



Department of Transportation
Federal Aviation Administration
Aircraft Certification Service
Washington, DC

TSO-C100c

Effective Date:
04/06/2012

Technical Standard Order

Subject: Aviation Child Safety Device (ACSD)

1. PURPOSE. This technical standard order (TSO) is for manufacturers applying for a TSO authorization (TSOA) or letter of design approval (LODA). In it, we (the Federal Aviation Administration, or FAA) tell you what minimum performance standards (MPS) your aviation child safety device (ACSD) must first meet for approval and identification with the applicable TSO marking.

2. APPLICABILITY. This TSO affects new applications submitted after its effective date.

a. All prior revisions to this TSO are no longer effective. Generally, we will not accept applications for the previous revision after the effective date of this TSO. We may do so, however, up to six months after it, if we know that you were working against the prior MPS before the new change became effective.

b. Aviation child safety devices approved under a previous TSOA may still be manufactured under the provisions of its original approval.

3. REQUIREMENTS. New models of ACSD identified and manufactured on or after the effective date of this TSO must meet the MPS qualification and documentation requirements in Society of Automotive Engineers, Inc. (SAE), Aerospace Standard (AS) 5276/1, *Performance Standard for Child Restraint Systems in Transport Category Airplanes*, dated November 2000, as amended by appendix 1 of this TSO.

a. Functionality. This TSO's standards apply to equipment intended to provide proper restraint of children in the aircraft environment and that would be suitable for use during all phases of flight.

b. Failure Condition Classifications. There is no standard minimum failure condition classification for this TSO. The failure condition classification appropriate for the equipment will depend on the intended use of the equipment in a specific aircraft. Document the loss of function and malfunction failure condition classification for which the equipment is designed

c. Functional Qualification. Demonstrate the required functional performance under the test conditions in appendix 1 of this TSO.

d. Deviations. We have provisions for using alternate or equivalent means of compliance to the criteria in the MPS of this TSO. If you invoke these provisions, you must show that your equipment maintains an equivalent level of safety. Apply for a deviation under 14 CFR § 21.618.

4. MARKING.

a. Mark at least one major component permanently and legibly with all the information in 14 CFR § 45.15(b). The marking must include the serial number.

b. Also, mark the following permanently and legibly, with at least the manufacturer's name, subassembly part number, and the TSO number:

- (1) Each component that is easily removable (without hand tools); and
- (2) Each subassembly of the article that you determined may be interchangeable.

c. In addition, permanently and legibly mark the ACSD with the ACSD type designation (reference SAE AS52761 paragraph 2.5 as amended by Appendix 1).

d. Also, mark any applicable limitations or restrictions to allow aircraft-specific or operational-specific installation limitations, such as: **“FOR USE ON {insert aircraft type or serial number} ONLY”**; **“FOR USE ON AIRCRAFT USED IN PART {insert number} OPERATIONS ONLY”**; **“FOR MILITARY USE ONLY”**; or **“SEE DRAWING NO. {insert number} FOR INSTALLATION LIMITATIONS.”**

5. APPLICATION DATA REQUIREMENTS. You must give the FAA aircraft certification office (ACO) manager responsible for your facility a statement of conformance, as specified 14 CFR § 21.603(a)(1) and one copy each of the following technical data to support your design and production approval. LODA applicants must submit the same data (excluding paragraph 5.e) through their civil aviation authority.

a. A manual(s) containing the following:

(1) Operating instructions and equipment limitations, sufficient to describe the equipment's operational capability.

(2) Describe in detail any deviations.

(3) Installation procedures and limitations, sufficient to ensure that the ACSD, when installed according to the installation procedures or operational procedures, still meets this TSO's requirements. Limitations must identify any unique aspects of the installation. The limitations must include a note with the following statement:

“This article meets the minimum performance and quality control standards required by a technical standard order (TSO). Installation of this article requires separate approval.”

(4) List of replaceable components, by part number, that makes up the ACSD. Include vendor part number cross-references, when applicable.

b. Instructions covering periodic maintenance, calibration, and repair, for the continued airworthiness of the installed ACSD. Include recommended cleaning and sterilization procedures, inspection intervals and service life, as appropriate.

c. A drawing depicting how the article will be marked with the information required by paragraph **4** of this TSO.

d. Identify functionality or performance contained in the article not evaluated under paragraph **3** of this TSO (that is, non-TSO functions). Non-TSO functions are accepted in parallel with the TSO authorization. For those non-TSO functions to be accepted, you must declare these functions and include the following information with your TSO application:

(1) Description of the non-TSO function(s), such as performance specifications, failure condition classifications, software, hardware, and environmental qualification levels. Include a statement confirming that the non-TSO function(s) don't interfere with the article's compliance with the requirements of paragraph **3**.

