

Question from	Question	Proposed Answer
Francescomaria Caridei, Geven	Update on bilateral agreement with Brazil about the validation of ETSOAs	Brazil accepts ETSOAs and performs a validation based on the EASA approval. There is no problem in filing application already now to ANAC Brazil. A mandate for negotiation of a bilateral agreement with Brazil is expected to be requested by the European Commission in the next year(s).
Jean Evans, IPECO	1. Are there any discussions taking place with the FAA to allow an ETSO to be fully recognised within the USA.?	The current discussions on the bilateral do not foresee the full mutual recognition.
	2. Will ETSO C39b be up-issued to match TSO C39c?	No revision planned. Depending on priorities.
	3. Will ETSO/TSO C127a be updated to reference AS8049B?	EASA: No revision planned. Depending on priorities.  FAA response: The proposed TSO-C127b references AS8049B
	4. Will there be a definitive list of ETSO application data requirements readily available (FAA TSO specifically states data requirements)?	Contrary to the FAA, the data requirements are not specified on ETSO level. Requirements are provided in Part 21A.605. Conclusion is that there is no application data requirements list for ETSO.
Dominic Allan, Honeywell	Rulemaking: When will ETSO-C165 be usable for certification?	No revision planned. Depending on priorities.
	Rulemaking: When will ETSO-C113 be revised to refer to SAE AS8034A, and what modifications to SAE AS8034A will be included?	No revision planned. Depending on priorities.
	FAA Topics What is the exact process to be used for obtaining FAA TSO certification concurrently with an ETSO application?	The FAA will process a LODA application when it receives the complete application and certifying statement from EASA. A complete application package includes verification of the ETSOA.
Benoit David, EADS Sogerma	1 - What about the TSO-C127b and associated ETSO ? This TSO is not yet available as a proposed TSO on FAA website while more and more documents are talking about this proposed TSO. Where can we find it please ?	Proposed TSO-C127b was issued for public comment. The comment period has closed. It will be issued as a final version once comments have been resolved and as FAA resources permit.
	2 – How can we lighten the FAA Request For Conformity process ? Is it possible to integrate this topic in our ADOA procedure in order to have an official internal delegation to conduct test article conformity and witness on EASA behalf (and on FAA behalf) ?	Conformity is a POA related task, i.e. s/b dealt with the local Authority. Witnessing delegation is to be discussed case-by-case.  FAA response: TSO approvals do not require FAA conformity for test articles. For installation data approvals the FAA may request EASA's assistance with test article conformity.

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	<p>3 – We need to update our APDOA because of the new Management Organization chart and some minor corrections.</p> <p>As the scope is not extended, we do not have to re-apply for approval.</p> <p>Therefore, what is the way to proceed ? Is it signed internally only by the Head of Design or the Head of Airworthiness ? Should I forward it to anyone at EASA ?</p>	<p>If the reference of the procedure quoted on the EASA finding of compliance is changed, you must apply with a Form 81 for an update of the EASA finding of compliance.</p> <p>To avoid undue administrative burden, organisations are now invited to implement the following system (ref. template of manual defined by EASA):</p> <p><b>1.1 Manual management rules - List of effective pages</b></p> <p><i>List of pages with their individual issue or amendment status. Each page of the exposition should have the issue number or some indication of amendment status as a 'footer'. In this way it is clear that the amendment status of each page is correct, and this avoids having to re-issue the entire document when there are simple changes (see below). It is possible, of course, to reissue the whole document, and this would be identified on the title page.</i></p> <p><i>a) Amendments should cover documentary changes not impacting the showing of compliance with Part 21, and the procedure should explain how these changes are managed (explanation concerning amendment/issue policy) and identified in the manual.</i></p> <p><i>b) A new issue is necessary when the manual is introducing changes which are impacting the showing of compliance with Part 21, like a change to a procedure principle or in the list of signatories. A new issue will be submitted to the Agency and a new finding of compliance will be issued which will be making reference to the new issue.</i></p> <p>In case a), the organisation must simply send the update to EASA.</p> <p>In case b), update must be submitted with a new EASA Form 81.</p>

