**NOTICE**

**U.S. DEPARTMENT OF TRANSPORTATION**
FEDERAL AVIATION ADMINISTRATION

**N 8150.5**

National Policy

Effective Date:
9/28/07
Cancellation Date:
9/28/08

**SUBJ:** Evaluating Non-TSO Function(s) Integrated In A TSO Article

**1. Purpose of this Notice.** This notice supersedes Federal Aviation Administration (FAA) Order 8150.1B, *Technical Standard Order Program*, Paragraph 17d(3), dated May 12, 2002. In it, we provide guidance to aircraft certification field offices on the appropriate means to evaluate a non-Technical Standard Order (TSO) function that a manufacturer might integrate into an existing or proposed TSO article.

**2. Who this Notice Affects.** All Federal Aviation Administration (FAA) personnel responsible for evaluating applications for TSO approvals.

**3. Where can I get A Copy of this Notice?** You can find this notice on the FAA's Regulatory and Guidance Library (RGL) website at http://rgl.faa.gov or the Directives Management website at MyFAA employees website at https://employees.faa.gov/tools_resources/orders_notices/

**4. Background.**

**a.** FAA Order 8150.1B, Paragraph 17d(3), acknowledges the manufacturer's option to incorporate a non-TSO function in an article that is eligible for TSO authorization (TSOA), by stipulating that the safety and performance of the non-TSO function be evaluated under the appropriate airworthiness regulations during installation. In effect, the paragraph instructs the TSOA-issuing aircraft certification office (ACO) to ignore the added non-TSO function, deferring its evaluation to the installation phase of the certification process. However, the design data package referenced under the TSO Authorization contains data that defines the non-TSO function.

**b.** With this approach, no oversight is provided by the TSOA-issuing ACO to ensure that the performance of the hosting TSO article is unaffected by the added non-TSO function. Additionally, deferring the evaluation of the non-TSO function until installation is not ideal, since the installer generally does not have the development data, the equipment or the expertise available to the TSO manufacturer to accomplish a thorough equipment performance evaluation, especially when the performance of the non-TSO function must be determined by laboratory simulation or under stressed conditions.

**c.** The policy in paragraph **6** of this notice brings greater scrutiny to non-TSO functions integrated in a TSO article by providing guidance to the ACO for the consistent performance evaluation of a non-TSO function at the time of TSO application. As with the TSO article itself, the integrated non-TSO function must have approval for installation in an aircraft. This guidance also allows the ACO to acknowledge the software and hardware design assurance levels and environmental testing accomplished on the non-TSO function, as appropriate, to preclude the need for repeated evaluations for each installation approval. Manufacturers electing to integrate a non-TSO function in a TSO article should comply with the procedures in paragraph **6**.

**d.** Note that aircraft seats produced under TSOs C39b, C127, and C127a, that are typically installed independently by the aircraft manufacturer or operator, and where the seat manufacturer might not control the design for an added function (e.g., in-seat video system), should not comply with this notice. The seat manufacturer should review all seat-related policy including "Policy and Guidance on the Approval of Electronic Components on Aircraft Seating Systems", issued October 27, 1998, before contacting the ACO to discuss the integration of a non-TSO function. Seat-related Policy Memorandums can be found on the FAA's Regulatory Guidance Library Web site at: http://rgl.faa.gov/. Select "Policy", and then select "By CFR Part".

**5. Policy.**

**a. Definition of a Non-TSO Function.** A non-TSO function is one that is not covered by a TSO-approved minimum performance standard (MPS), does not support or affect the hosting article's TSO function(s), and could technically be implemented outside of the TSO article. A manufacturer may choose to integrate a non-TSO function into a TSO article to support a foreign airspace requirement; minimize the amount of line replaceable units and interconnect wiring systems in an aircraft installation; address a specific customer/industry need; or for product differentiation. Non-TSO function(s) may be included and accepted on a non-interference basis, as part of a manufacturer's TSO submittal, and a TSO authorization issued for the article, if the manufacturer demonstrates that it meets all of the following conditions:

**(1)** The hosting article is eligible for TSO authorization and meets the applicable TSO performance requirements, per FAA Order 8150.1B, Paragraph 17a(1) and 17a(2);

**(2)** There is no applicable TSO for the non-TSO function;

**(3)** The added non-TSO function does not affect or interfere with the hosting TSO article's required MPS or violate any limitations imposed by the hosting TSO; and,

**(4)** The hosting TSO article's environmental qualification, hardware and software design assurance levels adequately support the non-TSO function.

