

Air Force Life Cycle Management Center

Standard Process

To

*Execute Support Equipment Recommendation Data (SERD) Process*

Process Owner: AFLCMC/LZS

Date: 15 June 2023

Version: 4.0

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| Record of Changes | | |
| Version | Effective Date | Summary |
| 1.0 | 18 Jun 2020 | Basic document; Approved by S&P Board on 18 Jun 2020 |
| 1.01 | 13 Jul 2020 | Updated hyperlinks |
| 1.02 | 11 Aug 2020 | Updated ELMA/LMDS hyperlinks |
| 1.03 | 24 Sep 2020 | Updated LG-LZ SharePoint hyperlinks |
| 2.0 | 20 May 2021 | Updated attachments; adjusted SE hierarchy in para. 1.2; added para. 1.1.2 to address the use of kits, updated para. 8.1 on training; various changes to add more detail where needed throughout document; admin changes. Approved at 20 May 2021 SP&P Group. |
| 3.0 | 19 May 2022 | Inserted new step 9.0, “Owning Org Review”; added DoDI 5000.91 requirement reference to 2.1.1; added involvement of WNU Human Systems Division in SE&V review process (WBS 6.1); adjusted ATS PG WBS 6.2.11 based on latest ATS Selection Analysis language; various clarifications throughout document; updated attachments 1, 4, and 8.  Approved at 19 May 2022 SP&P Group. |
| 4.0 | 15 June 2023 | Verified accuracy of hyperlinks and attachments; Updated AFMCI 63-1201 hyperlink to current version; Added hyperlinks to References to Law, Policy, Instructions or Guidance; Added hyperlinks to corresponding SP and IPG; Updated hyperlink to Office of the Assistant Secretary of Defense for Sustainment website; Updated attachment 4 and 8; Added Attachment 9 -TRD DiD DI-ATTS-80014A; Updated Fig 1 Process Flowchart – SERD Process NOTE; various clarifications throughout document. Approved at 15 Jun 23 SP&P Group Meeting |

*Execute Support Equipment Recommendation Data (SERD) Process*

1. **Description.**
   1. The Support Equipment Recommendation Data (SERD) Process is the primary process for Air Force Life Cycle Management Center (AFLCMC) to identify and select all support equipment (SE) (as defined in Section 9.0) required to operate and sustain a system during its life cycle. The SERD Process seeks to ensure programs select SE that is sufficient to accomplish the task for which it is required, as well as to maximize the use of SE that is common across multiple United States Air Force (USAF) and Department of Defense (DoD) systems and munitions. The SERD Process is typically conducted during the Engineering, Manufacturing, and Development phase of the acquisition life cycle, but must be followed any time a requirement for new SE is identified.
      1. Note that hand tools are not included in the scope of the SERD Process.
      2. SERD Reports should not be submitted for ‘kits’ consisting of multiple support equipment items, but rather for individual SE.
      3. SERDs for any items that will be sourced through local purchase, managed locally by the unit, and are not planned to be cataloged do not need to be vetted by a Product Group.
   2. Maximizing the use of common SE (CSE) should generally be done in concert with the following hierarchy (listed from most to least desirable):
      1. Approved USAF CSE and USAF Family of Testers – Active equipment currently stock-listed and managed within the USAF inventory and applicable to more than one USAF Mission Design or Type Model Series engines.
      2. Approved Common DoD Equipment – Active equipment that is currently stock-listed and managed within a separate branch of the DoD armed services (e.g., Navy, Army) and is applicable to more than one system.
      3. Existing Peculiar Equipment – Peculiar equipment currently used and managed by the USAF or DoD on a single platform. If another platform becomes a user of the peculiar equipment, it will become ‘common’. Note that SE that becomes common is not automatically moved to management in one of the Product Groups.
      4. Modification of Common Equipment – USAF or DoD common equipment modified to meet the needs of the weapon system (making it peculiar to the weapon system).
      5. Peculiar Commercial Off-the-Shelf (COTS) Equipment – Equipment available on the commercial market that meets technical and logistical requirements for the weapon system that is not currently used or cataloged within the DoD.
      6. Newly Developed Equipment – Equipment designed and manufactured specifically for the weapon system. It is not cataloged, and no other DoD weapon system currently uses or requires the equipment.
   3. The Product Support Manager (PSM) and the appointed SE Manager within the Program Office (PO) oversee the SERD Process. This process establishes the methodology by which the SE Manager manages, coordinates, reviews, and approves SERD documentation. This process also outlines the responsibilities for each stakeholder involved in the SERD Process.
   4. The SERD Process is conducted within the Logistics Management Data System (LMDS). LMDS is the primary electronic tool for routing SERDs through required stakeholders. Instructions on the use of this tool can be found in Attachment 4. A worksheet for use in identifying the program’s SERD reviewers that will need access to LMDS can be found in Attachment 2. Instructions for accessing and registering for LMDS can be found in Attachment 3.
   5. Automatic Test Systems (ATS) are a specific subset of SE. Early engagement with the ATS Weapon System Management Branch (WSMB) alleviates issues later in the program and facilitates a preferred common approach to ATS procurement. Each PO requiring ATS should contact the ATS WSMB at <[AFLCMC.WNA.ATSWeaponSystem@us.af.mil](mailto:AFLCMC.WNA.ATSWeaponSystem@us.af.mil)>. An Integrated Product Team (IPT) shall be assigned to your specific effort and will guide the program through the data requirements needed for the ATS selection analysis and streamline the SERD process. To guide program offices on data requirements, a Test Requirement Document Data Item Description (DI-ATTS-80041A) can be found in Attachment 9 of this process guide.
      1. The following description / information is ATS specific:
         1. An ATS is an instrument or set of instruments controlled through means other than direct, manual input. ATS instrumentation is operated through software commands issued from a system controller utilizing a Test Program Set (TPS). An ATS is an apparatus that performs tests on a device, known as the Unit Under Test (UUT), using automation to quickly perform measurements and evaluate the test results.
         2. This process includes selection of appropriate Automatic Test Equipment (ATE) and does not include the TPS development process. TPS development is the responsibility of the PO.
         3. A formal determination from the ATS Product Group (PG) (AFLCMC/WNA) Weapon System Management Branch is required prior to procurement of ATS, modification of any ATS, or the addition of workload to an ATS.
         4. For more information on the ATS selection process, see the AFLCMC Standard Process for ATS Standardization.
2. **Purpose** 
   1. AFI63-101/20-101, *Integrated Life Cycle Management*, requires programs to coordinate with and receive approval from the Support Equipment and Vehicles (SE&V) PG (AFLCMC/WNZ) or ATS PG on SERDs prior to procurement of system unique SE or ATS. Additionally, programs are required to coordinate SERDs and calibration requirements with the Air Force Metrology and Calibration (AFMETCAL) PG to ensure long term sustainment of the calibration process for applicable devices is assessed. This standard process is designed to guide programs in how to meet these requirements.
      1. Programs not bound by AFI63-101/20-101, *Integrated Life Cycle Management*, are not required to utilize this Standard Process. However, DoDI 5000.91 does require programs to "minimize unique TMDE, tools, and support equipment by using Military Department- or DoD-approved families of TMDE, tools, and support equipment in DoD field and depot operations to the maximum extent possible." This Standard Process is an established methodology that programs may utilize to meet the intent of this DoD-level requirement.
   2. Executing a SERD review is critical to ensuring programs select, design, and procure the optimal SE for the relevant system or munition. Defining the SERD Process is also necessary to ensure AFLCMC has a single process that includes all relevant stakeholders and can define SE requirements.
   3. By ensuring CSE is utilized where possible, the DoD reduces costs associated with original equipment manufacturer development, purchase of small production run assets, and long-term sustainment of the SE/ATS.
   4. This standard process provides the methodology and standard templates for the review and approval of SERD documentation and centers on increasing CSE usage, decreasing SERD review cycle time, improving SERD review quality, and decreasing SERD errors.
3. **Entry/Exit Criteria** 
   1. Entry Criteria. PO anticipates requirements for SE/ATS, to include procurement, modification, or requirements changes (to include additions to UUT requirements).
   2. Exit Criteria.
      1. Contracting Officer Letter detailing SERD Contract Data Requirements List (CDRL) approval/disapproval sent to and acknowledged by contractor (for contractor-created SERDs only).
      2. Consolidated SE Form 603 (see Attachment 6 for form and instructions) documenting the outcomes of all SERD reviews.
      3. Signed SE Form 9 (see Attachment 7 for form and instructions) indicating final SERD disposition distributed to SERD submitter.
4. **Process Workflow and Activities**.
   1. Suppliers, Inputs, Process, Outputs, Customers (SIPOC), Table 1.