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	<p>4 – According to FAR 121.311(j), “After October 27, 2009, no person may operate a transport airplane type certified after Jan 1, 1958 and manufactured on or after October 27, 2009 in passenger – carrying operations under this part unless all passenger and flight attendant seats on the airplane meet the requirements of FAR 25.562 in effect on or after June 16, 1988”.</p> <p>Is there a reciprocal rule at EASA ?</p> <p>What about the ETSO-C39b and TSO-C39c in next few years ?</p>	<p>Technically there is a plan to follow the FAA and use their text for 121.311 (j). The compliance (retrofit date) date may be different from the FAA date and will be proposed in the JAA NPA.</p> <p>A small ad-hoc group consisting of some members of the JAA Cabin Safety Steering Group (CSSG) was created to handle the task and will start soon.</p> <p>The time schedule for the task completion is end of 2008. EASA , when being in charge of operations, will later decide by which means this and other JAR-26 requirements will be enforced (JAR-26 may not have a corresponding code in the EASA system).</p> <p>FAA response: TSO-C39c will remain. There will still be aircraft installations in which TSO-C39c seats can be used. One example is seats used in transport category airplanes used in personal use operations.</p>
	<p>5 – Concerning Heat Release on seats. FAA has published Special Conditions to address this topic (1.5 square feet per pax of non-compliant material). It should be added as option in future TSO-C127b. What is the EASA position on that matter ?</p>	<p>The EASA rules provide the possibility of Deviations to ETSO standards in accordance with 21A.610. However an equivalent level of safety must be demonstrated.</p> <p>On a/c level EASA will soon issue an equivalent Special Condition to be applied on A380 first. Later it will become a generic SC for all aircraft.</p> <p>EASA will draft the SC early in 2008</p>
Lex Dop, Driessen	<p>We have been informed that EASA is in the concluding phase of closing a bilateral agreement with the Chinese authorities (CAAC). According to our information, the CAAC is ready to close the agreement, but EASA is not.</p> <p>What is the EASA waiting on? Current applications for CAAC approval by European companies are put on hold by the CAAC until the bilateral agreement is completed.</p>	<p>EASA has provided CAAC with a draft Working Arrangement. This covers ETSO articles and should ease the procedure to get an ETSOA validated by CAAC. The signature of this WA is expected in the 1. Quarter 2008. A bilateral between the EU and China is not foreseen in the next years, to our current knowledge.</p> <p>EASA intends to put in place a representative in Beijing in 2008.</p>
Mark Trafford, AmSafe Bridport	1. When will EASA issue a draft of ETSO C172 for public review and comment please?	No issue planned for an “ETSO-C172 Cargo Restraint Strap Assemblies”. Depending on priorities and way forward by the FAA.
	2. When will the FAA publish TSO C172, it is almost 2 years since the closing date for comments on the draft and no TSO yet?	The FAA plans to issue TSO-C172 in 2008 if resources permit.
	3. When will EASA issue a draft of ETSO C90d for public review and comment please? The new Standard AS36100 has been published since Feb 2005, industry has made great effort to do this work and as yet there is not sign that this will be adopt by the aviation agencies.	No revision planned. Depending comments and harmonisation with the FAA TSO-C90d.
	4. When will the FAA issue a draft of ETSO C90d for public review and comment please? The new Standard AS36100 has been published since Feb 2005, industry has made great effort to do this work and as yet there is not sign that this will be adopt by the aviation agencies.	FAA will issue a draft of TSO-C90d (not ETSO-C90d) to adopt AS36100 as resources permit. Probably not until 2009.

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	5. When EASA and the FAA adopt the new AS36100 and issue the new ETSO and TSO C90d, they should also ensure that existing approved products to ETSO/TSO C90a, b & c are required to conform to these new requirements of AS36100 (ETSO/TSO C90d) within a set time. Can EASA and the FAA give advice on this matter please?	Existing parts approvals are not retrospectively required to conform to new standards. However through installation requirements the applicability of these existing approved parts can be restricted. This can be introduced by amendments to certification specifications or by AD's. The applicability could in this way also become limited to certain categories of aircraft.  FAA response: Manufacturers producing articles approved under TSO C90a, b, or c will continue to be able to manufacture the articles under their original approval indefinitely as long as their approval remains valid. Only applications for NEW articles will be required to meet the future TSO-C90d once it has been released.
