Special Condition 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
NR	Author	Section, table, figure	Page						
1	*Pilatus Aircraft Ltd.*	Appendix A	Page 8 of 42	SC-O23-div-08.02 - Front windshield protection *“ b) The aeroplane must have a means to maintain a clear portion of the windshield during precipitation conditions, enough for both pilots to have a **sufficiently extensive view** along the flight path in normal flight attitudes of the aeroplane. This means must be designed to function, without continuous attention on the part of the crew, in moderate rain considering approach, landing and **go around speeds** in all weight and CG configurations.”* CAT II is defined as a Low Visibility Operation and in case of a go-around, this manoeuvre will be performed while relying on the instruments and not on external visual cues. Per definition, it has to be assumed that the crew will be flying the aircraft in IMC at least until the DH. At this point, if the crew will decide to not commit for landing and therefore not to fly the visual segment of the CAT II approach, a go-around will be initiated. It is fair to assume that in almost the entirety of the cases this decision will be driven by the fact that, at DH, the crew was not able to gather the required external visual cues to be able to safely complete the visual segment of the approach. As a consequence, the go-around will be performed in the same conditions found during the approach: with no (or insufficient) view from the pilot compartment. Since the go-around will be performed in IMC, the performance of the windshield clearing system at go-around speeds is totally irrelevant.	Pilatus considers that **go-around speeds** should be removed from the text of the Special Condition.	No	Yes	partially agreed	Text of SC changed in order to provide a speed range that is linked to CAT II approaches. Explanation of ‘maximum applicable approach speed’. The maximum applicable approach speed is the top end speed of the VISIBILITY REQUIREMENT to perform a safe landing after a CAT 2 approach. The applicant will have to update the AFM (usually via AFM-Supplement) to incorporate CAT 2 operations. In the Section 4 – Normal Procedures, the applicant will provide guidance to the operator how to perform a CAT 2 approach. For CAT 2, there will be guidance in section 4 how to calculate the applicable approach speed. Often there are increments to the Vref (typically: 1.3 * Vsr1). The resulting CAT 2 approach speed is likely to depend on: - Aircraft weight - Aircraft Configuration (Flaps, airbrakes, ice protection) - Environment (wind, icing) - Performance (alt. loss in G/A, missed approach climb performance, landing performance) - other factors. The maximum applicable approach speed for CAT 2 operations is the maximum possible speed given by the applicant/manufacturer to an operator to perform a CAT 2 approach. The 5 kts margin of SC-O23-div-08.02 and 08.03 has to be added to the ‘maximum applicable approach speed’.
2	*Pilatus Aircraft Ltd.*	Appendix A	Page 9 of 42	SC-O23-div-08.03 – Passive Rain Removal: *“(b) The aeroplane must have a means to maintain a clear portion of the windshield during precipitation conditions, enough for both pilots to have a sufficiently extensive view along the ground or flight path in normal taxi and flight attitudes of the aeroplane. This means must be designed to function, without continuous attention on the part of the crew, in conditions from light misting precipitation to moderate rain from fully stopped in still air up to the approach, landing and **go-around speeds** in all weight and CG configurations.“* See Nr. 1 above.	Pilatus considers that **go-around speeds** should be removed from the text of the Special Condition.	No	Yes	partially agreed	see comment 1.
3	*Pilatus Aircraft Ltd.*	Appendix B	Page 11 of 42	“*The method should address combinations of precipitation conditions, speeds, time exposure and airplane configurations that may result in areas on the windshield where airflow is stagnated or may otherwise interfere with maintaining the required clear vision area and should establish the effectiveness **of the hydrophobic coating** to maintain the required area of clear vision.”*	Pilatus proposes to change this section as follows: “The method should address combinations of precipitation conditions, speeds, time exposure and airplane configurations that may result in areas on the windshield where airflow is stagnated or may otherwise interfere with maintaining the required clear vision area, and should establish the	Yes	No	accepted	Text changed accordingly.

				This introductory paragraph of the SC addresses the “passive rain removal means”. Additional AMCs for the hydrophobic coating are provided in a specific section of the SC.	effectiveness of the **passive rain removal means** to maintain the required area of clear vision.”				
