

FAA SSD/SEI Combined List and Known Special Condition List for 14 CFR Part 27 and 29 Rotorcraft Products

Revision Log:

Rev. 0	Dated March 21, 2018	<u>Initial Issue</u>
Rev. 1	Dated June 10, 2024	<p><u>Revised 27.45(c)/29.45(c) IBF by combining 27.901(c), 29.901(d), 27.939(a)(b), 29.939(b) with it and rewriting the description and FAA position including adding conditions. Deleted the corresponding 27.901(c), 29.901(d), 27.939(a)(b), 29.939(b) rows.</u></p> <p><u>Revised 27.65/29.65 TCAS II by combining 27.1301/29.1301 and 27.1309/29.1309 with it and adding additional information in the FAA position. Deleted the corresponding 27.1301/29.1301 and 27.1309/29.1309 rows.</u></p> <p><u>Revised 27.79 HV Diagram Demonstration by combining 29.87 with it and rewriting the FAA position including adding conditions. Deleted the 29.87 row. Also added a Y in the Part 29 column.</u></p> <p><u>Revised 27.143/29.143 by rewriting the FAA position including adding conditions.</u></p> <p><u>Revised 27.351 by rewriting the description and FAA position including adding conditions. Removed from SEI 2 and added to SEI Part 2.</u></p> <p><u>Revised 27.562(a)/29.562(a) by rewriting the subject, description and FAA position.</u></p> <p><u>Revised 27.563/29.563 by rewriting the Description and FAA position and adding a Y to the SSD and SEI 1 and SEI 2 columns.</u></p> <p><u>Revised 29.571 by adding subparagraph (c) and rewriting the description and FAA position including adding conditions. Also added a Y in the SSD column.</u></p> <p><u>Revised 27.573/29.573 by adding subparagraph (b) and rewriting the description and FAA position including adding conditions. Also added a Y in the SSD column.</u></p> <p><u>Revised 27.773/29.773 by adding additional information in the FAA Position. Added a Y to SSD and SEI 1.</u></p> <p><u>Revised 27.801/29.801 Floatation Devices by combining it with 27.801/29.801 Wind Speeds to make 27.801/29.801 Ditching and revised the description and FAA Position. Added a Y to SSD, SEI 1 and SEI 2 columns.</u></p> <p><u>Revised 29.851(b)(1) Multi-purpose Fire Extinguishing System by combining 29.1195 with it. Deleted the corresponding 29.1195 row.</u></p> <p><u>Revised 27.861/29.861 Material Fire proofness by combining 27.863/29.863 and 27.1191/29.1191 with it. Revised the FAA Position to add conditions. Deleted the corresponding 27.863/29.863 and 27.1191/29.1191 rows.</u></p> <p><u>Revised CS27.865(c)(6) External Loads Attaching Means by changing it from an SEI to and SSD.</u></p> <p><u>Revised 27.865(f)/ 29.865(f) by rewriting the description and FAA Position.</u></p> <p><u>Revised 29.1305(b)(1) by adding information to FAA Position.</u></p> <p><u>Revised Management of Open Problem Reports by rewriting the Description and FAA Position.</u></p> <p><u>Revised 29.1316(b) by moving it to SEI Part 2.</u></p>

