

# ANAC Safety Emphasis Items (SEI) List

## RBAC 23

### Revision Log

Rev. 0	Dated January 06 <sup>th</sup> , 2025	Initial issue
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#### SEI definition (ANAC-EASA TIP Rev. 5):

- (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) Only those SSDs that meet the noted criteria should be identified as SEI. The expectation is that the majority of SSDs are well understood by both authorities, with full confidence given to the CA for determining compliance to those VA SSDs;
- (3) 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. As experience is gained, the VA may choose to reduce the application of this criterion to minimize involvement. 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;
- (4) Items identified for special emphasis by the VA in a data-driven risk assessment analysis for the product class; and
- (5) 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.

No	Subject	Description	Relevant Guidance	Standard(s)/
1	[RESERVED]			
2	[RESERVED]			
3	[RESERVED]			
4	[RESERVED]			
5	[RESERVED]			
6	Flight Into Known Icing (FIKI)	Applicants must coordinate with the ANAC if they are: <ul style="list-style-type: none"> <li>• Seeking FIKI approvals, or</li> <li>• Proposing changes that affect or could affect an existing FIKI approval, or</li> <li>• Proposing to modify an aircraft that has icing related airworthiness directives (AD), or</li> <li>• Proposing to make autopilot modifications on an airplane certificated for icing prior to Amendment 23-43 to ensure the airplane has adequate low airspeed awareness.</li> </ul>	RBAC 23.929, 23.1416, 23.1419 at amendment 23-63 and prior. RBAC 23.2010, 23.2165, 23.2415, 23.2540 at amendment 23-64 and after.	
7	Engine Operation in Ice Crystal Conditions	If the applicant is using Electronic Engine Control (EEC) logic to determine if the airplane is operating in ice crystal conditions, then the ANAC will be involved in the project. For example, blockage of the Tt0 probe by ice crystals has resulted in engine thrust rollbacks in ice crystal environments.	RBAC 23.903(a)(2) at amendment 23-63 and prior. RBAC 23.2010, 23.2400 at amendment 23-64 and after.	
8	[RESERVED]			
9	[RESERVED]			
10	[RESERVED]			
11	Autothrust System: New or Amended Special Condition	If the applicant is seeking to install an autothrust (autothrottle) system, applicants must use applicable amendment 23-64 regulations and coordinate with the ANAC to establish adequate requirements and means of compliance.	RBAC 23.2010 at amendment 23-64 and after.	
12	Engine Control System: New or Amended Special Condition	If the applicant is seeking to install a full authority or supervisory engine control system (EEC/FADEC), applicants must use applicable amendment 23-64 regulations and coordinate with the Policy and Innovation Division to establish adequate requirements and means of compliance.	RBAC 23.2010 at amendment 23-64 and after.	
13	[RESERVED]			
14	[RESERVED]			
15	[RESERVED]			
16	[RESERVED]			
17	[RESERVED]			
18	Using RBAC part 23 at Amendment 64 or later - 23.2010	If an applicant is using a means of compliance (MOC) not previously accepted by the ANAC Administrator when complying with RBAC part 23 at amendment 23-64 or higher, this project will be considered Non-Basic. See below link for the MOC accepted by the ANAC Administrator for part 23, amendment 23-64 or later.	RBAC 23.2010 amendment 23-64 and after.	
19	Use of Type II, III, and IV Deicing/Anti-Icing Fluids	If the applicant is including the use of Type II, III, or IV deicing/anti-icing fluids as part of their type design, then they must assess the impact of these fluids before operational use of such fluids is authorized. Policy Statement, PS-ACE-23-05, provides an ANAC accepted means of compliance (MOC) for using Type II, III, or IV deicing/anti-icing fluids.	RBAC 23.143, 23.251, 23.1529, 23.1581, 23.1585, 23.1587 at amendment 23-63 and prior. RBAC 23.2010, 23.2135, 23.2160, 23.2620 at amendment 23-64 and after.	
20	Fire Protection of Flight Controls, Engine Mounts, and Other Flight Structure	If the applicant proposes to use materials not previously accepted as fire proof, such as composite materials, then they may need to obtain an ANAC accepted means of compliance(MOC) to RBAC 23.865 at amendment 23-63 and prior. Testing is usually required to validate the performance of these materials. At amendment 23-64 and after, the applicant should incorporate ANAC accepted MOC into their certification planning.	RBAC 23.865 at amendment 23-63 and prior. RBAC 23.2010, 23.2330 at amendment 23-64 and after.	

