



Part 21 Design Organisation Approval (DOA) Implementation Workshop

Questions and Answers Session

Organisation	Subject	Reply
QUESTIONS RAISED BEFORE THE WORKSHOP		
	Rulemaking	
	<ul style="list-style-type: none"> Regulatory update 	
UK CAA	<ul style="list-style-type: none"> Is there any progress on Part OR (Organisation Requirements) regarding content of Part 21? 	Comment period for ToR (task MDM.060) closed. The Agency is reviewing the comments (see also the Rulemaking presentation).
	<ul style="list-style-type: none"> Sub-Tier DOA 	
UK CAA	<ul style="list-style-type: none"> Is there any ongoing related activity? 	The Agency is currently reviewing the future of DOA in the context of a reform of the certification process. Until this internal activity is complete, the Agency does not intend to progress the sub-tier DOA initiative in isolation.
Lufthansa Technik AG	<ul style="list-style-type: none"> Commercial Parts 	
	<p>The FAA has issued Amdt. 21-92 which will become effective on April 2011.</p> <p>With this amendment it will allow to install commercial parts into the aircraft (without Form 8130-3 or equivalent). This will be a major issue for LHT, especially for the process of validation of FAA STC 's. Again, it will have a negative effect</p>	Task 21.026 "New categories of parts for which Form 1 is not required" to start (ToR) 2011.01.



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	<p>on our competitiveness.</p> <ul style="list-style-type: none"> ➤ Please inform us about the status and the plans of the EASA rulemaking activity comparable to Amdt 21-92 to FAR 21? <p>I do not find it in the last WP.</p> <p>We would very much appreciate an EASA position to that rulemaking issue.</p> <p><u>Implications on Transatlantic Competition</u></p> <ul style="list-style-type: none"> ▪ <i>Commercial parts neither require Production Approval nor PMA</i> ▪ <i>Usage of commercial parts allows</i> <ul style="list-style-type: none"> - <i>installation of cheaper parts by design organization</i> - <i>cheaper parts replacement</i> - <i>further cost and time benefits due to reduced bureaucratic effort and direct shipment</i> ▪ <i>FAA commercial parts constitute a major commercial disadvantage for European DO's</i> <p>Questions to EASA:</p> <ul style="list-style-type: none"> • Competitiveness of European DO's is already impaired by one-sided implications of pending EU-US BASA-IPA concerning non-basic modifications of US and 3rd country products. • Further increase of US competitiveness over Europe's must be avoided. 	
	<ul style="list-style-type: none"> ➤ What is EASA's approach for validation of FAA design approvals containing commercial parts? 	<p>Under a bilateral, validated with TC/STC or automatically accepted as PMA (non-critical part or with licensing agreement.</p>



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	<ul style="list-style-type: none"> ➤ In case EASA is ready to accept commercial parts as the Validating Authority, what would the process be to treat European DO's equally? 	Relates to completion of the task 21.026 above. One of the task objectives is to have a level playing field.
Lufthansa Technik AG	<ul style="list-style-type: none"> • Extent of FAR 26, AMC 20-xx and other after approval requirements for STC's and Major Repairs 	
	<ul style="list-style-type: none"> ➤ Feasibility in practice? 	<p>Under the task 21.039(a) the Agency is developing a regulatory tool to mandate post-TC requirements (retrofit, production cut-in etc.). The task 21.039(k) will transpose JAR-26 into "CS-26".</p> <p>More specifically on aging aircraft, task MDM.028 has been started. FAA is a member of the group. We also have monthly teleconferences on aging aircraft rulemaking with FA, TCCA and ANAC. The NPA will be published early 2011 and will address CS-25 (concept of limit of validity), AMC 20-20 and will propose specific additional requirements for the fleet in service:</p> <ul style="list-style-type: none"> • LOV for TC Holder and applicant to TC • damage tolerance for existing repairs, existing changes and existing repairs for fatigue critical structure (TC Holder and applicant to TC); • damage tolerance for existing changes and repairs to changes (Design Approval Holders (DAH)); • Widespread Fatigue Damage (WFD) evaluation for existing changes (all DAH); • Extension of LOV (all DAH);



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		<ul style="list-style-type: none"> Fatigue and Damage Tolerance evaluation of future repairs and changes (All DAH); maintenance programme.
	➤ Harmonisation of rule and structure of rules with FAA necessary?	When a regulatory tool is available, the Agency will use it to mandate retroactive requirements and FAR Part 26 content will be taken into consideration.
Lufthansa Technik AG	• Replacement Parts	
	➤ (Is there taken into consideration) Consider the users and installers of these parts during the rulemaking activity?	A solution is sought under the rulemaking task 21.046 Replacement parts. ToR is published and the NPA is under development. Whilst this task is "Agency" task, the stakeholders have been consulted in a meeting organised through SSCC. Further consultation will be assured through following the standard rulemaking process (NPA, CRD consultation).
	➤ (Shall the EASA rulemaking activity) Should be harmonised with FAA requirements?	Still to be decided in the course of the 21.046 rulemaking task.
	• Grandfather Rights	
British Airways PLC	➤ Has the Agency introduced limits on 'Grandfather Rights'? <i>This will provide many operators a huge amount of work, should they have to re-qualify Major Changes that were previously approved by the National Aviation Authority (ex. UK CAA) prior to Part 21J</i>	Grand-fathered rights have been established in the Commission Regulation 1702/2003, the Agency has no power to limit them, except in case of identified safety issues for which AD actions would be required.