4	*Pilatus Aircraft Ltd.*	Appendix B	Pag 11 of 42	Table 1 “*Misting conditions : 0.05 mm/hour (MVD 0.1 mm)*” Misting conditions should not be considered precipitation conditions. Mist (METAR code BR) is “obscuration”, not “precipitation” (ref. to WMO-No. 782, 2020). Mist is reported when water droplets suspension in the air reduce visibility down between 1’000 and 5’000 m. This is an approved and worldwide deployed metrics for the generation of METAR.	Pilatus proposes to change Table 1 as follows: “Misting conditions: MVD 0.1 mm” and to change the caption of Table 1 as follows: “Definition of obscuration, precipitation rates (mm/hour) & median droplet volume diameter (mm)”	No	Yes	agreed	The terms *“light misting precipitation”* have been replaced by *“light misting”* in SC-O23-div-08.03 *“0.05 mm/hour”* has been removed from table 1 and replaced by *“(*)”* A Note has been added below table 1 of Appendix B : “*(*): Mist resulting from a suspension of water droplets in the air at high relative humidity (at least 80%) and reducing the visibility between 1.000 and 5.000 m.”* The definition of mist is based on DOC 9837 AN/454 – Manual on Automatic Meteorological Observing Systems at Aerodromes.
5	*Pilatus Aircraft Ltd.*	Appendix B	Page 12 of 42	*“The pilot compartment view should be shown to comply with SC-O23-div-08.03 with no more than 5% remaining of the substantiated service life or the proposed inspection interval of the windshield coating, as applicable.”* It is industry standard to check the performance of the hydrophobic coating regularly by the application a fine water spray on the window surface. The performance and remaining service life is then judged by a qualitative assessment of the water droplet size, shape and the appearance of the water droplets run down tracks. It defines basically three conditions; GOOD, ACCEPTABLE (re-application at next inspection), NOT ACCEPTABLE (re-application instantly required). This performance check has been published by many hydrophobic coating manufacturer in their application manuals, and it is published accordingly by the aircraft manufacturer in their AMMs. Since this industry standard performance check is not a quantitative assessment, it does not allow to define a 5% remaining service life condition.	Pilatus proposes to change this section of the CRI as follows: “Minimum acceptable performance of the hydrophobic coating should be defined in the aircraft AMM together with the required procedure and inspection criteria. The pilot compartment view should comply with SC-O23-div-08.03 with the hydrophobic coating at its minimum acceptable performance as defined in the aircraft AMM.”	No	Yes	noted	The proposed text of Pilatus is covered by the text of the MAC already.
7	Embraer S.A.	Appendix B	12	The loss of CAT II capability below 200 ft does not represent an exposure to the aircraft safe operation that requires a “warning” alert. In order to explain why this condition does not represent a large exposure that requires immediate corrective action, let us suppose that another alert is annunciated simultaneously with the loss of the CAT II capability, between 200 ft and 100 ft AGL, such as the engine fire alert. In a situation like this, it is clear, regarding awareness and priority for a corrective action, that the engine fire condition takes precedence over the loss of the CAT II capability annunciation. The exposure to the aircraft caused by the in-flight engine fire is such that it requires immediate and decisive action. It is no question, that, so close to the ground,	Revise: “Loss of approach capability during an approach requires immediate recognition and immediate action from the pilot. Therefore the loss of CAT II capability below 200 feet is classified as a warning.” to read as follows: “Loss of approach capability during an approach requires immediate awareness and timely corrective action from the pilot.”	no	yes	not agreed	EASA considers that the loss of CAT II capability below 200ft represent an exposure that requires a "warning" alert. As explained in the SC, loss of approach capability during an approach requires immediate recognition and immediate action from the pilot. Especially below 200 ft, proximity to terrain and limited time to react requires a warning indication to allow pilot to immediately recognize the failure and immediately react. The hypothesis of having another simultaneous failure generating a different warning does not exempt that the failure of the CAT II approach capability requires immediate recognition and immediate action, meaning "warning" alert as per CS-23.1322. The comment suggests a confusion about allowing the pilot to land or go-around conditioned to achieving visual conditions; however it

				if there are visibility conditions for the crew to land, that they will do so and deal with the fire on the ground. The loss of CAT II capability represents less exposure to the aircraft than the engine fire –					does not address the need of immediate pilot recognition and immediate reaction. The aspect of simultaneous failures is related to the alerting hierarchy.
