|  |  |
| --- | --- |
| Date of the notification | Select a date  |
| Report issue number | Select a revision |
| FSTDO name | FSTDO name |
| FSTD EASA Id# | EASA code |
| Modification reference | Please provide a brief, unique identifier that we will use to refer to the modification |
| Aircraft type and variant | A/C type and/or variant |
| Affected engine fit | Affected engine type |
| Implementation start date | Select a date |
| Implementation end date | Select a date |
| Expected RFT date |  Select a date |

*Note: select “Print preview” after entering the previous data, to update the header on each page*

In compliance with **COMMISSION REGULATION (EU) No 1178/2011 of 3 November 2011 ORA.FSTD.110 Modifications**, this form shall be used by FSTDO to inform EASA in advance of modifications of the FSTD hardware and software that affect:

1. handling of the simulated aircraft,
2. performance of the simulated aircraft,
3. systems operation of the simulated aircraft,
4. any major modifications of the motion,
5. any major modifications of simulated flight controls,
6. any major modifications of the visual system (either display or image generation).

In case of modifications due to an airworthiness directive, or service bulletin either from the aircraft manufacturer, or the FSTD manufacturer, please ensure the associated supporting documentation is submitted together with this form.

FSTD Modification Notification forms are not required for the incorporation of additional (or updated) airport visual scenes or navigation databases.

This notification is sent to FSTD.qualification@easa.europa.eu only. Following its review by the Organisation Team Leader, he/she may require the FSTDO to send EASA a form FO.FCTOA.00134, in case a special evaluation on site is required.

|  |
| --- |
| Information |
| 1. Date of the last evaluation performed on-site:

Select a date  | 1. Date of the next evaluation to be performed on-site:

Select a date  |
| *Only EASA evaluation. EEP self-evaluation should not be considered.* |
| 1. Point of contact for this modification:
 |
| Name: | Position: |
| Telephone: | E-mail: |

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| Nature of the modification |
| 1. Modification description:
 |
| 1. Rationale for the modification:
 |
| 1. Modification initiated by:
 |
| [ ]  FSTDO | [ ]  FSTD manufacturer | [ ]  aircraft manufacturer | [ ]  regulation |
| 1. Type of modification:
 |
| [ ]  validation data | [ ]  simulation software | [ ]  aircraft cockpit |
| [ ]  flight controls | [ ]  motion | [ ]  visual |
| [ ]  instructor station | [ ]  host computer & interface | [ ]  other: |
| 1. In case validation data modifications affecting the Validation Data Roadmap (VDR):

Enter the current VDR reference/name Enter the new proposed VDR reference/name |

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| Modification assessment |
| 1. Simulation areas affected:
 |
| [ ]  aircraft handling | [ ]  aircraft performance | [ ]  aircraft systems | [ ]  other: |
| 1. Affected tests in the Master Qualification Test Guide (MQTG):

*Note: Affected tests shall be amended and comply with the applicable qualification basis* |
| 1. Primary Reference Document(s) used for the technical requirements of the modification:

Select or enter the technical criteria primary reference document. |

|  |
| --- |
| Modification implementation/validation |
| 1. Modification to be implemented by:
 |
| [ ]  FSTDO | [ ]  FSTD manufacturer | [ ]  Contractor |
| 1. EASA level of involvement:
 |
| Is the modification novel to the FSTDO? [ ]  Yes [ ]  No | Supporting information: |
| Is the modification complex? [ ]  Yes [ ]  No | Supporting information: |
| Is the modification critical? [ ]  Yes [ ]  No | Supporting information: |
| 1. Modification to be validated by technical specialist and/or suitably qualified pilot:
 |
| Name: | Position: |
| Qualification(s): |
| 1. List of tests (Acceptance tests, functions and subjective tests or other) to be performed during the validation:

*Note: EASA shall determine if the tests described in this section are satisfactory and therefore if a special evaluation is necessary prior to returning the FSTD to training following the modification* |
| 1. FSTDO representative:
 |
| Name: | Position: |
| Telephone: | E-mail: |
| Date: Select a date | Signature |

TO DELETE THE FORM USER INFORMATION (next pages), START SELECTION FROM HERE TO THE END OF THE DOCUMENT, THEN SELECT DELETE ON THE KEYBOARD.

TO UPDATE THE MICROSOFT WORD FIELDS IN THE HEADER AND ON PAGE 2, SELECT PRINT PREVIEW IN 

**Form User Information UI**

**4b – EASA Level of Involvement (LoI)**

The Level of Involvement is a concept used by EASA to determine the extent of their participation or engagement in the assessment and verification of compliance for various activities, such as modifications to Flight Simulation Training Devices (FSTDs).

The Level of Involvement may vary depending on the nature and complexity of the changes being made to the FSTD, and it helps EASA tailor their evaluation and verification processes accordingly.

* **Novelty**

A major update may be either novel or not novel.

Whether or not a major modification is considered novel is based on the extent to which the respective elements of the major modification, the related requirement or means of compliance are new /novel to either the industry as a whole, the applicant (including sub-contractors) or from EASA perspective.

The determination that a major modification is novel could be driven by the use of new technology, new operations, new kind of installations, the use of new requirements or new means of compliance (CS or special conditions).

When an applicant utilises a technology for the first time, or when the applicant is relatively unfamiliar with the technology in question, this technology is considered to be ’novel’, even if other applicants may already be familiar with it. This also means that the new technology may no longer be novel for one applicant, while it may still be novel for other applicants.