## ANAC Safety Emphasis Items (SEI) List

### RBAC 23

No	Subject	Description	Relevant Guidance	Standard(s)/
21	Composite or Nonmetallic Firewall	<p>If the applicant proposes a firewall constructed with composite materials, then they must obtain and incorporate ANAC accepted means of compliance (MOC) to RBAC 23.601, 23.603, 23.605, 23.859, 23.863, 23.903, 23.1013, 23.1091, 23.1121, 23.1123, 23.1141, 23.1182, 23.1183, 23.1189, 23.1191, 23.1192, and 23.1193 at amendment 23-63 and prior to ensure their proposed test and evaluation will be adequate.</p> <p>While FAA Advisory Circular AC20-135 is an ANAC accepted MOC that contains general guidance about the use of composite firewall materials, specific guidance is necessary to ensure a compliant design. Firewalls constructed with composite materials require consideration of unique fire threats, safety concerns and acceptance criteria that differs from those used to address firewalls constructed from traditional metallic materials.</p> <p>Applicants seeking to ensure that proposed test and evaluation will be adequate to show compliance with fire protection requirements for any firewall constructed with composite material should contact the ANAC for additional guidance.</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted MOC into their certification planning.</p>	RBAC 23.601, 23.603, 23.605, 23.859, 23.863, 23.903, 23.1013, 23.1091, 23.1121, 23.1123, 23.1141, 23.1182, 23.1183, 23.1189, 23.1191, 23.1192, and 23.1193 at amendment 23-63 and prior. RBAC 23.2010, 23.2440, 23.2250, 23.2260 at amendment 23-64 and after.	
22	Fire Protection - Turbine Engine Oil Systems Without a Shutoff Valve	<p>If the applicant is seeking to install a turbine-engine-oil system and all parts of the system are not shown to be fireproof when a shutoff valve is not incorporated into the system, then they may need to obtain an ANAC accepted means of compliance (MOC) to RBAC 23.1013(e) and 23.1189(b) at amendment 23-62 and prior.</p> <p>Demonstration of compliance to the requirements of RBAC 23.1013(e) and 23.1189(b) has proven problematic in the past.</p> <p>At all amendment levels, applicants should incorporate ANAC accepted MOC into their certification planning.</p>	RBAC 23.1013(e) and 23.1189(b) at amendment 23-63 and prior. RBAC 23.2010, 23.2400(c) and 23.2440(d) at amendment 23-64 and after.	
23	Turbine Engines Shutdown	<p>If the applicants turbine engine control system only includes a single means to shutdown the engine, then the applicant may require an ANAC accepted means of compliance (MOC) to RBAC 23.1141(e) at amendment 23-63 and prior.</p> <p>The installation requirements of § 23.1141(e) require that no single failure of a turbine-engine control system causes failure of any powerplant function necessary for safety.</p> <p>Most engine control systems provide a redundant means for engine shutdown. For example, if the installed engine control system only provides a single means for shutting off fuel to the engine, then redundant means for engine shutdown must be provided to ensure a simple, quick, and safe shutdown if the primary means of shutdown fails.</p> <p>At amendment 23-64 and after, applicants should coordinate 23.2410(a) with the ANAC to incorporate an ANAC accepted MOC into their certification planning.</p>	RBAC 23.1141(e) at amendment 23-63 and prior. RBAC 23.2010 and 23.2410(a) at amendment 23-64 and after.	
24	Powerplant Indications - Use of Digital Only Indications	<p>At amendment 23-64 and after, applicants should coordinate 23.2500, 23.2505, 23.2606, 23.2615, 23.2610 with the ANAC to incorporate ANAC accepted means of compliance (MOC) into their certification planning.</p>	RBAC 23.2010, 23.2500, 23.2505, 23.2606, 23.2615, 23.2610 at amendment 23-64 and after.	
25	Engine Cooling - Climb Speeds	<p>If the applicant is proposing compliance with RBAC 23.1047, amendment 23-51, "Cooling test procedures for reciprocating engine powered airplanes", using an airspeed greater than the best rate of climb speed (Vy) or balked landing climb (VREF) speeds, then they may need to obtain an ANAC accepted means of compliance (MOC).</p> <p>Section 23.63(a)(2), amendment 23-62, requires §§ 23.65 Climb: All engines operating; and 23.77, Balked landing, to use speeds not less than the speed used to demonstrate compliance with the powerplant cooling requirements (§§ 23.1041, amendment 23-51, through 23.1047). Applicants proposing to use an airspeed greater than those used to show compliance to §§ 23.65 or 23.77 to demonstrate compliance with § 23.1047 should propose a method of compliance that will ensure adequate engine cooling during all expected operating conditions.</p> <p>Applicants should coordinate with ANAC to determine an appropriate MOC and incorporate the ANAC accepted MOC into their certification planning.</p>	RBAC 23.1047 at amendment 23-63 and prior. RBAC 23.2010, 23.2400(c), (e) at amendment 23-64 and after.	
26	Engine Cooling - Coolant Tank Capacity Requirements	<p>If the applicant is seeking to install liquid cooled reciprocating engines, then an Equivalent Level of Safety (ELOS) finding to RBAC 23.1061(b) may be required at any amendment up to and including amendment 23-63.</p> <p>Some RBAC part 33 approved reciprocating engines include a self-contained cooling system that may not meet the installation coolant tank capacity and expansion space requirements of RBAC 23.1061(b).</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted means of compliance (MOC) into their certification planning in lieu of an ELOS finding.</p>	RBAC 23.1061(b) at amendment 23-63 and prior. RBAC 23.2010, 23.2400(c) at amendment 23-64 and after.	
27	Fuel System - Pressure Defueling	<p>If the applicant is seeking to install a pressure defueling system, requirements at amendment 23-63 or earlier are not adequate, therefore, applicants are required to use applicable amendment 23-64 regulations to establish adequate requirements and means of compliance based on requirements of 23.2400(c) and 23.2430(c).</p>	No rule at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.	

