



# EASA

European Aviation Safety Agency

# Approved Models List Supplemental Type Certificates

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# Background

- An AML-STC is a multi-model and multi-type change that allows a set of compliance data, i.e. type design data and substantiating data, become applicable to various aircraft TCs under a single STC approval.
- AML-STCs are intended for changes whose design, function, installation and operation are identical or similar and share the same certification baseline data.
- A Certification Memorandum on AML-STC is under preparation internally at EASA to provide guidance on this subject



# General Considerations

- The AML-STC must comply with the requirements of Commission Regulation (EU) No 748/2012 Annex I Part 21, Subpart E, Supplemental Type Certificates as amended by Commission Regulations (EU) No 7/2013, No 69/2014, 2015/1039, and 2016/5.
- The aim of the AML-STC is to streamline the certification effort avoiding unnecessary testing and re-submittal of data that is common to more than one model or type of aircraft.



# General Considerations

- It is important for applicants who are seeking an AML-STC approval to discuss their plan early with EASA. Coordination with the EASA is strongly recommended in order to determine any issues that may have an impact on a multi-model/multi-type installation approval.
- An AML-STC is issued for aircraft that are type-certificated against the same certification specifications (e.g., an AML-STC for an aircraft certificated under CS 23 cannot include aircraft certificated under CS 25, 27, or 29.)
- It is recommended that each category of aircraft within CS23 (e.g. normal, utility, aerobatic, and commuter) have a separate AML-STC due to possible differences that may exist in the certification requirements.



# General Considerations

- The AML-STC may not be suitable for those cases where type-specific compliance demonstration is required
- If variation between models or types is such that the similarities (with respect to the change design, function, installation and operation) and a common certification baseline data cannot be established, then an AML-STC is not the proper method for approval.
- The certification baseline data is to be understood as the set of core compliance demonstration elements needed for the change; these elements are to be common to all the model/types in the AML.



# General Considerations

- The applicability of the certification baseline data for each model must clearly be established
- The certification basis and amendment level to the areas affected by the modification must be defined for each model. Following the general principle of minimizing the certification effort, compliance is demonstrated to a certification basis corresponding to the most stringent case of all the model/types included in the AML
- Compliance with the requirements of section 21.A.114 and applicable data must cover every model on the AML (e.g., type design, substantiating data).



# Technical Considerations

- Acoustical Impact
- Aircraft Flight Manual
- Instructions for Continued Airworthiness (ICA)
- Operational Suitability Data
- Electromagnetic Compatibility (EMC), Lightning, and High Intensity Radiated Field (HIRF)





# Changes to AML-STC

- Major changes to an AML-STC are considered major changes to type certificate and require EASA approval; this includes two cases: the addition of the aircraft model/types to the AML and the modification of the existing aircraft model/types STC definition
- Minor changes to the definition of existing aircraft model/types STCs are typically addressed by the DOA where EASA accepts the applicant or certificate holder's internal process for handling such changes.
- It is recommended that current configuration be captured in some tabulated form in order to accurately maintain the configuration control of an AML.



# AML Template

Aircraft Make	Aircraft Type	Aircraft Model	TCDS	Certification Basis	MDL	AFMS	ICA Document	OSD	Component Manufacturer Part No



# Changes to AML-STC

- There are instances where the STC holder is not adding a new model to the AML, but makes an upgrade to an existing hardware or component on the AML (such as a software revision). In these cases, careful consideration should be given to ensure that the new revision does not have unintended consequences that affect a prior approval
- When adding new a model/type that has differences from the previously-approved models, then further substantiation may be required in order to address those differences. The AML-STC is not meant to be a blanket approval by allowing additional models without further substantiation.
- Splitting models from an AML-STC – or splitting up an AML-STC into individual STCs – is not permitted.



# Checklist

- Aircraft models/types on the AML share the same certification baseline data.
- The purpose of the modification (i.e. functionality) is the same for all impacted aircraft models/types
- Installation similarities that exist between the proposed models and those areas of the modification that are different from the rest of the models are properly noted.
- The certification basis and the amendment level to the areas affected by the modification is established for each model.
- Compliance is shown for the modification to the affected area for each aircraft model/type listed on the AML.
- Flight Manual Supplement (FMS), if applicable, are pertinent to each specific model.
- Installation instructions are adequate to allow for a consistent and compliant installation. Clear boundaries are established and documented.
- ICA, if needed, are applicable to each model/type listed.
- OSD impact is assessed against each and every impacted A/C model/type. When an impact is identified, OSD is made available as required.



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**Questions?**

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