(2) Installation procedures and limitations sufficient to ensure that the non-TSO function(s) meets the declared functions and performance specification(s) described in paragraph **5.d.(1)**.

(3) Instructions for continued performance applicable to the non-TSO function(s) described in paragraph **5.d.(1)**.

(4) Interface requirements and applicable installation test procedures to ensure compliance with the performance data defined in paragraph **5.d.(1)**.

(5) Test plans, analysis and results, as appropriate, to verify that performance of the hosting TSO article is not affected by the non-TSO function(s).

(6) Test plans, analysis and results, as appropriate, to verify the function and performance of the non-TSO function(s) as described in paragraph **5.d.(1)**.

e. The quality system description required by 14 CFR § 21.608, including functional test specifications. The quality system should ensure that you will detect any change to the approved design that could adversely affect compliance with the TSO MPS, and reject the article accordingly. (Not required for LODA applicants.)

f. Material and process specifications list.

g. List of all drawings and processes (including revision level) that define the article's design.

h. Manufacturer's TSO qualification test report showing results of testing accomplished according to paragraph **3.c** of this TSO.

6. MANUFACTURER DATA REQUIREMENTS. Besides the data given directly to the responsible ACO, have the following technical data available for review by the responsible ACO:

a. Functional qualification specifications for qualifying each production article to ensure compliance with this TSO.

- b. Article calibration procedures.
- c. Schematic drawings.
- d. Wiring diagrams.
- e. Material and process specifications.

f. If the article contains non-TSO function(s), you must also make available items **6.a** through **6.e** as they pertain to the non-TSO function(s).

7. FURNISHED DATA REQUIREMENTS.

a. If furnishing one or more articles manufactured under this TSO to one entity (such as an operator or repair station), provide one copy or on line access to the data in paragraphs **5.a** and **5.b** of this TSO. Add any other data needed for the proper installation, certification, use, or for continued compliance with the TSO, of the ACSD.

b. If the article contains declared non-TSO function(s), include one copy of the data in paragraphs **5.d.(1)** through **5.d.(4)**.

8. HOW TO GET REFERENCED DOCUMENTS.

a. Order SAE documents from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001. Telephone (724) 776-4970, fax (724) 776-0790. You can also order copies online at www.sae.org.

b. Order copies of 14 CFR parts 21, 45, and 121 and 49 CFR parts 571 and 572 from the Superintendent of Documents, Government Printing Office, P.O. Box 979050, St. Louis, MO 63197. Telephone (202) 512-1800, fax (202) 512-2250. You can also order copies online at www.access.gpo.gov. Select "Access," then "Online Bookstore." Select "Aviation," then "Code of Federal Regulations."

c. Order ANSI documents from ANSI, 11 West 42nd Street, New York, NY 10036-8002. Telephone (202) 293-8020, fax (202) 293-9287. You can also order copies on line at www.ansi.org

d. You can find a current list of technical standard orders and advisory circulars on the FAA Internet website Regulatory and Guidance Library at <http://rgl.faa.gov/>. You will also find the TSO Index of Articles at the same site.

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APPENDIX 1. MPS FOR AVIATION CHILD SAFETY DEVICE

The applicable standard is SAE AS 5276/1, *Child Restraint Systems in Transport Category Airplanes*, dated November 2000. We modified it as follows:

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Throughout document use *Aviation Child Safety Device (ACSD)* in place of CRS.

SAE AS 5276/1 incorporates, as references, the following test standards:

- Entire document:
1. SAE RP J211, Instrumentation for Impact Tests
 2. SAE AS8049A, Performance Standard for Seats in Civil Rotorcraft, Transport Aircraft and General Aviation Aircraft
 3. SAE ARP4466, Dimensional Compatibility of Child Restraint System and Passenger Seat Systems in Civil Transport Airplanes
 4. 49 CFR part 572, Anthropomorphic Test Dummies
 5. 14 CFR 25.853(a) [Appendix F, Part I(a)(iv)]

More recent version of these standards may be substituted, if approved by the FAA ACO manager responsible for the manufacturer's facilities.

