

Comment				Comment summary	Suggested resolution	From the commenter point of view a modification of the published text is*: -Not requested; -Recommended; -Requested	EASA comment disposition	EASA response
NR	Name of the organisation commenting	Section, table, figure	Page					
1	Transport Canada Civil Aviation (TC NAC / OS-ES)	Identification of issue	1	The subject of the ESF is the 29.807(c). But it seems the text of the document address more precisely 29.807(c)(1). By respecting compensating factors, it is understood that the applicant will provide an ESF for the complete requirement 29.807(c), which is assumingly not the scope of this ESF.	Remove CS29.807(c)(2) from the scope of this ESF. The applicant should still demonstrate that the probability of the rotorcraft coming to rest on its side in a crash landing must be extremely remote.	Recommended	Noted	The ESF indeed addresses CS 29.807(c)(1) specifically while CS 29.807(c)(2) is an alternative for CS 29.807(c)(1). Consequently, the ESF to CS 29.807(c)(1) remains the ESF to CS 29.807(c). No change to the ESF subject is considered necessary. This also takes into account the consistency with the other ESF to CS 29.807(c) granted by EASA and referred to under “IDENTIFICATION OF ISSUE”.
2	Transport Canada Civil Aviation		2	The requirement is “The Applicant will demonstrate the access from the cabin to the flight crew emergency exits in the cockpit and the egress of cabin occupants through these exits. Such demonstration will be performed by means of a combination of test and validated 3D modelling / analysis considering the range of occupants from 5% female to 95% male.” The egress demonstration should reflect the critical cabin orientation. The determination of critical orientation may differ based on the interior arrangement (ie location of seats, monuments, equipment etc).	Include a requirement for critical orientation.	Recommended	Not Accepted	The aim of this compensating factor is that the applicant must demonstrate the access to the flight crew emergency exits for all interior installations where the cabin side emergency exits can not be reached, when the rotorcraft is resting on either side.
3	Transport Canada Civil Aviation (TC NAC / OS-ES)	Compensating Factors	2	One compensating factor is missing in regard to the passageway between the cabin and cockpit.	This may be aligned with CS29.813(a), which will mean: (1) - the passage in the bulkhead need to be unobstructed (no curtain, crew COVID barriers or similar installed) (2) - the passageway shall be minimum 20" wide	Requested	Not Accepted	The demonstration must include all possible interior installations. In the case of curtain, crew covid barrier, etc. the design of such installations must consider the easy pass through and the associated briefing or training (see ESF point 6). The range of occupants from 5% female to 95% male is to be considered and the number of occupants in the cabin is limited to 4.
4	Transport Canada Civil Aviation (TC NAC / OS-ES)	Compensating Factors	2	Following a rotorcraft rollover, possible deformation of structure may be assumed, that could affect the egress area in the bulkhead as such the flight crew emergency exit. Nothing is mentioned in the compensating factors on this subject	An additional compensating factor may be included, concerning the effects of fuselage distortion as a result of the rotorcraft coming to rest either fully or partially on its side as a result of a rollover. Effects of the fuselage deformation on exit clearances and passageway areas may be established analytically.	Recommended	Not Accepted	The initial approval of the flight crew emergency exits addressed reasonable provisions to prevent jamming in a minor crash in accordance with CS 29.783(d). Fuselage distortion is not typically taken into account for the exit path with the helicopter resting on its side.
5	Transport Canada Civil Aviation (TC NAC / OS-ES)	Egress demonstration	2	CS29.807 refers to the emergency exit with the rotorcraft on its side, however the test to demonstrate the access does not mention rotorcraft or mock-up attitude	It should be mention that the demonstration need to be performed in a attitude simulating the rotorcraft resting on its side.	Recommended	Noted	The demonstration is to be performed in an attitude simulating the rotorcraft resting on its side. No modification to the ESF is considered necessary, as this is already addressed in the title “Use of flight crew emergency exits for passenger evacuation with the rotorcraft on its side”.
6	Transport Canada Civil Aviation (TC NAC / OS-ES)	Egress demonstration	2	The ESF is requesting a combination of testing and analysis to demonstrate the access from the cabin to the flight crew emergency exits, however the testing is specifying a range of occupants from 5% female to 95% male, the proposed wording gives margin to the applicant select any person in this range.	The statement shall be reword in regards to the range of occupants to be more restrictive, the test shall be performed including 5% female occupant and 95% male occupant.	Requested	Noted	. EASA confirms that the wording in the ESF “considering the range of occupants from 5% female to 95% male” requires consideration of all different sizes of occupants including the extremes of 5% female and the 95% male. EASA does not consider that the text needs to be modified.