> **NOTE:** The criticality of the non-TSO function should not exceed that of the hosting TSO article. Conversely, if the integrated non-TSO function criticality is lower than the hosting TSO article, the manufacturer may choose to adopt the higher design assurance levels throughout or to employ proper partitioning techniques.

**b. Project Planning Considerations.** Since a TSO-approved MPS does not cover the integrated non-TSO function, the ACO will need adequate time to review the manufacturer's declared performance requirements to 1) verify that the non-TSO function can reasonably be accommodated within the hosting TSO article; and 2) identify any performance or compatibility issues that could affect installation approval. Manufacturers intending to integrate non-TSO functions in a proposed TSO article should plan accordingly and coordinate with their ACO at the earliest opportunity and well in advance of their TSO application, to avoid potential delays to their project. Use of the Partnership for Safety Plan (PSP) should be encouraged to formalize and adapt integrated non-TSO function process steps to each manufacturer's internal TSO procedures. Each project specific certification plan should address any specific ACO test and validation requirements.

**c. Manufacturer Data Submittal.** Data submitted to the ACO to permit review of the non-TSO function should include, as a minimum, the following:

**(1)** A clear definition of intended function and any anticipated operational credit that may be sought at the time of installation so that the manufacturer's justification for their proposed hazard classification of failure condition(s) can be evaluated.

**(2)** The manufacturer's declared performance requirements. Where possible, the manufacturer is encouraged to adopt existing industry-accepted standards, e.g. RTCA, EUROCAE, SAE, or ARINC.

**(3)** The manufacturer's proposed test procedures to validate the performance requirements for the non-TSO function, including RTCA Document (RTCA/DO)-160 (revision level same as hosting TSO article) environmental test conditions.

**(4)** Installation and operating instructions/limitations, including any instructions for continued airworthiness (ICA), for the non-TSO function(s) as applicable.

**(5)** The manufacturer's verification that the hosting TSO article's software and hardware design assurance levels, including RTCA/DO-254 complex electronic hardware requirements in accordance with Advisory Circular (AC) 20-152, *RTCA, Inc., Document RTCA/DO-254, Design Assurance Guidance for Airborne Electronic Hardware*, remain appropriate for the non-TSO function.

> **NOTE:** If the non-TSO function includes software components, all RTCA/DO-178 (revision level same as hosting TSO article) software artifacts normally furnished to the ACO or retained by the manufacturer must clearly describe the non-TSO function software components and demonstrate compliance with the requirements of paragraph **6a(3)**.

**d. ACO Evaluation Criteria.** If, following early coordination between the ACO and the manufacturer, it is determined that the non-TSO function is of a simple nature where the

performance is easily understandable, ACO review of the manufacturer's declared performance requirements should simply become part of the normal TSO data application evaluation. However, the ACO should require a concurrent Type Certificate (TC) or Supplemental Type Certificate (STC) project evaluation if it is determined that the added non-TSO function(s):

**(1)** Is complex and difficult to review and fully understand without a concurrent installation evaluation;

**(2)** Has a high degree of system flight deck to pilot interface;

**(3)** Are of a simple nature individually but combined in such a way or in sufficient quantities to meet the criteria of **6d(1)**; or

**(4)** Incorporates new or novel technology.

> **NOTE:** If a TC/STC project is being accomplished at an ACO that is different than the ACO responsible for issuing the TSOA, then both offices should coordinate in the review of manufacturer's declared performance requirements.

**e. Manufacturer Responsibilities.** With ACO acceptance of the manufacturer data submitted in accordance with paragraph **6c**, the non-TSO function should be integrated and qualified using the manufacturer's existing configuration control and TSO qualification procedures. The manufacturer should incorporate the non-TSO function(s) data within the required TSO application data provided to the ACO, to include the results of the testing in paragraph **6c(3)**. The manufacturer should also ensure the results of any TC/STC installation performance testing that may have been required by paragraph **6d** are also available for review by the TSOA-issuing ACO.

