Validation of FAA STCs on EASA aircraft

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Are you an EU aircraft owner and would like to apply for validation of an FAA STC to be installed on your aircraft?

Application for EASA validation of FAA Supplemental Type Certificates classified as Basic and limited to one serial number

As one of the effects of the BASA (Bilateral Aviation Safety Agreement) between the USA and EU, EASA has put a procedure in place to allow EASA registered aircraft owners

to apply for the validation of an FAA STC for a single aircraft serial number, if certain conditions are met.

The idea is to give owners of EASA aircraft access to the vast amount of available FAA STCs when the FAA STC holder is not interested in obtaining an EASA STC. Further, it allows import and EASA registration of used aircraft without removing STCs for which only FAA approval is available.

Here's the scope straight from the EASA website

Validation of FAA STCs where the US STC Holder is either **unwilling** or **unable** to make an application to EASA and which will be limited to a single serial number. The following limitations also apply:
FAA STCs must be classified as basic.
The scope is limited to the following product categories and installed engines, if applicable:

Aeroplanes ≤ 5 700 kg MTOW

Very Light Aeroplanes

Light Sport Aeroplanes

Powered Sailplanes

Sailplanes

ELA 1 Balloons or Airships

ELA 2 Balloons or Airships

Small Rotorcraft (i.e. Part 27 aircraft with MTOW ≤ 3 175 Kg and limited to 4 seats, including pilot)

Very Light Rotorcraft

The applicant must be registered in an EASA member state applicant.

Important:
STCs that involve changes which impact the aircraft's noise characteristics are excluded from this simplified process.

High Performance aircraft and commuter are excluded from this simplified process as well as external installations STCs applicable to VLR or Small Rotorcraft.

All in all, this sounds like a great way for owner pilots of EASA registered aircraft to get FAA STC modifications in a less bureaucratic and affordable way. Expect around € 200-400 for such a "one off" EASA validated STC. Sounds great, so let's take a closer look.

EASA says

The applicant is required to submit an application form for EASA validation of FAA Supplemental Type Certificate classified as **Basic** and limited to one serial number (Form FO.CERT.00134) and to declare that the below conditions are met:

Note the word "Basic" as we dig deeper towards the mentioned conditions:

FAA STC has been installed for a long time with no known continuing airworthiness issues;

This one shouldn't be a deal breaker.

FAA STC holder either not able or not willing to apply for EASA validation;

Another easy one. Get an email from the FAA STC holder that they have no interest in pursuing a full fledged EASA STC approval and that they don't object to you obtaining a validation. Moving on.

A check against the latest EASA-FAA Technical Implementation Procedures (TIP) provisions confirmed that the FAA STC is classified as "Basic";

Here is where it starts to get a little complicated. EASA says

What is a FAA Basic STC?

Answer This is a STC meeting the criteria for "Basic" classification stipulated in the current TIP for Airworthiness and Environmental certification between the FAA and EASA at paragraph 3.5.3.1.

And in TIP 3.5.3.1 it says

Basic Classification Criteria All design approvals that do not meet one or more of the Non-Basic classification criteria at paragraph 3.5.3.2 are classified as Basic, and processed by either the Acceptance process (paragraph 3.2) or the Streamlined Validation process (paragraph 3.5.4).

Or, in easier words, any FAA STC that triggers "non-basic" criteria isn't "basic" and thus not eligible.

Again, if you desire to validate an FAA STC that meets any of the Non-Basic classification criteria listed in TIP 3.5.3.2 it is, well obviously, Non-Basic. This FAA STC doesn't qualify for the "easier" FAA STC to EASA STC validation via "simple" administrative process.

So let's take a look at TIP 3.5.3.2 and see what such "knock out" criteria could be.

	EU/US BASA Safety Emphasis Items (SEI) List for CS23

2 TIP Rev 6 Non-Basic Criteria

Below is an extract from TIP Rev 6 (Section 3.5.3.2 from the TIP revision 6)

3.5.3.2 Non-Basic Classification Criteria:

(a) Type Certificate's

Application for validation of a TC shall be classified as Non-Basic, except for:

Applications for validation of reciprocating engine and propeller new TCs, and all changes to those TCs, including STCs, will be classified as Basic, unless the criteria in paragraph (b)(2) are met, in which case the application is classified as Non-Basic.

(b) Major Design Changes, including STCs

Application for validation will be classified as Non-Basic when any of the following criteria are impacted:

(1) Any item in the VA Safety Emphasis Item (SEI) list as defined in paragraph 3.5.10.4;

(2) The CA or VA certification basis includes or is anticipated to include a new or amended:

(i) FAA exemption or EASA deviation;

(ii) Special condition; or

(iii) Equivalent level of Safety (ELOS/ESF);

Note: New or amended is considered in the context of the project, relative to the baseline certification basis of the product or STC being changed.