	6. The FAA issued a draft of TSO C138 'miscellaneous non-required equipment' recently for public comment, have EASA plans to do the same and if so, when will this be published please?	Internal EASA discussions are ongoing and if applicable will be shared with the FAA.
	7. The FAA has published National Policy Order 8150.4 for 'Certification of Cargo Containers With Self-Contained Temperature Control Systems (Active ULDs)'. Will EASA be adopting the same policy? If yes, when will this be published please?	We are investigating whether this can be adopted on a general basis or on a case by case basis.
	8. The FAA has published National Policy N8900.21 'Active Unit Load Devices (ULD)' aimed at Principal Inspectors (Ramp Inspectors). Will EASA be adopting the same policy? If yes, when will this be published please?	This FAA National Notice is providing information for Ramp Inspectors. This is however not within the scope of EASA.
	9. The topic of NAS3610 and paragraph 3.3 Protection (degradation) has been discussed within EASA now for over 1 year. It is good that EASA have confirmed that ULD applications must ensure that this requirement is met for new applications. However, to ensure safety going forward, AmSafe Bridport believe that existing approvals should be checked to ensure that they also meet this requirement fully. Will EASA do anything about this aspect?	See handout of <i>General</i> presentation.
	10. On the same topic as number 9 above. EASA has said that it is in discussion with the FAA on this matter to develop a common understanding. Can an update on this be provided please? It is important that EASA and the FAA share the same views on this matter. (Do EASA and the FAA have the same view?) Therefore, have the FAA written to all TSO Approval holders advising them of their responsibilities in this area, in the same way as EASA have done?	The FAA issued memo issued on 11/29/2007. The memo was sent to all of our Aircraft Certification Offices who will ensure that all applicants meet TSO degradation requirements for cargo nets.

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	11. All ETSO applicants have an EASA ADOA (APDOA). It may be a good idea to get someone for the EASA DOA section (they also look after the ADOA's I believe) to give an overview of the ADOA's and talk about whatever they feel needs to be advised to industry?	See handout of <i>General</i> presentation.
	12. Last year (Dec 06) the FAA advised that a TSO for Active ULD's (TSO Cxxx) would be published in FY07 or FY08, can an update be provided please as to how this work is going please? Also, will EASA be publishing a similar ETSO and when will this be available please?	No revision planned. Depending on priorities.  FAA response: Order 8150.4 has been issued to get the active ULD requirements published quickly. At the moment, active ULD's are approved under 14 CFR 21.305d. We are still looking at publishing a TSO but at this point we have not made a final decision if one can be written that addresses all issues and stays within the boundaries of the TSO system. There are so many issues that are specific to the aircraft installation that a TSO may not be advisable.
	13. Bi-lateral's: If there is any news on this topic in respect of ETSO type work, it would be good to get an update (particularly relating to the FAA and CAAC) please?	See handout of <i>Validation of ETSOAs by third countries</i> presentation.
	14. Fees & Charges: A brief and general update of anything major affecting ESTO type work would be helpful please.	See handout of <i>General</i> presentation.
	15. NPA: The EASA system is good, the new automatic notification process is good (thank you), the CRT is also good (thank you). The audience may benefit from a short demonstration of how it works etc. I suspect many do not know of its existence.	See handout of <i>General</i> and <i>Rulemaking</i> presentation.
	16. EASA advised us that they would not allow any minor deviations for ESTO applications in the future. Therefore in such situations, the only way would be obtain an approval via an STC. But how can we apply for an STC for equipment such as Pallets Nets that do not directly interface with the a/c? How should we proceed? In such cases is there any possibility for us to carryout the STC work against the Pallet (which has approval under the legacy equipment rule) rather than the a/c?	The statement made is not completely correct. The comment is related to the certification of odd-size cargo nets not covered by the NAS standard. A dedicated meeting will be held with AmSafe Bridport on December 6 <sup>th</sup> .