**f. Non-TSO Function Acceptance and Installation Data.** The TSO Authorization letter issued to the manufacturer should document the TSO authorizations being granted, including the integrated non-TSO function(s) that were evaluated by the ACO in conjunction with the hosting TSO article. Appendix **1,** of this notice contains a sample TSO Authorization letter wording when a non-TSO function is included. It is essential to note that the TSO article and any integrated non-TSO function(s) are inseparable at the article level, and should be covered by a common manufacturer's hardware and/or software part number. The TSO Authorization letter conveys design and production approval for the TSO function as well as design acceptance - on a non-interference basis, and production approval for the non-TSO function. This includes ACO acceptance of the manufacturer's statement of conformance for functional performance at the equipment level, hardware and software design assurance, and environmental qualification for the non-TSO function(s). However, because the non-TSO function is not covered under the TSO authority granted by 14 CFR § 21.603(a), the following additional information must be included in the manufacturer's installation manual, component maintenance manual and/or operating manual to support the aircraft installation approval requirements:

**(1)** A description of the non-TSO function(s), including key performance specifications, as well as software, hardware, environmental, etc., qualification levels.

**(2)** Interface requirements for the non-TSO function(s) and applicable installation test procedures.

**(3)** Installation and operating instructions/limitations, including any instructions for continued airworthiness (ICA), for the non-TSO function(s) as applicable.

**(4)** For non-TSO function(s) that contribute to catastrophic or hazardous failure conditions on the aircraft, the manufacturer should also include a safety analysis of the non-TSO function(s) as implemented in the hosting TSO'd article. The safety analysis should identify the failure modes and effects of the non-TSO function(s) and the expected probability of the failure modes. The analysis should consider exposure times for latent failures, recommended maintenance checks, and the failure rates for the applicable components of the hosting TSO'd article.

> **NOTE:** Integrated non-TSO function(s) contributing to major or lower failure conditions should be evaluated by the manufacturer using the same procedures that are applied to any TSO article contributing to major or lower failure conditions.

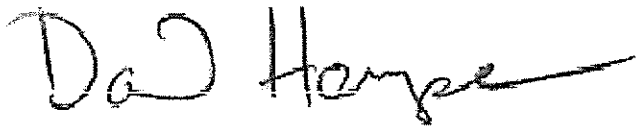
**g. Design Change/Modification to a Non-TSO Function.** Because the TSO article and any integrated non-TSO function(s) are inseparable, all subsequent design changes to the non-TSO function(s) must be treated identically to design changes made to a TSO function (reference 14 CFR § 21.611 and Order 8150.1B, Paragraph 15). When evaluating a proposed major design change to the TSO article or integrated non-TSO function, the ACO should work with the manufacturer to determine if an applicable TSO has become available for the non-TSO function since its initial approval. If a new TSO is available, the manufacturer must adopt the new TSO MPS for the changed article as required by paragraph 6a(2), or elect not to follow the TSO process for the changed article and approve the entire article under the TC/STC process. If a new or updated industry-accepted standard has become available, the manufacturer should be encouraged to re-qualify the non-TSO function to that subsequent standard. Similarly, the FAA's ability to rescind a TSOA in accordance with 14 CFR § 21.619 applies equally to any issues associated with the integrated non-TSO function.

**6. Supporting Information.** Appendix 2 contains answers to Frequently Asked Questions readers might find helpful when applying this notice.

**7. Disposition.** This notice is cancelled on 9/28/08, or when FAA Order 8150.1C, *Technical Standard Order Program*, is released, whichever occurs first.

**8. Distribution.** This notice is distributed to the branch level in the Aircraft Certification Service and the Flight Standards Service; to the branch level in the Aircraft Certification Directorate offices and the regional Flight Standards Divisions; to the Federal Aviation Administration Academy and the Regulatory Support Division; to all Air Carrier; General Aviation, and Flight Standards District Offices; to all International Field Offices, International

Area Offices; Aircraft Certification Field Offices; Manufacturing Inspection District and Satellite Offices.



David Hempe
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## Appendix 1. Format and Guidance For The Preparation Of TSO Authorization Letter That Includes A Non-TSO Function

U.S. Department of Transportation
*{enter appropriate ACO }*
*{enter ACO address}*

**Federal Aviation Administration**

*{enter date}*

In reply refer to: *{enter reference number}*

*{enter name of applicant point of contact (POC)}*
*{enter POC's title}*
*{enter name of company}*
*{enter street address}*
*{enter city and mail code}*

Dear *{Mr./Mrs./Ms. enter name of applicant POC}:*

This is in reply to your letter of *{enter date of application}* requesting TSO authorization for your *{insert type of article}*. The statement of conformance to TSO-C*{enter applicable TSO number}* and the submitted data are accepted.