8	Embraer S.A.	Appendix B	13	It is also important to point out, independently of the alert color, that if just one alert occurs at a specific situation that one single alert is the one that will require corrective action. Again, the term “subsequent”, - which has never been used in CS Part 23 (neither in amdt. 3 nor in amdt. 5, but is used in ASTM F3117/F3117-M, the current MOC for CS 23.2605) -, or “future corrective action”, - which is the expression that has been used in superseded CS Part 23 versions -, is not a time allowance to permit the crew to “sit on their hands” for a while, to just act “subsequently”, when the corrective action is indeed necessary, just moments before the situation escalates into a critical event. “Subsequent” or “future corrective action” is defined as something coming after some other thing in time. Therefore, “subsequent” or “future corrective action” always suppose a prior activity in time. If no prior activity in time occurs, then “subsequent” or “future corrective” action becomes “immediate”. Thus, EASA is not correct to indicate that “an amber indication implies that the decision can be delayed”. The corrective action and any decision associated to it can be delayed if more urgent actions are necessary, first. Otherwise, the corrective action and any decision associated to it will need to be immediate.	Revise: In the case of CAT II without automatic downgrade to CAT I, it means that the pilot must immediately determine to continue (if he or she can see the runway) or initiate the missed approach procedure. An amber indication implies that the decision can be delayed. Proximity to terrain and limited time to react indicate that a warning alert is appropriate. to read as follows: In the case of CAT II without automatic downgrade to CAT I, it means that the pilot must timely determine to continue (if he or she can see the runway) or initiate the missed approach procedure.	No	yes	not agreed	When the failure has occurred below 200ft, the pilot must identify immediately if he/she can continue (if he/she can see the runway) or has to initiate the missed approach procedure. The type of alert, caution or warning means something different to the pilot. The proximity to terrain and the limited time to react when failure occurs below 200 ft compared with failure above 200 ft justify the need of a warning
9	Embraer S.A.	Appendix C3 Item 9.f	30	It is missing the correct reference.	Revise: The details on how to calculate the “average probability per flight hour” for a failure condition are given in **Section Error! Reference source not found** to read as follows: The details on how to calculate the “average probability per flight hour” for a failure condition are given in **Section 13**.	yes	no	n/a	Appendix C has been removed, see comment 12.
10	Embraer S.A.	Appendix C3 item 10.a.	31	According to AC 25-1309-1E, Section 23.1309(d) requires information concerning unsafe system operating condition(s) must be provided in a timely manner to the crew to enable them to take appropriate corrective action. This sentence corresponds to the text of 14CFR 23.1309(d) Amdt. 23-62, Eff. 01/31/2012: “(d) Information concerning an unsafe system operating condition must be provided in a timely manner to the crew to enable them to take appropriate corrective action (…)” However CS 23.1309 amdt 3 and 4 states that “(b)(3) Warning information must be provided to alert the crew to unsafe system operating conditions and to	Consider presenting the text of the requirement and the text of the means of compliance separately.	yes	no	n/a	Appendix C has been removed, see comment 12.

				enable them to take appropriate corrective action. (…)”					
11	Embraer S.A.	Appendix C3 item 10.c.3	31	The level of detailed related to procedures that the proposal seems to require. Seems to be appropriate to STCs, but not for AFM or other publications , that should provide all the needed details for operation.	To change item 10.c.3 (page 31) to state that either the AFM or other publication must present procedures for operation of complex system.	yes	no	n/a	Appendix C has been removed, see comment 12.