Section 1. Disregard Section 1. SCOPE as similar text appears in the TSO.

Revise to read:

2.1 Documents:

Paragraph 2.1 The following publications form a part of this AS to the extent specified herein. Other publications are provided for reference. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Revise to read:

2.1.1 SAE Publications:

Paragraph 2.1.1

RP J211, Instrumentation for Impact Tests
 AS8049B, Performance Standard for Seats in Civil, Rotorcraft and
 Transport Aircraft and General Aviation Aircraft
 ARP4466, Dimensional Compatibility of Child Restraint Systems and
 Passenger Seat Systems in Civil Transport Airplanes

Revise to read:

2.1.2 Federal Aviation Administration (FAA) Regulations, Advisory
 Circulars, Technical Standard Orders and Reports:

Paragraph 2.1.2

14 CFR part 21, Certification Procedures for Products and Parts
 14 CFR part 25, Airworthiness Standards: Transport Category Airplanes
 14 CFR part 121, Operating Requirements: Domestic, Flag and
 Supplemental Operations
 14 CFR part 43, Maintenance, Preventive Maintenance, Rebuilding and
 Alteration.
 AC 91-62A, Use of Child Seats in Aircraft
 AC 120-87B, Use of Child Restraint Systems on Aircraft
 TSO C22g, Safety Belts
 TSO C39b, Aircraft Seats and Berths
 TSO C39c, 9g Transport Airplane Seats Certified by Static Testing
 TSO C127a, Rotorcraft, Transport Airplane, and Normal and Utility
 Airplane Seating Systems
 DOT/FAA/AAM/-94/19, The Performance of Child Restraint Devices in
 Transportation Category Seats, Gowdy and DeWeese, FAA Office
 of Aviation Medicine Report, September 1994.
 DOT/FAA/AR-00/12, Aircraft Materials Fire Test Handbook.

Revise to read:

2.1.3 National Highway Traffic Safety Administration (NHTSA)
 Regulations and Documents:

Paragraph 2.1.3

49 CFR 571.213, Federal Motor Vehicle Safety Standard No. 213 Child
 Restraint Systems
 49 CFR 571.225, Federal Motor Vehicle Safety Standard No. 225 Child
 Restraint Anchorage Systems
 49 CFR 572, Anthropomorphic Test Dummies
 NHTSA Drawing Package SAS-100-1000 dated June 1, 1993

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Revise to read:

Paragraph 2.1.4

2.1.4 ANSI Publications: ~~Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.~~
ANSI Z535.4 -1998 Product Safety Signs and Labels

Revise to read:

Paragraph 2.3

2.3 Classification of Children: The physical characteristics of small children govern the proper *ACSD* for use. Mass, standing height, and developmental maturity (i.e., age) are important for proper *ACSD* configuration and orientation. As children develop at different rates, combined application of these characteristics in selecting a *ACSD* may be difficult. To assist in this process, Table 1 defines three stages of child development each with a single dominant characteristic underlined. Where an occupant falls between categories, the dominant characteristic is used to determine the proper *ACSD* configuration and orientation.

TABLE 1 - Definitions of Child Categories

Child Category	Mass, kg (lb)	Height, cm (in)	Age, mo
Newborn	<u>Birth to 5 (11)</u>	Birth to 65 (26)	N/A
Infant	5 - 10 (11 - 22)	65 - 85 (26 - 34)	<u>under 12</u>
Toddler	10 - 18 (22 - 40)	<u>85 - 110 (34 - 44)</u>	over 12

Revise to read:

Paragraph 2.5d

d. Any child that has attained his or her first birthday, with a mass greater than 10 kg (22 lb) and having a standing stature of less than 110 cm (44 in) in height is considered a “toddler” and should be seated in a forward facing *ACSD* with both upper and lower torso restraint. (Type III)

Add new paragraph 2.6 to read:

Paragraph 2.6

2.6 Definitions: Refer to 49 CFR 571.213 S4. for aircraft child safety device definitions.

Revise to read:

Paragraph 3.2

3.2 *ACSD* Design/Functional Performance:

Revise to read:

Paragraph 3.2.5

3.2.5 If an *ACSD* is equipped with a means of attaching to a rigid bar anchorage system, as prescribed by 49 CFR 571.225 S9 then the provided attachment hardware must comply with the requirements of 49

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

CFR 571.213 S5.9(a). If rigid prongs are provided for that attachment, they shall be retractable to the extent necessary to ensure proper positioning of the ACSD in an airplane passenger seat not equipped with rigid bar lower anchorages and to avoid damage to the airplane seat or injury to nearby seat occupants.