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<p>Gary Percival, Dunlop Aerospace Braking Systems</p>	<p>1. Are Main Wheel and Brake submissions treated as independent articles or as an assembly? Is the answer to this question different within the EASA and FAA authorisation system? This question is associated with the application of a change to a previously authorised ETSO Main Wheel in that are we expected to supply the original Brake submission along with the revised Main Wheel submission and what happens if there are more than one Brake associated with the Main Wheel? Do we provide all the original Brake submissions?</p>	<p>1. According to ETSO-C135 wheels and wheel/brake assemblies could be approved.</p> <p>EASA clearly see the possibility to approve wheels alone, whereas the FAA considers only wheel/brake assemblies.</p> <p>According to EASA's interpretation, ETSO-C135 (as well as TSO-C135) does allow approval of both ways. In chapter 3 of the Appendix 1 to the ETSO/TSO, different section with requirements for the different systems are provided. In addition there are different sections contained in chapter 4 of the Appendix 1 to the ETSO/TSO, mentioning e.g. <i>The weight of the wheel or brake, as applicable.</i></p> <p>The main rule (Part 21A.611) about changes applies independently if we are talking about an assembly or not: no document (except DDP) is required for minor modifications; a similarity could be the Means of Compliance for major changes, and, if so, no document is required for un-changed parts [brake(s)].</p> <p>FAA response: The TSO allows either wheels or wheel and brake assemblies to be approved. Wheel only approvals are intended for wheels that do not use brakes, typically nose wheels. It is possible to obtain a partial TSO approval for the wheel only even when it is intended to be used with a brake. However in this case the policy for incomplete systems must be followed and specific limitations apply to the approval. Depending on the specifics of what the applicant desires and what approvals they currently hold, there may be options on how best to proceed. This may be a question the applicant may prefer to discuss privately with the EASA and the FAA.</p>
	<p>2. If we change our organisation name are there any effects to our current ETSO/TSO approved articles?</p>	<p>2. EASA should be notified, as all existing ETSOAs have to be changed. This should be done by using a Form 34 for each case, indicating it as a minor change and giving the reason.</p> <p>FAA response: Name changes only are not considered transfers and therefore do not require an exemption request. They do require the LODA holder to inform the Boston ACO via the EASA of the name change. However, a name change that occurs due to an organisation change must be evaluated and may be a transfer requiring an exemption to 14 CFR 21.621. The LODA holder still has full responsibility for all previous approvals under their previous name including articles in service.</p>

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Dave Singer, Sun Path Products	1. What has changed with regards to regulatory oversight by the EASA on FAA approved TSO items?	1. For continued airworthiness EASA relies on the FAA according to the existing bilateral. This is also valid for the organisational aspects of an applicant.
	2. How are major and minor changes submitted, approved, documented and regulated?	2. Major changes lead to a new ETSOA according to Part 21A.611(b) and needs a separate application using the EASA Form 34. Minor changes are covered by the existing bilateral and are handled by the FAA.
	3. How are alterations, and modifications to TSO'd items regulated?	3. See Part 21A.611 only possible by the holder of the ETSOA; any other person should apply for a separate ETSOA (or change to the TC/STC).  FAA response for TSOA/LODA: From an FAA standpoint, alterations and modifications to TSO approved articles after they are imported to the U.S. are permitted under part 43 or under the type certification process. The FAA can approve those changes relative to the requirements of the product. Those changes are the responsibility of the person/entity proposing the change to substantiate to ensure compliance with the product's airworthiness requirements. In order for the TSO approval (marking) to remain valid, the applicant proposing the change must show the TSO article still meets the TSO after the change is made. This modifier must add a modification marking identifying the changes to the TSO item.
	4. What level of oversight does the EASA have over parachute systems in EU?	4. Personnel parachutes within the scope of EASA are parachutes designed for wearing or installation on board of an aircraft within the scope of EASA for use in case of an emergency.
Ronnie Eriksson, AB Aircontainer AC	What is the status regarding the ongoing discussion on FAA validation on (E)TSO-C90c for Active Containers? What is the status on the rulemaking for the above mentioned (E)TSO? Will EASA (and when) accept the result from the ongoing SAE workgroups for Active Containers?	No revision planned. Depending on priorities.  FAA response: TSO-C90c does not address Active ULD's. Active ULD's are approved via 14 CFR 21.305d. FAA order 8150.4 explains the requirements. However, in order for EU manufacturers to obtain this approval with the FAA, the FAA-EASA Technical Implementation Procedures must be approved before we can accept applications for active ULD's from EASA.