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7	Transport Canada Civil Aviation (TC NAC / OS-ES)	ESF	2	In general, for emergency evacuation, it is assumed that only 50% of designated exits are available, the rest of the exits maybe not be suitable for evacuation due to damage, fire, or simply being blocked. When the helicopter rest on its side, this 50% is right on the edge. If the passenger exit is not suitable for the exit, the crew exit is the only choice. This is One failure way from catastrophic.	The applicant should demonstrate that the possibility for blocked crew exit is extremely improbable for ESF consideration.	Requested	Not Accepted	In accordance with CS 29.807(b), rotorcraft with less than 11 passengers are not required to have more than one passenger emergency exit per side of the fuselage.
8	Transport Canada Civil Aviation (TC NAC / OS-ES)	Egress demonstration	1	The maximum occupancy capacity was not clearly identified.	The applicant shall be clear informing that the maximum occupancy is limited to four seated cabin occupants and two flight crews.	Recommended	Not Accepted	In accordance with the TC of the rotorcraft there are a maximum of two flight crew members and in accordance with point 3 of the ESF the cabin occupants are limited to 4. Further clarification is not considered necessary.
9	Transport Canada Civil Aviation (TC NAC / OS-ES)	Egress demonstration	2	The ESF says that the applicant will demonstrate the access from the cabin to the flight crew emergency exits in the cockpit and the egress of cabin occupants through these exits, but it is not clear about the knowledge level of the test subject to be used during the demonstrations, i.e. test subject's knowledge regarding the interior and flight crew emergency exit operation.	The applicant shall consider using naïve (related to cabin interior and flight crew emergency exit means of operation) test subjects during the demonstrations. The applicant to assume that the flight crew (or representative) shall not provide any additional guidance during the demonstration.	Requested	Noted	Only the required information (as per the RFM) will be provided. See also point 6 of the ESF. No modification to the ESF is considered necessary.
10	Transport Canada Civil Aviation (TC NAC / OS-ES)	Egress demonstration	2	There is a potential emergency egress scenario where the flight crew members could be incapacitated after a crash landing. The ESF is not informing if the scenario was assessed or if it will be covered through the demonstrations.	The applicant is requested to assess any potential scenario considering flight crew members incapacitated after an emergency landing and inform how it will be addressed during the demonstrations.	Requested	Noted	The commenter is addressing one scenario out of a group of scenarios that will be addressed by the applicant. However, no update of the ESF wording is considered necessary.
11	Transport Canada Civil Aviation (TC NAC / OS-ES)	Egress demonstration	2	The ESF says that the applicant will demonstrate the access from the cabin to the flight crew emergency exits in the cockpit and the egress of cabin occupants through these exits, but the ESF is not identifying the worst scenario to be considered during the demonstrations.	The ESF shall include additional information regarding the worst scenario to be considered during the demonstration related to the accessibility/egress of cabin occupants through the flight crew emergency exits. E.g: Will the demonstration be performed under dark conditions, with only emergency lights on?	Requested	Not Accepted	The ESF is intending to demonstrate accessibility of the exits with the rotorcraft resting on its side. An evacuation under the conditions specified in CS 29 Appendix D is required by CS 29.803 and not CS 29.807(c)(1), the subject of this ESF.
12	Transport Canada Civil Aviation (AARTC/D)	Identification of Issue	1	In “...through a passage in the the bulkhead between...” delete the extra “the”	Suggest to revise text, if needed	Recommended	Accepted	Editorial issue. The Identification of Issue of the ESF will be revised as proposed by the Commenter.
13	Transport Canada Civil Aviation (AARTC/D)	Equivalent Safety Finding to CS 29.807(c) Amdt 3 Use of flight crew emergency exits for passenger evacuation with the rotorcraft on its side	2	In “...surrounding of the Emergency Exits.” delete capital “E” for both.	Suggest to revise text, if needed	Recommended	Accepted	Editorial issue. The ESF will be revised as proposed by the Commenter.

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14	Transport Canada Civil Aviation (AARTC/D)	Revise to add the acronym “ The Rotorcraft Flight Manual (RFM) is amended...”	2	Revise to add the acronym “ The Rotorcraft Flight Manual (RFM) is amended...”	Suggest to revise text, if needed	Recommended	Accepted	Formal / editorial issue. The text will be revised as follows “... <i>The RFM (Rotorcraft Flight Manual)</i> ...”

* Please complete this column using the drop-down list