**Table 1. SIPOC**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **S**uppliers | **I**nputs | | **P**rocess | **O**utputs | | | **C**ustomers |
| SERD Generation | - PO  - Support Equipment Working Group (SEWG)  - Prime Contractor  - Other Gov’t SERD generator | - SE Requirements  - Maintenance Task Analysis  - Contract Requirements  - MIL-HDBK-300 | | - PO identifies known SE requirements with relevant SE stakeholders (e.g., SEWG)  - Create contract requirement for SERDs  - Conduct Logistics Supportability Analyses as necessary to create Logistics Product Data (LPD) to populate SERDs with accurate information  - SERD generator researches existing SE to meet need | - SERD deliverable  - Supplemental SE requirement information and documentation  - For ATS SERDs, UUT parametric test requirements documentation and existing tester capability documentation | | | - SERD Reviewers |
| SERD Review | - PO SERD Reviewers  - SE&V PG  - ATS PG  - Family of Testers (FoT) Integrated Product Team (IPT)  - ATS Systems Integration Laboratory (SIL)  - AFMETCAL PG  - Using / Training Commands  - Other reviewers as identified by PO | | - SERD deliverable  - Supplemental SE requirement information and documentation  - For ATS SERDs, UUT parametric test requirements documentation and existing tester capability documentation | - SERD is uploaded to LMDS, then reviewed for completeness of data, accuracy, and relevancy  - SERD distributed to reviewers  - SERD reviews conducted by PO stakeholders, SE&V PG or ATS PG, AFMETCAL PG, Using / Training Commands | | - SERD disposition  - Completed SE Form 603  - For ATS: ATS Selection Analysis Report; ATS Determination Package  - For approved peculiar SE (PSE): Peculiar Waiver signed by appropriate PG | - PO  - SERD generator | |
| SERD Final Disposition | - PO  - SEWG | - SERD disposition  - Completed SE Form 603  - For ATS: ATS Selection Analysis Report  - For approved PSE: Peculiar Waiver signed by appropriate PG | | - SE Form 9 completed based on SERD disposition  - Completed SE Form 9 provided to SERD generator; send with Contracting Office Letter for contractor-created SERD  - If disposition is for revision of SERD, SERD generator makes revisions and resubmits SERD based on comments | - Completed Form 9  - Contracting Officer Letter  - Updated SERD | | | - SERD Generator  - PO |

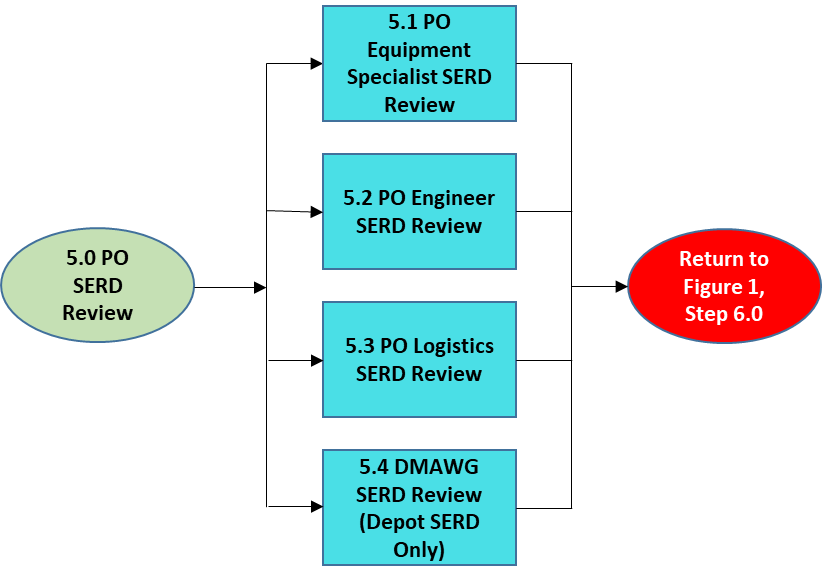
* 1. Process Flowchart. The process flowchart, Figure 1, represents the SERD Process. Step 5.0 PO SERD Review is decomposed into lower-level steps in Figure 2. SERD Process Step 6.2 is decomposed into lower-level steps in Figure 3. The activities included in each step are further defined in Para 4.3, Work Breakdown Structure (WBS).