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	EU-US Bilateral Agreement	
H4 Aerospace Ltd.	<p>➤ Please advise the status of the bilateral agreement between EASA and the FAA?</p> <p>It is currently very difficult to manage the conformity process of non-PMA'd parts, where the FAA are not now allowed to act on behalf of EASA anymore.</p> <p>Additionally, the FAA are still refusing to recognise an EASA STC as a suitable approval basis for releasing parts with an FAA 8130-3 tag, meaning that even post-EASA STC parts (spares etc) require conformity by the relevant EASA DOA or an EASA Part 21G organization under a separate agreement.</p>	The bilateral between the USA and the EU is not yet in force. Discussions on-going.
Lufthansa Technik AG	<p>➤ Status of Bilateral and heavy disadvantages by sequencing of FAA for European STC holders</p>	See above.
	Eligibility of Non EU companies for Part 21/J approval	
H4 Aerospace Ltd.	<p>It is apparent that more US companies are obtaining EASA Part 21J approval, on the premise that it is non-competitive for them when it comes to aircraft not approved by the FAA. It is still however not possible for European companies to obtain FAA approval and own FAA STC's, making it non-competitive for us in the US market and on projects requiring FAA approval.</p> <p>➤ Can EASA advise what criteria they apply, for accepting applications for EASA part 21J approval from non-EASA country company applicants?</p>	<p>EASA does not accept anymore application for DOA from US organisations, due to the situation on the EU-US bilateral agreement.</p> <p>More generally, EASA only accepts applications for DOA from companies located in non-EASA countries when first they have design activities for aircraft registered in the European Community (or in countries associated to EASA) and, second, when the local authority system cannot be taken into account. The preferred option is always to work with the local Authority.</p>



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	CVE selection & qualification	
AIRBUS TRANSPORT INTERNATIONAL snc	<p>To define an appropriate qualification standard for CVEs, we need first to define precisely what shall be the implication of a CVE in a project:</p> <ul style="list-style-type: none"> ➤ To which level of details shall the CVE go in his/her verification task? <i>Technical (check calculations methods, results & hypothesis, drawing design rules application , ...) or just administrative?</i> 	The role of a CVE is to check independently compliance documents. It is a technical check, not an administrative check, and requires verification at any level to ensure validity of the compliance statement against applicable specific certification specifications.
AIRBUS TRANSPORT INTERNATIONAL snc	<ul style="list-style-type: none"> ➤ What kind of experience should a CVE have gained? 	A CVE must be competent in his/her technical discipline and related certification specifications. See also Presentation on " CVE selection & qualification";
AIRBUS TRANSPORT INTERNATIONAL snc	<ul style="list-style-type: none"> ➤ What does the Agency recommend for CVEs qualification and training? 	Technical and certification experience in technical field, training on applicable certification specifications, proper understanding of function, as described in Part 21 and related AMC and GM. See also Presentation on " CVE selection & qualification";
	Approved data	
AIRBUS TRANSPORT INTERNATIONAL snc	<p>Part 21 definition of "approved data" is not very detailed. Quite often there are discussions on the "approved data" status of a DOA deliverable. Moreover, when the DOA needs tests on aircraft (ground and/or flight tests - MoC 5/6), data transmitted to the Part 21G are not approved yet. This can</p>	<p>There is no definition of approved data in Part 21 and related AMC and GM.</p> <p>In context of current EASA review on use of approved data, it means design and compliance data provided for a type-certificate, changes to type design, STC, repair design, or ETSOA, <i>when the related design approval has been</i></p>



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	<p>lead to some administrative difficulties and possible misunderstandings. Therefore there would be an interest to discuss the following subjects:</p> <ul style="list-style-type: none"> ➤ What is the definition of an “approved data”? <i>Is every MoC (MC 1 to 9) produced by the DOA to be considered as “approved data” and to be checked by the CVE?</i> <i>Should a drawing set be considered as “approved data” to be checked by a CVE?</i> 	<p>issued. (See also Presentation on “Use of Approved Data”); a MOC in itself is not an approved data, but the design and compliance data associated to it. CVE check is related to the technical content of compliance document. When the drawing itself is a compliance document, it must be checked by a CVE.</p>
AIRBUS TRANSPORT INTERNATIONAL snc	<ul style="list-style-type: none"> ➤ When a test specimen is needed for the certification of a product (MC 5 and/or 6), what are the recommended procedures for the DOA-POA relations, in particular for “approved data”? 	<p>The DO-PO arrangement is applicable also in the case of test specimens, even if the applicable design data are not yet approved.</p> <p>Within the arrangement frame and i.a.w. Part 21A.33 Investigation and tests: Procedure used for First Article Inspection may be followed; Responsibilities must be identified; Facilities for manufacturing the test specimens are under POA; DOA should assure correct and timely transfer of up to date applicable design data (drawings, material specification, dimensional data, processes, surface treatment, etc) to the production organisation approval holder; POA should manufacture test specimens iaw the received design data and should issue EASA Form 1 certifying that the item was manufactured iaw the applicable design data.</p>



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	Certification requirements	
Rolls-Royce Deutschland Ltd & Co KG	<p>Aircraft systems and structures incorporate many items of equipment, for which ETSOs may be obtained. ETSOs are therefore applied for by the equipment supplier, and awarded by EASA, normally before the aircraft is certified. Will EASA please clarify:</p> <ul style="list-style-type: none">➤ To what extent the applicant for the aircraft type certificate may rely on the ETSO approval to show compliance with the aircraft certification requirements?	<p>The ETSOA is an optional approval at equipment level. It ensures that the equipment meets certain minimum performance requirements but it is not to be taken as any installation approval. There is no legal requirement for such a separate equipment approval. It can also be approved directly with the a/c where it is installed in via TC/STC. As an example, the environmental conditions stated in the DDP should be evaluated for matching with the conditions foreseen for the a/c operation.</p>
TAG Aviation SA	<p>Cabin refurbishment, most of the time, only involve the replacement of the finishing materials used to cover the various cabin panels, partitions, cabinetry, seats or flooring but always take some personal judgment as to establish if such work falls under the scope of the maintenance of the aircraft or if it has to be address as a Design change.</p> <p>First, we found out that most of these refurbishment projects will have no impact on the original TC/STC Drawings, Bill Of Material or Process Specifications. The raw material that need to be replaced are often defined by TC/STC holders in separate documents called Customer Specifications or Interior Finishing Specifications. We know that a change of Material Specification is one of the criteria defining a Design Change per Part-21. Nevertheless, as their is no real standardized Specification for such raw materials, it is difficult to assess that a piece of leather conforms with another piece of leather and therefore it is difficult to assess if a cabin refurbishment is impacting the original Material Specifications and if a Part-21 approval</p>	<p>Material entering into cabin interiors must comply with the applicable flammability requirements.</p>



