

# **NSP GB**

National Simulator Program FSTD Qualification Guidance Bulletin

#### NSP GB 10-02 DATE: 01/12/2016

Flight Standards Service Washington, DC

#### of Transportation Federal Aviation

Administration

U.S. Department

### National Simulator Program Guidance Bulletin

An NSP GB contains valuable information for FSTD sponsors that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.

Subject: Request for Initial and Continuing Evaluation of Level 4 or 5 FSTD.

**Purpose:** This bulletin provides guidance to sponsors requesting an Initial or Continuing Qualification Evaluation of a level 4 or 5 Flight Simulation Training Device (FSTD) in accordance with 14 CFR Part 60. It also provides guidance to Training Program Approval Authorities (TPAA) in requesting assistance and reporting evaluation results to the National Simulator Program (NSP). See Sponsor Qualification Requirements in 14 CFR Part 60.7 and, Appendix B/D, Section 6 (60.7) for information on FSTD sponsorship.

**Background:** The NSP provides oversight for level 4-7 Flight Training Devices (FTDs) and level A-D Full Flight Simulators (FFS). The Training Program Approval Authority (TPAA), however, is the primary contact and authority for evaluation of level 4 and 5 devices. The National Simulator Program Manager (NSPM) has committed to providing resources to assist the TPAA for initial evaluations of level 4 and 5 devices. Additionally, the NSP maintains a database of all FSTDs including level 4 and 5 devices, records evaluation results and issues the Statement of Qualification (SOQ) when an FSTD has successfully passed an evaluation. For assistance with grandfathered level 1 - 3 FTDs under AC 120-45A, lower fidelity devices qualified in accordance with AC 61-136 (Basic or Advanced Aviation Training Devices (as amended)), or Personal Computer-Based Aviation Training Devices (PCATD) qualified in accordance with AC 61-126 (as amended) contact AFS-810 in Washington DC at 202-385-9600.

Revision	Description of Change	Effective Date
0	Original	02/20/2010
1	Requirement for Sponsor Letter of Compliance changed to 5 days in accordance with 14 CFR Part 60. Clarify Instructions for T001A form. Update format.	04/5/2011
2	Sponsor Letter of Compliance changed to 5 business days in accordance with 14 CFR Part 60	8/02/2011
3	Integrate method for reissuing T001A SOQ pages on a recurring basis and update contact information for AFS-800.	12/1/2011
4	Revise/clarify TPAA submission requirements. Remove Part 60 transition language. Provide miscellaneous clarifications.	08/24/2012
5	Revise that the NSP will now assist on all Initial Evaluations. Clarify instructions on scheduling and post evaluation process.	12/17/2014
6	Reformatted sections to allow for better understanding.	01/12/2016

## **Initial Qualification Evaluations**

The TPAA and NSP evaluators will conduct all level 4 and 5 initial evaluations jointly.

The <u>sponsor</u> shall make an initial evaluation request a minimum of three months prior to the desired evaluation date, but no more than six months in advance.

#### **Submitting Initial Evaluation Request:**

- 1. Submit a Letter of Request, (NSP Form T025)
- 2. Submit a completed <u>FSTD Configuration List (NSP Form T001A)</u> to the TPAA with a copy to the NSP at <u>9-ASO-AFS205-NSP-SIMULATOR-SCHEDULING@faa.gov</u>.
- 3. Obtain a written endorsement from the TPAA and submit to the NSP at <u>9-ASO-AFS205-NSP-SIMULATOR-SCHEDULING@faa.gov</u>.

Once the sponsor has submitted the T025, T001a, and the TPAA endorsement, the NSP scheduler will coordinate the evaluation date.

**Submitting Qualification Test Guide (QTG):** Sponsors of level 5 FSTDs are required to provide a QTG to the NSP for review and approval. QTG requirements are outlined in Part 60 and shall be received 30 or 45 days (as determined below) prior to the evaluation date. Level 4 devices are not required to employ an aerodynamic model and therefore do not require a QTG.