 Add new paragraph 3.2.6 to read:

Paragraph 3.2.6

Except for components designed to attach to a child restraint anchorage system, an ACSD must not have any means designed for attaching the system to an aircraft seat cushion or aircraft seat back and any component (except belts) that is designed to be inserted between the aircraft seat cushion and the aircraft seat back. An ACSD shall be capable of meeting the requirements of this standard when installed solely by the passenger seat lap belt (pelvic portion of the restraint). If the ACSD is equipped with a child restraint anchorage system, then it shall also be capable of meeting the requirements of this standard when installed solely by attachment to rigid bar lower anchorages as prescribed by 49 CFR 571.225 S9. No passenger seat belt may contact the child-occupant of the ACSD. Each belt that is part of an ACSD and that is designed to restrain the child using the system, shall, when tested in accordance with Section 4 of this standard, impose no loads on the child as a result from the mass of the system or from the mass of the standard seat assembly specified therein.

 Add new paragraph 3.2.7 to read:

Paragraph 3.2.7

3.2.7 An ACSD shall comply with the force distribution requirements of 49 CFR 571.213 S5.2.1.1, S5.2.1.2, S5.2.2.1 (a), (b) and (c), S5.2.2.2, and S5.2.4.

 Add new paragraph 3.2.8 to read:

Paragraph 3.2.8

3.2.8 ACSD belt systems shall comply with the requirements of 49 CFR 571.213 S5.4.1.2, S5.4.1.3, S5.4.2, S5.4.3.1, S5.4.3.3, S5.4.3.5. References to paragraph S6.1 therein shall be considered to refer to Section 4 of this standard.

 Revise to read:

Paragraph 3.3

3.3 Fire Protection: Cushions, upholstery, and all other exposed materials used in the ACSD except small parts (knobs, triggers, fasteners, seals and electrical parts) that would not contribute significantly to the propagation of a fire shall meet the fire protection provisions of 14 CFR 25.853(a) [Appendix F, Part I (a)(1)(ii)] in effect on February 2, 1995. *Seat belts and shoulder harnesses shall meet [Appendix F, Part I (a)(iv)] in effect on February 2, 1995.*

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Revise to read:

Paragraph 4. 4. PERFORMANCE TEST SPECIFICATIONS: The dynamic test described in this section is used to evaluate the performance of the *ACSD* in a horizontal impact where the force is applied against the longitudinal axis of a forward facing airplane passenger seat that holds the *ACSD*. The structural adequacy of the *ACSD*, the effectiveness of the *ACSD* attachments, and the adequacy of restraint of the child occupant, as prescribed in paragraph 4.1 of this AS, are the issues evaluated. One dynamic impact test shall be performed, with the *ACSD* secured using the passenger seat lap belt, for each category of child-occupant, as defined in paragraph 2.3 of this AS, for which the *ACSD* is intended for use. *ACSD* equipped with lower anchorage attachment hardware per 49 CFR 571.213 S5.9(a) must be tested with each category of child-occupant when secured using the rigid bar lower anchorages, except when the *ACSD* is in full compliance with 49 CFR 571.213

 Revise to read:

Paragraph 4.1 4.1 Child-Occupant Simulation: One or more ATD representing the child categories for which the *ACSD* is intended for use shall be used to simulate a child-occupant in the dynamic test. Selection of the ATD shall be based on compliance with the following requirements:

a. A newborn infant ATD, *per* 49 CFR part 572, Subpart K, shall be used to test a Type I *ACSD*.

b. A newborn infant ATD and a 12 month-old child ATD, *per* 49 CFR part 572, Subpart R, shall be used to test a Type II *ACSD*.

c. A 12 month-old child ATD and a 3 year-old child ATD, *per* 49 CFR part 572, Subpart P, shall be used to test a Type III *ACSD*.

 Revise to read:

Paragraph 4.1.2 4.1.2 ATD Preparation and Clothing: All three types of ATD's used shall have a target point marker on each side of the head that is located on the transverse axis passing through the center of mass of the ATD's head and perpendicular to the head's midsagittal plane. The 12 month-old and 3 year-old ATD's must also have target points located on each knee pivot axis. ATD's must be clothed and prepared for use, as prescribed in 49 CFR 571.213 S9.