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	<p>is required or not. Part-M.A.501(d) addresses the issue of the use of raw material and AMC M.A.501(d) established that raw material should only be accepted when satisfied that it is to the required specification. Again, in the case of the cabin interior, the "required specification" are not always clearly defined which leave us in a grey area and prevent us of using the privilege of Part.145.A.42(c).</p> <ul style="list-style-type: none"> ➤ Can EASA address cabin refurbishment certification requirements and provide some guidance to assess when a certification is required when dealing with raw interior finishing material replacement? 	
TAG Aviation SA	<ul style="list-style-type: none"> ➤ Can EASA also clarify if compliance with flammability certification specification has to be demonstrated when the new raw materials comply with TC/STC approved material specification? 	Any new material will be considered a type design change (minor or major) and must comply with appropriate certification specifications. What to do to show compliance is the subject on the discussion on "use of approved data" (See corresponding presentation).
Airlift A/S	<p>One major problem arising in connection with this is the fact that companies who install and operate special equipment without contacting EASA (or Part-21 organisations) are free to do so, but the companies who are applying for approval for the same equipment are required to show compliance to regulations which is not clear (or missing).</p> <ul style="list-style-type: none"> • Equipment attached to the cargo hook under the helicopter: 	
	<ul style="list-style-type: none"> ➤ What is the status regarding regulation? Any proposals coming up? 	The Agency/FAA is launching a sub-group on external loads to review the AMC/AC related to external loads (27&29.865) as



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		part of rulemaking task 27&29.029: Rotorcraft AMC Revision.
	➤ What is the regulation to be used in the meantime when including equipment which is attached to the cargo hook?	The requirements applicable to the approval of equipments are provided in CS-27/-29 subpart F and those related to their installation on the a/c in the whole CS-27/-29 as appropriate to the case.
	➤ What is the difference between "equipment" and "cargo" (when is it equipment and when is it cargo?)	Neither the CS-Definitions nor the CS-ETSO do provide a definition for "equipment" The word equipment implies the concept of something needed for a purpose and therefore the difference between equipment and cargo should not constitute a problem of understanding.
	➤ Shall the installation be considered only on the electrical side (load, EMI....) or on the structural side as well?	When the helicopter is to be equipped for operations with external loads, any aspect related to the safety of flight shall be investigated as part of the initial rotorcraft airworthiness approval or as a major change/STC. The external load attaching means must comply with 27/29.865 If the helicopter is to carry only cargo, the characteristics of the critically configured cargo needs to be assessed to ensure that it does not constitute a hazard to the rotorcraft throughout its operational envelope If the helicopter is to carry external equipments to be used as part of an aerial work activity, then in addition to the flight characteristics mentioned previously, the equipment's functions will need to be assessed to define whether its approval according to aviation requirements is necessary or whether it can be approved on a "no hazard" basis.



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Airlift A/S	<ul style="list-style-type: none"> • Use of wireless (Bluetooth) equipment (mobile phones, computers/PDA, etc) in the cockpit: 	
	<ul style="list-style-type: none"> ➤ What is the status regarding regulation? Any proposals coming up? 	No rulemaking is foreseen. At first special conditions should be developed on a case by case basis.
	<ul style="list-style-type: none"> ➤ Are there any "approvals" given for such equipment (example: ICS panels capable of connecting Bluetooth equipment such as mobile phones, etc)? 	NO. There may be in the past some wireless communication system approval given by NAAs (e.g. communication with rescue person on the hoist, or other special mission) Rulemaking is foreseen and task 25.063 is currently in the list of future rulemaking tasks. At first special conditions should be developed on a case by case basis.
Airlift A/S	<ul style="list-style-type: none"> • Use of Satellite Phones as replacement to HF radios: 	NO, except comment hereafter
	<ul style="list-style-type: none"> ➤ There are geographical areas (Greenland, Arctic, Antarctic, remote mountain areas etc) where satellite phone are operationally accepted by ATC as alternative to the HF radio. 	AMC to Part-CAT will permit alternatives to HF radios if allowed by the relevant airspace procedures. National rules may allow the use of alternative means of communication for specific operations (e.g. rescue services)
	<ul style="list-style-type: none"> ➤ Is there any ongoing plan for development of ETSO? 	No, not for the time being Rulemaking task ETSO.008 " <i>Systematic review and transposition of existing FAA TSO for parts and appliances into EASA ETSO</i> ", will include transposition of FAA TSO C159a " <i>Next Generation Satellite Systems (NGSS) Equipment</i> ". This covers both data and voice communication between aircraft and ANSP. The NPA for this task will be published in 2011.
	<ul style="list-style-type: none"> ➤ Removal of restrictions typical for GSM installation (as per Certification Guidance Leaflet "Telephone installation on helicopters"), as it would be inappropriate to give the pilot the SATCOM as mean 	Currently, satellite phones are only foreseen as an alternative means of communication when the crew is unable to establish normal radio contact.