**Figure 1. Process Flowchart – SERD Process**

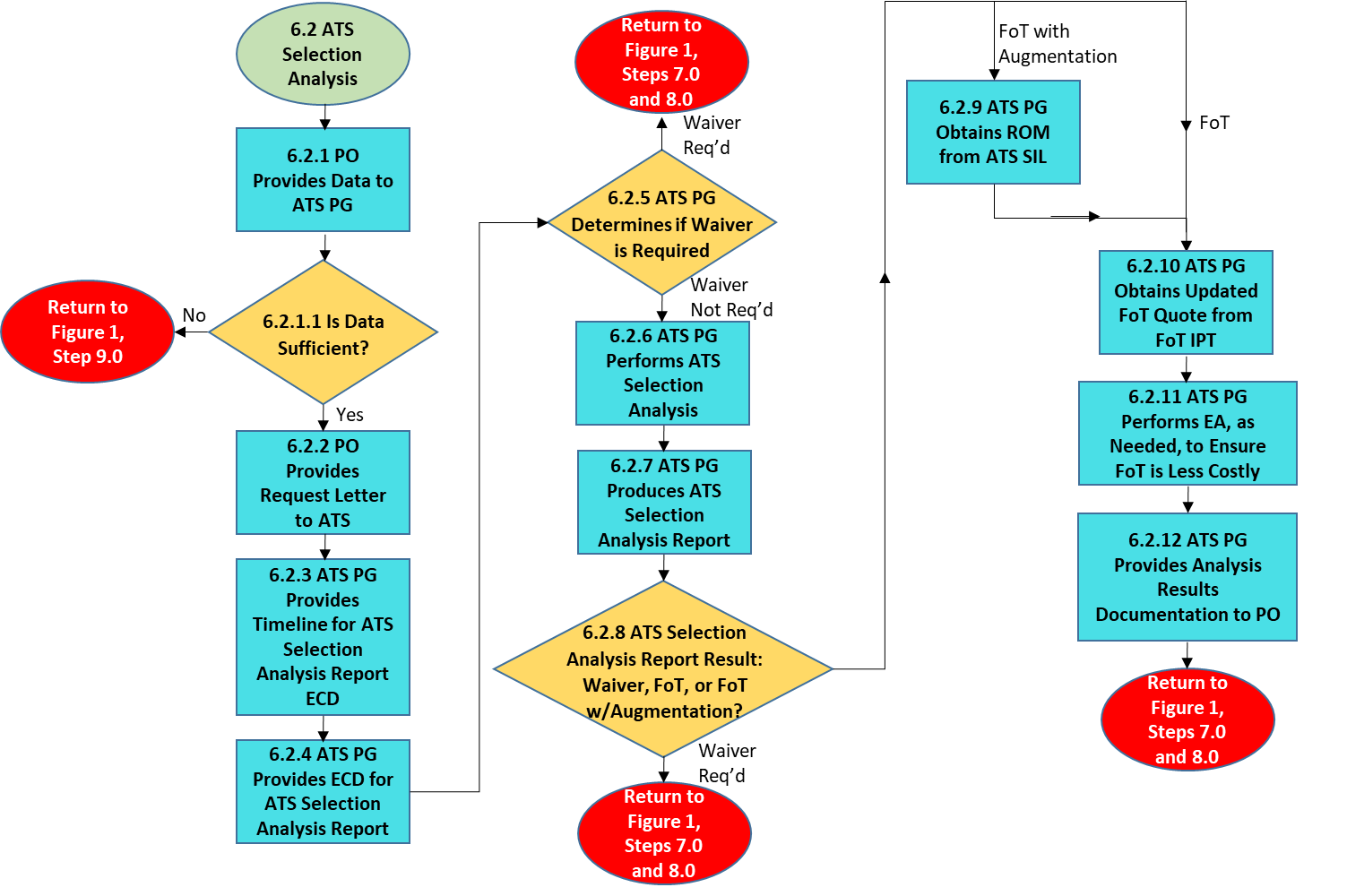
Diagram

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**Figure 2. Process Flowchart – Step 5.0 PO SERD Review**



**Figure 3. Process Flowchart – Step 6.2 ATS PG Selection Analysis**



* 1. Work Breakdown Structure. The WBS, Table 2, provides detail on the flowchart activity boxes. The Microsoft Excel version of the WBS is included as Attachment 1.