		<p><u>Revised 27.1329/29.1329 by rewriting the FAA Position.</u></p> <p><u>Revised 27.1523/29.1523 by adding information and conditions to the FAA Position and adding a Y in the SSD and SEI 1 columns.</u></p> <p><u>Revised 27.1353/29.1353 by updating the FAA position.</u></p> <p><u>Revised 27.1353/29.1353 by rewriting the Description and FAA position.</u></p> <p><u>Revised 27/29.771, 27/29.773, 27/29.1322,27/29.1381, 29.812 NVIS by rewriting the FAA position including adding conditions.</u></p> <p><u>Revised 27.143, 27 Appendix B, 27 Appendix C, 29.49, 29.53, 29.55, 29.59, 29.60, 29.61, 29.62, 29.65, 29.67, 29.71, 29.79, 29.81, 29.83, 29.85, 29.87, 29.141, Category A by rewriting the FAA Position including adding conditions.</u></p> <p><u>Revised 27/29.1301, 27/29.1309, 27/29.1322 HTAWS by rewriting the FAA Position to include conditions.</u></p> <p><u>Added New SSD 27.562/29.562 for Anthropomorphic Test Dummy (ATD) Weight.</u></p> <p><u>Added New SEI 29.601/29.603 for Glass in the Cabin Throw.</u></p> <p><u>Added New SEI 29.807(c) Helicopter Resting on Its Side.</u></p> <p><u>Added New SEI 29.811 Photoluminescent Exit Signs.</u></p> <p><u>Added New SEI 29.811(d) Symbolic Exit Marking.</u></p> <p><u>Added New SEI 29.855 Cargo compartment liner fire resistance testing.</u></p> <p><u>Added New SEI 29.855(a)(2),(c) and (d) Cargo / baggage compartment fire protection.</u></p> <p><u>Added New SEI 27/29.1301,27/29.1309,27/29.1529,27/29.1581 Active Lasers.</u></p> <p><u>Deleted 27.865(a)/ 29.865(a) External Loads.</u></p> <p><u>Deleted 27.901(b)(1)/29.901(b)(1) Interfaces between engine and rotorcraft.</u></p> <p><u>Deleted 27.901(c) Interfaces between engine and rotorcraft.</u></p> <p><u>Deleted 29.901(b)(2) Interfaces between engine and rotorcraft.</u></p> <p><u>Deleted 27.1301/29.1301 Non-required Equipment or capabilities affecting the Primary Field of View (POV).</u></p> <p><u>Deleted 27.1301/29.1301 Touch Screen.</u></p> <p><u>Deleted 27.1301/29.1301 Voice Control.</u></p> <p><u>Deleted 27.1309/29.1309 Attitude Indication.</u></p> <p><u>Deleted 27.1317(d)/29.1317(d) HIRF.</u></p> <p><u>Deleted 29.1435 Hydraulic System Burst Pressure.</u></p> <p><u>Added note (2 part 2)</u></p>
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		<u>Formatting Changes to add revision log table and SEI List Part 2 Column.</u>
Rev. 2	Dated November 4, 2024	<u>Revised Document Title</u> <u>Revised 27.563/29.563 Description for clarity</u> <u>Revised 27.801/29.801 Description for clarity</u> <u>Revised CS27.865(c)(6) by correcting the subject to be External loads</u> <u>Added Known Special Conditions List and associated note.</u>

This SSD/SEI Combined List is based on the following standards amendments:

14 CFR Part 27 Amdt. 27-51 vs. CS 27 Amdt. 10

14 CFR Part 29 Amdt. 29-59 vs. CS 29 Amdt. 11

Notes:

- (1) New VA standards or certain SSDs where the VA or CA has limited past experience with the application to a product, they have an important impact on the whole product or a critical feature, and engineering judgment is required to establish compliance.
- (2) Airworthiness standards where the VA's and CA's interpretive, advisory, MOC, or guidance materials differ or are insufficient, to an extent that those differences impact the level of safety required by the VA system and could result in VA required changes to the type design or approved manuals.
(2 Part 2) When interpretive, advisory, MOC, or guidance materials are well understood by both Authorities, full confidence should be given to the CA for determining compliance to those VA SEIs.
- (3) Items identified for special emphasis by the VA in a data-driven risk assessment analysis for the product class.
- (4) Subjects linked to known safety conditions that the VA has identified, and for which the VA either has taken, or is in the process of taking, airworthiness action.