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	for communicating with ATC and thereafter giving restrictions and limitations in its use.	
	DOA external interfaces	
H4 Aerospace Ltd.	<p>We understand from a recent POA course, attended by a colleague, that EASA expect DOA's to confirm that POA's have the capabilities and Part 21G Scope of Approval to manufacture parts listed on the DOA 'Statement of approved Design Data (SADD)', before signing a POA-DOA agreement and issuing the SADD for manufacture.</p> <ul style="list-style-type: none"> ➤ Does EASA require DOA's to check the capabilities and Part 21G Scope of Approval of all manufacturers requiring a POA-DOA agreement and also carry out regular audits of their company and procedures? 	<p>A POA will not be authorized to produce parts outside its scope of approval; therefore, the DOA has to check that the POA has the right scope. The interface DO-PO (reference 21A.4) is a DOA responsibility and must therefore be checked regularly by the DOA internal monitoring system, in a way or another.</p>
H4 Aerospace Ltd.	<ul style="list-style-type: none"> ➤ Similarly, does EASA require DOA's to check the capabilities and EASA 145 Scope of Approval of maintenance organisations carrying out modifications produced by the DOA and also carry out regular audits of their company and procedures? 	<p>There is no such requirement for implementation of approved modifications.</p> <p>It is a good practice for STC development</p> <p>See Presentation on "Interface between design organisations and Part 145 organisations";</p>
	Environmental protection	
AIRBUS TRANSPORT INTERNATIONAL snc	<p>The respect of the Environmental Protection (EP) requirements is still a new concept for DOAs. To ensure adequate selection, qualification and training we need to have more instructions and recommendations from the Agency:</p>	<p>Knowledge of the EASA EP certification specifications (CS36 and CS34, ICAO Annex 16 Volumes I and II) and GM/AMC material (ICAO Environmental Technical Manual) applicable to the DOA's products. Also sufficient knowledge to correctly identify changes that might appreciably affect the changed product's environmental characteristics and therefore enable a</p>



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	➤ What would the Agency recommend as the minimum EP knowledge level for DOA personnel?	correct change classification.
AIRBUS TRANSPORT INTERNATIONAL snc	➤ When will EASA publish EP guidelines?	EASA Rulemaking have initiated a rulemaking activity (EASA Task No. 21.059) "Environmental Protection – classification of changes to type design). The intention is to provide guidance material in GM21A.91.
AIRBUS TRANSPORT INTERNATIONAL snc	➤ Will EASA grant EP qualifications to Part 147 organisations? <i>Will EASA issue a list of "recognised" EP training organisations?</i>	EASA NPA 2008-15 envisaged extending the "total system" approach for safety into the environmental domain, including extending the EASA system to the environmental regulation of the licensing of pilots, air traffic controllers and maintenance engineers, as well as the training of any other person active in the aviation system whose actions can have a significant environmental impact. The comments received on this issues were inconclusive, some positive and some negative. Following the decision of the Management Board the Agency will not propose any immediate rulemaking changes on this subject (see EASA CRD 2008-15), including any changes to extend the scope of EP qualifications to Part 147 organisations.
AIRBUS TRANSPORT INTERNATIONAL snc	➤ Will EASA publish recommendations for EP training syllabus?	See reply to the above question.
	EWIS	
AIRBUS TRANSPORT INTERNATIONAL snc	For STC holder, EWIS requirements are mainly embodied by the Special Condition H-01. However, especially for minor changes, the applicable requirements may be hard to	As stated in the FAQs (link http://www.easa.eu.int/ws_prod/c/c_ewis_ica_requirements_faq.php): <ul style="list-style-type: none"> Through the CRI H-01 EASA can enforce each applicant, applying for a product affected by EWIS Rules, to



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	<p>define.</p> <ul style="list-style-type: none"> ➤ Can the Agency give more explanations on how to implement the EWIS requirements (SC H-01 or CS25-App H)? <i>Especially for EWIS-ICA supplements, issued by the STC holder to supplement the TC holder ones.</i> 	<p>demonstrate compliance with the EWIS ICA requirements (SC H-01 or CS25-App H)</p> <ul style="list-style-type: none"> ▪ The AC-25-27A Appendix B is accepted by EASA as Means of Compliance to demonstrate compliance with the EWIS ICA requirements <p>Within the end of 2010 all the TCDS for products affected by EWIS Rules are expected to be updated to include the SC H-01 that in this way becomes part of the relevant certification basis.</p>
AIRBUS TRANSPORT INTERNATIONAL snc	<p>On the same subject, there may be additional information to provide concerning EWIS training and qualification. Indeed, presently most EWIS training are focused on maintenance practices and manuals (ex: Airbus ESPM), nothing much on design. So there is clearly a lack of offer concerning Design Organisations EWIS trainings. Training organisations would then also need EWIS trainings requirements and guidelines.</p> <ul style="list-style-type: none"> ➤ Will EASA grant EWIS qualifications to Part 147 organisations? <i>Will EASA issue a list of "recognised" EWIS training organisations?</i> 	<p>The Agency has no plans to include specific EWIS approvals in Part 147.</p>
AIRBUS TRANSPORT INTERNATIONAL snc	<ul style="list-style-type: none"> ➤ Will EASA publish recommendations for DO-EWIS training syllabus? 	<p>AMC 20-22 "Aeroplane Electrical Wiring Interconnection System Training Programme", published as part of the guidance material for EWIS Requirements, can be considered as the proper reference. The AMC 20-22 is providing guidance with respect to the EWIS training.</p>
Teledyne Limited	<p>The typical scope of our projects is the installation of an avionics unit with minor wiring changes. At present EASA have adopted the approach of raising a CRI for any EWIS</p>	<p>For the time being FAA is keeping the NON-BASIC classification as standard approach for the STCs affected by EWIS Rules. EASA is acting in the same way by classifying as</p>