**Table 2. Work Breakdown Structure – SERD Process**

|  |  |  |  |
| --- | --- | --- | --- |
| **WBS** | **Activity** | **Description** | **OPR** |
| 1.0 | PO Forms and Convenes SEWG | PO (generally the PSM or SE Manager) forms and convenes a SEWG when program anticipates potential for SE requirements on a system that have not been previously approved via SERD. See Section 4.4 for details on formation of the SEWG.  Establish a SERD dispute resolution hierarchy among the SE Manager, PSM, Program Manager (PM), Program Executive Officer (PEO) and LG (Logistics).  Once established, SEWG convenes to facilitate communication and discussion of known SE/ATS strategy and requirements.  **LMDS:** Complete LMDS SERD Module New Program Setup worksheet (see Attachment 2) and submit to. [AFLCMC.LZSA.SERD@us.af.mil](mailto:AFLCMC.LZSA.SERD@us.af.mil)  Reviewers identified via LMDS SERD Module New Program Setup worksheet register in and access LMDS in accordance with (IAW) instructions in Attachment 3.  **BEST PRACTICE:** Forming the SEWG early in the program (even as early as the Materiel Solution Analysis phase) and utilizing the expertise of stakeholder organizations (like the ATS PG and AFMETCAL PG) can help the program make optimal decisions surrounding SE requirements and strategies; waiting too long reduces the program’s flexibility in adopting common solutions and saving on cost.  Template SEWG Charter can be found at the AFLCMC/LZS Support Equipment SharePoint page (see Section 7.4 for link). | PO SE Manager |
| 2.0 | PO Requires SERD in Request for Proposal (RFP) / Contract | **NOTE:** Step 2.0 is exclusive with Step 3.0; one or the other will be done to create the SERD, but not both.  PO SE Manager develops requirements for generation and delivery of SERD Reports with LSA-070 LPD content and format (see Section 7.3 for information and a link to the AFLCMC Product Support Contract Requirements Tool (PSCRT), which provides specific guidance on generating contractual requirements; see Section 7.4 for a link to the AFLCMC/LZS Support Equipment SharePoint page, which includes a template SERD Contract Data Requirements List DD Form 1423-1).  PO SE Manager obtains input from SEWG on SE/ATS-related RFP requirements and underlying strategy.  For ATS, meeting is held between PO engineers and ATS Standardization IPT engineers to establish UUT requirements expectations and contract requirements; see Attachment 5 for guidelines on UUT requirements data.  Depending on program strategy, SERD requirements may need to be linked to results of relevant Product Support Analyses (e.g., Maintenance Task Analysis).  **BEST PRACTICE:** PO SE Manager conducts advanced planning by developing requirements for contractual deliverables and efforts that will be triggered by SERD approvals (e.g., provisioning data, technical order updates) for use in executing SE Activation as appropriate for the program’s contract strategy (see Section 7.2 for information and a link to the SE Activation Worksheet). These requirements may vary depending on whether the SERD approves common or peculiar support equipment, whether non-recurring engineering and development is required, etc.  **BEST PRACTICE:** consider providing an explanation of SE-related expectations to potential contractors prior to contract award via a pre-award conference or industry days. | PO SE Manager, SEWG |
| 2.1 | PO Leads SE Guidance Conference | After contract award, PO SE Manager holds SE Guidance Conference to ensure the contractor and government share the same understanding of SE-related contractual expectations. See Section 4.5 for details on SE Guidance Conference | PO SE Manager |
| 2.2 | PO Receives SERDs from Prime Contractor | Contractor submits SERDs to PO IAW contractual requirements.  SE Manager retrieves SERDs from PO storage location (e.g., SharePoint site, hard drive location).  Example completed LSA-070 SERD Report can be found at the LZS Support Equipment SharePoint site (see Section 7.4 for link). | PO SE Manager |
| 3.0 | Government Creates and Submits SERD | **NOTE:** Step 2.0 is exclusive with Step 3.0; one or the other will be done to create the SERD, but not both.  Government requiring activity (e.g., field maintainer, PO personnel) identifies a requirement for new SE to support a system (often resulting from the implementation of a new maintenance procedure, an identified deficiency with an existing maintenance procedure, or any other situation that results in the need for SE not already used on the weapon system).  Government requiring activity consults with the program’s SEWG and researches existing SE available to meet this requirement, then creates a SERD using LSA-070 SERD Report (as described in TA-HB-0007) for SERD content and format guidance; for information on access to commercial standards, see Section 7.  Government SERD can be created directly in LMDS via the ‘SE Maintenance’ screen, ‘Create SERD’ tab.  Government requiring activity submits SERD to PO SE Manager.  Example completed LSA-070 SERD Report can be found at the LZS Support Equipment SharePoint site (see Section 7.4 for link). | Government requiring activity |
| 4.0 | SE Manager Creates and Validates Initial SERD Review Package in LMDS | Initial SERD Review Package consists of SERD and SE Form 603 Evaluation Transmittal Form, as well as any other documentation deemed relevant to the SERD Review by the SE Manager.  Each item of SE under consideration must have its own complete SERD Review Package.   * SERD   + UPLOAD: If SERD is not already loaded into LMDS, SE Manager uploads SERD into LMDS IAW instructions in Attachment 4 and verifies that upload was successful.   + VALIDATE: SE Manager evaluates each submitted SERD to ensure compliance with contractual requirements.     - SERDs developed IAW LPD requirements must be reviewed for completeness of information and compliance with data element definitions (as found in SAE-GEIA-STD-0007).     - SE Manager must ensure SERD addresses underlying SE minimum requirements in both technical and qualitative terms.     - Assesses the “SE Non-Proliferation Effort” as described in the SERD for adequacy and compliance with contract requirements; use MIL-HDBK-300 as a guide. * SE Form 603   + Populate SE Form 603 in LMDS via the ‘SE Maintenance’ screen, ‘Form 603’ tab; populate blocks 1 and 3 – 9 with information from the SERD; information may be automatically populated by LMDS depending upon how the SERD was uploaded.   + SE Manager manually enters “TO/RECEIVING OFFICE” information in LMDS, SE Form 603 screen, block 2.   + SE Manager completes SE Form 603 block 10 based on results of SERD validation; **if SERD is deemed not to comply with contract requirements, move immediately to Step 12.0.** * Other Documentation   + Other documentation deemed by the SE Manager to be relevant to the SERD Review (e.g., government requirements document, deficiency report, technical data, drawings, schematics, etc.) can be uploaded and attached to the SERD in LMDS IAW instructions in Attachment 4. | PO SE Manager |
| 5.0 | PO SERD Review | SE Manager selects appropriate PO reviewers in the “Form 603 Approvals” tab of LMDS to conduct internal SERD Review and pushes SERD.  SE Manager must select appropriate PO reviewers (i.e., Equipment Specialist(s) (ES), PO Engineer(s), and PO Logistician(s)) to review the SERD.  For SERDs with a Maintenance Level Function (MLF) of D, the SE Manager must select appropriate Depot Maintenance Activation Working Group (DMAWG) representatives to review the SERD if applicable based on existence of relevant program DMAWG.  Once appropriate PO reviewers have been selected, the SE Manager approves the SERD and saves changes to initiate the review. | PO SE Manager, PO SERD Reviewers |