Standard	Subject	Description (Describe the difference including any policy or guidance material that applies.)	FAA Position (Provide authority position including any policy or guidance material that applies.)	Part 27	Part 29	Significant Standard Difference (SSD)	Safety Emphasis Item (SEI)				
							(1)	(2)	(2 Part 2)	(3)	(4)
27.45(c)/29.45(c) 27.901(c) 29.901(d) 27.939(a)(b) 29.939(b)	Inlet Barrier Filter	IBF installation regarding limitations and performance determination.	<p>FAA published IBF Policy Statement PS-ASW-27/29-07 in 2017. EASA has not published equivalent guidance to affirm that the FAA expectations of safety are being met.</p> <p>This item qualifies as SEI:</p> <p>a) only the first time a conversion from non-IBF to IBF is performed on a product by an applicant.</p> <p>b) for new IBF installations, changes significantly affecting the IBF design, or surrounding changes which might affect the engine air supply.</p>	Y	Y			Y			
27.65/29.65 27.1301/29.1301 27.1309/29.1309	TCAS II	TCASII performance demonstration and Human Machine Interface	<p>There is no FAA/EASA harmonized interpretative material providing guidance on how to show compliance. There has been no change while EASA has no published guidance. They have done some IP that have addressed the FAA expectations. FAA uses AC 20-151C and the MOPS out of TSO C119 for the airworthiness approval and operational constraints for TCASII systems. (e.g. helicopter climb performance capability to follow the RA callouts, HMI characteristics of the installation, ...)</p>	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.79 29.87	H-V Diagram Demonstration	H-V diagram for new helicopters or for changed products, when the H-V is significantly modified.	<p>The H-V diagram is a critical area where the rotorcraft limits are approached and therefore sound judgment of the “normal piloting skill” is required. The concept of normal pilot skill is different in EASA versus the FAA in consideration of a non-type rated aircraft and qualitative assessments. As such, the FAA Flight Test as part of the technical familiarization aircraft capability, support flight manual reviews and flight standards activities require that the FAA retain the option to participate concurrently with EASA during critical envelope testing such as high-density altitudes where controllability margins are minimum and cold weather where flight control components can greatly affect the aircraft handling qualities. Generally, the findings between EASA and the FAA are similar as such limited joint participation would suffice in completion of technical familiarization.</p> <p>This item qualifies as SEI only for new single engine helicopters or for changed products, when the H-V diagram is significantly modified.</p>	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.143/29.143	Controllability	Low Speed Controllability	<p>In low-speed regime reduced control margins are typically encountered (below those specified in the AC material) and authority flight test crew direct exposure is essential to confirm their acceptability. The concept of normal pilot skill is different in EASA versus the FAA in consideration of a non-type rated aircraft and qualitative assessments. As such, the FAA Flight Test as part of the technical familiarization aircraft capability, support flight manual reviews and flight standards activities require that the FAA retain the option to participate concurrently with EASA during critical envelope testing such as high-density altitudes where controllability margins are minimum and cold weather where flight control components can greatly affect the aircraft handling qualities. Generally, the findings between EASA and the FAA are similar as such limited joint participation would suffice in completion of technical familiarization.</p> <p>This item qualifies as SEI only for new helicopter types or for changed products, when the controllability of the helicopter is significantly affected.</p>	Y	Y			Y			
27.351	Yawing Conditions	Determination of design load conditions for yaw maneuvers.	The FAA considers the guidance in AC 27-1B and 29-2 to be acceptable. This item qualifies as SEI for new TCs, derivative models and changes significantly affecting the design loads assumed for certification.	Y	Y				Y		

