

Question from	Company	Question	Proposed Answer	Arrived on (deadline 13.05.2015)
Caroline LEFRANCQ,	SATCOM Work Package Leader EYAC3 AIRBUS	1. ETSO approval and aircraft certification are handled by different branches at the EASA, under separated schedules that are difficult to manage from both the equipment suppliers and the aircraft designer's perspectives to get everything ready in time for the certification of the aircraft. In order to get the maximum benefit from the ETSO approvals when certifying an aircraft, what could be set up between the involved branches at the EASA, the equipment supplier and the aircraft designer to ease the management of ETSO approval schedule and the aircraft certification schedule?	Aircraft certification and ETSO authorization process are two separate subjects. During processing of ETSO projects the communication has to be done for proprietary reasons solely between article manufacturer and EASA without involvement of a 3 <sup>rd</sup> party. It would be up to the aircraft manufacturer to coordinate the schedule with the ETSO article manufacturer.	07/05/2015
Caroline LEFRANCQ,	SATCOM Work Package Leader EYAC3 AIRBUS	2. For non-European supplier, when MOPS are technically equivalent, why can't European aircraft manufacturer rely on local authorities approval (e.g. FAA TSOA) when there is a bilateral agreement between EASA and local authority?	Currently FAA and EASA are processing a revision of the TIP for the U.S – EU bilateral agreement. It is planned to reciprocally accept ETSO and TSO authorizations. Implementation is planned for mid-September 2015. Detailed information was provided during the ETSO Workshop	07/05/2015
Caroline LEFRANCQ,	SATCOM Work Package Leader EYAC3 AIRBUS	3. For US supplier, ETSO application is done when TSO is approved as per TIP. Therefore, there could be a significant delay between TSO and ETSO application, and then certification basis could have change between TSO and ETSO application. Could it be possible to apply for both TSO and ETSO simultaneously in order to freeze certification basis for the project?	Please refer to above reply.	07/05/2015

Ulf Hartmann	Zodiac Aircargo Equipment	1. What is the time line within EASA for upcoming ETSO-C90 revisions E and F as FAA recently announce the plans for these new TSO-C90 revisions? What would be the actual differences / content of these revisions in comparison to the current ETSO-C90D. Are there any ideas ideas/wording existing for the planned «2 classes» in the ETSO-C90 revision in order to separate the standard ULDs and the fire resistant version?	EASA would need to see what actual changes will come with TSO-C90e. If EASA would concur we will put ETSO-C90e into the annual rulemaking program accordingly. With respect to future TSO-C90f, EASA did not yet decide how to cover/distinguish standard ULD and fire resistant ULD versions. However, EASA will coordinate with FAA to have a harmonized approach.	13/05/2015
Ulf Hartmann	Zodiac Aircargo Equipment	2. What is the time line for the planned harmonization of EASA and FAA approvals (only 1 approval required in the future).	Currently FAA and EASA are processing a revision of the TIP for the U.S – EU bilateral agreement. It is planned to reciprocally accept ETSO and TSO authorizations. Implementation is planned for mid-September 2015. Detailed information was provided during the ETSO Workshop	
Ulf Hartmann	Zodiac Aircargo Equipment	3. Does that harmonization affects the maintenance organizations when issuing the required Releases Forms (FORM 1) → a certified ULD with only the ETSO-C90 approval would be repaired by a PART 145 maintenance organization certified by the FAA : which Release Form has to be issued ? The FAA version (8130-3) or the EASA version (Form 1)	Following the reciprocal acceptance an ETSO article could be delivered to US with EASA Form1 and vice versa a TSO article can be delivered to EU with a Form 8130-3. For maintenance purpose an EASA Part 145 will issue a Form1 while a FAA maintenance organization will issue the Form 8130-3 after a maintenance was performed on the article.	13/05/2015
Ulf Hartmann	Zodiac Aircargo Equipment	4. Would (E)TSOA mutual acceptance work retroactively ? For example, an ETSOA issued prior to the acceptance but not yet applied for LODA will be accepted by FAA automatically –no longer LODA required– after the acceptance enforced?	Yes, all existing ETSO/TSO authorizations are reciprocally accepted including European NAA approvals issued prior to EASA. Only “active ULD” are not reciprocally accepted and require a validation.	13/05/2015
Ulf Hartmann	Zodiac Aircargo Equipment	5. How would EASA deal/react with the upcoming IATA test requirements for non-certified ULDs, has any specific approach been prepared by EASA, or anything will be mentioned/added in ETSO-C90e?	Up to now it is not planned to integrate any requirements for non-certified ULDs into ETSO-C90.	13/05/2015

Ulf Hartmann	Zodiac Aircargo Equipment	6. Does EASA have any specific update on UV degradation requirements or test methods for non-metallic materials ?	There is no standardized approach to address UV degradation. It should be taken up by SAE AGE-2A committee to prepare a standard which may then later be included in a future revision of ETSO/TSO-C90.	13/05/2015
Clay Barber	Garmin	1. In the US, it is well established that Major changes to TSOA articles are determined at the TSO function level, not at the product or box level i.e., adding a new TSOA to an existing product, or implementing a major change that effects only one TSO function, could result in minor or no change to other TSO functions within the same product. Recently, EASA has informed us of EASA policy that requires complete redesign of all functions within the product to meet the latest ETSO requirements when there is a major change to any function within a product. In other words, the major/minor TSO change determination is made at the product or box level for EASA and at the function or TSO level for the FAA.	There are some evolutions in this area in the EASA policy. Major change are by definition affecting the whole certification basis, but if applicant has exhaustive demonstration that the changes only affect one or few functions, and not others. For the said 'others', the certification may refer to the ETSO standard requirements that were previously applicable, while for the affected function, it would be requested to be compliant to the latest versions of the standard. The applicant is invited to provide description and justification of the impact of the changes to support authorities in this assessment.	14/05/2015
		a. Is our understanding of this fundamental and significant difference in policy correct? b. If our understanding of this policy is correct, how would this significant difference in policy affect the acceptance of each other's TSO/ETSO authorizations with respect to the impending change which will allow for EASA and the FAA as well as others to accept TSOA issued by several authorities as design approval of the TSO functions as well as manufacturing approval?	Please refer to above reply.	

