Luftfartstilsynet
CIVIL AVIATION AUTHORITY NORWAY

ATTACHMENT TO FORM NF-1095 APPLICATION FOR ACTIVITIES RELATED TO FLIGHT SIMULATOR TRAINING DEVICES (FSTD) AND FSTD ORGANISATION (FSTDO)

**Send to:**
postmottak@caa.no
**or**
Luftfartstilsynet
Postboks 243
8001 Bodø
NORWAY

# FSTD modification information sheet

| 1 | **Applicant information** | | |
|---|---|---|---|
| Name of contact person: | | Name of FSTD organisation: | |
| Address: | | Postal code: | City: |
| Phone number: | | E-mail: | |
| FSTD ID#: | | Aircraft type and variant: | |
| Modification reference (a brief, unique identifier that we will use to refer to the modification): | | Affected engine fit: | |
| Date of the notification: | | Implementation start date: | Implementation end date: |
| Expected Ready for Training (RFT) date: | | | |

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 CAA Norway in advance of modifications of the FSTD hardware and software that affect:

a) handling of the simulated aircraft,
b) performance of the simulated aircraft,
c) systems operation of the simulated aircraft,
d) any major modifications of the motion,
e) any major modifications of simulated flight controls,
f) 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.
Notification to the Authority is not required for the incorporation of additional (or updated) airport visual scenes or navigation databases.

This notification is sent to postmottak@caa.no, together with application form NF-1095. Following its review the Authority may require the FSTDO to send a request in case a special evaluation on site is required.

| 2 | Information |
|---|---|

| Date of last evaluation performed on site: | Date of the next evaluation to be performed on-site: |
|---|---|
| *Only CAA Norway-performed evaluation (EEP self-evaluation should not be considered).* | |
| **Point of contact for this modification** | |
| Name: | Position: |
| Phone number: | E-mail: |

| 3 | Nature of the modification |
|---|---|

Modification description:

Rationale for the modification:

Modification initiated by:

☐ FSTDO ☐ FSTD manufacture ☐ Aircraft manufacture ☐ Regulation

Specify type of modification:

| | | |
|---|---|---|
| ☐ Validation data | ☐ Simulator software | ☐ Aircraft cockpit |
| ☐ Flight controls | ☐ Motion | ☐ Visual |
| ☐ Instructor station | ☐ Host computer & interface | ☐ Other: |

**In case validation data modifications affect the Validation Data Roadmap (VDR):**

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

| 3 | Modification assessment |
|---|---|

Simulation areas affected:

| | |
|---|---|
| ☐ aircraft handling: | |
| ☐ aircraft performance: | |
| ☐ aircraft systems: | |
| ☐ other: | |

| |
|---|
| Affected tests in Master Qualification Test Guide (MQTG):<br><br>*Note: Affected tests shall be amended and comply with the current and latest criteria in CS-FSTD (A/H)* |
| Primary Reference Document (PRD) used for the technical requirements of the modification: |

| 4 | **Modification implementation/validation** |
|---|---|

Modification to be implemented by:

☐ FSTDO ☐ FSTD manufacturer ☐ Contractor ☐ Other:

**CAA Norway level of involvement (see form user information guidelines)**

| | |
|---|---|
| Is the modification novel to the FSTDO?<br><br>◯ Yes ◯ No | Supporting information: |
| Is the modification complex?<br><br>◯ Yes ◯ No | Supporting information: |
| Is the modification critical?<br><br>◯ Yes ◯ No | Supporting information: |

Modification to be validated by nominated person in FSTDO:

| | |
|---|---|
| Name: | Position: |

Qualification(s):

| List of tests (acceptance tests, functions and subjective tests or similar) to be performed during the validation: |
|---|
| *Note: CAA Norway 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.* |

| **FSTD Operator (FSTDO) representative** | |
|---|---|
| Name: | Position: |
| Phone number: | E-mail: |

| **Regulatory fees are to be charged in accordance with BSL A 1-2** | |
|---|---|
| By signing this document, the applicant declares that all information provided in this form is correct and can be documented. | |
| Date, place: | Signature: |

**Handling of personal data**

To process your application, we need information about you. Your personal data is required to ensure the information received is *from the correct person*. Your personal data will be handled in accordance with Regulation (EU) 2016/679 – General Data Protection Regulation (GDPR). Article 6 (1)(e), Civil Aviation Act § 5-3 regulation on certifying crewmember and EU-regulation no. 1178/2011 ORA.FSTD.200 specifies the criteria on which your application will be processed.

Your personal data will be stored only as long as required for the purpose for which they were collected. You have the right to access your personal data, and, if necessary, have it corrected. If you believe your personal data is not handled according to the GDPR, you may appeal to the Norwegian Data Protection Authority.

The Civil Aviation Authority – Norway (CAA-N) is responsible for processing your application. To contact our data protection officer, email personvernombud@caa.no.

All written inquiries to CAA-N are subject to the Archive and Freedom of Information Act. The public's right to access information does not apply to personal data, which is subject to confidentiality.

Read our privacy policy here: https://luftfartstilsynet.no/en/about-us/privacy-policy/.

# Form NF-1096 – User information guidelines

### 4. Level of Involvement (LoI)

***Novelty***

A major update may be either novel or not novel.

Whether or not a major modification is considered novel depends on the extent to which the respective elements of the major modification, the related requirement, or the means of compliance are new/novel to either the industry as a whole, the applicant (including subcontractors), or from CAA Norway's perspective.

The determination that a major modification is novel could be driven by the use of new technology, new operations, new kinds of installations, 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 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 the major modification's particular novel features (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 applicant's current project 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 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 “complex” for a complex (or highly integrated) system, which typically requires more effort from the applicant.

Examples:

The following list includes some examples of complex modifications:

- Compliance demonstration where a 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 expected;
  - 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 is modified;
- 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 considered, 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 CAA Norway. 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 had a significant 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).