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.395/ 29.395	Control System	Lack of standards and harmonized guidance for design loads of flight controls segment located between the servo-actuators and the blades.	The FAA considers the guidance in AC 27-1 and 29-2 to be acceptable. EASA uses a memo for power-operated actuator control system loads.	Y	Y			Y			
27.562(a)/ 29.562(a)	Seats installed on adapter plates sometimes referred to as "plinths" or "pallets"	<p>Installations of single seats on a single adapter plate and multiple single-place seats onto adapter plates, with the adapter plate installed into the airplane seat track (or other structure), have not been dynamically tested incorporating the adapter plates.</p> <ul style="list-style-type: none"> • PS-ANM100-2000-00123 • Interim policy PS-ANM100-2000-00129 Federal Register /Vol. 65, No. 145 /Thursday, July 27, 2000 page 46193 	If the seat is essentially connected to the seat track via an adapter, the adapter is functionally part of the seat, and certification testing should take this into account. In that case, the seat and its adapter would be tested dynamically, with the misalignment required by the regulation imposed at the interface of the adapter and the floor.	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.562/29.562	Anthropomorphic Test Dummy (ATD) Weight	The text within 23.562, 25.562, 27.562, 29.562 is not harmonized with respect to the specified 170 lb. anthropomorphic test dummy (ATD) utilized for dynamic tests. Further, EASA has not adopted the 1995 policy memorandum which is specific to part 25 but applicable to part 23, 27, 29. The memo acknowledges use of an ATD that is slightly less than 170 lb. but meets 49 CFR Part 572, Subpart B as indicated in the FAA rule.	PS-ANM100-1995-1843 The part 572 Anthropomorphic Test Device (ATD) does not weigh 170 pounds, as specified in the regulation. Should the ATD be ballasted? The regulation contains a built-in conflict in that both the ATD specification and its weight are mandated. Since the specification already includes weight information, specifying both variables at the same time can result in non-standardization. The potential for non-standardization is considered greater if the ATD is ballasted. Therefore, the specified ATD should be used, but should not be ballasted (other than the clothing and shoes called for in Society of Automotive Engineers (SAE) Aerospace Standard 8049 and AC 25.562-1.	Y	Y	Y					
27.563/29.563	Structural Strength for Ditching	New EASA Regulation EASA amended ditching rules. FAA has not harmonized.	FAA will review projects to assure MOC meets FAA existing regulation.	Y	Y	Y	Y	Y			
29.571 (c)	Fatigue Tolerance-Metallic Structure	The showing of compliance with this new fatigue and damage tolerance requirement for metallic structures is a complex task and experience has shown that the interpretation of the applicable guidance is not fully harmonized. The impact of rolling contact fatigue on the fatigue and/or damage tolerance evaluation should be also taken into consideration.	Rule requires FAA approval of MOC. FAA retains verification of compliance for new type certifications, derivative models or design changes, when compliance with this requirement is adopted for the first time or a new methodology is proposed. FAA also retains the compliance demonstration for changes that adversely affect the fatigue or damage tolerance characteristics of parts subject to rolling contact fatigue, which typically includes, but is not limited to, bearing races and rolling elements and gear teeth.		Y		Y				