Enzo Canari, Aviointeriors	With regard to the point 4.b) of the Invitation letter to the EASA ETSO Workshop 2007. "Minor Changes"Based on the following sentence extract of the EASA 21A.611 "Design Changes":....and the holder shall forward to the Agency any revised data that are necessary for compliance with 21A.603(b).Question:It is acceptable to forward the revision of the DDP, incorporating the documents supporting the Design Change substantiation, and store these documents and other data related to change, for subsequent audit/verifications?	The revised DDP and descriptive data are the only documents required to support a minor change; since the ETSOA Holder has to assure the continued airworthiness of the part, it is his responsibility to maintain up-dated his archive "Record keeping".

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Chris Wood, Penny&Giles	<p>What is the EASA process for approval of equipment, in its own right, for which there is currently no ETSO (formerly CAA Accessory - E No). Such equipment is likely to have many different aircraft applications, which would be unknown at this stage.</p> <p>What is the EASA process for approval of Major Mods to equipment that already has CAA Accessory (E Number) approval and for which there is currently no ETSO? Such equipment often has many different aircraft applications for which we have no visibility of the STC's/TC's issued.</p> <p>What is the mechanism for involving EASA at the start of a project that will eventually lead to an application for approval (eg. similar to the FAA Stages of Involvement)?</p>	<p>Equipment for which no ETSO standard exists cannot get an ETSOA on its own but must be approved as part of the a/c installation via TC or STC.</p> <p>Equipment approved by NAAs prior to EASA is grandfathered according to Commission Regulation 1702/2003 Article 2 No 13. According to Part 21A.610(b) a major change leads to a new ETSOA. So for these old approvals where no ETSO standard exists, but that were grandfathered, a major change cannot be approved at the equipment level but at the a/c level.</p> <p>Early involvement of EASA is recommended to avoid wrong interpretations. We can offer pre-application consultancy to a limited amount. There might be changes with regard to future Fees &amp; Charges Regulations for pre-application consultancy.</p>
Franz Redak, Gita Aviation	<p>Subject : ETSO C90c – Type II Cargo Nets. EASA has requested to provide « suitable means to address degradation » Furthermore, EASA has correctly specified that « NAS3610 Rev. 10 does require actions to cater for Cargo Net degradation which are assessed at the time of approval, but the criteria to be applied is not specified » (Letter dtd. 19. July 2007)</p> <p>Our question : If the agency accepts NAS3610 compliance as condition for certification (ETSO C90c) the agency for sure has considered the degradation beforehand and verified a certain lifetime (or factor of safety) to be proven once the specific testing loads mentioned in Table II (Ultimate loads) of the a.m. NAS are verified.</p> <p>If above is accepted :</p> <ul style="list-style-type: none"> <li>• We would agree that applicants then prove life of the article beyond the specified proven lifetime using acceptable analysis or testing techniques. The agency has to provide this proven life then !</li> </ul> <p>If that is not accepted :</p> <ul style="list-style-type: none"> <li>• (no lifetime is proven) why is the accepted minimum performance standard (NAS3610) telling « ...defines the minimum requirements and test conditions for cargo unit load devices to be installed in certificated aircraft... »</li> <li>• We would like to know what the conditions are the net must meet (Table II). In other words, what flight/load conditions do we have to prove. We believe there is some margin in the loads.</li> </ul>	<p>No. There is no specific beforehand consideration of degradation done by EASA. The applicant has to provide evidence that the proposed equipment design includes an appropriate consideration for degradation. Since there is no standard available how this would have to be done, it is up to the applicant to develop substantiation for degradation.</p> <ul style="list-style-type: none"> <li>• n/a (see above)</li> <li>• The standard NAS 3610 is the acceptable minimum performance standard on which ETSO- /TSO-C90c are based.</li> <li>• The net must be proven for the ultimate loads given in table II of NAS3610. Other load conditions have not to be proven for ETSO-C90c compliance. Even if there would be margins, the ETSO- /TSO approval would not be granted if the Table II loads would not be complied with.</li> </ul>