Effective this date, you are authorized to identify the following *{insert type of article}* with the marking requirements defined in 14 CFR § 21.607(d) and in TSO-C*{enter applicable TSO number}*.

| *{Enter Part/Model}* Number | *{Enter type of article}* Description |
|---|---|
| *{list each part number, with open brackets to allow for minor changes, model number or if both are necessary use two separate columns}* | *{enter a basic description of equipment, major features that distinguish this part or model number from other part or model numbers in the list}* |

Additional non-TSO functions contained in this article are:

| Non-TSO Function(s) | Performance Requirements |
|---|---|
| *{enter name and basic description of each added function}* | *{List manufacturer's declared performance requirements document, or appropriate section(s) thereof, that refer to the non-TSO function(s).}* |

**Appendix 1. Format and Guidance For The Preparation Of TSO Authorization Letter That Includes A Non-TSO Function (Continued)**

The statement of conformance for functional performance at the equipment level, as well as the hardware and software design assurance, and environmental qualification for the non-TSO function(s) is also accepted on a non-interference basis. The applicable Installation Manual contains the information on the non-TSO function(s) necessary to support installation approval.

Your Quality Control System, as defined in your Quality Control Manual, *{insert date of manual}*, is considered satisfactory for production of this article at your *{enter location of applicant's manufacturing facility}* facility.

The following statement must be furnished to the original owner/installer of each article or multiple articles, if furnished to one source:

"The conditions and tests required for TSO approval of this article are minimum performance standards. It is the responsibility of those installing this article either on or within a specific type or class of aircraft to determine that the aircraft installation conditions are within the standards applicable to the TSO article including the integrated non-TSO function. TSO articles must have separate approval for installation in an aircraft. The article may be installed only if performed under 14 CFR part 43 or the applicable airworthiness requirements."

*{A summary statement must be included to describe any approved deviations.}*

Any design change to this TSO article, or the non-TSO function contained within, must be forwarded to this office as outlined in 14 CFR § 21.611 with minor change submittal intervals not to exceed six months. Also, as recipient of this authorization, you are required to report any failure, malfunction, or defect relating to this authorization in accordance with the provisions of 14 CFR § 21.3.

This authorization is not transferable to another person or location and is effective until surrendered, withdrawn, or otherwise terminated by the Administrator.

Please note that technical data retained by the FAA may be subject to Freedom of Information Act (FOIA) requests. As such, this office will notify you of all such requests pertaining to your data and afford you the opportunity to defend the release of the data.

**Appendix 1. Format and Guidance For The Preparation Of TSO Authorization Letter That Includes A Non-TSO Function (Continued)**

If you have any questions regarding this authorization, contact *{enter FAA ACO contact and phone number}*

Sincerely,
*{insert name of ACO manager}*
*{enter appropriate FAA ACO}*

cc: AIR-140; *{insert routing symbol of responsible MIDO/MISO}*

## Appendix 2. Frequently Asked Questions Regarding Non-TSO Function(s) integrated In A TSO Article

1. **Q: Wasn't this Policy originally known as TSO *Plus*+?**
   **A:** Yes. The term TSO *Plus*+ was coined during development of this Notice but has since been changed to "Non-TSO Functions Integrated in a TSO Article".

2. **Q: Many of the documents referenced in this Notice seem to be more related to avionics system TSOs. Does the Notice also apply to mechanical system TSOs?**
   **A:** Yes. Even though the incorporation of a non-TSO function is more likely to occur in an avionics article, due mainly to the rapid advances in semiconductor technology, e.g. microprocessor speeds, memory capacity, etc., the Notice also applies equally to mechanical system TSOs.

3. **Q: How do I know if the manufacturer's declared performance requirements for the integrated non-TSO function are correct? What should I look for?**
   **A:** The manufacturer's declared performance requirements are neither correct nor incorrect; they simply define the performance of the integrated non-TSO function as presented by the manufacturer to the ACO for inclusion in the hosting TSO article. In reviewing the manufacturer's declared performance requirements and data submittal, the ACO engineer should consider such items as:

   - Is there a clear definition of intended function and any operational credit being sought so that the manufacturer's proposed hazard classification, e.g. minor, major, etc., can be evaluated? Is there any guidance material (e.g., AC, Policy Memorandums, etc.) that might be applicable?
   - Does the manufacturer's proposed test plan adequately evaluate performance of the added non-TSO function? Is testing sufficiently robust? Does it perform (at the equipment level) as intended?
   - Have the key performance attributes of the added non-TSO function been properly integrated into the environmental test plan?
   - Has appropriate partitioning been accomplished in cases where the software design assurance level of the added non-TSO function is lower than the hosting article's software design assurance level?
   - Has the manufacture adequately demonstrated (via test and/or analysis) that the required performance of the hosting TSO article has not been affected? Has fault recovery been considered?
   - Do you see any possible issues with the integrated non-TSO function (e.g., improper use of color, pilot workload, limitations, etc.) that might present problems on installation?