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.573(b)/29.573(b)	Damage Tolerance and Fatigue of Composite Structures	The showing of compliance with this requirement for composite structures is a complex task and experience has shown that the interpretation of the applicable guidance is not fully harmonized.	Rule requires FAA approval of MOC. This item qualifies for SEI for new type certifications, derivative models or design changes, when compliance with this requirement is adopted for the first time or a new methodology is proposed.	Y	Y		Y				
29.601 29.603	Glass in the Cabin Glass Throw	The FAA is not fully harmonized with EASA on large glass installations in the passenger cabin.	FAA does not allow expulsion of glass particles (glass throw) resulting from necessary impact testing. EASA has published an MOC to CS 25.603 (listed as 25.601) and the FAA addresses this issue via Issue Paper followed by Special Conditions. The EASA MOC accepts expulsion of glass particles (glass throw) resulting from necessary impact testing and the FAA does not allow any glass throw.		Y			Y			
27.773/29.773	Pilot Compartment View	Vision systems with transparent displays (e.g. head up-display, head mounted display, ...)	14 CFR 27.773 changed at Amdt. 27-48, 3/2017 and 29.773 was changed at amdt 29-56 3/2017 to add wording to cover future HWDs. Neither the FAA nor EASA have published or harmonized guidance on helmet worn displays.	Y	Y	Y	Y	Y			
27.801/29.801	Ditching	New EASA Regulation EASA amended ditching rules. FAA has not harmonized.	FAA will review project to assure MOC meets FAA existing regulation.	Y	Y	Y	Y	Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
29.807(c)	Helicopter Resting on its Side	The rule gives the possibility to claim that rollover is “extremely remote”. However, no guidance is given for substantiating such a claim.	Considering the lack of guidance and given the importance of the subject for the overall safety level of rotorcraft, the means of compliance need to be agreed with FAA should the "extremely remote" route be chosen.		Y		Y				
29.809(f)(3)	Assist Rope- Helicopter Resting on Side	Provision of a rope to descend from a rotorcraft on its side, with exit threshold >6ft from the ground has not been universally required.	A rope or slide is required for an aircraft on its side, with an exit threshold higher than 6 feet above ground.		Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
29.811	Photoluminescent Exit Signs	Photoluminescent exit signs require an external light source to charge the device. The FAA is unable to certify photoluminescent exit signs under current regulations. FAA's interpretation of the term "self-illuminated" in 29.811(d), is that the energy source for illumination must be contained entirely within the device (an example would be tritium signs). EASA has allowed photoluminescent exit signage under an Equivalent Level of Safety for the "self-illuminated" exit signs.	Self-illuminating materials are elements or compounds such as Radium & Tritium. The photoluminescence of light strips are not self-illuminating. Photoluminescence is a process in which a molecule absorbs a photon in the visible region, exciting one of its electrons to a higher electronic excited state, and then radiates a photon as the electron returns to a lower energy state. From: Counterterrorist Detection Techniques of Explosives, 2007		Y			Y			
29.811(d)	Symbolic Exit Marking	New EASA Amendment 29/11 allows symbolic exit signs.	The FAA does not have provisions to allow symbolic exit signs. FAA would initiate an Issue Paper and would consider an ELOS.	Y	Y	Y	Y				
29.851(b)(1) 29.1195	Multi-purpose Fire Extinguishing System	Different Interpretations of the regulation.	FAA does not allow the use of an engine bottle to be used for baggage compartment suppression but has allowed the use of an engine bottle to protect the APU.		Y			Y			
29.855	Cargo compartment liner fire resistance testing	EASA proposes to update Fire resistance from 1961 testing to align with 14CFR part 1 definition to withstand heat as well as aluminum. To that end CS/CFR 25 Appendix F Part III	Use of AC 20-135 Powerplant Installation and Propulsion System Component Fire Protection Test Methods, Standards, and Criteria for testing to a fire-resistant criteria is to use Kerosene not Propane. FSR 453 requirement for Fire Resistance is not rigorous (circa 1961) as AC 20-135 however the appropriate fuel should be used. FAA does not recognize the use of ISO-2685 as an equivalency to AC 20-135		Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
29.855(a)(2),(c) and (d)	Cargo / baggage compartment fire protection.	The intent of 29.855 (a)(2), (c) and (d) is open to several interpretations. Available guidance is insufficient to address all of them.	Concepts for accessible compartments, e.g. the interpretation of "accessible" and "easily accessible", the bounds of acceptability for crew to directly detect smoke at their station vs the need to keep smoke away from occupants, and the substantiation of RFM procedures intended to achieve "... contain compartment fires until a landing and safe evacuation can be made" have led to extensive discussions with applicants. Given the importance of the subject for the overall safety level of rotorcraft, the means of compliance need to be agreed with FAA.		Y			Y			
27.861/29.861 27.863/29.863 27.1191/29.1191	Material Fireproofness	Lack of harmonized guidance regarding material strength following and during a fire (exposure to extreme heat).	This item qualifies as SEI for new TCs, derivative models and changes significantly affecting the surrounding structure or part of the designated fire zone.	Y	Y			Y			