| 5.1 | PO ES SERD Review | Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  Confirm accurate assignment of Item Category Code (ICC) and adjust if necessary; ICC values are defined in SAE-GEIA-STD-0007, and SE and ATE definitions are included in Section 9.1 of this process.  Validate SE requirements described in SERD Section 1 (Functional Analysis); confirm requirement is accurate, complete, and valid for the system.  Ensures SERDs are allocated to the appropriate level of maintenance (as shown via the MLF field).  Evaluates and updates (if necessary) recommended Source, Maintenance, and Recoverability (SMR) Code from SERD.  Assesses if the recommended item is an appropriate solution to the operational, maintenance, test, or repair requirements.  When reviewing SERDs for peculiar equipment, determines if a similar item exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of the recommended PSE (for commonality research methodology, reference MIL-HDBK-300).  Determine requirement for nuclear certification IAW AFI 63-125, *Nuclear Certification Program*, and populate on SE Form 603 block 11.  PO ES interrogates D043 or FED LOG / PUB LOG (see MIL-HDBK-300 for more details) to locate any initial data on the equipment and uploads a screenshot of the D043 screen (or other relevant supply data system) to the SERD in LMDS IAW instructions in Attachment 4.  For SERDs that reference existing technical manuals, review to determine accuracy and consistency between the SERD and referenced manual.  Identifies potential proprietary issues that may impact fielding / sustainment of the proposed SE.  Reviews recommended SE quantities and production lead times (if applicable depending on SE acquisition strategy) for sufficiency and provides assessment in “Comments” box on “Form 603 Approvals” tab.  Assesses whether the SERD should be sent to the ATS PG or SE&V PG (based on the type of item recommended) and selects the appropriate option in the “Form 603 Approvals” tab.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | PO ES |
| 5.2 | PO Engineer SERD Review | Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  Validate SE requirements described in SERD Section 1 (Functional Analysis); confirm requirement is accurate, complete, and valid for the system.  Ensure proposed SE meets contract and specification requirements to perform its intended maintenance or operational task on relevant system(s).  Ensures environmental and physical constraints, such as size, weight, power, temperature and humidity, and interfaces, have been factored into SE criteria and selection as required.  Works with Center-level or PO System Safety functional and Acquisition Environmental office to determine if equipment is safe to operate by complying with all Environmental, Health, and Safety regulations and guidance; for assistance, contact the Environment, Safety, and Occupational Health (ESOH) Support Workflow at [AFLCMC.WNVV.PESHEESOHP2@us.af.mil](mailto:AFLCMC.WNVV.PESHEESOHP2@us.af.mil).  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | PO Engineer |
| 5.3 | PO Logistics SERD Review | Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  Logistics review can be conducted by any combination of logisticians within the PO, including the SE Manager, as appropriate.  Assesses the proposed SE for compliance with the program’s overall Product Support Strategy and any logistics-related requirements tied to the 12 Product Support elements.  Identifies potential proprietary issues that may impact fielding / sustainment of the proposed SE.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | PO Logistics Reviewer(s) |
| 5.4 | DMAWG SERD Review | Reviews SERDs with a MLF of D (which indicates that the SERD is for depot SE) and for which a relevant program DMAWG exists.  Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  Validate SE requirements described in SERD Part I (Functional Analysis); confirm requirement is accurate, complete, and valid for the system.  Reviews Depot Level SERDs (as designated by MLF) & determines/identifies if a similar item already exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of acquiring the recommended SE (for commonality research methodology, reference MIL-HDBK-300).  Ensures SERDs are allocated to the appropriate level of maintenance (as shown via the MLF field).  Coordinates SERD review through the applicable Maintenance Activation Planning Team (MAPT).  Determines if quantities and production lead times (if applicable depending on SE acquisition strategy) are compatible with present and planned depot workloads.  Provides quantity and justification when increasing or decreasing the quantity recommended by the contractor.  Completes relevant Authorizations Planning Table in LMDS via the “Required Quantities” tab.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | DMAWG Representative |
| 6.0 | SERD for SE or ATS? | Distribution of SERD varies depending upon the SERD’s ICC, which is validated by the PO ES in Step 5.1.  SERDs with ICC of 1, 2, or 3 are for common or peculiar ATE, and therefore are distributed to the ATS PG.  SERDs with ICC of 8, 4, or N are for common or peculiar tools; tools are not SE, and thus fall outside requirements of the SERD Process. Therefore, SERDs for tools move directly to Step 10.0 unless the PO determines additional reviews are required.  SERDs with ICC of 7, M, D, H, 5, 6, G, P, or R, are for common or PSE (other), test equipment, or handling equipment, and therefore are distributed to the SE&V PG.  PO ES makes final selection for PO for which PG the SERD should be routed to.  When PO review is complete, SE Manager clicks the appropriate ‘Route Forward’ button on the ‘Form 603 Approvals’ tab to assign the SERD to the PG designated by the PO ES. | PO SE Manager, PO ES |
| 6.1 | SE&V PG SERD Review | Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  When reviewing SERDs that recommend SE not currently used within the DoD, determines if similar SE already exists in USAF or DoD (or may be modified) that will satisfy the requirement in lieu of the recommended PSE based on the underlying SE requirement (typically described in the Functional Analysis).  When SERD recommends SE tied to human systems, the SE&V PG coordinates the SERD review with subject matter experts in Human Systems Division (AFLCMC/WNU).  When reviewing SERDs that recommend items managed by SE&V PG, advises on supportability of proposed equipment.  When reviewing SERDs that recommend items managed by SE&V PG, identify assigned SE&V ES in “Comments” box of “Form 603 Approvals” tab in LMDS.  When reviewing SERDs that recommend items managed by SE&V PG and the 404th Supply Chain Management Squadron, distribute SERD Review Package to assigned Item Manager (IM) (or IM lead) to complete Section 13 of the “Form 603” tab in LMDS.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.  If SE&V PG concurs with a SERD proposing an item that is not in the SE&V PG portfolio, then SE&V PG generates a Peculiar Waiver signed by SE&V PG Director or Senior Materiel Leader through LMDS to add to the SERD package. | SE&V PG |
| 6.2 | ATS Selection Analysis | Begin sub-process for ATS Selection Analysis. | PO, ATS PG |
| 6.2.1 | PO Provides Data to ATS PG | SERD Package, including UUT Requirements Data, is provided to the ATS Standardization IPT for sufficiency review via LMDS. | PO SE Manager |
| 6.2.1.1 | Is Data Sufficient? | Determines whether the level of data provided in the SERD is sufficient to complete ATS Selection Analysis; missing information needed to complete analysis must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  If data is deemed insufficient, ATS PG completes “Form 603 Approvals” tab in LMDS to indicate non-concurrence with appropriate justification and process is halted until sufficient requirements are obtained and resubmitted by the PO. | ATS PG Standardization IPT Engineers |
| 6.2.2 | PO Provides Request Letter to ATS | If the data is sufficient, the PO completes an ATS selection analysis request memo in LMDS and sends it to the ATS PG. | PO SE Manager |
| 6.2.3 | ATS PG Provides Timeline for ATS Selection Analysis Report Estimated Completion Date (ECD) | ATS PG delivers official response detailing timeline for determination of analysis ECD. | ATS PG Standardization IPT |
| 6.2.4 | ATS PG Provides ECD for ATS Selection Analysis Report | ATS PG provides ECD for report completion. | ATS PG Standardization IPT |
| 6.2.5 | ATS PG Determines if Waiver is Required | ATS PG may determine during analysis process that a Peculiar Waiver is appropriate.  In this case, ATS PG completes “Form 603 Approvals” tab in LMDS to indicate concurrence.  If ATS PG concurs with a SERD proposing an item that is not a FoT, then ATS PG generates a Peculiar Waiver signed by ATS PG Director through LMDS to add to the SERD package. | ATS PG Standardization IPT |
| 6.2.6 | ATS PG Performs ATS Selection Analysis | ATS Standardization engineer performs an analysis of the data, gauging gaps between the test requirement and tester families and documenting the results in the report.  **Note:** In some cases, the PO may utilize a contractor to develop the analysis when data cannot be procured; in these cases, the ATS Standardization IPT is still the final coordination authority on any contractor-developed analyses. | ATS  Standardization Engineer, Commissioned contractor (in some cases) |
| 6.2.7 | ATS PG Produces ATS Selection Analysis Report | ATS Standardization IPT uploads ATS Selection Analysis Report to LMDS to deliver to PO SE Manager for review. | ATS PG Standardization IPT |