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	<p>Subject : ETSO C90c – Type II Cargo Nets We understand that a Type II Cargo net is to be installed into compartments of certificated aircrafts which by itself is capable to hold the load enclosed by the cargo net. We furthermore understand that a Class I Net : « ...conforms to all flight and ground loads conditions including 9g forward... » while as Class II is defined by « All other unit load device restraints » We understand the classification such, that Class II do NOT meet all flight and ground loading conditions.</p> <p>Our Question : If the above is true, why do we prove the Class II Cargo nets for : UP : 2,5g ultimate (Sample 2M2 Net) SIDE/AFT : 1,5g ultimate (Sample 2M2 Net) FWD : 1,5g ultimate (Sample 2M2 Net)</p> <p>IATA SS 50/1 requires to meet ISO 4170 however (Air Cargo Equipment – Interline pallet nets). This standard only requires to have the net a) « to withstand .... the static loads and impact shock encountered in normal carrier service » b) « ...to retain the gross weight at the limit load (two-thirds of the ultimate load) condition for the design rating.... »</p>	<p>ETSO-C90c is based on NAS3610 where there is no provision for load factors, but simply for ultimate loads. IATA spec is not asked to be met.</p> <p>A type II device needs not to comply with conditions of e.g. a minor crash landing (§25.561).</p> <p>The Nets have to be tested to the ultimate loads as given in NAS3610 Table II to get equipment approval. The operator has to take care of other considerations for the respective aircraft where the net is going to be used.</p> <p>The applicable standard to be met is NAS3610 for ETSOA and TSOA. IATA SS 50/1 is not binding in that respect.</p>
	<p>Subject : ETSO C90c – Cargo Net EASA has requested to show compliance with a deterioration factor of 1.25 (IATA SS50/2) for a certain net.</p> <p>Our Question : Can the agency specify what this deterioration factor accounts for « time wise » and specify the document providing this information ?</p>	<p>EASA does not require an explicit deterioration factor of 1.25. We only require what is stated in the NAS3610. It may have been expressed to give an example what could be done.</p> <p>There is no such document available where this information is readily specified.</p>
	<p>Subject : ETSO C90c – Cargo Net</p> <p>Our Question : Did EASA authorise ETSO C90c nets for a certain lifetime based on a showing that the deterioration factor of 1.25 was complied with ? If done so, can this be considered a standard ?</p>	<p>Yes, EASA did approve nets with a deterioration factor of 1.25 because the applicants had chosen to apply this as a means of compliance for degradation.</p> <p>No, this is not considered a standard.</p>

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Eduard Ahlrichs, KLM	<p>With regard to the subject we have some critical hurdles we stumble across every change with ETSO's involved.</p> <ul style="list-style-type: none"> <li>- The ETSO vendor claims that he can only approve according the ETSO requirements, which we expected.</li> </ul> <p>This normally includes the simulated (for weight, size and attachment aspects) accessories on/in the ETSO.</p> <p>As a standard the ETSO CMM also shows on IPC , in detail, all accessories and add-on's.</p> <p>Although we recognise that the accessories/add-on's need to be certified additionally as part of the entire "umbrella"- certification of the total assembly applied in the aircraft.</p> <ul style="list-style-type: none"> <li>- The ETSO vendor claims that he can only produce according the ETSO requirements, which is very disappointing</li> </ul> <p>while e.g. an aircraft seat consists of much more than only the basic ETSO.</p> <p>In practice the ETSO vendor will be requested to assemble the total assembly as described in the ETSO-CMM but:</p> <p>Even with the additional parts provided with either FAA 8130-3/ EASA Form 1 or C.o.C, depending on the status of the parts( can be also prototype-), the ETSO vendor refuses to/ cannot release the total assembly with a EASA Form 1.</p> <p>Is this only fear to lose the TSO-POA recognition or should EASA give room by AMC to fill the gap.</p> <p>Most ETSO vendors have no certification expertise but should be allowed to rely on DOA's or EASA in this matter.</p> <p>Is it possible to issue a ETSO based on a DOA specification? And consequently obtain ETSO approval from EASA?</p> <p>Is it possible to obtain a ETSO approval based on a npa?</p>	<p>Remarks:</p> <p>Manufacturers releasing parts are bound by the scope of their approval. Therefore it is possible that they can not release an assembly that contains parts or assembly processes that are not within their scope.</p> <p>Parts supplied with an EASA Form 1 to the assembly manufacturer do not cover the installation of these parts. Also an appropriate arrangement needs to be in place for satisfactory coordination between the design and production.</p> <p>No, there cannot be an ETSOA based on a DOA spec. The sole spec. is the ETSO standard.</p> <p>Also it is impossible to obtain ETSOA based on a NPA. If a NPA exists for a new ETSO standard an application could already be filed. It could happen that this application would have to be amended if some late changes would be considered in the NPA before final ETSO is published.</p>