27.865(f)/ 29.865(f)	External Loads- Evaluation of personnel carrying system	EASA has modified CS 27/29.865 to include only "complex PCDS", approving simple PCDS with an alternate process defined in EASA CM-CS-005 Issue_01_Helicopter External Loads Personnel Carrying Device System.	FAA approvals of PCDS are as defined in AC 27-1 and AC 29-2. EASA PCDS approved as "Simple PCDS" are not acceptable.	Y	Y			Y			
CS27.865(c)(6)	External Loads	FAR Part 27 does not have this requirement	FAR 27 does not have the paragraph 27.865 (c) (6). FAA has different operating rules under 133.45 requiring a Transport category aircraft with CAT A certification for Class D external loads.	Y		Y					
29.901(d)	Engine APU Mode	Limited CAA experience and lack of AC guidance material.	SEI until common interpretation, harmonization and application of guidance material is confirmed.		Y			Y			
27.952(a)/ 29.952(a)	Fuel Tank Drop Test	Difference in interpretation of current AC Guidance.	SEI until common interpretation and application of guidance material is confirmed.	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.1093(b)(1)(i)/ 29.1093(b)(1)(i)	Turbine Engine Induction System Icing	Difference in interpretation of current AC Guidance. In addition, current guidance does not address APU and IBF installations.	Issue paper required until guidance material is updated and successfully applied.	Y	Y			Y			
27.1093(b)(1)(ii)/ 29.1093(b)(1)(ii)	Turbine Engine Induction System Under Snow	Current FAA AC material adequate for basic inlets, but does not address APU and IBF installations.	Issue paper required until guidance material is updated and successfully applied.	Y	Y			Y			
27/29.1301 27/29.1309 27/29.1529 27/29.1581	Active Lasers	Active lasers approval is not based on the same regulatory systems.	Given the differences in the regulatory systems, approval for active lasers is retained as SEI.	Y	Y			Y			
29.1305(b)(1)	Oil Pressure Indicator and Warning	Different Interpretations of the regulation.	FAA would require as much independence in the warning system as feasible for Cat A aircraft. The AC guidance does not fully explain the level of "independence" but it is expected that there should be no common mode failures between the two indications. (Independence requires dual sensors)		Y			Y			
	Management of Open Problem Reports	Open Problem Reports that result in RFM Limitations or affect emergency procedures as compensating means.	Open Problem Reports that result in <ul style="list-style-type: none"> RFM Limitations, or Emergency dedicated procedures (i.e. specific, unusual, training), or Extensive change of the standard Emergency procedures as compensating means qualifies as SEI. 	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.1309/29.1309	Use of Multicore Processors	Multi-Core processors include features that may impact the behavior, and therefore the safety, of a system if not well managed.	<p>Use of Multicore Processors: For airborne systems hosting Software components on different cores using Multicore Processors, a means of compliance Issue Paper/CRI is needed.</p> <p>Note: The SEI is applicable if the FAA Generic MCP IP rev 11 (or later) or EASA CRI issue 11 has not been applied or when the type of usage is not covered by the generic CRI or IP (e.g. dynamic allocation).</p> <p>Once we have gained experience and lessons learned from the Issue paper/CRI, the CA's will update the AC material to include guidance for use of Multi-Core Processors.</p>	Y	Y			Y			
29.1316(b)	Indirect Effect of Lightning	Difference in interpretation. EASA applies this paragraph only for essential systems used for IFR operation	FAA expects compliance for VFR as well as IFR		Y				Y		
27.1329/29.1329	AFCS	Off-Shore Rig Approaches	There is no specific aircraft cert level guidance after the removal of H100 standard and there has been various concepts for minimum RNP values discussed. While EASA generally adhere to the FAA expectations, there is minimal documented guidance on these types of approaches.	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27.1523/29.1523	Human Machine Interface and minimum crew determination	Human Machine Interface and minimum crew determination in case of a cockpit design characterized by high level of integration.	Past certification and validation activities revealed that differences in operations rules and requirements influence how authorities treat certification and mitigations for crew workload issues do to design. Actually, there is larger disparity both at the SSD level and SEI level. It also more complicated that historically HF had been across multiple regulations as defined in MG20. Further the showing of compliance between MG20 and CS MOC do differ. This item qualifies as SEI only for new TCs or product changes significantly affecting cockpit installations.	Y	Y	Y	Y	Y			
27.1353/29.1353	Rechargeable LI Battery	New policy is under development. Difference in interpretation of current AC Guidance.	Guidance is being updated to reflect recent revision of Industry consensus specification DO311A Current AC 20-184 is out of date and issue papers are being written until the revision 20-184a is released.	Y	Y			Y			
27.1353/29.1353	Non-rechargeable LI Battery	Difference in interpretation of current AC Guidance	Guidance has been developed and new rule has been issued. FAA involvement required until new rule and guidance are successfully applied.	Y	Y			Y			
27.1357/29.1357	Solid State Power Contactor - Circuit Protective Devices Accessibility	Lack of Harmonized Guidance Material	Issue paper required until guidance material is developed and successfully applied.	Y	Y			Y			
27.1419/29.1419	Ice Protection	Advisory Material is dated, Draft revision is in work through SAE Committee but not finalized.	Issue paper required until guidance material is updated and successfully applied. In addition, flight evaluation in known icing conditions is critical for safe rotorcraft operations, in terms of handling qualities, rotorcraft performance degradation and assessment of icing protection system functionalities.	Y	Y			Y			