| 6.2.8 | ATS Selection Analysis Report Result: Waiver, FoT, or FoT with Augmentation? | **Outcome 1: Peculiar Waiver**  Approve SERD and issue Peculiar Waiver signed by ATS PG Director.  In this case, ATS PG Standardization IPT completes “Form 603 Approvals” tab in LMDS to indicate concurrence.  If ATS PG concurs with a SERD proposing an item that is not a FoT, then ATS PG generates a Peculiar Waiver signed by the ATS PG Director and adds it to the SERD package.  **Outcome 2: FoT Solution**  Recommend FoT solution.  For Outcome 2, move to Step 6.2.10.  **Outcome 3: FoT with Augmentation Solution**  Recommend augmenting a FoT solution to achieve compatibility with program’s requirements.  In this case, ATS PG Standardization IPT provides ATS Selection Analysis Report to ATS System Integration Lab for a rough order of magnitude (ROM) cost estimate.  For Outcome 3, move to Step 6.2.9. | ATS PG Standardization IPT |
| 6.2.9 | ATS PG Obtains ROM from ATS SIL | ATS SIL completes a ROM quote for an augmentation to cover the capabilities gap between the test requirement and the FoT configuration identified in the selection analysis report.  ATS SIL delivers quote to the IPT for the selected FoT. | ATS SIL, Commissioned contractor (in some cases) |
| 6.2.10 | ATS PG Obtains Updated FoT Quote from FoT IPT | ATS PG requests and receives a quote for the use of the selected FoT that includes the ATS SIL ROM quote (if applicable), programmatic costs, spares, and the required FoT core from the IPT for the selected FoT.  **NOTE:** ATS costs, to include FoT augmentation (if necessary) and related TPS development, will be the requirement of the requiring PO to fund. | ATS PG, FoT IPT |
| 6.2.11 | ATS PG Performs Economic Analysis (EA), as Needed, to Compare Costs of non-Standard ATS to FoT ATS | If necessary, ATS PG executes an EA to compare costs of the recommended solution to a unique solution so that it can be determined whether the recommendation is cost effective. Cost comparisons can also be completed if a waiver is sought due to significant cost differential between a FoT solution and a non-standard solution.  **Note:** A limited or modified EA may be employed, as appropriate, at the direction of the ATS PG Director and with concurrence of the PO. At minimum, the EA should cover cost and schedule impacts of the testers in question. | ATS PG |
| 6.2.12 | ATS PG Provides Analysis Results Documentation to PO | The Determination Memo and all associated documentation is signed and delivered to the PO via LMDS for further action. | ATS PG |
| 7.0 | Using / Training Command SERD Review | Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  Validate SE requirements described in SERD Part I (Functional Analysis); confirm requirement is accurate, complete, and valid for the system.  Reviews the SERD package to determine if the recommended item is an appropriate solution to the operational, maintenance, test, or repair requirements.  When reviewing SERDs that recommend peculiar equipment, determines if a similar item exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of the recommended PSE (for commonality research methodology, reference MIL-HDBK-300).  Checks alerts and safety of flight data for applicable SERDs.  Determines if quantities and production lead times (if applicable depending on SE acquisition strategy) are compatible with present and/or planned workloads and missions.  Provides quantity and justification when altering the quantity recommended by the contractor.  Completes relevant Authorizations Planning Table in LMDS via the “Required Quantities” tab.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | Using Command Representative, Training Command Representative |
| 8.0 | AFMETCAL PG SERD Review | Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.  When reviewing SERDs for peculiar equipment, determines if a similar item exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of the recommended PSE (for commonality research methodology, reference MIL-HDBK-300).  Evaluates whether the SERD-recommended item will require calibration.  Identifies associated data that may need to be purchased (e.g., Calibration Measurement and Requirement Summaries (CMRS)).  Identifies other SE or test, measurement, and diagnostic equipment (TMDE) that may be required to support the SERD-proposed SE.  Evaluates whether the SERD-recommended item has sufficient measurement range and accuracy to support SERD functional analysis requirements.  Identifies potential proprietary issues that may impact fielding / sustainment of the proposed SE.  Determines when performance specifications can’t be verified (i.e., specification beyond measurement capability) and the potential impact.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | AFMETCAL PG |
| 9.0 | Owning Org SERD Review | If the SERD recommends cataloged SE already utilized by another USAF / DoD weapon system (other than the SE&V PG, or ATS PG), SE Manager contacts that SE’s current life cycle management authority (note that contact will generally have to happen via email rather than LMDS for this step).  Cataloged SE’s life cycle management authority can generally be identified via that SE’s assigned ES (which can often be located via FLIS data, including via the [Stock Control System](https://scsweb.csd.disa.mil/smsweb/)).  For SE utilized by another service, identify Primary Inventory Control Activity and Secondary Inventory Control Activity information associated with National Stock Number.  SE Manager notifies SE’s owning organization of the program’s intent to become a user of the SE, gather information on the current state of the SE (e.g., available tech data, repair/procurement contracts that are in place, obsolescence concerns, etc.), and to plan for implications of adding an additional user.  SE Manager notates results of communication and decision with the owning organization in the LMDS “Form 603 Approvals” screen. | PO SE Manager |
| 10.0 | Additional Reviewers SERD Review | Any additional reviewer identified for a specific program completes review of SERD.  Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD. | Additional Reviewers (as identified by individual programs) |
| 11.0 | SERD Reviews Drive Need for SERD Changes? | When a reviewer disapproves a SERD, or when all SERD reviewers complete their review, SERD Package is returned to the PO SE Manager for final disposition.  If any SERD reviewer disapproves the SERD Package, then the SERD review is halted, and control is returned to the PO SE Manager.  SE Manager reviews the current SERD Package (including attachments) and comments that were submitted to determine how to disposition the SERD Package.  If SERD Package requires changes before final disposition can be determined, proceed to Step 12.0.  If SERD Package does not require changes and can receive final approval or disapproval, proceed to Step 14.0. | PO SE Manager |
| 12.0 | SE Manager Generates Comment Resolution Matrix (CRM) from SERD Review Comments | PO SE Manager populates CRM in LMDS based on SERD reviewer comments with changes that need to be made to the SERD. | PO SE Manager |
| 13.0 | PO Completes and Distributes SE Form 9 and CRM to SERD Generator | SE Manager completes SE Form 9 in LMDS to reflect disapproval with comments.  **For Contractor-Created SERDs:**  If SERD was created and submitted by contractor, generate Contracting Officer Letter, and deliver it, along with completed SE Form 9 and CRM (exported from LMDS), to contractor.  Return to Step 2.2  **For Government-Created SERDs:**  Extract completed SE Form 9 and CRM and deliver to government requiring activity.  Return to step 3.0 | PO SE Manager |
| 14.0 | PO Completes and Distributes Form 9 | SE Manager completes SE Form 9 in LMDS to reflect final approval or disapproval of SERD Package.  Final disposition of SERD is approved by PO-designated signatories (to include Program Manager, SE Manager, and Engineer representation) via the “Form 9 Approvals” tab in LMDS.  **For Contractor-Created SERDs:**  If SERD was created and submitted by contractor, generate Contracting Officer Letter, and deliver it, along with completed SE Form 9 (exported from LMDS), to contractor.  If SERD is being approved, PO representatives complete SE Form 9, Blocks 15 and 16, by indicating which deliverables and activities pertaining to the SERD-approved SE are required as a result of SERD approval (for initial delivery or update) and on contract; for required deliverables listed as being on contract, a contract reference must be included (e.g., CDRL Number, Statement of Work (SOW) paragraph, Contract Line Item Number).  **For Government-Created SERDs:**  Extract completed SE Form 9 and deliver to government requiring activity.  **BEST PRACTICE:** complete SE Activation Worksheet (see Section 4.6) for SERD-approved SE to ensure it is fielded and sustained successfully. | PO SE Manager |