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	<p>related change. However it appears that the existence of a CRI causes the FAA to consider the project as "non basic". It is unclear to us which, but the "non-basic" classification either means that the validation is not possible or is more difficult.</p> <ul style="list-style-type: none"> ➤ Can EASA consider an alternative approach to EWIS changes that will avoid the "non-basic" FAA classification? 	<p>NON-BASIC STCs potentially affected by EWIS requirements. Changes to these classification criteria will depend on bilateral agreement discussions between EASA and FAA.</p>
UK CAA	<p>There has been much information via Certification, in particular</p> <ul style="list-style-type: none"> ➤ Whether a specific STC is still eligible for installation on further aircraft with EWIS compliance outstanding? 	<p>Assuming there is an EWIS ICA limitation in place that has not yet been cleared, such an installation on further aircraft could be envisaged provided there is an agreed plan between EASA and the STC holder to comply with the EWIS ICA requirements to allow the removal of the limitation.</p> <p>FAA is using a limitation not allowing any installation on further aircraft until the limitation relevant to the EWIS ICA is removed.</p> <p>Refer also to http://www.easa.eu.int/ws_prod/c/c_ewis_ica_requirements_faq.php):</p>
	EASA approvals on non-EASA registered aircraft	
H4 Aerospace Ltd.	<p><u>Example ref no.1 – Non-EASA Registered Aircraft</u> During an EASA STC around 4 years ago, we were asked by a US company, doing an FAA STC on some Cathay Pacific B747-400 aircraft, to produce a modification <i>to install a curtain rail between the Boeing installed overhead bin structure and an EASA approved galley complex</i>. This was only required because the FAA refused to accept the EASA approved galley was an approved installation, despite it being existing. The FAA STC was covering a cabin</p>	<p>Assuming that we are speaking about changes designed by others than the TC holder, EASA only needs to approve changes that interface, or interact, with the change submitted to EASA for approval.</p>



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	<p>reconfiguration, including new seats. Because the galley installation was not recognised by the FAA, certain certification conformity checks could be completed by the FAA DAR, primarily the aisle width check in the galley area. As a result the FAA STC was approved on the basis of '<i>Zero Occupancy</i>'.</p> <p>As part of our <i>EASA STC</i> we were then asked to cover the approval to carry passengers.</p> <p>This was done on the basis that the FAA STC was accepted as already approved at the time the EASA STC was completed, albeit FAA only.</p> <p><u>Example ref no.2– Non-EASA Registered Aircraft</u></p> <p>We are currently involved in an <i>EASA STC</i> to allow an increase in passengers on a <i>VIP B737-BBJ</i>. The increase in passengers is possible due to the reclassification of a 9G aft facing divan, previously installed and certified by an FAA STC, but not approved for Take off and Landing, due to the FAA requirement for the divan to be 16G certified and compliant with FAR25.562. Under EASA the CS25.562 requirement is not applicable to the B737NG series aircraft under 180 pax.</p> <p>For this installation, we are having to review and approve all the FAA approved STC data, as part of the EASA STC, before the EASA STC can be approved itself.</p> <p>The basic issue that these two examples raise, on non-EASA registered aircraft, is that, where in example ref no.1, it was acceptable to consider an existing installation as approved, allowing follow on mods to be done without the need to obtain EASA approval, in example ref no.2, it has become</p>	



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	<p>necessary to obtain EASA approval of the previous installation as a prerequisite to the new modification.</p> <ul style="list-style-type: none"> <i>Whilst we fully understand that we need to review and accept the interface data for anything we are doing in the new modification, are EASA saying that any and every modification done previously on an aircraft must be reviewed and approved by EASA, prior to carrying out any new modifications?</i> <i>Whilst, presumably, an EASA registered aircraft can be, by definition, assumed to have all mods EASA approved already, are EASA saying that we cannot do any EASA mods on non-EASA registered aircraft without obtaining EASA approval for all applicable existing mods first, even if we have reviewed the interface data considered necessary.</i> <p>The question therefore is:</p> <ul style="list-style-type: none"> ➤ Are EASA going to require that all changes (interfaced with or otherwise) on an aircraft subject to an EASA modification (minor or STC) are EASA approved prior to commencing the new design engineering? 	
H4 Aerospace Ltd.	<ul style="list-style-type: none"> ➤ Please advise the status of the EASA STC to FAA validation process and the EWIS harmonization? <p>Currently it appears that US companies holding FAA STC's have a streamlined process for obtaining EASA approval, but that the FAA are not prepared to validate EASA STC's quite so easily!</p>	<p>For the time being due to the NON-BASIC classification, FAA is reserving the right to perform a complete investigation for EWIS compliance demonstration. Nevertheless, from practical experience (i.e. with FAA NYACO) FAA seems to give credits for the EASA investigation previously performed (the same as EASA is doing for FAA STCs coming in EASA for validation).</p>



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	Release of parts and appliances	
Ruecker Aerospace GmbH	<p>Part 21A.307(a) requires that each part or appliance to be installed in a type-certificated product shall be accompanied by an EASA Form 1.</p> <p>However in special cases e. g. scientific mission equipment, medical equipment etc. the appliances are produced by non-21F or -21G companies and therefore no EASA form 1 is available.</p> <ul style="list-style-type: none"> ➤ Is there any EASA guidance material on this topic regarding: <ul style="list-style-type: none"> - Certificate of Conformity as alternative to EASA Form 1; - Differentiation in regard to single or multiple installation; - Specific certification approach if required; 	<p>The current Part-21 Subpart K, and in particular 307 make no exceptions for any part except for standard parts. This is a problem that is recognized and needs a solution. We have task 21.026 that is intended to start the first quarter 2011.</p> <p>Therefore I also have no solution for what you call single or multiple releases.</p>
	Control of subcontractors	
H4 Aerospace Ltd.	<ul style="list-style-type: none"> ➤ EASA is pursuing the idea of providing EASA approval for test houses covering, for example flammability testing? 	<p>The Agency is currently reviewing the future of DOA in the context of a reform of the certification process. Until this internal activity is complete, the Agency does not intend to progress this issue.</p>
Lufthansa Technik AG	<ul style="list-style-type: none"> ➤ Update on result of EASA special supervision during the last years? 	<p>No consolidated data available yet. Subject is reviewed internally.</p>
Lufthansa	<ul style="list-style-type: none"> ➤ Possible means of organizing subcontracting which was 	<p>Last year, Industry has been invited to develop schemes to avoid multiplication of auditing for certain specialized services</p>