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No	Subject	Description	Relevant Standard(s)/ Guidance
28	Fuel System - Lightning Protection and Hot Weather Operation	<p>If the applicant does not use the below means of compliance (MOC), the ANAC will need to be involved.</p> <p>Acceptable methods of compliance for fuel system lightning protection and fuel system hot weather operations have been problematic in the past and need to be coordinated with ANAC.</p> <p>For compliance with the fuel system hot weather requirements, if methods other than FAA Advisory Circular (AC) 23-16A, Powerplant Guide for Certification of Part 23 Airplanes and Airships, are used/proposed, ANAC involvement is required.</p> <p>For compliance with the fuel system lightning protection requirements, if any method of compliance other than FAA AC 20-53B, Protection of Aircraft Fuel Systems Against Fuel Vapor Ignition Caused by Lightning, is used/proposed, ANAC involvement will be required.</p>	RBAC 23.954, 23.961 at amendment 23-63 and prior. RBAC 23.2010, 23.2430 at amendment 23-64 and after.
29	Fuel System – Temperature	<p>If the applicant is seeking to establish the minimum level of safety expected for the effect of elevated fuel system temperatures on the airplane, applicants must use applicable amendment 23-64 regulations and coordinate with ANAC to establish adequate requirements and means of compliance.</p> <p>Fuel systems configured to reject engine heat through the airplane fuel tanks by use of an engine oil/fuel heat exchanger or other means may result in fuel tank temperatures above the critical temperature test requirements of RBAC 23.961 and 23.965(d).</p>	RBAC 23.961 and 23.965(d) at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.
30	Damage Tolerance and Fatigue Evaluation of Structure	<p>Foreign Civil Aviation Authorities (FCAA) have varying approaches to the application of fatigue requirements to derivative model airplanes when the original model did not have fatigue requirements at initial certification. The ANAC may be involved with these projects.</p> <p>Fatigue management programs are addressed in FAA advisory circular AC 91-82.</p> <p>In addition, the ANAC does not typically allow use of an inspection program in lieu of the safe life design limits already established. Reference AC 21.101-1B, Appendix Table A-2, Example 23, "Conversion from a safe-life design to a damage tolerance-based design".</p>	RBAC 23.573 at amendment 23-63 and prior. RBAC 23.2010, 23.2240 at amendment 23-64 and after.
31	Metallic Damage Tolerance (DTA) and Fatigue Evaluation of Commuter Category or (Level 4 at Amendment 23-64 or Higher) Airplanes	Some FCAA differ in the application of damage tolerance for RBAC part 23 airframes and vary from the ANAC's accepted means of compliance (MOC). The EASA may be involved to assist the applicant in developing a means of compliance that is acceptable to the ANAC.	RBAC 23.574 at amendment 23-63 and prior. RBAC 23.2010, 23.2240 at amendment 23-64 and after.
32	Fatigue Management Programs	<p>If the applicant is proposing to incorporate a Fatigue Management Program (FMP) into an existing product, then the ANAC may need to be consulted to determine the certification basis and the accepted means of compliance (MOC).</p> <p>FMPs cannot be mandated on existing products in the U.S. except through an Airworthiness Directive.</p> <p>FAA Advisory Circular AC 91-82 is considered an accepted MOC.</p> <p>There are varying approaches to the application of fatigue requirements to derivative model airplanes when the original model did not have fatigue requirements at initial certification. The ANAC may be involved with these projects.</p> <p>In addition, the ANAC does not typically allow use of an inspection program in lieu of the safe life design limits already established. Reference AC 21.101-1B, Appendix Table A-2, Example 23, "Conversion from a safe-life design to a damage tolerance-based design".</p>	RBAC 23 at any amendment.

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No	Subject	Description	Relevant Guidance	Standard(s)/
33	Vinyl Covering Shrink Wraps on Exterior of Part 23 Airplanes, Gliders, and Airships	<p>Applicants should be aware that the FAA has issued a memo stating there are safety issues with the installation of vinyl covering shrink wraps on the exterior of airplanes, gliders, and airships that are not present with other exteriors such as paint and deicing boots. These issues include hazards that are major to catastrophic, so the installation by FAA Field Approval is not acceptable. Only Federal Aviation Administration (FAA) Type Certificate (TC), Amended Type Certificate (ATC), and Supplemental Type Certificate (STC) are acceptable for this installation. This memorandum is not applicable to vinyl decals or logos that are placed on limited areas of the fuselage or empennage.</p> <p>The following are safety concerns with the installation of vinyl shrink wrap coverings that must be evaluated by the applicant for any TC/ ATC/STC application:</p> <ol style="list-style-type: none"> <li>Without proper engineering evaluation and/or tests, vinyl shrink wrap cannot be placed on any control surface or control surface tab: <ol style="list-style-type: none"> <li>without consideration of the effect on the flutter characteristics (whether the surface is mass balanced or not) and</li> <li>where that installation would change the existing clearance between adjacent surfaces with and without loading.</li> </ol> </li> <li>Scoring the skin of aircraft when cutting the vinyl sheets to fit, which can start cracks, particularly in pressurized aircraft.</li> <li>Blocking of fuel vents, static ports, hinges, drain holes etc., making them inoperative or changing the airflow over static ports.</li> <li>Use of an open flame from a blowtorch to apply the material. This is a concern around fuel tanks and vents, sensitive antennas, and especially on composite parts, which have cure temperatures well below the temperature of a blowtorch.</li> <li>Covering required exterior aircraft markings and emergency exits.</li> <li>Vinyl sheets losing adhesion on the surface or on rotating parts and jamming control surfaces or compromising engines.</li> <li>Static build-up causing electrical discharges in or around fuel tanks and causing radio/navigation interference.</li> <li>Tinting of windows and windshields with transparent vinyl, which compromises the view of pilots.</li> <li>The impact on removal of ice build-up on critical surfaces.</li> <li>Flammability of the material, including lightning strikes, and especially near engine exhausts and around engine nacelles. Flammability test specimens should be built-up from the cowlings/nacelle with the vinyl shrink wrap applied.</li> <li>Peeling of the wrap from rain or hail.</li> <li>Masking of cracks and corrosion in structure and skin.</li> <li>Lifetime of a vinyl shrink w/ Tap installation. How long before mandatory removal.</li> <li>Effects of de-ice fluids on the film. 23.1323, 23.1325, and 23.1529 at amendment 23-63 and prior.</li> </ol>	<p>RBAC 23.629, 23.659, 23.773, 23.775, 23.805, 23.807, 23.811, 23.865, 23.867, 23.975, 23.1301, 23.1309, 23.1323, 23.1325, and 23.1529 at amendment 23-63 and prior.</p> <p>RBAC 23.2010, 23.1529, 23.2215, 23.2245, 23.2250, 23.2315, 23.2320, 23.2330, 23.2335, 23.2400, 23.2415, 23.2430, 23.2500, 23.2505, 23.2510, 23.2540, 23.2600, 23.2605, 23.2615 at amendment 23-64 and after.</p> <p>FAA Airship Design Criteria</p> <p>EASA JAR 22/CS 22</p>	
34	Emergency Exits - Unobstructed Path	<p>If the applicant is seeking to comply with RBAC part 23.807(b) at amendment 23-63 and prior, then they may require an Equivalent Level of Safety (ELOS) Finding.</p> <p>ANAC has allowed exemptions or ELOS where a seatback could be pushed out of the path without any additional actions, while other foreign airworthiness certification authorities have permitted additional actions on seatbacks and climbing over seats with lowered seatbacks based on an evacuation test.</p> <p>Applicants complying with RBAC part 23.807(b) at amendment 23-63 and prior must maintain an unobstructed path to emergency exits.</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted means of compliance (MOC) into their certification planning in lieu of an ELOS finding.</p>	<p>RBAC part 23.807(b) at amendment 23-63 and prior.</p> <p>RBAC part 23.2010 and 23.2315 at amendment 23-64 and after.</p>	
35	Composite Floats	<p>If the applicant is seeking to install composite floats, then they may need to obtain an ANAC accepted means of compliance (MOC) to address fatigue and durability requirements per RBAC 23.573. The addition of floats is deemed a significant change per §21.101 and therefore requires applicants to apply §23.573 (pre amendment 23-64) requirements unless they can show that compliance with a later requirement does not materially improve the level of safety or is impractical. (See FAA AC 21.101-1B).</p> <p>NOTE: TSO-C27 and National Aircraft Standards (NAS) 807 provide minimum test requirements to obtain a TSO for floats but the TSO is deemed inadequate for installation approval of composite floats with respect to fatigue and durability.</p> <p>The ANAC is recommending that the applicant does not need to comply with §23.573 for the composite floats themselves as long as they comply with §23.603 using the guidance of AC 23-19A sections 201 through 207. The guidance in AC-23-19A closely approximates requirements per §23.573. The applicant should also comply with §23.613 for their composite float design. In order to substantiate the certification approach in the guidance of the AC, the ANAC will likely require material testing or other testing.</p> <p>If the applicant's design are not adequately addressed by the above regulations at amendment 23-63 or earlier, applicants must use applicable amendment 23-64 regulations and coordinate with the ANAC to establish adequate requirements and means of compliance.</p>	<p>RBAC 23.573, 23.603, 23.609, 23.613 at amendment 23-63 and prior</p> <p>RBAC 23.2010 at amendment 23-64 and after.</p>	
36	[RESERVED]			