12	Embraer S.A.	Appendix C3 Section 12	35	It is not clear how to address the allocation of Develoment Assuance Level. The reference adopted by the elaboration of Appendix C of SC-023-div-08 is AC 23.1309-1E, however, that is not the case for DAL, that is referred to ARP 4754A/ ED79A. This difference of approchs is According to Figure 2 RELATIONSHIP AMONG PROBABILITIES, SEVERITY OF FAILURE CONDITIONS, AND SOFTWARE AND COMPLEX HARDWARE DAL (for Class IV), further consideration on DAL assignment may be found in ED-79A section 5.2.	The definitions on section 12 of Appendix C3 should be rewritten as to not refer to AC 23.1309-1E and its sections. Remove reference of section 21 of AC 23.1309-1E Explain in more details how to address the DAL allocation.	yes	no	n/a	Appendix C has been removed. CS-25.1309 is significantly written differently from different and is not fully covered by the CS-23.1309, however the main safety objectives are very similar with commuter (Class IV) aircraft category. equivalent. Consequently, the AMC of CRI F-51 ‘Equipment, systems and installations’ ´has to be applied. Guidance ED-79A (ARP 4754A) has been developed for Part 25 modern and complex aircraft. ED-79(A) or ARP 4754(A) provide system safety analysis methods for the determination of functional DAL and item DAL. Their allocations follow engineering methods to grant IDAL reductions. However, some of the processes included are not necessary or appropriate for Part 23 airplanes. If a part 23 commuter is making usage of ED-79(A) or ARP-4754(A) and does not follow entirely the engineering methods proposed or is not appropriate for a Part 23 commuter, an alternate means of compliance will be necessary. This is normally not specific to the CAT II functionality but is rather linked to complex electronics systems like Fly by wire, stability augmentation, auto land, electronic backbones, UMS, IMA, etc.). EASA anticipates that AC 23.1309-1C and later, referring to ED 79 and ARP-4754 and later, is sufficient to address CAT II functionality. If CAT II specifically makes a new usage of this guidance then an AMOC CRI is needed. Therefore, in this CAT II special condition, EASA proposes no System Safety Assessment (SSA) Special Conditions nor specific Means of Compliance (MoC) for it. The applicant must use the SSA CRI develop in its Type Certificate.
13	*UK CAA*	Certification Basis Comparison CS-23 vs. CS-25 and CS-AWO	2	It was noted that the Certification Basis comparison was performed between EASA CS-23 amdt. 3 and CS-25 amdt. 24. EASA CS-23 amdt. 4 introduced CS 23.1306 Electrical and electronic system lightning protection and CS 23.1308 High-Intensity Radiated Fields (HIRF) protection requirements and associated AMC into certification of CS-23 aeroplanes. Similarly, CS-25 rely on CS 25.1316 Electrical and electronic system lightning protection and CS 25.1317 High-Intensity Radiated Fields (HIRF) protection. Whilst the inclusion of CS 25.1309 and associated AMC will cover the gaps of CS-23 in terms of development assurance and safety assessment, this requires to take into account lightning and High-Intensity Radiated Fields (HIRF) during the Particular Risk Analysis (PRA). Whilst the PRA will address the risks associated with HIRF and lighting, the (test) requirements referenced above give the reassurance that the aeroplane is capable to operate safely in these conditions. It is also noted that HIRF and lightning effects on failure conditions are referenced in AMC to CS AWO.161. CS AWO 161 applies to failure or a	It is recommended that due consideration is given to HIRF and lightning in this SC. It is also recommended to include CS 25.1316 Electrical and electronic system lightning protection and CS 25.1317 High-Intensity Radiated Fields (HIRF) protection, or CS 23.1306 Electrical and electronic system lightning protection and CS 23.1308 High-Intensity Radiated Fields (HIRF) in this SC, to enhance safety and assess the resilience of the design against HIRF and lightning.	NO	YES	agreed	Text of SC changed accordingly.

				combination of failures affecting trim, flight path or attitude which is considered applicable to this Special Condition (SC), as the scope of this SC includes the Autopilot/Flight Director Architecture, Reliability and Performance amongst other systems.					
14	*Transport Canada – AARDD/NAC*	Table	3 of 42	In the Table of Page 3 of 42, the CS AWO 262 Autopilot and CS AWO 263 Flight Director Systems should make reference to both CS 25.1309 and CS 25.1329.	In addition to CS 25.1329, consider adding CS 25.1309 also to both : - CS AWO 262 Autopilot - CS AWO 263 Flight Director Systems	yes	NO	accepted	Table modified accordingly. Especially the FD AWO-263 mentions the remote probability of display incorrect guidance. There is no difference in the safety target for a Major (remote) failure case between CS23 commuter and CS25.