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							(1)	(2)	(2 Part 2)	(3)	(4)
27/29.771 27/29.773 27/29.1322 27/29.1381 29.812	NVIS	Full NVIS approval of a helicopter model. Lack of Harmonized guidance material.	<p>FAA follows the policies included within the latest version of the MG 16. In addition, the FAA has developed TSO standards for NVG equipment which removed the dedicated compatible NVG goggle be identified in the RFM.</p> <p>EASA still requires specific compatible NVG's for each configuration or STC and are documented differently depending on the TDH.</p> <p>This item qualifies as SEI only for new TCs, new STCs, or product major changes aimed at achieving full NVIS certification or changes that add new goggles</p>	Y	Y			Y			

Standard	Subject	Description <small>(Describe the difference including any policy or guidance material that applies.)</small>	FAA Position <small>(Provide authority position including any policy or guidance material that applies.)</small>	Part 27	Part 29	Significant Standard Difference (SSD)	Safety Emphasis Item (SEI)				
							(1)	(2)	(2 Part 2)	(3)	(4)
27.143 27 Appendix B 27 Appendix C 29.49 29.53 29.55 29.59 29.60 29.61 29.62 29.65 29.67 29.71 29.79 29.81 29.83 29.85 29.87 29.141	Category A	Category A Take Off and Landing Procedures definition.	Noncompliance in defining Category A limitations and procedures may result in unsafe conditions. Although CS 27/29 and FAR 27/29 are the same in terms of Category A requirements, in developing their Category A procedures manufacturers use methodologies that are quite different. In addition, experience has shown that, in order to cope with the wide operational scenarios, Category A can include many different procedures (ranging from clear runway to elevated heliports and offshore procedures). Therefore, the definition of the associated performance and the evaluation of the crew workload are essential elements for Category A approval. As such, the FAA Flight Test as part of the technical familiarization aircraft capability, support flight manual reviews and flight standards activities requires that the FAA retain the option to participate concurrently with EASA during critical envelope testing that cannot be accomplished during middle of envelope familiarization flights. Generally, the findings between EASA and the FAA are sufficiently similar such that limited joint participation would be sufficient in completion of technical familiarization. This item qualifies as SEI only for new helicopter types or for changed products, when new Category A procedures are introduced in the RFM or are significantly affected.	Y	Y			Y			
27/29.141 27/29.143 27/29.177 29.181 27/29.1329	LPV with Steep Approaches	Lack of harmonized guidance. Steep approaches require criticalities in defining minimum and maximum speeds, rate of descent, cross and tail wind, intercept angle, etc.	AC 27/29 MG-1 was amended at Change 7 to incorporate steep angle low speed evaluation guidance.	Y	Y			Y			