**Appendix 2. Frequently Asked Questions Regarding Non-TSO Function(s) integrated In A TSO Article (Continued)**

4. **Q: Is the TSO-issuing ACO being asked to "approve" the added non-TSO function?**
   **A:** No. The TSOA letter only acknowledges or "accepts" that an added non-TSO function has been integrated in the TSO article on a non-interference basis. This acceptance is made when the ACO has determined that all proposed design assurance, testing and validation (e.g. software, environmental, performance, etc.) of the non-TSO function, at the equipment level, have been adequately addressed, and that the manufacture has demonstrated that the added function does not interfere with the required performance of the hosting TSO article.

5. **Q: Is a deviation request (reference 14 CFR §21.609) required when a manufacturer incorporates a non-TSO function in a TSO article?**
   **A:** No. The addition of a non-TSO function is not considered a deviation to the hosting TSO article. In fact, the policy of this Notice requires the manufacturer to demonstrate to the TSOA-issuing ACO that the non-TSO function in no way impacts the required performance of the hosting TSO article.

6. **Q. What if the manufacturer adopts an Industry Standard (e.g. RTCA, Eurocae, SAE, etc.) as its manufacturer's declared performance requirements, and then proposes deviations?**
   **A:** Deviations proposed by the manufacturer should be reviewed by the ACO for appropriateness, and when accepted, should be documented in both the manufacturer's declared performance requirements and the IM or CMM as appropriate. As with the previous question, a formal deviation request to AIR-100 is not required. However, if necessary, you can contact the appropriate AIR-100 Branch for technical assistance in reviewing the manufacturer's proposed deviations to the Industry Standard.

7. **Q: Are all functions in a TSO article, not specifically covered by a TSO-approved minimum performance standard (MPS), considered non-TSO functions?**
   **A:** No. Manufacturers often incorporate functions that do not have a direct MPS reference, but that are derived from existing requirements within the MPS. Unlike the non-TSO function, these functions have a direct bearing on the basic TSO operation and are often referred to as "characteristics" or "features" since they are added to enhance performance, usability or integrity of the TSO article. Examples of TSO features might include: the capability to flip-flop the "active" and "standby" frequencies of a communication or navigation radio, facility information (e.g., airport frequencies, runways, airport services available, etc.), built in test (BIT) capability on start-up, and health monitoring to name just a few.

**Appendix 2. Frequently Asked Questions Regarding Non-TSO Function(s) integrated In A TSO Article (Continued)**

8. **Q: Where do we draw the line, e.g. Can a manufacturer include a galley as a non-TSO function just because it happens to be attached to a TSO seat?**
   **A:** No. The basic premise of the non-TSO Function Notice, as described in the title, is the integration of a non-TSO function ***within*** an article that is eligible for TSOA. In this example, the galley is ***not*** integrated within the TSO seat. This would also be true in the case of a complex non-TSO structure that happens to include a TSO-C148 bolt/fastener – the complex structure is ***not*** integrated within the bolt. The logical conclusion of this argument, if allowed, would be the TSOA of the entire aircraft just because it utilizes TSO fasteners.

9. **Q: If the integrated non-TSO function is sufficiently complex as to require an installation approval in parallel with the TSO acceptance, is the Field-Approval process an appropriate means to accomplish this?**
   **A:** No. The non-TSO function, as well as the hosting TSO article, would merit the added rigor of installation evaluation that only an initial TC or STC would confer. However, depending on the nature of the TSO article, a follow-on installation utilizing the Field-Approval process might be appropriate.

10. **Q: Is a Partnership for Safety Plan (PSP) between the TSO manufacturer and the ACO required before a non-TSO function can be added to a TSO application?**
    **A:** No. A PSP should be encouraged, but is never required – and may even be impractical for TSO manufactures that make only one or two TSO applications a year. However, for those TSO manufactures that make numerous TSO applications a year (some of whom will already have a PSP in place), developing PSP procedures to address how the manufacturer will work with the ACO when a non-TSO function is incorporated, can only improve the coordination between the manufacturer and ACO, help ensure expectations are met, and hasten final acceptance.