Hervé Audrezet, Thales Avionics	<p>1. The document EU OPS 1 (1899/2006) makes reference in section K (§1.630 ) to the ETSO as the "Instruments and equipment minimum performance standards"</p> <p>How must this requirement be interpreted? Is the ETSO mandatory or not?</p> <p>What is the latitude authorised by this requirement?</p>	<p>Compliance must be shown to the minimum requirements of the ETSO standard, but there is no requirement that the equipment must have an ETSO Authorisation. The compliance showing can also be done at a/c level.</p>

Question from	Question	Proposed Answer
	<p>2. The classification of design change as minor or major is not clearly described in any EASA regulatory document : each manufacturer develops its interpretation in its alternative procedures to DOA. Therefore, for a given discipline, discrepancies may exist between interpretations made by different manufacturers.</p> <p>This may lead to :</p> <ul style="list-style-type: none"> <li>• Misunderstanding between applicants and the Agency</li> <li>• Unbalanced effort between applicants in terms of re-qualification process after the same kind of change.</li> </ul> <p>- Does the Agency intend to develop a guidance material on the rules for classifying a change as minor or major?</p> <p>- Could the Agency provide the industry with a feedback of what is now considered as the frontier between minor and major, based on the experience gained ETSO processes?</p>	<p>The classification may depend on the type of equipment and even on the selected ETSO standard for that equipment.</p> <p>The assessment of the proposal of the applicant allows to adapt the specific environment and needs and to allows a stepped approach.</p> <p>We agree that AMC material may be helpful but want to keep open the case by case decision possibility adapted to the specific case.</p> <p>For more information see minor change presentation.</p>
	<p>3. Approval of minor change.</p> <p>Many cases of design changes may fall in the category Major (for instance, replacement of an obsolete complex digital device by an alternative solution) whereas they have no impact from the end user perspective (equipment interchangeable form/fit/function) A Major change implies a new ETSO application and a part number roll that have significant impacts for manufacturers and operators.</p> <p>Although it can be understood that the Agency has to control and approve the “deep” design changes, there should be no reason to re-apply for the complete ETSO and modify the P/N when only a limited part of the MOPS is affected by the change (for instance : a deep SW or complex HW change may lead to re-perform environmental qualification according to the last revision of DO 160)</p> <p>It would be highly profitable to define a third category of changes (identified for instance as “Severe Minor” as a subcategory of minor change) that would imply an approval of the Agency, limited to the area affected to the change.</p> <p>This practise was regularly performed by some national authorities prior to EASA. Would the Agency be open to such a way to proceed?</p>	<p>EASA is bound to Part 21 and has no means for exemptions but anyone is allowed to provide proposals for rulemaking.</p> <p>It is up to the applicant to define the part number including the one for the software to be approved. An approval could be granted for a dedicated combination of hard and software including a dedicated revision index.</p> <p>Further it can happen that one part number holds several approvals e.g. to different ETSOs.</p> <p>For more information see Minor Change presentation.</p>

Question from	Question	Proposed Answer
	<p>4. FAA is performing a significant effort to update their TSO.</p> <p>New TSO's as well as revised TSO's refer to the last revision of DO 160 (rev E) and add the DO 254 as a MOPS.</p> <p>As a consequence, there are more and more situations where ESTO and TSO are not equivalent. This is a nuisance for manufacturers who need ETSO and TSO approval.</p> <p>What is the policy of the Agency to keep harmonization between ETSO and TSO?</p> <p>Does the agency intend to introduce ED 80 as MOPS (on a case by case basis or systematically?)</p>	<p>See handout of <i>Rulemaking</i> presentation.</p>