary.	The memorandum language should be modified to reflect the circumstances laid down in the comment correctly, and to be open for designs with appropriate compensating factors that might be accompanied by placards. This should be reflected in the rationale as well as the policy. The latter could easily be enhanced by replacement of the words "not acceptable" with "not sufficient".		YES	Partially accepted	As can be seen in reply to comment #14, the text will be changed to use the words "not sufficient". Designs along the lines described in the comment may be acceptable to EASA. Such designs would need to be subject to an Equivalent Safety Finding (ESF).

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				Furthermore, the memorandum does not adequately consider the development of other compensating factors like automatic augmentation systems triggering an acoustic warning in the cabin when a seat or interior component is not in the proper position. Such acoustic warnings are already used in cars and do reliably ensure the use of safety belts, for example. The memorandum should not prevent such systems from being introduced in aircraft cabins by prohibition of an accompanying placard that is necessary to show passengers the proper position of the seat or component that will stop the noise. After all, the rationale presented in the memorandum only covers a very simple design where a placard is the only factor to compensate for a major obstruction combined with an unfavourable exit configuration.					
22	*General Aviation Manufacturers Association*			GAMA appreciates the opportunity to review and provide comments to Proposed CM-CS-002 Issue 01, Access to and Opening of Type III and IV Exits on Aeroplanes with Passenger Seating Capacities of 19 or Fewer but is extremely concerned with several aspects of the proposed language and urges the EASA to withdrawal the proposal for the reasons contained in this document.				Noted	
23	*General Aviation Manufacturers Association*			**Setting new requirements through certification memorandums** GAMA is very concerned that the EASA is using this Certification Memorandum as a means to re-interpret existing rules without following the proper rulemaking process that includes a Regulatory Impact Assessment. This proposal contains a major shift in longstanding regulatory compliance which will not measurably add to safety but will certainly impose a significant burden on aviation. Certification Memoranda are intended for informational purposes only and not to define Acceptable Means of Compliance, Guidance Material nor to set new requirements. GAMA believes this proposed Certification Memorandum (CM) sets a new requirement for compliance with CS 25.813(c)(4)(ii) openability requirements for airplanes with 19 or fewer passengers. Further ,this CM states "The intent of this EASA policy is to provide guidance for complying with Type III and Type IV exit access and openability requirements for aeroplanes with 19 or fewer passenger seats" which is contrary to the purpose of a CM. GAMA requests that the EASA revoke CM-CS-002 Issue:01 in its entirety.				Not accepted	The following text is taken from the standard preamble to EASA CM: "EASA Certification Memoranda clarify the Agency's general course of action on specific certification items. They are intended to provide guidance on a particular subject and, as non-binding material, may provide complementary information and guidance for compliance demonstration with current standards. Certification Memoranda are provided for information purposes only and must not be misconstrued as formally adopted Acceptable Means of Compliance (AMC) or as Guidance Material (GM). Certification Memoranda are not intended to introduce new certification requirements or to modify existing certification requirements and do not constitute any legal obligation." EASA believes that the subject EASA CM is following this rationale, i.e. it is merely clarifying the certification standard previously assumed to be the case. The allowance for "minor obstructions" in the vicinity of Type III/IV exits on aircraft with less than 20 passengers was assumed in the past to be assessed with moveable features at their most adverse positions.
24	*General Aviation Manufacturers Association*			**Accessibility and effectiveness of an emergency exit** Certification memo CM-CS-002 Issue 01 minimizes intended differences and invalidates a historically accepted means of compliance which has been the direction for certification projects for more than 17 years. CS 25.813(c)(4)(ii) has been written to specifically address the				Not accepted	The commenter appears to believe that the subject EASA CM has the effect of no longer accepting "Minor Obstructions" as mentioned in CS 25.813(c)(4)(ii). This is not the case. The EASA CM only clarifies that minor obstructions must be assessed with the seats or any other moveable cabin feature at their most adverse positions.