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Technik AG	acceptable by EASA?	suppliers; no progress has been done.
UK CAA	<p>The Team Leaders have provided the various EASA presentations to all DOAs for which we undertake oversight on your behalf. One particular DOA (with a significant element of flammability testing) has advised the following responses when flowing down the expectation for the <i>provision of photographic evidence where the CVE is not present</i>.</p> <p><u>Test House A:</u> Only one other customer had requested photographs of the EASA 25.853 test procedure and <u>that additional costs would be incurred for this activity</u>.</p> <p><u>Test House B:</u> Since losing their CAA test house approval, this Part 21 DOA had followed up with a site audit on the competence of the test laboratory. The test house has declared their policy <u>not to undertake the generation of photographic evidence of the conduct of this testing</u>. This Test house also does work for a large number of other EASA DOAs.</p> <p>The DOA was also asked to advise from which EASA requirement the need for photos/videos of the testing was actually being taken.</p> <p>From this very limited sample (this DOA is usually very up-front and honest regarding issues to do with the approval), it would appear that the EASA expectations for subcontract controls from the seminar are not being applied by all DOAs. This DOA is concerned at having work rejected or being charged additional costs for trying to apply the EASA requirement, which does not appear to be requested when working for other DOAs.</p> <p>My previous understanding of the requirement was that the <i>DOA needed to show satisfactory integration of the test</i></p>	<p>Noted. Internal review is on-going on this topic.</p>



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	<p>house design assurance system with its own. This could either be by direct witness of the task by the CVE, or by effective periodic auditing of the test house facility by competent personnel (as carried out by the DOA above). From my viewpoint, periodic on-site auditing of the facilities meets the requirements, simply accepting a test certificate or relying on a government accreditation scheme outside the control of the DOA does not.</p> <p>If the CVE witness arrangements included in Ciro's presentation are meant to establish the expected EASA standard then that message does not seem to have got across to all DOAs yet, and EASA should consider Certification Memorandum or Rulemaking activity to introduce consistency</p>	
	Issue of permit to fly and approval of flight conditions	
UK CAA	<p>A recent STC package that CAA was requested to evaluate was accompanied by a request to approve flight conditions. The organisation did not have personnel with the capability to undertake such an evaluation, and the proposal (including the experience/qualifications proposed for the pilot) was entirely unsuitable. As the DOA did not have the Permit/Flight Conditions as part of its approval, it did not have any procedures to be able to meet these requirements.</p> <p>In last year's presentation, a proposal was made to separate those DOAs that could affect environmental protection from those that could not. I think there is a</p>	<p>Not possible: any person is entitled to propose flight conditions for EASA approval, there is no obligation for a DOA to apply for permit to fly related privilege; it is only an option. Minimum to be provided by a DOA: procedure to apply to the Agency for approval of flight conditions.</p>



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	similar case to be made for those organisations that have the knowledge to be able to prepare a request for flight conditions, and those that do not.	
	New privilege Opinion 01/2010	
UK CAA	<p>NPA 16-2006 introduces the possibility of privileges for DOAs to approve Flight Manual supplements.</p> <ul style="list-style-type: none"> ➤ As regards the possible privilege of approving minor revisions to the aircraft flight manual, can it be assumed that if an organisation wants this privilege it will have to make an application and there will be an investigation? <p>CAA has seen wide variations in the quality of submissions in this area and the organisations should have to show procedures and competency before this privilege is granted.</p>	Yes.
	Miscellaneous	
H4 Aerospace Ltd.	<ul style="list-style-type: none"> ➤ Is it possible for the EASA Applications Management Team to provide additional contact information for the applicable person within the nominated agency for EASA STC applications, when sending out the Application Acceptance letters? <p>Currently the Application Acceptance letters state the agency allocated the task, but there are often no details as to whom to contact within that agency.</p>	<p>The EASA acceptance letters for STC projects, which are sent to applicants, now contain the following contact information:</p> <ul style="list-style-type: none"> • For Internal Task allocation: Name of PCM, telephone number, address. The email address of the PCM is foreseen and should also be integrated into the output document in the coming days. • For External Task allocation: Currently only the name of the National Aviation Authority is provided. However there are ongoing discussions to include a generic email address of the NAA in order to ease communication between



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		applicants and the NAA experts.
Airlift A/S	<p>We are an approved EASA Part-21 organisation. Often when we try to sell minor modification the answer from the industry is that our price is too high because it is much cheaper for the customer to send an application for approval of minor modification to EASA. Our customers said that they normal get it approved by EASA for a very low cost around 600-1000 Euro. For us in the industry is it not possible to do even the certification verification engineers work for this price.</p> <ul style="list-style-type: none"> ➤ Is it possible to get information about the average price for minor modification approved by EASA? 	See Fees & Charges Regulation on EASA website.
QUESTIONS RAISED DURING THE WORKSHOP		
	EASA Update	
	<ul style="list-style-type: none"> ➤ Stakeholders' feedback 	
	<ul style="list-style-type: none"> – Rationale for sample of 498/500 DOAs 	The questionnaire has been sent only to organisations newly approved (DOA or AP to DOA) or for which annual surveillance activities have been completed.
	<ul style="list-style-type: none"> – Example of rejected comments 	EASA Regional Office in Toulouse;
	<ul style="list-style-type: none"> – Example of accepted comments 	More formal way to transfer work between DOATL;
	<ul style="list-style-type: none"> ➤ Opinion 01/2010: implementation period of at least 3 months regarding certification programme 	A certification programme will be required for new applications sent to EASA after entry into force of the amended Part 21.