* 1. Support Equipment Working Group
     1. The SEWG is a collection of stakeholders and subject matter experts (see para. 4.4.8) involved in the identification, review, procurement, management, and sustainment of a system’s SE/TMDE and ATS.
     2. SEWG participants represents the interests and views of stakeholders from different sectors of the USAF and DoD community and have a vested interest in the results of the SERD process, as well as serves to impact the system’s SE management strategy.
     3. The SEWG maintains and strengthens communication lines to share information to properly capture equipment requirements across all phases of the acquisition life cycle including early in the development of the strategy and resolves issues as equipment is fielded and sustained.
     4. SEWG should be established during the Materiel Solution Analysis phase of the Acquisition Life Cycle as the SE Management Strategy is developed.
     5. SEWG serves as the venue for resolving disputes amongst program SE stakeholders, clarifying ambiguities, addressing SE specification concerns, and addressing questions documented during the SERD Process review.
        1. In the event of a dispute between the PO and the SE&V PG or ATS PG regarding the rejection of recommended peculiar SE, the PO must conduct a gap analysis (to include a cost benefit analysis if appropriate) to justify the use of the alternate SE and provide rationale on the requirements the alternate SE satisfies that the existing SE does not meet.
        2. The SE&V PG or ATS PG makes the final determination to accept or reject the alternate SE recommendation unless, after the dispute has been raised to the PEO level, the decision is overturned by the PO’s PEO.
     6. The SEWG is governed by a charter which states the scope of work, stakeholders and subject matter experts called out by office symbol, voting members, roles and responsibilities, goals, and milestones of the SEWG.
     7. Generally, the SEWG is co-chaired by the USAF’s PO SE Manager and a representative from the defense contractor’s SE program.
     8. The program’s SEWG shall include, at a minimum, the following USAF representatives:
        1. PO SE Manager or Lead Logistician dependent on how PO is organized.
        2. PO Engineer
        3. PO ES
        4. PO Chief Developmental Tester/Test Manager (advisory member if required for needed SE testing)
        5. DMAWG Representative (if requirements for depot SE are anticipated)
        6. MAPT Representative (if requirements for depot SE are anticipated)
        7. Using / Training Command Representative(s) (to ideally include field users / representatives)
        8. SE&V PG Representative (contact [Robins.WN-SEV.NewWork@us.af.mil](mailto:Robins.WN-SEV.NewWork@us.af.mil) to request SE&V PG participation)
        9. ATS PG Representative (if requirement for ATS is anticipated) (contact [wralc.csw.ats.frnoff@us.af.mil](mailto:wralc.csw.ats.frnoff@us.af.mil) to request ATS PG participation)
        10. AFMETCAL PG Representative (contact [afmetcal.serd@us.af.mil](mailto:afmetcal.serd@us.af.mil) to request AFMETCAL PG participation)
        11. Nuclear Certification Manager (if applicable)
        12. SCMS IM Representative (if applicable, based on whether AFSC SCMS IMs are assigned to program’s SE items)
  2. Support Equipment Guidance Conference
     1. SE Guidance Conference is to be held by the PO with the Prime Contractor recommend within 60 days after award of a contract that includes SE-related requirements.
     2. Ensure SE Guidance Conference does not entail any changes to the contract requirements unless issued by a government contracting officer.
     3. SEWG members can be included in the SE Guidance Conference as deemed appropriate by the SE Manager.
     4. Primary purpose is to go over the contractual requirements for SE-related efforts and the SERD Process with the contractor and other SE stakeholders to ensure a shared understanding of expectations.
     5. Sources of SE requirements, such as Product Support Analyses (e.g., Maintenance Task Analysis) or other requirements documents, should be highlighted and clearly connected to the SERD requirement.
     6. SERD deliverable content expectations should be clearly communicated by the government, highlighting compliance with LPD (SAE-GEIA-STD-0007) data attribute definitions (as required by contract) and the expectation that SERDs will clearly and completely describe underlying requirements that need to be met by proposed SE.
     7. The SE Guidance Conference should be used to establish the cadence of SERD submittals, notifications to revise and resubmit, approval notifications, and the expectation for follow-on tasks and data deliverables (e.g., technical orders, provisioning data, cataloging, etc.) resulting from SERD approvals as dictated by contract language / requirements.
  3. Support Equipment Activation
     1. The Support Equipment Activation Worksheet (see Section 7.2 for link) consists of actions that must take place after a SERD is approved to ensure that selected SE is successfully developed, fielded, and sustained.
     2. The Support Equipment Activation Worksheet is designed to be completed by the SE Manager for each individual SE item that is approved via a SERD; the tasks from the worksheet that are required will be dependent upon the type of SE that has been approved (e.g., peculiar vs. common, developmental vs. COTS).
     3. Completing SE Activation and retaining the worksheets will aid the program in understanding historical efforts that have been made for each SERD-approved item.
     4. Note that many of the SE Activation Worksheet tasks are required by policy or regulation.