## ANAC Safety Emphasis Items (SEI) List

### RBAC 23

No	Subject	Description	Relevant Guidance	Standard(s)/
37	HIRF and Lightning	<p>If the applicant is proposing alternate methods of compliance for HIRF/lightning test levels and compliance, then they must incorporate FAA accepted means of compliance (MOC) (PS-ACE-23-10). PS-ACE-23-10 describes acceptable compliance methods to RBAC 23.1306 and 23.1308 (§§ 23.2515 and 23.2520) for level A systems in Class I, II and III airplanes (certification levels 1,2, and 3) as determined from Advisory Circular (AC) 23.1309-1E.</p> <p>PS-ACE-23-10, is an FAA accepted MOC that may be used in lieu of the MOC described in AC 20-136B, Aircraft Electrical and Electronic System Lightning Protection, and AC 20-158A, The Certification of Aircraft Electrical and Electronic Systems for Operation in the High-intensity Radiate Fields (HIRF) Environment, to show compliance to RBAC 23.1306 and 23.1308 (§§ 23.2515 and 23.2520) for level A systems. The intent of PS-ACE-23-10 is to define an alternate means of demonstrating compliance with level A systems for HIRF and the indirect effects of lightning requirements for small airplanes without the need to perform full airplane test.</p> <p>For those aircraft classes at amendments where ACs 20-136B and 20-158A are still applicable, there may have still different interpretations of how to apply these guidances. For Amd. 23-64 and after, discussions are still occurring about the appropriate method of compliance, which could be new for the ANAC.</p> <p>At all amendment levels, applicants should incorporate ANAC accepted MOC into their certification planning and coordinate with the ANAC when incorporating alternate ANAC accepted MOC into their certification planning.</p>	RBAC 23.1306, 23.1308 at amendment 23-63 and prior. RBAC 23.2010, 23.2515, 23.2520 at amendment 23-64 and after.	
38	[RESERVED]			
39	Electronic Flight Instrument Systems	<p>If the applicant is proposing to install an electronic flight instrument system (EFIS) that has not been previously evaluated by the ANAC, then the ANAC may require a multi-pilot usability and human factors evaluation.</p> <p>This evaluation (on past EFIS) have resulted in the need for Equivalent Level of Safety (ELOS) finding(s) or additional ANAC accepted means of compliance (MOC) to RBAC 23.1309(d), 23.1311, 23.1321 and 23.1322 at amendment 23-63 and prior.</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted MOC into their certification planning in lieu of an ELOS finding.</p>	RBAC 23.1309(d), 23.1311, 23.1321, 23.1322 at any amendment 23-63 and prior. RBAC 23.2010, 23.2500, 23.2605, 23.2610, 23.2615 at amendment 23-64 and after.	
40	Touch Screens	<p>If the applicant is seeking to install touch screens (multi-function controls), then they should follow the ANAC accepted means of compliance (MOC) contained in the applicable chapters of FAA Advisory Circular AC 20-175, "Controls for Flight Deck Systems."</p> <p>If the touchscreen has not previously evaluated by the ANAC, then the ANAC will evaluate their level of involvement in the project.</p>	RBAC 23.671, 23.771, 23.777, 23.1301, 23.1311, 23.1309, 23.1322, 23.1381, 23.1523 and 23.1555 at amendment 23-63 and prior. RBAC 23.2010, 23.2250(a), 23.2300, 23.2320, 23.2500(a), 23.2500, 23.2505, 23.2510, 23.2600, 23.2605, 23.2610, 23.2615 at amendment 23-64 and after.	
41	Vision Systems - Synthetic and Enhanced	<p>If the applicant is seeking to install Synthetic Vision Systems (SVS) or Enhanced Vision Systems (EVS), then they must incorporate ANAC accepted means of compliance (MOC).</p> <p>FAA Advisory Circulars AC 20-167A, "Airworthiness Approval of Enhanced Vision System, Synthetic Vision System, Combined Vision System, and Enhanced Flight Vision System Equipment", and AC 20-138D, "Airworthiness Approval of Positioning and Navigation Systems", are ANAC accepted MOCs.</p> <p>SVS typically uses terrain data from a database to display "synthetic vision" information to the pilot.</p> <p>EVS is an electronic means to provide a display of the forward external scene topography through the use of imaging sensors, such as forward looking infrared (FLIR), millimeter wave (MMW) radiometry, MMW radar, and/or low-light-level image intensifying.</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted MOC into their certification planning.</p>	RBAC 23.773, 23.1301, 23.1309, 23.1311 at amendment 23-63 and prior. RBAC 23.2010, 23.2600 at amendment 23-64 and after.	
42	Vision Systems - Night Vision Imaging Systems	<p>If the applicant is seeking to install night vision compatible lighting systems into part 23 airplanes, then they must obtain an ANAC accepted means of compliance (MOC) at all amendment levels.</p> <p>The ANAC accepted NVIS MOC is currently available as a Project Specific Policy Memo that may be obtained from the ANAC. This MOC defines an acceptable MOC for aided flight operations and aided takeoff and landing operations. This MOC does not address operational authorization.</p>	RBAC 23.561, 23.771, 23.773, 23.777, 23.807, 23.1301, 23.1311, 23.1321, 23.1322, 23.1351, 23.1381, 23.1383, 23.1401, 23.1501, 23.1523, 23.1525, 23.1543, 23.1581, 23.1583, 23.1585 and any amendment 23-63 and prior. RBAC 23.2010, 23.2250, 23.2270, 23.2315, 23.2320, 23.2325, 23.2500, 23.2505, 23.2510, 23.2525, 23.2530, 23.2540, 23.2600, 23.2605, 23.2610, 23.2615, 23.2620 at amendment 23-64 and after.	