 Revise to read:

Paragraph 4.2 4.2 Test Fixtures: The fixture on which the *ACSD* is installed for the dynamic test is based on the *FMVSS-213 standard seat assembly test*

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

fixture defined in 49 CFR 571.213 S6.1.1(a)(1)(i). For the test specified by this AS, the back cushion, seat cushion, lap belts and belt anchor points are different from the FMVSS-213 *standard seat test fixture* configuration. Appendix A of this AS presents the locations, dimensions, and materials used to *re-configure* the FMVSS-213 *standard seat assembly test* fixture for the test specified by this AS.

 Revise to read:

Paragraph 4.2.1 4.2.1 Passenger Seat Restraints: Airplane passenger seat lap belts shall be installed on the seat test fixture as the primary means of attaching the ACSD to the seat test fixture depicted in Appendix A of this AS. The buckle shall be a lift latch type release mechanism. The belts shall meet the requirements of FAA TSO-C22g and conform to the length dimensions shown in Appendix A, Figure A5 of this AS. The webbing shall be made of nylon.

 Add new paragraph 4.2.2 to read:

Paragraph 4.2.2 4.2.2 Rigid Bar Lower Anchorages: If testing ACSD equipped with lower anchorage attachment hardware, the aforementioned modified seat test fixture must have rigid bar lower anchorages installed per Figures 1A and 1B of 49 CFR 571.213.

 Revise the last sentence of paragraph 4.5 Photometric Instrumentation to read:

Paragraph 4.5 The resolution of the images shall be sufficient to enable accurate measurements of the maximum excursion of the head and knee of the ATD in *Type III ACSD tests*, or the maximum rotation of the ACSD in *aft facing Type I and Type II ACSD tests*.

 Revise to Read:

Paragraph 4.6 4.6 Test Severity: The dynamic impact pulse shall meet the requirements specified for Type A seats in AS8049B, i.e., the 16 g, 13.4 m/s (44 ft/s) horizontal test condition for transport category airplane seats. The pulse described in Figure 2A of 49 CFR 571.213, is acceptable to show compliance with this requirement. The yaw and floor deformation specified in AS8049B are not required.

 Add new paragraph 4.7 to read:

Paragraph 4.7 4.7 Test Conditions: During the test, maintain the environmental conditions specified in 49 CFR 571.213 S6.1.1(d).

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Revise to read:

Paragraph 5.1 5.1 ACSD Installation: Install the ACSD at the center of the seating position of the modified FMVSS-213 standard seat assembly test fixture in accordance with the manufacturers instructions provided with the system except that no tether strap shall be used. For the belted test condition, use only the aircraft lap belt. For tests with a child restraint anchor system, use only the lower anchorages of the child restraint anchor system.

Add a new paragraph 5.2 to read:

Paragraph 5.2 5.2 ATD Installation: The ATD shall be placed in the ACSD. Position it, and attach the child restraint belts, if appropriate, per 49 CFR 571.213 S10.

Revise to read:

Paragraph 5.3 5.3 ACSD Integral Restraint Adjustment: The ACSD integral restraint system shall be routed through the ACSD and fastened over the ATD as called for by the manufacturer's instructions *and per 49 CFR 571.213 S6.1.2(d)(1)(i)*.

Revise to read:

Paragraph 5.4 5.4 ACSD Attachment Adjustment: The aircraft lap belt or child restraint anchor system straps attaching the ACSD to the standard seat assembly test fixture shall be adjusted per 49 CFR 571.213 S6.1.2(d)(1)(ii) or (iii) as appropriate.

Revise to read:

Paragraph 6.1 6.1 Excursion Limits: The ATD and ACSD excursions and initial positions described below shall be obtained by measuring the high speed film or video images recorded during the test, or in the case of initial position, measured directly prior to the test.

Revise to read:

Paragraph 6.1.1 6.1.1 Test of Forward Facing ACSD: The ACSD shall retain the ATD's torso within the system. No portion of the ATD head shall pass through a vertical transverse plane passing through a point 813 mm (32 in) forward of the seat back pivot axis on the standard seat assembly test fixture shown in Appendix A, Figure A2. This limit is referred to as the head excursion limit.

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Revise the second paragraph to read:

Paragraph 6.1.2 6.1.2 Test of Aft Facing ACSD: The angle between the ACSD back child support surface and the vertical transverse plane shall not exceed 70 degrees at any time during the test. The initial (pre-test) angle between the ACSD back child support surface and the vertical transverse plane shall not be less than 45 degrees.