**45 day requirement** applies when all QTG tests are performed at the manufacturer's facility. Once the simulator is assembled and functional at its final location, an "additional" submission must be provided no later than 14 days prior to the proposed evaluation date that consists of approximately 1/3 of the QTG tests. The additional "1/3 on-site" submission will be a sampling of the entire QTG to show that the original submission is unchanged and/or to verify changes that were requested by the FAA.

**30 day requirement** applies when all tests are performed at the FSTDs final location (on-site). If QTG tests are performed at the final location and the initial submission of the QTG was obtained entirely at the FSTDs final location, the QTG must be submitted no later than 30 days prior to the proposed evaluation date. No further submission is required unless requested by the FAA. Final QTG review and acceptance will take place during the evaluation.

**Submitting Letter of Compliance (LOC):** No later than 5 days prior to the evaluation, the Sponsor is required to send a Letter of Compliance, (NSP Form T024) to the TPAA

with a copy to the NSP at <u>9-ASO-AFS205-NSP-SIMULATOR-</u>

<u>SCHEDULING@faa.gov</u>. This LOC states that a designated pilot, rated in the aircraft type being simulated, has flown or operated the FSTD and determined in all required aspects that it is configured and performs equivalently to the aircraft as appropriate for the requested level of Qualification. Any exceptions to the above must be noted [see Part 60.15(b) (1), (2), & (3)]. The sponsor will also affirm that the FSTD meets the requirements of the training program for which the device is intended.

## NSP Form T001A Instructions for Initial Evaluations

Sponsors must complete sections 1 and 2 of the T001A in their entirety. In sections 3a and 3b as applicable, sponsors will indicate any additional Maneuvers, Procedures, Tasks and Functions for which the FSTD should be evaluated using the check boxes in the "Requested" column.

The "Qualified" column is for FAA use only as is the "Preliminary" watermark. The most current revision of this form should be obtained from the NSP website. Do not use the sample forms provided in the QPS Appendices of Part 60.

During the evaluation, the FAA evaluation team will review the information on the T001A with the sponsor and perform the evaluation. If the FSTD Qualification is successful, the evaluation team will complete the T001A form, qualifying the additional tasks requested by the sponsor as appropriate. Non-Qualified Tasks, if any, will be specifically noted. Once the FSTD is successfully qualified, the T001A form will become part of the multi-page Statement of Qualification (SOQ) required by Part 60. See  $\S60.17$ (b) for a description of the Part 60 SOQ.

### Statement of Qualification (SOQ) for Initial Evaluations

Following a successful initial FSTD evaluation by the TPAA/NSP evaluation team, the following documents will be completed and submitted to the NSP at <u>9-ASO-AFS205-NSP-SIMULATOR-SCHEDULING@faa.gov</u> within 10 calendar days.

<u>An Evaluation Report (NSP Form T002)</u>, stating when the evaluation was completed, the findings, and a recommendation for qualification.

<u>The Sponsor's FSTD Configuration List, (NSP Form T001A)</u> providing FSTD information and additional evaluation requests for training tasks, maneuvers, procedures or functions that are not stated in Attachment 1, Table 1B of the appropriate Part 60 appendix. This Form reflects specific Level 4 and Level 5 requirements and/or authorizations. The Sponsor must ensure the correct T-001sections are used for the requested FTD level. The TPAA/NSP evaluation team should indicate approval of these additional requests (if appropriate) in section 3. Where only part-task approvals are authorized, the TPAA/NSP

evaluation team should indicate any limitations in the remarks column, and indicate any permanent Non-Qualified Tasks (Training Restrictions) in section 4. Any temporary non-qualified tasks that the sponsor will correct should be entered on the Evaluation Report.

Once all requirements have been successfully completed and received, the NSP will assign an FSTD identification number (if none had been previously assigned) and issue a multi-page Statement of Qualification (SOQ).

#### Factors Which May Jeopardize the Initial Evaluation Date

- Failure to submit QTG on time as described above.
- Deficiencies in the QTG.
- Failure to submit Letter of Compliance on time as described above.
- Failure to submit TPAA endorsement on time as described above.