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No	Subject	Description	Relevant Guidance	Standard(s)/
43	[RESERVED]			
44	[RESERVED]			
45	[RESERVED]			
46	[RESERVED]			
47	[RESERVED]			
48	Battery - Rechargeable Lithium/Battery Systems	<p>If the applicant is installing rechargeable lithium batteries and/or battery systems, then the ANAC may be required to apply special conditions to establish the minimum level of safety for any amendment up to and including amendment 23-63.</p> <p>At amendment 23-64 and after, If the applicant is installing rechargeable lithium batteries and/or battery systems, applicants must use applicable amendment 23-64 regulations and coordinate with the ANAC to establish adequate requirements and means of compliance.</p> <p>This includes both mainship and non mainship batteries.</p>	No Rule at RBAC 23 at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.	
49	Battery - Storage Battery	At amendment 23-64 and after, applicants should incorporate ANAC accepted means of compliance (MOC) into certification planning.	RBAC 23.2010, 23.2525 at amendment 23-64 and after.	
50	Multi-Core Processors	If the applicant proposes to use software-based aircraft systems that utilize multi-core microprocessors (i.e., without disabling unused cores, etc.), then they must use or obtain an ANAC accepted means of compliance (MOC).	RBAC 23.1301, 23.1309 at amendment 23-63 and prior. RBAC 23.2010, 23.2510 at amendment 23-64 and after.	
51	Basic Med Operations	<p>If the applicant is seeking to allow RBAC part 68 basic med operations in some RBAC part 23 airplanes, then they may need to apply for type certificate action either through an amended type certificate or supplemental type certificate (STC) if their airplane is certificated above 6000 pounds maximum take-off weight and/or has seat counts greater than 6.</p> <p>The FAA has issued a policy memo that addresses these expectations more clearly and that memo is available upon request.</p>	RBAC part 68, RBAC 91.107(a)(3)	
52	[RESERVED]			
53	Fire Extinguishing/Suppression Agent	<p>If the applicant proposes the use of non-Halon fire extinguishing/suppression agents for use in lavatory trash receptacle bottles, handheld fire extinguishers, engine/APU fire extinguishing, cargo compartment fire suppression, etc., then they may need to obtain an ANAC accepted means of compliance (MOC) to RBAC 23.851, 23.855, 23.863, 23.1195, 23.1197, 23.1201, at amendment 23-63 and prior.</p> <p>Halon is being phased out of airplane applications per ICAO deadlines.</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted MOC into their certification planning.</p>	RBAC 23.851, 23.855, 23.863, 23.1195, 23.1197, 23.1201, at amendment 23-63 and prior. RBAC 23.2010, 23.2325, 23.2440 at amendment 23-64 and after.	
54	Nonconformal Heads up Display	<p>If the applicant is seeking to install a nonconformal heads up display, then they must obtain an accepted means of compliance (MOC).</p> <p>Nonconformal heads-up displays do not take into account external reference information. They act as a repeater to the electrical flight instrument system. They are not considered required equipment but have safety enhancing capability.</p>	RBAC 23.773 at amendment 23-63 and prior. RBAC 23.2600(a) at amendment 23-64 and after.	
55	Material Design Values	<p>If the applicant proposes to use material that does not meet RBAC 23.613 at amendment 23-63 or prior, then they may require an Equivalent Level of Safety (ELOS) finding.</p> <p>The use of S-Basis design values (material allowables) do not comply with probability requirements of RBAC 23.613(a), (b), and (c), amendment 23-45. This requires that material strength properties be based on a sufficient number of tests to establish a statistical basis for the design values. For single load path structure, RBAC 23.613 further requires the design values must be established with a 99 % probability and 95 % confidence ("A" basis) value. For multiple load path structure, the design values must be established with a 90 % probability and a 95 % confidence ("B" basis) value. However, S-Basis design values have an unknown statistical assurance.</p> <p>Currently, there is no alternate allowed for structure to use statistically determined minimum design values other than "A" or "B" basis. In addition, there is no option to utilize a procurement specification value as a design value verified with receiving inspection test sampling processes.</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted means of compliance (MOC) into their certification planning in lieu of an ELOS finding.</p>	RBAC 23.613 at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.	

