

Flight Simulation Training Device Qualification Guidance

NSP Guidance on Missing, Malfunctioning, or Inoperative (MMI) Component Reporting in Accordance with 14 CFR Part 60

FSTD Guidance Bulletin 08-01

Purpose: This bulletin provides sponsor guidance in requesting an extension to the 30-day “repair/replace-by” time-frame identified in 14 CFR Part 60 for Missing, Malfunctioning, or Inoperative (MMI) Components.

Background: Provisions contained in 14 CFR Part 60 require the correction of MMI components within a 30 day period unless otherwise authorized by the NSPM. The requirement is contained in the rule language (§60.25), and is applicable to all Flight Simulator Training Devices (FSTDs), regardless of original qualification criteria or date of qualification.

MMI Definition: As defined in §60.25, an MMI component is a missing, malfunctioning, or inoperative component of the FSTD that is “required to be present and correctly operate for the satisfactory completion of that maneuver, procedure, or task”. In determining if a particular FSTD discrepancy is an MMI component reportable to the NSP in accordance with 14 CFR Part 60, the following tests should be applied:

- Does the discrepancy affect or require a change to the FSTD Statement of Qualification (SOQ)?
- Does the discrepancy affect the performance or handling qualities of the FSTD? This test condition includes the reporting of out-of-tolerance Qualification Test Guide (QTG) validation tests scheduled to be performed as part of the FSTD inspection requirements of 14 CFR 60 paragraph 60.19 (a)(1).
- Does the discrepancy affect the accomplishment of tasks (as defined in Appendix A, Table A1B, Appendix B, Table B1B, Appendix C, Table C1B or Appendix D, Table D1B as applicable) for training, checking, or testing in the FSTD in accordance with the FAA approved training program(s) being conducted in the FSTD? This determination should be made by appropriate flight training personnel (see Part 60, Appendix A, paragraph 18) associated with or otherwise knowledgeable of the training programs being conducted in the FSTD.

If the answer is yes to any of the above **and the repair or replacement of the MMI component will take longer than 30 days**, the subject discrepancy should be considered an MMI component reportable to the NSPM for the purposes of requesting an extension of the repair/replace-by timeframe. It should be noted that MMI components may

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include FSTD non-aircraft specific items such as IOS components, features and/or observer facilities (as defined in Appendix A, Table A1C, Appendix B, Table B1C, Appendix C, Table C1C or Appendix D, Table D1C as applicable). The term “MMI components” can refer to either software or hardware FSTD components.

Several categories of FSTD discrepancies have been interpreted by the NSP as not subject to MMI component reporting criteria at this time:

- Airport visual model database discrepancies that do not completely prevent the use of an airport model listed on the FSTD Statement of Qualification (SOQ).
- Minor FSTD versus aircraft configuration item differences that do not adversely affect training, testing, checking tasks.

Intermittent or “Could Not Duplicate” (CND) Problems: The FSTD sponsor is expected to use reasonable judgment in determining whether or not an intermittent interruption of the correct operation of a component constitutes a discrepancy. Where a one time observation of a problem may not constitute a recordable malfunctioning component, if the sponsor has determined that multiple instances of an intermittent problem has occurred over a reasonable period of time, then the NSP would expect the item to be recorded as a discrepancy and reported as an MMI component if it meets the criteria defined above.

MMI Reporting Process: Since §60.25 requires all MMI components to be repaired or replaced within 30 days unless otherwise authorized by the NSPM, a standardized MMI component reporting and authorization request procedure has been developed by the NSP. A basic requirement of the reporting/authorization process requires the sponsor to provide a readily available list of current MMI components adjacent to the FSTD for review by users of the device. Further, it is expected that appropriate training, testing and checking restrictions shall be imposed by the FSTD sponsor and/or users to prevent training, testing and checking if impacted by an open MMI component.

1. The NSP Evaluation Report Form (T002) is used for FSTD qualification, evaluation, discrepancy closure, and extension request. A new revision of the T002 form containing an MMI component reporting section may be found on the NSP’s web site. NSP evaluators will also begin using the new forms during the conduct of initial and continuing qualification evaluations. No later than thirty days after an MMI component discrepancy has been recorded in the sponsor’s FSTD discrepancy log or electronic log system, the sponsor must submit an updated copy of NSP Form T002 containing the new MMI component(s) to the NSP duty officer via email at 9-aso-avr-sim-team@faa.gov. Once a qualification evaluation has been performed using the new form, sponsors will be able to enter reportable MMI components directly on the inspector’s new T002 form in the same way that FSTD discrepancy updates are currently reported to the

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- NSP. As before, if e-mail service is unavailable to the sponsor, an alternate fax number is available on the T002 form. Note that the reporting requirement is only applicable to MMI component discrepancies that will remain uncorrected beyond thirty days of being recorded in the sponsor's FSTD discrepancy log or electronic log system.
2. The NSP will respond to the sponsors MMI component notification report within five business days. The sponsor retains implied authorization from the NSP to continue operating the FSTD during this time period. It is expected that a reasonable request for extension to correct MMI component(s) will be granted by the NSPM as long as appropriate FSTD training, checking, and testing restrictions have been imposed by the sponsor.
 3. The MMI condition will be tracked by the NSP as an open discrepancy. The sponsor is expected to notify the NSP when the MMI component has been corrected. If the MMI component cannot be corrected by the most recent authorized correction date, the sponsor shall request another extension by sending an updated T002 form to the NSP.
 4. NSP form T002 will be used for the consolidated tracking of all NSP originated discrepancies as well as MMI components. For each FSTD, form T002 will be originated by the NSP at initial or continuing qualification evaluation and updated as necessary regarding FSTD evaluation discrepancy and MMI correspondence. A blank copy of form T002 will be provided on the NSP's internet site for use in reporting MMI components before the next NSP scheduled evaluation.

Effective Date: 14 CFR Part 60 became effective on May 30, 2008, only those MMI components that have been logged in the FSTD as a discrepancy on or after May 30, 2008, will be considered an MMI component in accordance with §60.25.