15	*Transport Canada – AARDD/NAC*	Table Appendix A, SC-O23-div-08.05 - Flight Guidance System:	3 of 42 10 of 42	Missing requirement to comply with CS 23.1523. In the Table of Page 3 of 42, the CS AWO 303 Minimum flight crew is part of CS AWO Subpart 3, for CAT 3 operation. It specifically makes reference to “use of minimum decision height” which is correct for CAT 3 operations. However, this may not translate well for CAT 2 operations on Part 23 aircraft.	There is a newly introduced requirement in the upcoming draft CS AWO Issue 2 NPA 2018-06 Subpart B for CAT II. Please refer to CS AWO.B.CATII.104 Flight Crew Workload, which states : “ The workload associated with the use of the approach system shall be considered in showing compliance with CS 25.1523 and CS 25 Appendix D.” Considering adapting this new requirement in Appendix A, SC-O23-div-08.XX to cover the compliance to CS 23.1523, if applicable.	yes	Yes	accepted	Effectively the NPA 2018-06(C) propose a new CS AWO.B.CATII.104 Flight Crew workload that is more appropriate to the issue addressed. It was missing in the CS-AWO initial issue in Subpart 2 for CAT II. This is pertinent for the gap analysis and references and the table is modified accordingly. Gap analysis shows adequate requirements are available in CS23.1353 and the Human Factors SC called for CAT II OPS. However CS 25 Appendix D, (b)(10) adds : “Incapacitation of a flight crew member whenever the applicable operating rule requires a minimum flight crew of at least two pilots”. This is addressed in the current CAT II project but is not specified into our current SC-O23-div-08-xx. Therefore, this specific guidance point is added in Appendix B. MOC to CS-23.1523: Minimum Flight Crew: The following Workload factors is in addition considered significant when analysing and demonstrating workload for the minimum flight crew determination: Incapacitation of a flight crew member during CAT II approach. The applicant must determine if the aircraft can still be landed or if a go around is necessary. Standard and Abnormal operational procedure might be necessary.
16	*Transport Canada – AARDD/NAC*	1	5 of 42	The current text reads: *CS-25.773(d) requires such DERP. In CAT II operation, it is essential that the pilot seats so that the visual acquisition of external references and the instruments scanning are optimal or not masked by glareshield or other cockpit frames.*	New proposed text to improved clarity about the pilot seats requirement: *CS-25.773(d) requires such DERP. In CAT II operation, it is essential that the pilot seats be located/adjusted (as applicable) so that the visual acquisition of external references and the instruments scanning are optimal or not masked by glareshield or other cockpit frames.*	Yes	No	accepted	Text improved
17	*Transport Canada – AARDD/NAC*	SC-O23-div-08.02 - Front windshield protection: (a)(2)	8 of 42	(2) Free from glare and reflections that could interfere with the pilot’s vision. Compliance must be shown in all operations for which certification is requested.	Pilot’s should be replaced by “both pilots” or “Flight Crew” as it is described in subsequent sections. In this case, both pilots’ vision need to be free from glare and reflections.	Yes	Yes	Accepted	Text modified accordingly
18	*Transport Canada – AARDD/NAC*	SC-O23-div-08.02 - Front windshield protection: (e)	8 of 42	An Openable Windows does not need to be provided…	Replace by “Openable Windows” do not need to be provided…	Yes	Yes	accepted	Text modified accordingly
20	*Transport Canada – AARDD/NAC*	13.3		Paragraph should start on a new line		yes		n/a	Appendix C has been removed, see comment 12.
21	*Transport Canada – AARDD/NAC*	Appendix C, Sec 9.f.	30 of 42	Contains a broken link “…are given in Section Error! Reference source not found.”	fix			n/a	Appendix C has been removed, see comment 12.

22	*Transport Canada – AARDD/NAC*	SC-O23-div-08.02/03	8/9	The structure of these two conditions is confusing as div-08.02(b) replaces an existing standard (ie 23.773) but this is then in turn replaced again at div-08.03. This leads to conflicting or unclear standards to comply to.	Streamline the conditions by incorporating div-08.03 into div-08.02 and add additional commentary in the MOC, rather than a double replacement of existing standard.	yes	Yes	disagreed	EASA believes as it regards the MOC – in case of passive rain removal - div-08.02 (b) turns into n/a and div-08.03 becomes applicable.
23	*Transport Canada – AARDD/NAC*	SC-O23-div-08.06	10	CS-23.1585 has paragraph breakdown. Reference to additional subparagraph (6) is the SC assumes paragraph (a) based on context.	Amend wording to include paragraph (a) in the text (ie, “CS-23.1585 (a) is amended by …”	Yes	Yes	agreed	Text modified accordingly