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				differences between airplanes with more than 19 passengers and airplanes with 19 or fewer passengers because of the safety advantages lower passenger density cabins possess. CS 25.813(c)(4)(i) is a requirement for airplanes that have a passenger seating configuration of 20 or more. This specification states the projected opening of the exit must be unobstructed and there must be no interference in the projected exit opening. This includes when seats are placed in the most adverse position. CS 25.813(c)(4)(ii) is a requirement for airplanes that have a passenger seating configuration or 19 or fewer passengers. This specification is permissive with respect to accessibility of the exit and it specifically allows minor obstruction in the projected exit opening if the effectiveness of the exit is preserved by compensating factors. As EASA points out in the CM, CS 25.813(c)(4)(ii) is identical to FAR 25.813(c)(2)(ii), they are also enforced by the history of compliance that recognizes the differences between transport category airplanes configured for a high passenger capacity and transport category aircraft with 19 or fewer passengers. There is also a recognized difference in the degree of accessibility to type III exits and permitted amount of incursion into the projected opening of the exit by interior furnishings. Arrangements of aircraft with 19 or fewer passengers often include the use of special seats and divans that sometimes have multiple adjustment features allowing the seat to be moved to several positions. It is not unusual for there to be positions that encroach into the projected opening of the exit, and in some cases result in some physical interference when the exit is opened. While encroachment and even interference can be acceptable under the current rules, the exit should remain openable. In practice, airplanes with passenger capacities of 19 or fewer have demonstrated compliance with this rule through a pair of compliance demonstrations. First the cabin is configured in a worst case arrangement to demonstrate that the exit can be opened in any scenario. There is also an evaluation to assure that the exit remains usable in the worst case arrangement at this time. The second demonstration involves configuring the cabin in a takeoff and landing position to show that no seats or configurable items impinge into the projected opening of the exit. Through these tests it is demonstrated that the exit can be opened and that a required takeoff and landing configuration acts to compensate for some encroachment when furniture is placed in a worst case configuration. Historically, placarded instructions have acted as a compensating factor but not necessarily the only compensating factor. Placards in conjunction with other compensating factors such as crew announcements and seat design,					

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				preserve the effectiveness of the exit even in the most adverse scenarios. It is important to recognize that this method of compliance is not unique or misapplied but rather the standard that has been widely used in this class of aircraft for nearly two decades. EASA and the FAA have historically accepted some encroachment and even interference (provided the exit remain openable) from furnishings as minor as clarified in policy (reference FAA Policy ANM100-1991-00025 Dated Oct 15, 1991).					
25	*General Aviation Manufacturers Association*			**<u>Acceptability of Placarded Instructions</u>** Excerpt from Certification Memorandum (Background Section, Sentence 13) - "The following summarizes the reasons why placards are not acceptable for ensuring access to, or openability of, Type III and IV exits"o Neither the airworthiness regulations nor the operating regulations require a flight attendant for airplanes with 19 or fewer passenger seats. As a result, there are no flight attendants on board to verify that placarded instructions are followed. Even if a non-required flight attendant is on board, or a person whose job it is to provide passenger convenience/service only, passengers can still move the seats after this person has completed his/her preparatory duties." GAMA strongly opposes this memorandums reversal in reliance upon placards as an acceptable means to provide instructions to passengers. Historically, guidance and policy recognize and approve the use of placards for many areas including emergency instructions and exit access. Furthermore, this contradicts the requirement set forth in EASA's Basic Regulation Annex I (Essential requirements for airworthiness referred to in Article 5) paragraph 2.c.2 which supports the assumption that placards would be followed; "Provisions must be made to give occupants every reasonable chance of avoiding serious injury and quickly evacuating the aircraft and to protect them from the effect of the deceleration forced in the event of an emergency landing on land or water. Clear and unambiguous signs or announcements must be provided, as necessary, to instruct occupants in appropriate safe behaviour and the location and correct use of safety equipment." As referenced in the basic regulation regarding the quick evacuation of the aircraft, clear and unambiguous signs or announcements must be provided to instruct occupants in appropriate safe behaviour including quickly evacuating the aircraft and the location and correct use of safety equipment. As a contributing factor to ensure the effectiveness of the exit door, placards or an announcement are recognized in the basic regulation to be adequate for providing information and instruction to passengers.				Not accepted	Placards/signs do of course play certain safety roles in informing passengers. EXIT signs and the indication of safety equipment location (e.g. the lifejacket) cannot be achieved in any other way. However, the provision of useable emergency exits is of paramount importance and EASA believes this should not rely on passenger observance of placards/signs.