The following list includes some examples:

• new systems or combinations of systems;

• a new or unusual aircraft configuration and/or system architecture;

• a new reconfiguration of systems;

• a new interface or interaction with other parts or systems;

• new or unusual use of an equipment;

• new functions;

• new kinds of operations;

• new maintenance techniques;

• new operating conditions or limitations;

• a new human-machine interface; or

• new flight crew tasks.

Another consideration is the extent to which requirements, means of compliance or guidance have changed or need to be adapted due to particular novel features of the major modification (special conditions).

The following list includes some examples:

• recently issued or amended CS paragraphs (e.g. UPRT), for which the applicant has little or no experience;

• new or adapted special conditions;

• new implementing rules;

• new or adapted means of compliance (i.e. other than those previously applied by the applicant as special conditions) or unusual means of compliance (different from existing guidance material or different from industry standard practices).

In the context of novelty, the time between the last similar project and the current project of the applicant should also be considered.

Regardless of previous experiences in similar projects, a major modification may be classified as novel in case of specific discontinuities in the process to transfer information and know-how within the organisation.

The following list (not exhaustive) provides examples which may be considered to be novel:

* + New design features on the aircraft (e.g. installation of a HUD; avionics features; an option for a different engine type; revision levels that affect the handling qualities and performance);
	+ New Validation Data Roadmap (VDR);
	+ Additional functionality on the aircraft or aircraft operations that require additional validation of the source data (e.g. auto-brakes with RTO; going from no auto-land capability to an auto- land capability);
	+ New equipment (e.g. use of EVS, NVG);
	+ An extension of the training envelope that requires new validation source data, or extension of its scope (e.g. UPRT, stall training, Helicopter External Sling Load Operations).
* **Complexity**

A major update may be either complex or not complex.

For each major modification, the determination of the complexity may vary based upon factors such as:

* the design:
* technology or associated manufacturing process;
* compliance demonstration (including test set ups or analysis);
* interpretation of the results of the compliance demonstration; and
* requirements.

Compliance demonstration may be considered to be “complex” for a complex (or highly integrated) system, which typically requires more effort from the applicant.

The following list includes some examples of complex modifications:

* Compliance demonstration where challenging assessment is required:
* requirements that are of a subjective nature requiring qualitative assessment and not having an explicit description of the means of compliance with the requirement. This is typically the case where the requirement uses terms such as ‘subjective’, ‘qualitative’, ‘assessment’ or ‘suitable’. In contrast, engineering judgement for a very simple compliance demonstration should not be classified as ‘complex’;
* means of compliance which are not common for the industry and not having accepted practice;
* a test where extensive interpretation of the results may be anticipated;
* an analysis that is sensitive to assumptions and could potentially result in a small margin of safety.
* Introduction of a complex work-sharing scheme with system or equipment suppliers;
* When more than 30% of the MQTG tests are affected;
* Integration of new host or visual system with modified interface(s);
* Integration of new technology in the visual or motion, controls or vibration systems;
* New design features on the aircraft (e.g. installation of a HUD; avionics features; an option for a different engine type; revision levels that affect the handling qualities and performance);
* New equipment to be integrated with multiple sub-systems;
* An extension of the training envelope that requires new validation source data, or extension of its scope (e.g. UPRT, stall training, Helicopter External Sling Load Operations);

The complexity of the modification should be taken into account, rather than the complexity of the original system.

The complexity of a major modification should be determined in a conservative manner if it cannot be determined at an early stage of the assessment by EASA. When greater clarity has been achieved, the complexity can be re-evaluated and the LoI can then be adapted accordingly.

* **Criticality**

A major update may be either critical or non-critical.

The potential impact of a non-compliance within a major modification should be classified as critical if, for example:

* The major modification has a major impact on the training delivered in the FSTD;
* The major modification is related to an existing airworthiness directive (AD), a potential occurrence of an incident subject to an AD, a known in-service issue or a safety information bulletin (SIB).
* **Determination of the Risk Class**

The LoI of EASA is determined as a combination of criticality, complexity and novelty of the major modification and the performance of the organisation.

|  |  |
| --- | --- |
|  | **Risk Class** |
| **Non-Critical consequences of a non-compliance** | The major modification has no novel aspects, no complex aspects | **Class 1** | **Class 1** | **Class 2** |
| The major modification has no novel aspects, but has complex ones; or has novel aspects, but no complex ones | **Class 1** | **Class 2** | **Class 3** |
| The major modification has both novel and complex aspects | **Class 2** | **Class 3** | **Class 3** |
| **Critical consequences of a non-compliance** | The major modification has no novel aspects,no complex aspects | **Class 1** | **Class 2** | **Class 3** |
| The major modification has no novel aspects, but has complex ones; or novel aspects, but no complex ones | **Class 2** | **Class 3** | **Class 4** |
| The major modification has both novel and complex aspects | **Class 3** | **Class 4** | **Class 4** |
|  | **Performance high** | **Performance medium** | **Performance low or unknown** |

The risk classes are defined as follow:

**Risk Class 1**

No EASA involvement in verifying compliance data/activities performed by the applicant to demonstrate compliance. The certificate is updated if required.

**Risk Class 2**

EASA’s LoI is limited to the sampling of the compliance data received from the FSTDO. No activity on site is organised.

**Risk Class 3**

EASA’s LoI is the complete review of the compliance data received from the FSTDO. No activity on site is organised.

**Risk Class 4**

In addition to the LoI defined for Risk Class 3, an onsite special evaluation of the FSTD is required. An application using the form 134 is required.