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		Update of DOA to take into account new requirements will have to be done in context of DOA surveillance activities.
	➤ Opinions on future of DOA are published on EASA website; what about the related AMC & GM?	In order not to pre-empt the outcome of the comitology process, AMC&GM associated with EASA Opinion 1/2010 will only be published once the EC has amended Part 21. The draft text of the AMC&GM is drawn from and closely reflects that published in CRD 16/2006 in September 2008, but is limited in scope to reflect the reduced contents of the Opinion compared to the original NPA proposal.
	➤ Certification programme aspects:	Certification programme will be explicitly required by Part 21 and will become an important document in the future for the management of certification activities. It will be used to define EASA level of involvement (LOI); LOI will depend on company experience and technology.
	➤ Certification planning - will EASA sign up to project milestones?	Yes
	➤ NPA 16 controversial issues – when will be handled?	Internal EASA discussion on-going
	Status of Rulemaking Activities Affecting Part 21	
	➤ Status of opinions affecting Part 21 on comitology process;	EC would like to bundle all opinions currently available before taking them to comitology process;
	➤ Definition of deadlines linked to RM tasks;	Start date – when TOR is published; Finish date – when opinion is published
	➤ MDM60 – agency-only working method; feedback in	EASA management would have to decide on change of



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	favour of group working method;	working method;
	➤ ED2010-001 decision – IR can be changed by EASA management decision?	No, EASA does not have this competency – comitology process is required for changes to 1702
	➤ What Subparts of Part 21 will be considered for the future Technical Requirements?	Subparts such as B, D, E, M, O;
	CVE Selection and Qualification	
	➤ Provisions in AMC & GM are not hard law as Part 21 is; what is the basis to investigate the competence of CVE;	Competence is addressed in 21A.245, which is “hard” law.
	➤ In case of minor repairs for equipment – is it acceptable to have training for just the relevant paragraphs of the CS?	Yes
	➤ CVE should demonstrate knowledge of EASA CS as basis for competence; however, what about other foreign regulations, e.g. FAR?	CVE are used in context of EASA DOA, to demonstrate compliance with EASA applicable certification basis. Validation of projects by foreign authorities takes place in another context. With FAA, for instance, this is currently organized in accordance with the Type Validation Principles (TVP) agreed between FAA and EASA.
	➤ Definition of “independence of judgment”?	Independent review of data created by somebody else by a person technically competent in related domain
	Use of Approved Data	
	➤ Is data belonging to an EASA approved design	Yes



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	considered approved data?	
	➤ What is the meaning of approved data?	In context of the topic presented during the workshop, approved data = design data + compliance data;
	➤ What about FAA approved data (AC 43.13) or generic documents (eg analysis of structural loads)?	As we do not have an AC 43.13, and we must have data approved in our system, the applicant may agree with the PCM documents that can be accepted;
	➤ What about grandfather rights?	Article 2 of 1702/2003 states that the design of an individual aircraft, which was on the register of a Member State before 28 September 2003 is considered to be approved; any change made after must be approved in accordance with Part 21, including variations to "grand-fathered" approved design.
	➤ Will minutes of the workshop be provided?	No, but presentations and a document with Questions and Answers will be published on EASA website, Events page.
	➤ How to integrate foreign approved STC in an EASA approved type design?	The foreign STC itself can be validated, so it becomes an EASA approved design and can be installed. If an European TC Holder wants to integrate such STC in its type design, he must define a change and show compliance again himself.
	Interface between Design Organisations and Part 145 Organisations	
	➤ Should CAMO be in the loop?	Yes, pre-modification status should be established; CAMO being the lead organization for controlling the configuration, gives these data to DO and MOA;



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	➤ We are not willing to release information and instructions under the statement "for test purposes only"	This privilege is processed under the controlled environment of DOA, not iaw a certain regulation; in this case, the statement has to be clear that some data are not yet approved, but their release is controlled and that they shall be approved in the future;
	➤ Use of the Bilateral Agreements with the US for recognizing approved data	EU-US bilateral agreement status: on hold. Bilateral agreements between the Member States and the US are still used and define what is considered EASA approved. See also EASA decisions related to changes, repairs and PMA from the US.
	➤ Is there any solution not to be forced to remove the prototype part from the a/c after the approval of design?	Rulemaking task MDM079 "First installation of STC to show compliance" is covering this subject;
	➤ Flight testing organization approach?	Current Part 21 does not contain provisions for approval of flight testing organisations; the related activities must be covered by the DOA in context of its design activities.
	Implementation of Operational Suitability Data (OSD)	
	➤ When the OSD part of the STC should be available?	OSD part of an STC must be available before the first changed aircraft is operated by a Community Operator.
	➤ Will the same OSD obligations be applied to the validation of FAA STC's?	Yes
	➤ Why OSD is considered a significant change to DAS?	EASA needs an application to initiate activities and has chosen the EASA Form 82 (Significant change to DOA) to administer



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		the process.
	➤ Will there be a generic CS for OSD for non-complex aircraft	No, but for MMEL aspects, EASA will produce generic MMELs for non-complex aircraft.
	➤ What about the OS Certificate?	The concept of OSC does not exist anymore; it has been replaced by the OSD.
	➤ What about updating the content of Bilateral Agreement with the US for OSD approval?	The Bilateral Agreement contains provisions for further extension. It will be done through the addition of new implementing procedures (Annexes).
	➤ As part of design validation, how are foreign DO's evaluated for EP/ OSD?	Today, EP is excluded from the existing bilaterals and must be handled directly by EASA; same for OSD as long as bilateral agreements do not include appropriate provisions.
	EASA Internal Occurrence Reporting (IORS)	
	➤ Will it be an acknowledgement e-mail for submitting reports in IORS?	Yes
	➤ Is IORS meant for DOA's only?	No, the system is capable to receive information from all possible sources.
	➤ Can the system recognize duplicates	Yes
	➤ Will it be possible to update the information initially submitted in IORS via new Form 44?	Yes
	➤ NAA's will have access to IORS?	NAA's will be able to report but they will not have direct access to the data.