## ANAC Safety Emphasis Items (SEI) List

### RBAC 23

No	Subject	Description	Relevant Standard(s)/ Guidance
56	Seats - Side Facing	<p>If the applicant is seeking approval and implementation of single-place side facing seats at amendment 23-63 or earlier based on the requirements of RBAC 25.562 and §25.785, then they must coordinate with the ANAC to apply special conditions to establish adequate requirements.</p> <p>If the applicant is seeking approval and implementation of multiple place side facing seats at amendment 23-63 or earlier based on the requirements of RBAC 25.562 and §25.785, then they must coordinate with the ANAC to request an exemption.</p> <p>In addition, if the seat installations mentioned above require airbags to meet the requirements of §25.562 and §25.785 a special condition is required for this as well.</p> <p>The FAA has developed a policy statement, PS-ANM-25-03-R1 that identifies areas of regulatory compliance.</p> <p>At amendment 23-64 and after, applicants should coordinate with the ANAC to incorporate the requirements of the special conditions into their certification planning as ANAC accepted means of compliance (MOC) in lieu of a special condition.</p>	<p>No rule at RBAC Part 23 Amendment 23-63 and prior. Reference RBAC Part 25 Sections 25.562 (amendment 25-64) and 25.785 (amendment 25-64) as referenced in PS-ANM-25-03-R1. RBAC 23.2010 at amendment 23-64 and after.</p>
57	Airbags	<p>If the applicant is seeking to install airbags on the airframe, then they may need to obtain an ANAC accepted means of compliance (MOC) or may be required to apply a special condition.</p> <p>Applicants should contact the ANAC for any updated information or guidance.</p>	<p>No rule at RBAC 23 at amendment 23-63 and prior. RBAC part 23.2010 at amendment 23-64 and after.</p>
58	Compliance to Stability Regulations	<p>If the applicant is seeking to show compliance to stability regulations for unlimited acrobatic airplanes, then they may need a special condition for amendment 23-63 or earlier.</p> <p>At amendment 23-64 and after, applicants should incorporate the requirements of the special condition into their certification planning as an ANAC accepted means of compliance (MOC) in lieu of a special condition.</p>	<p>RBAC 23.171, 23.173, 23.175, 23.177 at amendment 23-63 and prior. RBAC 23.2010, 23.2145 at amendment 23-64 and after.</p>
59	Envelope Protection and Emergency Descent Mode	<p>If the applicant is proposing to install new control functions within the autopilot on a new or existing avionics system which provides automatic stability augmentation and envelope protection or the addition of an emergency descent mode, then they must obtain an ANAC accepted means of compliance (MOC).</p> <p>At amendment 23-64 and after, applicants should incorporate ANAC accepted MOC into their certification planning.</p>	<p>RBAC 21.17(b), 21.21(b)(3) RBAC §23.207, 23.672, 23.691, 23.1301, 23.1309, 23.1322, 23.1329, 23.1335 and 23.1541 at amendment 23-63 and prior. RBAC 23.2010, 23.2150, 23.2250, 23.2300, 23.2500, 23.2505, 23.2510, 23.2600, 23.2605, 23.2610, 23.2510, at amendment 23-64 and after.</p>
60	Additive Manufacturing	<p>If the applicant is proposing to use Additive Manufacturing (AM), then they must coordinate their proposals with the ANAC to determine the level of involvement.</p> <p>AM is a relatively new manufacturing process and describes the process of joining materials to make objects from three dimensional (3D) model data using layer upon layer technique/method, as opposed to subtractive manufacturing methodologies. This manufacturing technique is sometimes referred to as 3D printing. AM is a generic term that spans a diverse range of techniques using a wide range of machines and technologies, such as Laser Powder Bed Fusion (LPBF), Electron Beam Powder Bed Fusion (EBPBF), and Directed Energy Deposition (DED) just to name a few. Some of these sub-categories of AM may even employ technologies that differ and have their own unique considerations for certification.</p>	<p>No rule at RBAC 23 at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.</p>
61	Electric or Hybrid Electric Propulsion Systems	<p>If the applicant is proposing to install electric or hybrid-electric propulsion systems, then they may require equivalent level of safety (ELOS) findings, special conditions (SC), or additional design criteria to address features not envisioned.</p> <p>The need for SC, ELOS, design criteria and corresponding means of compliance (MOC) must be determined on a case-by-case basis for each installation. Specific policy does not exist at this time. Projects with electric propulsion or hybrid electric will require ANAC involvement.</p>	<p>No rule at RBAC part 23 amendment 23-63 and prior. RBAC 23.2010, 23.2400 at amendment 23-64 and after.</p>
62	Fuel - Approval of New Fuel	<p>If the applicant is seeking approval to use a new fuel type, then they must coordinate their proposal with the ANAC to determine the level of ANAC involvement with respect to policy or guidance.</p> <p>There is considerable activity across the aviation industry; therefore, energy behind the introduction of new aviation fuels is high. These efforts are highly visible and potentially controversial.</p> <p>NOTE: This is intended for fuels new to aviation where there is no existing ANAC accepted standard for that fuel, not the approval of an existing aviation fuel for use on a specific model.</p>	<p>RBAC 21.17(b), RBAC 23 at any amendment.</p>
63	Load Relief/Alleviation Systems	<p>If the applicant proposes to use load relief or load alleviation systems for aircraft structure, then they may require a special condition at amendment 23-63 or earlier to address the effect of such systems on aircraft structure. In addition, current regulations do not take into account the effects of system failures on aircraft loads.</p> <p>At amendment 23-64 and after, applicants should coordinate with the ANAC to incorporate the requirements of the special conditions into their certification planning as ANAC accepted means of compliance (MOC) in lieu of a special condition.</p>	<p>No rule at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-34 and after.</p>