Take a look at b) 1 where it says

(b) Major Design Changes, including *STCs*
Application for validation will be classified as **Non-Basic** when any of the **following criteria** are impacted:
(1) Any item in the **VA Safety Emphasis Item (SEI) list** as defined in paragraph 3.5.10.4;

and then take a look at the list on the next page (screenshot below).

3 Safety Emphasis Items

As required by TIP 6 paragraph 3.5.3.2(b)(1) the following items have been listed by EASA as Safety Emphasis Items(SEIs) for aeroplanes with a Certification Basis established under FAR23.

Requirement	Comment
23.1453	Aeromedical installation of gaseous oxygen systems
23.1309(b)	Complex Electronic Installations Limited to Commuter Category or if EUROCAE ED-79A / SAE ARP4754A is utilised as a Means of Compliance. Note: this does not include the Safety Assessment requirements of 23.1309(b)
High Performance Aeroplanes	For already certified non-high performance types, modification of those types into the high performance category (above 25,000ft, above 250kts, 0.6M)
Lithium Technology Batteries	Installation of Main Aircraft lithium batteries, or other batteries over 5W
Human Factors	Upgrades to highly integrated glass cockpits
HIRF	Upgrades from Mechanical to glass cockpits
Indirect Effects of Lightning	Upgrades from Mechanical to glass cockpits
T-PED/ WLAN	No CS requirements published
Flight Data Recorders	Commuter Cat Ops rules AMC compliance.
Contaminated Runway Data	No FAA published requirements
Fuel Cell Technologies	No CS requirements published.
Electric/Hybrid Propulsion	Not envisaged by CS requirements
Data Link Services	Compliance with EU Commission Regulation.
User customisable electronic checklists	Conflict or confusion with certified information
Head up Displays	No CS requirements published
Auto throttle	No CS requirements published
RNP AR approvals	FAA/EASA approach to this differs
Speech Recognition Functions	Issues with European languages and accents
Fire extinguishers (Halon) replacement	EU Rules on Halon use.
ETOPS/EDTO	CS requirements for large aircraft will need modification.
Primary in flight ice detectors	No published CS requirements.
Use of non-E orTSO equipment on certified aircraft	Development assurance
Avionic Resource Sharing	Data exchange with PED's

Any of the requirement items in the list above will cause an STC to be "Non-Basic", and thus, not eligible for the

"easier" FAA to EASA STC administrative validation process.

One example of such criteria is this

Use of NON ETSO or TSO equipment on certified aircraft

which can be a **pretty big obstacle**.

For example, it means that if you would like to install an autopilot, for which only an FAA STC exists, and this autopilot isn't TSO certified, it's immediately qualified as "Non-Basic" and you can't pursue the "easier, one serial number aircraft" EASA STC validation. Bummer.

Let's take a look at the remaining conditions.

Confirmation that the applicant has access to design data and instructions for operations and continued airworthiness;

This also shouldn't be too difficult as STCs generally come with such instructions.

Acknowledgement of the applicant's obligations as Holder of the STC in accordance with Part 21, point 21.A.118A

Well, what is there to say. Even if an STC is "validated", you are considered the STC holder and must acknowledge the obligations specified under Rules for Airworthiness and Environmental Certification (Regulation (EU) No 748/2012). Not a hurdle but good to know anyway.

Please note that High Performance Aircraft and any change impacting noise requirements are excluded from this process and is valid only for Fixed Wing aircraft STCs.

Self explanatory. HPA aircraft (most single pilot turbine/jet aircraft such as TBM, Pilatus, Meridian/M600, Citation Mustang etc..) and anything concerning "noise requirements" is off limits.

The subsequent validation will be limited to a single aircraft serial number to allow the aircraft to be imported and to be issued a Certificate of Airworthiness. This validation is not transferrable to or amendable with another serial number.

Again, pretty self explanatory, with the small addition that the validation process doesn't have to be in conjunction with importing an aircraft. It can be pursued for an existing EASA registered aircraft as well.

Conclusion

The "easier" administrative process to obtain a "one off" validated STC from FAA to EASA is definitely better than nothing, it does however impose quite some limiting conditions to be met. It is therefore best to first verify with EASA personally and explicitly for your circumstances that an FAA STC is eligible for this validation process. Otherwise, you risk spending money only to find out that the intended modification does, in fact, not qualify as a "basic STC".

Sources / Links

- [EASA STC FAQ](#)
- [EASA "What is a basic STC" FAQ](#)
- [EASA "Classification of a basic STC" FAQ](#)
- [Application for EASA validation of FAA STC](#)
- [EU/US BASA Safety Emphasis Items (SEI) List for CS 23](#)
- [EASA / FAA TIP V6](#)

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