Standard	Subject	Description (Describe the difference including any policy or guidance material that applies.)	FAA Position (Provide authority position including any policy or guidance material that applies.)	Part 27	Part 29	Significant Standard Difference (SSD)	Safety Emphasis Item (SEI)				
							(1)	(2)	(2 Part 2)	(3)	(4)
Various	Human External Cargo	Human Machine Interface for cockpit controls	Implementation of load release cockpit controls for HEC installations and pilot HMI evaluation are critical in terms of safety as there is a large variety of implementations not consistently supported by the available guidance material.	Y	Y			Y			
27/29.1301 27/29.1309 27/29.1322	HTAWS	Graphical display of terrain	Graphical display of alerted terrain and obstacle to pilot is the issue. Either as a "pop-up" or alerted terrain presented on existing moving map terrain display. This item qualifies as an SEI only for helicopters incorporating an avionics suite not previously certificated on other helicopter types or where changes to the HTAWS display presentation has been altered from the previously certificated avionics suite.	Y	Y			Y			
No Specific FAA Regulation	Fire Hazard Assessment for Oxygen System Installation - EMS	FAA has MG-6 that addresses EMS, EASA has Generic CRI F-01 Issue 4 which differs from MG-6.	FAA expects compliance with MG-6	Y	Y			Y			
No FAA Regulation	Vibration Health Monitoring	EASA has CS29.1465, FAA does not have a Regulation for this.	FAA expects compliance with MG-15		Y	Y	Y				

Known Special Condition List for 14 CFR Part 27 and 29 Rotorcraft				
Standard	Subject	Description	Part 27	Part 29
27.865(a)/ 29.865(a)	External Loads	Hoists with overload protection devices (OLPD)	Y	Y
	Search and Rescue (SAR)	Novel or unusual design feature associated with installing an optional SAR AFCS.	Y	Y
	Fly by Wire Flight controls	Flight envelope protection	Y	Y
	Fly by Wire Flight controls	Mode awareness	Y	Y
	Fly by Wire Flight controls	Proximity to limits	Y	Y
	Fly by Wire Flight controls	Fly by wire flight control system	Y	Y
	Fly by Wire Flight controls	Interaction of systems and structures	Y	Y
	Crew Alerting (CAS)	Associated with the electronic CAS.	Y	Y
XX.173/175, Section IV, Section VII	Fly by Wire Flight Controls	Longitudinal Stability. Fly by wire helicopters have shown an inability to meet traditional stability requirements as stipulated in the requirements of XX.173(b) for the conditions stipulated under XX.175. In addition, for aircraft approved for IMC, those aircraft do not meet the prescriptive requirements under Appendix B Section IV(a) for the conditions identified in (IV)(b) which also related to SAS failure requirements under Section VII(a).	Y	Y
XX.161/Section III	Flight by Wire Flight Controls	Trim. Fly by wire helicopters have shown a tendency by design to meet traditional trim requirements as stipulated under XX.161. In addition, for aircraft approved for IMC, those aircraft have shown an inability to meet the prescriptive requirements under Appendix B Section III to trim out forces (cyclic, collective, and directional control) to zero for all approved IFR airspeeds.	Y	Y
27.901(b)(1)/ 29.901(b)(1) 27.901(c) 29.901(b)(2)	Interfaces between engine and rotorcraft	Highly integrated engine/airframe installations	Y	Y
	Pressure Refueling Provisions in Part 27	Part 27 does not include an equivalent to Sec. 29.979 - Pressure refueling and fueling provisions below fuel level.	Y	
	Extended Duration of Flight After Loss of Main Gearbox Lubrication.	This design feature is the extended duration of continued safe flight and landing beyond 30 minutes after indication to the flight crew of the loss of main gearbox lubrication.		Y
	30-Minute All Engines Operating (AEO) Power Rating	30-minute all engines operating (AEO) power rating, generally intended to be used for hovering at increased power for search and rescue missions.	Y	Y

Note: The Known Special Condition List is provided to highlight those special conditions that have been issued or are anticipated based on technologies and their applications that have already been applied for or are being developed. Additional special conditions may need to be developed depending on the specific project.