All portions of the ATD torso shall be retained within the ACSD. The center of the target points on either side of the ATD head shall not pass through the transverse orthogonal planes whose intersection contains the forward-most and top-most points on the ACSD surfaces.

Revise text to read:

The Head Injury Criterion (HIC36) is calculated according to the following equation:

$$HIC = \left\{ (t_1 - t_2) \left[\frac{1}{(t_2 - t_1)} \int_{t_1}^{t_2} a(t) dt \right]^{2.5} \right\} \text{Max}$$

Where:

Paragraph 6.2 t_1, t_2 = Any two points in time during the head impact *which are not separated by more than a 36 millisecond time interval*
 $a(t)$ = The resultant head acceleration *at the center of gravity of the ATD head expressed as a multiple of g (the acceleration of gravity)*

The maximum value of the HIC36 computation from data acquired during the impact test, including rebound motion of the ATD and ACSD, shall not exceed a value of 1,000.

Add a new second paragraph to read:

Paragraph 6.4 The ACSD shall also meet the requirements of 49 CFR 571.213 S5.1.1. References to paragraph S6.1 therein shall be considered to refer to Section 4 of this standard.

Paragraphs 7.1.a. through 7.1.e. Disregard paragraphs 7.1.a. through e, as the marking of the article shall be in accordance with paragraphs 7.1f. through 7.1h., and paragraph 4 of this TSO.

Revise the second paragraph to read:

Paragraph 7.1.g “Place this Type I, II and III child restraint in a rear-facing position when using it with an infant weighing less than ____ pounds (____ Kg)”

AS 5276/1 citation: FAA modification (Note changes to text are in italics):

Paragraphs 7.1h. through 7.1m. Disregard paragraphs 7.1h. through 7.1m.

 Add a new paragraph 7.1h. to read:

h. The following statement on yellow background with black text, regarding the installation and use of ACSD:

“WARNING! DEATH OR SERIOUS INJURY CAN OCCUR. Follow all instructions on this aviation child restraint and in the manufacturer’s written instructions located {insert location}.

Paragraphs 7.1h.

- *Do not place this device behind any wall or seat back in an airplane that has an airbag.*
- *Do not use in any passenger seat that has an inflatable seat belt.*
- *Use only in a forward facing seat. Do not use in a rear facing seat or a side facing seat.*
- *Attach this aviation child restraint with the airplane passenger seat lap belt or rigid bar anchorage system if so equipped.*
- *This aviation child restraint is not designed to be used with a shoulder strap or any other tether strap to the seat or airplane.*
- *Snugly adjust the belts provided with this aviation child restraint around your child.”*

 Add a new paragraph 7.1i. to read:

Paragraph 7.1i

7.1i Additional label for ACSD that do not meet FMVSS-213. Any ACSD that meets the MPS of this TSO, but does not meet the requirements of FMVSS-213, the label in new Figure A6 must be permanently affixed to the webbing of the ACSD so that it is clearly visible when the ACSD is installed.

 Revise Figure A1 as follows:

Figure A1

Change the horizontal distance between the Seat back pivot axis to the lap belt anchor axis from 269 (10.6) to 246 (9.7)

 Revise Figure A2 as follows:

Figure A2

Change the horizontal distance between the Seat back pivot axis to the lap belt anchor axis from 269 (10.6) to 246 (9.7)

Add a new item 9: Aluminum rod: 25.4 (1.0) Dia. welded to the front edge of item 1 such that the rod surface is tangent to the plane of the bottom of the aluminum plate.

AS 5276/1 citation: *FAA modification (Note changes to text are in italics):*

Revise Figure A3 as follows:

Figure A3

Change the vertical dimension of the anchor pivot from 47.8 (1.88) to 50.8 (2.0) and the vertical dimension of the anchor height from 60.5 (2.38) to 63.5 (2.5).

Revise Figure A4 as follows:

Figure A4

Add a depiction of the 25.4 (1.0) Dia. rod defined in Figure A2.

Disregard Figure A6, it no longer applies. A new Figure A6 below must be used.

FIGURE A6 - Label for ACSD Not Meeting FMVSS-213

Figure A6



- *Box outline of label is red, 6 point line width.*
 - *Box is 4.75 inches long by 1.25 inches high.*
 - *Interior of box is yellow background.*
 - *Text is Arial bold black letters.*
 - *Large text is 18 point.*
 - *Smaller text is 16 point.*
-