#### Common QTG Errors

The following is a list of common QTG errors which cause delay in review and approval and jeopardize a sponsor's evaluation date:

- Inappropriate or missing reference data
- Inadequate annotation
- Missing tests
- Tests conducted in an inappropriate flight regime, or with incorrect initial conditions relative to those in the aircraft flight test.
- Test results that are different from those required in the applicable standards, require additional rationale or do not have manual test procedures stated adequately to ensure successful execution of the test.

# **Continuing Qualification Evaluations**

The TPAA will conduct all level 4 and 5 continuing evaluations. If requested by the TPAA, the NSP may provide assistance.

The <u>sponsor</u> shall make a continuing evaluation request directly to their TPAA at least 90 days prior to the expiration of the current Statement of Qualification (SOQ) and shall notify the NSP of the evaluation date at <u>9-ASO-AFS205-NSP-SIMULATOR-SCHEDULING@faa.gov.</u>

#### **Submitting Continuing Evaluation Request:**

- 1. Contact the TPAA to arrange for an evaluation at least 90 days prior to the expiration of the current Statement of Qualification (SOQ) and notify NSP scheduling of the evaluation date.
- 2. If any of the following conditions apply, an <u>FSTD Configuration List (NSP Form</u> <u>T001A)</u> must accompany the request:
  - i. The Sponsor requests qualification of the FSTD for some additional training task, maneuver, procedure, or function that was not previously requested/approved.
  - ii. Any information pertaining to the FSTD or Sponsor has changed on the <u>FSTD Configuration List (NSP Form T001A)</u> that was previously submitted.

### **NSP Form T001A Instructions for Continuing Evaluations**

If this form is required as determined above, sponsors must complete sections 1 and 2 of the T001A in their entirety. In sections 3a and 3b as applicable, sponsors will indicate any additional Maneuvers, Procedures, Tasks and Functions for which the FSTD should be evaluated using the check boxes in the "Requested" column. The "Qualified" column is for FAA use only as is the "Preliminary" watermark. This most current revision of this form should be obtained from the NSP website. Do not use the sample forms provided in the QPS Appendices of Part 60.

During the evaluation, the evaluating inspector will review the information on the T001A form with the sponsor and perform the evaluation accordingly. If the FSTD Qualification is successful, the evaluating inspector will complete the form qualifying additional tasks as appropriate where requested by the sponsor. Non-Qualified Tasks, if any, will be specifically noted. Once the FSTD is successfully qualified, the T001A form will become part of the multi-page Statement of Qualification (SOQ) required by Part 60. See  $\S60.17(b)$  for a description of the Part 60 SOQ.

### Statement of Qualification (SOQ) for Continuing Evaluations

Following a successful continuing FSTD evaluation, the TPAA must submit the following documents to the NSP:

<u>An Evaluation Report (NSP Form T002)</u> from the evaluating inspector stating when the evaluation was completed, the findings, and a recommendation for qualification.

**The Sponsor's FSTD Configuration List (NSP Form T001A)** when required as determined above. This form provides FSTD information and any additional evaluation requests for training tasks, maneuvers, procedures or functions that are not stated in Attachment 1, Table 1B of the appropriate Part 60 appendix. The TPAA should indicate approval of these additional requests (if appropriate) in section 3. Where only part-task approvals are authorized, TPAAs should indicate limitations in the remarks column, and indicate any permanent Non-Qualified Tasks (Training Restrictions) in section 4. The identity of the approving TPAA is entered at the top of section 3. Any temporary non-qualified tasks that the sponsor will correct should be entered on the Evaluation Report.

Documentation should be submitted to the NSP at <u>9-ASO-AFS205-NSP-SIMULATOR-SCHEDULING@faa.gov</u> within 10 calendar days.

Once all requirements have been successfully completed, the NSP will issue a Statement of Qualification (SOQ) and email the SOQ to the sponsor with a copy to the TPAA.