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26	*General Aviation Manufacturers Association*			The assertions that without a trained cabin attendant, safety placards can not be relied upon is contrary to past practice, and while examples of non-compliance by passengers can be found, they are the exception. The assumption of this proposed memo, that it must be assumed that features such as seats are not in a takeoff and landing position when safety instructions require them to be that way, would prohibit the features and options which have been utilized safely on thousands of aviation products configured for 19 passengers or less. Passengers must follow safety placards of all types and the pilot in charge must assure they do so. GAMA strongly disagrees with this certification memo's statements which indicate otherwise.				Not accepted	As pointed out above, EASA is in agreement that placards/signs are appropriate safety features in certain circumstances. However, EASA does not believe that they provide the appropriate level of assurance to ensure the usability of a required emergency exit, particularly on an aircraft with only one exit required per side of the fuselage. A required emergency exit provides such a fundamental safety function that it should remain useable irrespective of how well passengers have observed placarded instructions.
27	*General Aviation Manufacturers Association*			This certification memorandum also indicates one of the reasons for placards not being acceptable is when the flight attendant completes the preparatory duties, passengers can still disregard placarded instructions after this person has completed his/her preparatory duties. Although passengers may choose to disregard instruction or follow the instruction temporarily then disregard, there is a certain amount of assumed responsibility on the passenger as stated in the Basic Regulation referenced in comment #3.				Not accepted	EASA does not agree that the amount of responsibility that can be reasonably assumed on the part of a passenger is commensurate with safety significance of the provision of a useable emergency exit, particularly on an aircraft with only one exit required per side of the fuselage. Furthermore, EASA does not agree that the Basic Regulation makes any particular assumption in this regard.
28	*General Aviation Manufacturers Association*			Further, this occurrence is not limited to just aircraft with 19 passengers or less. In fact, the same logic applies to larger aircraft with much higher passenger densities who can choose to disregard placards during (unbuckle their safety belt, lower the tray table, use unapproved electronic device, etc) after the flight attendant has been seated. A crew member in a larger capacity aircraft, who is seated in their assigned position, would not be able to verify if a passenger is still restrained by the seat belt while in Taxi, Take of f, or Landing Configurations.				Not accepted	EASA is in agreement that passenger observance of placarded and crew instructions in the areas described in the comment can be less than desired. However, EASA cannot accept that this is an argument to justify reliance on placards and/or crew instruction to guarantee the provision of something as fundamental as a useable emergency exit, particularly on an aircraft with only one exit required per side of the fuselage.

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29	*General Aviation Manufacturers Association*			**<u>Accident Investigation</u>** EASA references an accident investigation report and highlights that placarded instructions were not followed. While placarding instructions are only one of the contributing factors to ensuring the openability of the exit, it is important to note that the emergency exit was not openable due to the deformation of the fuselage after sustaining major structural damage and not because of the seat/armrest position as stated in the TSB accident investigation Report Number A05Q0024; "The emergency exit could not be opened due to structural damage, which delayed the evacuation and could have had serious consequences". In fact, the current predominant method of compliance to the existing rules ensure the exit door is openable with the seat/armrest in the most adverse position that encroaches into the projected opening of the exit, and may actually provide some physical interference with the exit when opened as permitted and clarified in the FAA policy memo dated Oct 15, 1991. GAMA believes the openability of the exit was preserved as required in this example.				Not accepted	The comment is noted. EASA has not been able to determine whether or not the TSB accident report was in error when it stated that the incorrect position of the armrest of the side facing seat would have prevented opening of the overwing exit (i.e. were it not also jammed by fuselage deformation). However, the major point is that although the armrest was placarded to be stowed away from the exit for TTO&L, this was not done. EASA has reviewed the FAA Memo referred to in this comment and agrees with its contents. To repeat, the subject EASA CM is not intended to modify the allowance for "Minor Obstructions" allowed for in CS 25.813(c)(4)(ii), it just clarifies that the obstructions to be justified as "minor" must be those created by moveable cabin features in their most adverse positions.