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	➤ Are still the organizations to further report to several organizations?	Yes; IORS initiative is a new method to report to EASA, it does not change the current regulatory framework.
	➤ How confidentiality of reporting is ensured?	Confidentiality is not impacted by IORS; however we have drafted a policy paper on this issue; statement regarding confidentiality is built into the form;
	➤ Any impact on liaison with National Investigating Boards?	No;
	➤ E-mail tool is not considered confidential, but public;	Fact is recognized; problem already exists today;
	➤ What if the PCM is within a NAA? Shall the report be sent to him?	No, the report goes to EASA; EASA will allocate the task to PCM's and then PCM's will have the data;
	Night Image Vision System (NVIS)	
	➤ Installation of a fixed camera will be considered NVIS?	No, but if the cockpit is NVIS approved, there should be a compatibility issue;
	➤ What would be the mechanism of recognising competence for NVIS for DOA's already working in these technical field?	This would be handled as an administrative matter: EASA Form 82 will have to be submitted and the Terms of Approval will be updated based on existing recognized capability;
	➤ There would be any credit for DOA's doing NVIS for military a/c?	There should be some flexibility, nevertheless if no work was done previously on civil a/c, we would consider the technical field applied for as "new"



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	Environmental Protection (EP)	
	➤ ICAO guidance states that after a number of accumulating changes you need to reinvestigate the whole a/c; how can you do this as an STCH not having access to previous STC's data?	STCH is not expected to do this;
	➤ Is there any possibility to put limitations in the event DOA is not competent in EP or not willing to improve?	Yes, scope of DOA would be limited; there is a trend to be more and more specific in the Terms of Approval, to enable better use of granted privileges;
	DOA Privileges	
	➤ What do you understand by "the DOA controlling the configuration" for PtF?	The DOA has the capability to declare the a/c conforms to the approved flight conditions;
	➤ In case of a damaged a/c, can a DOA issue a PtF for this a/c?	Yes, should the DOA have the appropriate privilege and scope in its ToA;
	➤ Can you have a DOA only for PtF privilege?	No; design activities are required for DOA eligibility.
	➤ Do other CS's include special provisons as in CS 23.1581?	No
	➤ Can you make a revenue flight under a PtF?	No, you need a Certificate of Airworthiness for a revenue flight;
	➤ Can we get an STC SAP number early in the process to include this info in design documents?	No, the EASA approval number related to the STC is only generated at the end of the process.



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QUESTIONS AND ANSWERS SESSION		
	➤ SMS requirements in ICAO Annex 8 vs. Annex 6;	ICAO will publish a new Annex for State Safety Programs (Annex 19).
	➤ Can we use minor changes approved by the FAA on EASA MS registered a/c?	Yes; see ED Decision 2004/04/CF, as amended by ED Decision 2007/001/C.
	➤ FAA is asking more and more data when validating the EASA STC's;	Noted for further discussion with the FAA;
	➤ DO/PO link: is any possibility to avoid recertification from conformity to airworthiness	No
	➤ Showing of compliance for equipment ;	For an equipment that is required to be approved, either by Community law or Agency measures (CS's) and for which a ETSO exists, demonstration of compliance with the related CS ETSO is required, even if there is no ETSOA issued for this equipment (see 21A.305).
QUESTIONS RAISED AFTER THE WORKSHOP		
Airlift A/S	<p>1. An organisation with DOA have to prove to EASA that every test we describe for an STC is perform not even with result but also with photo or video. We also have to prove during audit that this is done for minor which we approve by ourselves.</p> <p>➤ How does EASA handle this for organisation without DOA approval?</p>	EASA experts are checking what is needed to verify the showing of compliance.



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Airlift A/S	<p>2. The CVE in an DOA organisation in principle have to participate in all test else he can not approve it.</p> <ul style="list-style-type: none"> ➤ How is then possible that EASA can approve modification with test result from organisation without DOA without participate in the test? 	<p>Participation to all tests is not a requirement for CVE. The CVE has to check independently compliance documents. There are various means to do it. Same for EASA direct approvals.</p>
Airlift A/S	<p>3. In the market our customers tell us that is much easier and cheaper for them to apply for an minor modification to EASA instead of buy it from a organisation with DOA.</p> <ul style="list-style-type: none"> ➤ Is EASA aware of that this is a competition problem for the industry? <p>And if so do EASA have any plan to solve this problem?</p>	<p>Noted. EASA will review the situation.</p>
	EWIS	
Aeroconseil	<ul style="list-style-type: none"> ➤ What are the requirements for STCH regarding STC's issued before January 1, 2009 in terms of EWIS ICA investigation (i.e. CAMO wishing to update the MS regarding any EWIS related maintenance tasks)? ➤ What are the requirements for STCH regarding STC's issued before January 1, 2009 in terms of EWIS ICA investigation for the installation (after January 1, 2009) of these STC's already approved? 	<p>EWIS ICA requirements are not retroactive, thus there is no obligation from STCH to assess the need of reviewing EWIS ICA, even when the already approved STC (issued before January 1, 2009) is again installed on an a/c. Note that January 1, 2009 is a DL for submitting the application for the STC (so the requirements are also not applicable to the STC's issued after January 1, 2009, but applied for before this date).</p>