11. **Q: Does the 30-day review period (reference 14 CFR §21.605(e)) still apply to TSO applications that contain non-TSO functions?**
    **A:** Yes. However, the TSO manufacturer is expected to coordinate with the ACO well in advance of the TSO application when integrating a non-TSO function in a TSO article. This advance coordination is to allow the ACO adequate time to understand the manufacturer's declared performance requirements for the non-TSO function, help identify any performance issues that could affect installation approval, ensure that the function is compatible with the hosting TSO article, and that all proposed design assurance, testing and validation (e.g. software, environmental, performance, etc.) adequately addresses the non-TSO function. Once this review is complete, the TSO manufacturer should complete all agreed upon TSO and non-TSO testing and submit the required data to the ACO – at which time the 30-day review period begins. It should be noted that a parallel TC/STC project might still be necessary based on the nature and level of complexity of the added non-TSO function.

## Appendix 2. Frequently Asked Questions Regarding Non-TSO Function(s) integrated In A TSO Article (Continued)

**12. Q: Does accepting the integrated non-TSO function change the TSO marking requirements of 14 CFR §21.607(d)?**
**A:** No. However, the integrated non-TSO function should be properly documented in the manufacturer's Installation Manual (IM) or Component Maintenance Manual (CMM), as appropriate, to include any limitations or instructions for continued airworthiness (ICA).

**13. Q: Is a Parts Manufacturing Approval (PMA) required for the added non-TSO parts?**
**A:** No. Since the added non-TSO function is inseparable from the rest of the TSO article's design, a non-TSO function part, just as with the hosting TSO article's parts, would be controlled under the same TSO manufacturer's approved quality system. The non-TSO function is accepted but not approved under the TSO authorization. To require a separate PMA-marking on the non-TSO function parts that are by definition "inseparable" from the hosting TSO article, would only add an economic burden to the manufacturer with no commensurate increase in safety oversight. In addition, 14 CFR §21.303(b)(3) governing PMA parts, excludes parts produced under an FAA Technical Standard Order.

**14. Q: If a TSOA is issued to an article that contains a non-TSO function, is that non-TSO function automatically acceptable in any future TSO article that the manufacturer incorporates it in?**
**A:** No. A non-TSO function, by definition, has no publicly approved minimum performance standard, and as such, requires reevaluation each time it is integrated in an eligible hosting TSO article. However, if the manufacturer's declared performance requirements for the added non-TSO function have not been significantly altered, then ACO acceptance of the added non-TSO function in the manufacturer's next TSO application should be more straightforward. It should be noted that a parallel TC/STC project might still be necessary based on the nature and level of complexity of the added non-TSO function.

**15. Q: What if the integrated non-TSO function is a military requirement that could not be approved for civilian use?**
**A**: Under these circumstances, both the manufacturer and the ACO are referred to AIR-100 Policy Memorandum PS-AIR100-2005-01, dated August 11, 2005, for additional marking requirements. This Policy Memorandum can be found on the FAA's Regulatory Guidance Library Web site at: http://www.airweb.faa.gov/RGL. Select "Policy", and then select "By Issue Date".

**16. Q: Can a major change to a non-TSO function integrated in a TSO article lead to a substantial reevaluation of the hosting TSO article?**
**A:** Yes. Since the added non-TSO function is inseparable from the rest of the TSO article's design, it is possible that a major change to the added non-TSO function could lead to a reevaluation of the total TSO article, and may even require a new installation airworthiness evaluation. All TSO manufacturers should have an internal procedure in place to review any change to their TSO article, whether major or minor, TSO function or non-TSO function, for its possible impact on installation airworthiness.

**Appendix 2. Frequently Asked Questions Regarding Non-TSO Function(s) integrated In A TSO Article (Continued)**

**17. Q: What if the integrated non-TSO function requires manufacturing process capabilities heretofore not covered/demonstrated by the manufacturer's current quality system?**

**A:** This question is not unique to non-TSO functions. The introduction of any new manufacturing process requires assimilation into the applicant's quality system and coordination with the local Manufacturing Inspection District Office (MIDO) before application for TSOA.

**18. Q: How do we handle a Foreign manufacturer seeking a Letter of Design Approval (LODA) for their TSO product that contains an integrated non-TSO function?**

**A:** The technical aspects of this Notice will still apply, however, the administrative aspects between the FAA and each Civil Aviation Authority must be negotiated. You may accept foreign applications, if there is an applicable bilateral agreement with provisions for accepting all of the following:

(1) Appliance approvals (TSO),
(2) Non-TSO functions, and
(3) Transport category aircraft design data.

Check the applicable bilateral to verify specific provision language and limitations to determine if a foreign application can be accepted.