## ANAC Safety Emphasis Items (SEI) List

### RBAC 23

No	Subject	Description	Relevant Standard(s)/ Guidance
64	Artificial Intelligence Software	If the applicant is proposing to use artificial intelligence (AI) software, then this will require ANAC involvement. References: FAA Advisory Circular (AC) 20-115D, DO-178C.  Applicants should contact the ANAC for additional guidance.	RBAC part 23.1301, 23.1309 at amendment 23-63 and prior. RBAC part 23.2010, 23.2505, 23.2510 at amendment 23-54 and after.
65	Speech Recognition or Voice Activated Technology	If the applicant proposes to install speech recognition or voice activated technology for avionics data entry, then they may need to obtain an ANAC accepted means of compliance (MOC) to RBAC 23.1301 and 23.1309 at amendment 23-63 and prior.  At amendment 23-64 and after, applicants should incorporate ANAC accepted MOC in their certification planning.	RBAC 23.1301 and 23.1309 at amendment 23-63 and prior. RBAC 23.2010, 23.2500, 23.2505, and 23.2510 at any amendment 23-64 and after.
66	Energy/Thrust Management Systems/Displays for Electronic Propulsion	If the applicant proposes to use Energy and/or Thrust Management Systems, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy or guidance.  Aircraft designed to incorporate electric propulsion systems, distributed propulsion systems, or operate in different flight modes (vertical, transitory, forward flight) may be required to utilize energy and/or thrust management systems which are new to the Part 23 fleet.  Considerations include the monitoring of battery states, individual thrust vectors (magnitude and direction) as well as malfunction annunciations.	RBAC 23.1321, 23.1353, 23.1581 at amendment 23-63 and prior. RBAC 23.2010, 23.2500, 23.2525, 23.2610, 23.2620 at amendment 23-64 and after.
67	[RESERVED]		
68	Distributed Propulsion Systems	If the applicant proposes to use distributed propulsion systems, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy or guidance.  Highly-augmented, distributed propulsion systems are new to the Part 23 fleet. They are typically defined as a highly-augmented propulsion system consisting of a single throttle controlling a multi-motor system.	RBAC 23.777 23.1141, 23.1143 at amendment 23-63 and prior. RBAC 23.2010, 23.2400, 23.2410, 23.2440, 23.2500, 23.2600, 23.2610, 23.2615 at amendment 23-64 and after.
69	Highly Augmented Flight Path Control Systems/Fly By Wire (FBW)	If the applicant proposes to use Highly Augmented Flight Path Control Systems/Fly By Wire (FBW), then they may require special conditions, Equivalent Level of Safety (ELOS) findings, or may need to obtain ANAC accepted means of compliance (MOC) at any part 23 amendment.  FBW control systems are new to the Part 23 fleet and has only been certified to date under Parts 25& 29 with the use of Special Conditions and Equivalent Levels of Safety.  FBW systems are highly integrated flight controls and propulsion systems that may require new display symbology, and may require new performance and handling quality testing requirements.	RBAC 23.161, 23.171, 23.173, 23.175, 23.177, 23.181, 23.671, 23.672, 23.691, 23.777, 23.779, 23.1321, 23.1329, 23.1335 at Amendment 23-63 and prior. RBAC 23.2010, 23.2140, 23.2145, 23.2245, 23.2250, 23.2300, 23.2500, 23.2505, 23.2510, 23.2515, 23.2600, 23.2605, 23.2610 at amendment 23-64 and after.
70	Active Stick Technology	If the applicant proposes to use Active Stick Technology, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy or guidance.  Active stick technology is typically associated with Fly By Wire (FBW) control systems are new to the Part 23 fleet. Active stick systems are not covered at Amendment 23-63 and earlier and may require new means of compliance (MOCs) at Amendment 23-64 and later. They may require new inceptor feel characteristics, human qualities, and performance & handling quality testing requirements.	RBAC 23.143, 23.155 at amendment 23-63 and prior. RBAC 23.2010, 23.2135 at Amendment 23-64 and after.
71	Propulsion as a Flight Control Effector	If the applicant is proposing to use propulsion as a flight control effector, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy and guidance.  The use of propulsion as a flight control effector is new to the Part 23 fleet. Examples of this unique type of controller may be found in a distributed propulsion system or with an aircraft designed to operate in multiple flight modes.	RBAC 23.671, 23.672, 23.777, 23.779, 23.1141, 23.1143 at amendment 23-63 and prior. RBAC 23.2010, 23.2245, 23.2300, 23.2510, 23.2515, 23.2600, 23.2610 at amendment 23-64 and after.
72	Run Time Assurance/Health Monitoring Executive Systems	If the applicant proposes to use Run-Time Assurance/Health Monitoring Executive Systems, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy and guidance.  Run-Time Assurance/Health Monitoring Executive Systems are high-level monitoring and protection systems and are new to the Part 23 fleet.	No Rule at any part 23 amendment RBAC 23.2010 at amendment 23-64 and after.