30	*General Aviation Manufacturers Association*			Further, the placards instructed the passengers to stow or place the seat/armrest in takeoff and landing configuration to allow access to the emergency exit. As the accident report analysis shows, a passenger tried to open the door and was unsuccessful due to the door being jammed in its frame as a result of fuselage deformation, but was successful in accessing the exit door while in the most adverse condition.				Not accepted	The main point is that the armrest was not positioned in its intended TTO&L position. This accident does thus serve to illustrate the major issue covered by the subject EASA CM.
31	*General Aviation Manufacturers Association*			The accident report states that the flight crew did not brief the passengers on emergency procedures and the passengers did not review the emergency evacuation card. In this example the placards are not used as the single method to ensure the cabin is properly configured for take off taxi and landing. The flight crew is required to be familiar with and passengers informed of the location and use of relevant emergency equipment. Sufficient related information regarding emergency procedures and use of cabin safety equipment must also be made available. GAMA believes that had the crew properly addressed its passengers or the passengers had read the emergency evacuation card for emergency door instructions, the passengers would have complied.				Not accepted	Again, the accident does address the issue covered by the EASA CM. The accident shows that despite the provision of documented crew procedures and perhaps associated briefing cards for the passengers, it cannot be guaranteed that in the real operational environment that the intended passenger actions will be carried out.

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32	*General Aviation Manufacturers Association*			Had the guidance contained in this certification memorandum applied to this accident (assuming the seat/armrest are in takeoff and landing configuration), the resulting passenger egress method would have remained the same. This memo would have done nothing to improve the timely egress of passengers in this case as the door is still unopenable due to fuselage deformation and the passengers would have still exited the aircraft through the main door.				Not accepted	Whilst this comment may represent a true assessment of what might have happened, EASA cannot agree that this is an argument against the contents of the subject EASA CM. Exits are on the whole not jammed by fuselage deflection and the provisions of the subject EASA CM will thus often provide their intended safety benefit.
33	*General Aviation Manufacturers Association*			GAMA believes that this accident example does not provide an adequate basis for EASA's concerns that were used to create the proposed certification memorandum. GAMA requests that EASA conduct additional accident research and study as necessary to better identify examples where the passengers disregard to placarded instructions prevented access so as the door remained unopenable.	-			Not accepted	As explained above, EASA is of the opinion that this accident is a valid example of the safety issue covered by the subject EASA CM and does not see the need for further accident analysis.
34	*Airbus S.A.S.*	General		EASA has recently accepted an industry proposal to set up a stakeholder group to develop an NPA on Executive Interiors. See Agency letter PCO/ime/R(4)2011(D)51453 to ASD, dated 18 March 2011. The start of this rulemaking task is expected very soon. The subject of the proposed CM-CS-002 falls within the scope of this rulemaking task.	We recommend that the Agency do not publish CM-CS-002. This proposed CM and the comments received on it should be used as inputs in the preparation of the Executive Interiors NPA by the stakeholder group, which will finally result in the publication of relevant requirements and guidance material.		X	Not accepted	EASA is firmly of the opinion that the subject EASA CM is needed to address current certification activities. The upcoming stakeholder group is noted and it is agreed that the issue covered by the subject EASA CM will come under the remit of this group. In the event that discussions lead to conclusions at odds with the subject EASA CM, it will be an easy task to withdraw/modify the EASA CM.