		<p>2. It is our understanding, with respect to declared non-TSO functions that are integral to a product design and are evaluated along with the TSO functions, that these are accepted by both EASA and the FAA as if they were TSO functions for the design aspects; these non-TSO functions would have to be evaluated at the aircraft level as they are implemented on any given aircraft the same as a TSO authorized function would, but the design data is accepted for the functions as they are defined and limited by the product manufacturer.</p> <p>a. Is our understanding of the EASA/FAA policy correct?</p> <p>b. Will declared non-TSO functions also be mutually accepted under the new multi-authority TSO acceptance?</p>	ETSO functions are generally accepted with the ETSO approval, on a non-interference basis. Their associated performance is to be assessed at aircraft level and formally approved during TC/STC approval process.	14/05/2015
Blatter, Klaus	Northrop Grumman LITEF GmbH, Freiburg, Germany	<p>Certification of Non-ETSO functions: If possible, how can Non-ETSO Functions be certified and identified on the ETSO certificate.</p> <p>Current example: Northrop Grumman LITEF GmbH's LCR-110 IRS is currently in the development phase. Beside the classical Attitude and Heading Reference (AHRS) functions it provides navigation data similar to a GNSS receiver. For this function ETSO C196 is requested. In addition to the GNSS requirements the system provides navigation data even after loss of GNSS data (coasting). Could the coasting capability be certified as Non-ETSO function?</p>	<p>Presence of non-ETSO functions is generally mentioned on the ETSOA certificate. They are generally accepted with the ETSOA, not approved.</p> <p>Specific Project related questions are to be raised on projects and answered on projects.</p> <p>Presentations held on Day 2 Avionics – ETSO standards applicability may provide the expected clarifications.</p>	26/05/2015

Patrick DONON	Zodiac Aerosafety Systems	<p>Question: ETSO C70b / TSO C70b , Life-Rafts :</p> <p>Can the following be confirmed?</p> <p>- Certification support will be provided by EASA and application to TSO-C70a LODA will be possible until March, 30 2016 (applicability of TSO-C70b)</p> <p>-Applicability of TSO-C70b is March, 30 2016 (as in 2.a of the doc) and not 8/4/14 (as on front header of the doc).</p> <p>-The H/C manufacturers have to comply with Part 21.A.305 : " appliance shall comply with the applicable ETSO ", that means:</p> <p style="padding-left: 40px;">-They will still be able to install an already certified ETSO 2C70b raft (resp. TSO C70a LODA)</p> <p style="padding-left: 40px;">- Only if the raft is not yet certified: they will need to have the raft approved at H/C level as compliant with ETSO C70b (resp. TSO C70b LODA)</p> <p>Life-Rafts stowed remotely and deployed automatically from the remote location are not eligible under this TSO /ETSO:</p> <p style="padding-left: 40px;">-How is the change coordinated by the Authority with the Industry so that:</p> <p style="padding-left: 80px;">-TSO C70b /ETSO C70b</p> <p>Certification of Life-Raft is no longer a requirement in helicopter programmes specification?</p> <p style="padding-left: 40px;">-Life-Raft design is included under Type Certificate ?</p>	<p>Currently FAA and EASA are processing a revision of the TIP for the U.S – EU bilateral agreement. It is planned to reciprocally accept ETSO and TSO authorizations. Implementation is planned for mid-September 2015. Detailed information was provided during the ETSO Workshop</p> <p>As in the current framework, the ETSOA or TSOA does not constitute an installation approval.</p> <p>The installation process is carried out at Aircraft/Rotorcraft level. The installer has to provide showing of compliance to the Type Certification Basis checking that what has been done at ETSO/TSO level is compatible with what is required at aircraft level, and provide additional substantiation if required.</p>	27/05/2015
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Patrick DONON	Zodiac Aerosafety Systems	What is the status of China-EU bilateral agreement and the impact on certification projects currently on hold (Infant Life-Jacket) ?	China-EU BASA is in a technical exposition phase where projects for each domain from large airplane to ETSO have been chosen to be commonly reviewed in order to exchange experience and build trust in the working methods of the two Agencies. BASA finalization is foreseen by first half 2017.	27/05/2015
Patrick DONON	Zodiac Aerosafety Systems	<p>The life raft shall be equipped with an overpressure protection mechanism (e.g., pressure relief valve) capable of being manually closed by life raft occupants to prevent leakage from the buoyancy chamber(s). The manual closure means shall be provided in the Accessory Case or attached to the overpressure protection mechanism.</p> <p>Provision shall be made to retain the means against loss overboard.”</p> <p>☐ Current technology does not involve use of pressure relief valves on TSO C70a/ETSO 2C70b approved Life-Rafts.</p> <p>Overpressure protection is provided by burst safety factor (&gt;6 x service pressure)</p> <p>We feel that the intent of the requirement concerns manual closure means when valves are existing but they should not be required if valves do not exist.</p>	This may be addressed by a deviation request if an equivalent level of safety can be shown.	02/06/2015