## ANAC Safety Emphasis Items (SEI) List

### RBAC 23

No	Subject	Description	Relevant Standard(s)/ Guidance
73	Real Time Parameter Identification Systems	<p>If the applicant proposes to use Real-Time Parameter Identification Systems, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy and guidance.</p> <p>Real-Time Parameter Identification Systems are non-deterministic systems used to mathematically model something in real-time and are new to the Part 23 fleet.</p>	No Rule RBAC 23 at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.
74	Adaptive Controllers/Autopilots	<p>If the applicant proposes to use Adaptive Controllers/Autopilots, then they must coordinate their proposals with the ANAC to determine the level of ANAC involvement with respect to policy or guidance.</p> <p>Adaptive controllers/autopilots are non-deterministic systems and are new to the Part 23 fleet.</p>	No Rule RBAC 23 at amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.
75	Autoland Systems	<p>If the applicant is proposing the installation of systems that provide automatic landing capability in a piloted airplane, then they must coordinate with the ANAC. Applicants may be required to apply special conditions to establish adequate requirements at RBAC part 23 amendment 23-63 or earlier based on the requirements found in RBAC 25.1329 (amendment 25-119), or may need to obtain ANAC accepted means of compliance (MOC).</p> <p>AC 25.1329-1C may provide an accepted means of compliance for piloted airplanes. This issue will likely be in combination with or installed after an autothrust system.</p> <p>Autoland capability is also assumed an inherent function installed in UAS and pilotless aircraft, which already have involvement by the ANAC staff. Operator certification (pilot training and maintenance program) is generally required to utilize the autoland function once the type design approved.</p> <p>At amendment 23-64 and after, applicants should incorporate the requirements of the special condition into their certification planning as ANAC accepted MOC in lieu of a special condition.</p>	RBAC 23.1309 at amendment 23-63 and prior. Reference RBAC Part 25 section 25.1329 (amendment 25-119) via special condition. RBAC 23.2010, 23.2500, 23.2505, 23.2510, 23.2605, 23.2610, 23.2615 at amendment 23-64 and after.
76	Emergency Use Only Autoland Systems	<p>If the applicant proposes to add emergency use only functionality that provides for automatic landing of the airplane, then the ANAC will be involved in the project.</p> <p>Note: This functionality is not to be confused with "normal" autoland capability. This functionality provides for autonomous control and landing of the airplane to a system-determined suitable airport. The need for equivalent level of safety (ELOS) findings and corresponding means of compliance (MOC) must be determined on a case-by-case basis for each installation. The FAA has developed draft policy.</p> <p>The applicant should define the specific intended functions for § 23.1301 compliance, and provide a definition of appropriate failure conditions and classifications for § 23.1309 compliance. The FAA has developed an issue paper template (S-1) to address MOC for these two regulations, up to and including amendment 23-63.</p> <p>Certain aspects of the emergency use autoland may not be able to be shown to comply with existing pilot-centric RBAC part 23 regulations. The applicant should identify the affected regulations and the compensating features that provide for an equivalent level of safety intended by the regulations and request an ELOS finding by the ANAC for those aspects. The FAA has developed an issue paper template (S-2) to address the potential regulatory requirements that may need an ELOS.</p> <p>At amendment 23-64 and after, applicants, applicants should incorporate ANAC accepted MOC into their certification planning in lieu of an ELOS finding.</p>	RBAC 23. 697, 23.729, 23.777, 23.779, 23.991, 23.1141, 23.1155, 23.1189, 23.1301, 23.1303, 23.1305, 23.1309, 23.1311, 23.1321, 23.1322, 23.1337, 23.1555 at amendment 23-63 and prior. RBAC 23.2010, 23.2405, 23.2410, 23.2500, 23.2505, 23.2510, 23.2600, 23.2605, 23.2610, 23.2615 at amendment 23-64 and after.
77	Diesel Engine Evaluation	<p>If the applicant is proposing installation of a diesel engine, then they may require special conditions or may require an Equivalent Level of Safety (ELOS) finding. All part 23 diesel engine installations must be evaluated per FAA Policy PS-ACE100-2002-004, Diesel Engine Installation. This policy statement identifies areas of regulatory compliance. The need for any specific ELOS findings or SCs must be determined on a case-by-case basis for each installation.</p> <p>Installations being certificated to amendment 23-64 and after must include the evaluations contained in FAA Policy PS-ACE100-2002-004.</p> <p>At amendment 23-64 and after, applicants should incorporate the requirements of the special condition into their certification planning as ANAC accepted MOC in lieu of a special condition or incorporate ANAC accepted MOC into their certification planning in lieu of an ELOS finding.</p>	No rule at RBAC 23 amendment 23-63 and prior. RBAC 23.2010 at amendment 23-64 and after.

## ANAC Safety Emphasis Items (SEI) List

### RBAC 23

No	Subject	Description	Relevant Guidance Standard(s)/
78	Non-TSO Electronic Flight Instrument Systems and Avionics	<p>If the applicant is seeking to install non-TSO avionics, then they may need to verify the level of ANAC involvement in their project.</p> <p>Many avionics manufacturers have developed lower cost integrated display systems specifically for the Experimental and Amateur-built airplane markets. Although these systems have many or all of the same functions, they generally do not follow the design assurance processes specified in the TSOs. The TSOs only specify a minimum performance, and they often outline the design assurance requirements as well as environmental standards in addition to general operating requirements.</p> <p>TSO authorization indicates that the article manufacturer has provided a statement of compliance with the TSO requirements and the article is produced under an ANAC approved quality system. For non-TSO equipment, the installer bears responsibility for supplier control of the type design and the production of the article.</p>	<p>RBAC 23.1301, 23.1306, 23.1308, 23.1309, 23.1311 at amendment 23-63 and prior. RBAC 23.2010, 23.2500, 23.2505 at amendment 23-64 and after.</p>
79	[RESERVED]		
80	Dual Electronic Ignition Systems on Reciprocating Engines	If the applicant is seeking to replace both traditional magnetos with a dual electronic ignition system, then they may be required to address the relevant topics in Policy Memo PS-ACE100-2004-10024	RBAC 23.1165 and 23.903(c) at amendment 23-63 and prior, 23.2410 at amendment 23-64 or later.
81	RBAC 21.41-I Portuguese language information for markings and placards.	The required markings and placards installed in passenger cabin, cargo, baggage or stowage compartments and in the aircraft exterior shall be presented in Portuguese or bilingual (Portuguese and English).	ANAC IS 21.010
82	Units of altitude instruments	The barometric setting units of the altitude indication instruments, including standby altimeters and cabin altitude indicators, shall be presented in "mbar" or "hpa". The units used in the instruments shall be consistent with those presented in the Flight and Service Manuals. If altitude instruments could be set to these units, consistent with the AFM e Service Manuals, this item shall not be applied	ANAC IS 21.010, RBAC 01.3-I