1. **Measurement.**
   1. The SERD Process will be measured (Table 3) by tracking overall project time from the start of the PO review (step 5.0) through the completion of the Using / Training Command, AFMETCAL PG, and additional reviewer SERD reviews (steps 7.0, 8.0, and 9.0). The cycle time for all the SERD reviewers can be tracked within LMDS.

**Table 3. SMART Metric – SERD Process**

|  |  |  |
| --- | --- | --- |
|  | **Metric Attribute** | **Description** |
| **Administrative Info** | **APD Ref No** |  |
| **Process Name** | Support Equipment Recommendation Data (SERD) Process |
| **Process Lead** | Michael Philpot, AFLCMC/LZSA |
| **Metric POC** | Michael Philpot, AFLCMC/LZSA |
| **Date Completed** |  |
| **S** | **Metric Name / Description** | SERD Process Time – on a per SERD basis, gauge the time required to complete the SERD Process through all reviewers and obtain final disposition. |
| **Calculation** | Count SERDs in a given month that reach final approval or disapproval; for each completed SERD, subtract closure date from start date to determine the number of working days for SERD approval. |
| **Business Rules** | Measurement time starts when SERD initiates internal PO review and ends when AFMETCAL PG, the Using / Training commands, and any additional reviewers complete SERD reviews. |
| **M** | **Data Source** | LMDS tracks time taken per SERD for each phase of the review. |
| **A** | **Process Owner** | AFLCMC/LZSA |
| **Decision Maker** | AFLCMC/LZSA |
| **Review Forum / Governance Body** | S&P; AFLCMC/LZS |
| **Target** | For SE categorized as ATS, target 90 business days to complete SERD reviews. For non-ATS SERDs, target 45 business days to complete SERD reviews. |
| **Thresholds (R/Y/G)** |  |
| **Baseline Performance** | N/A; this is the initial implementation of this process. Metrics will be adjusted if needed as data is collected. |
| **R** | **Enterprise Impact / Process Purpose** | SERDs are a requirement for AFLCMC programs per AFI63-101/20-101 and involve multiple stakeholders and reviews in order to ensure the program selects the optimal SE. This Standard Process will bring clarity and efficiencies to the SERD Process, allowing programs to complete SERD reviews more quickly and with greater confidence in the result. |
| **LCMC Obj** | N/A |
| **T** | **Baseline Date** | N/A; baseline will be established after process is implemented. |
| **Review Frequency** | Quarterly |
| **Update Frequency** | Monthly |

1. **Roles and Responsibilities.**
   1. AFLCMC/LZS
      1. Maintains and coordinates any changes to this process.
      2. Leads and/or assigns personnel to work on any process improvement and change events related to this process.
      3. Provides training on this process.
   2. Program Offices
      1. Owns the contract for SERD requirements, including the CDRL submissions and approval/disapproval responses to the Prime Contractor.
      2. Identifies contracting officer(s) that will be responsible for the contracting actions required to support SERD processing.
      3. If necessary, executes contracting actions to obtain prime contractor’s assistance in performance of test requirements analysis necessary to design the augmentation for a chosen FoT.
      4. If necessary, provides EA comparing any preferred alternative ATS solutions to ATS PG’s recommended solution to ensure cost effectiveness.
      5. Product Support Manager
         1. Identifies a SE Manager within the PO who is assigned the responsibility of SE management for the system when the program anticipates potential for new SE requirements on a system that have not been previously approved via a SERD.
      6. Support Equipment Manager
         1. As part of standing up SEWG, establishes contact with ATS PG when an ATS requirement is apparent for oversight and determination.
         2. Ensures SERD is approved, and Peculiar Waiver is obtained from SE&V PG Director, SE&V PG Senior Materiel Leader, or ATS PG Director prior to procurement of peculiar (system unique) SE or non-FoT ATS.
         3. Lead SEWG in planning the program’s execution of the SERD Process and establishing a SERD dispute resolution hierarchy among the SE Manager, PSM, PM, and the PEO.
         4. Develops requirements for generation and delivery of SERDs, to include performance of relevant Product Support Analyses (e.g., Maintenance Task Analysis) when appropriate (see Section 7.3 for information on and link to the PSCRT for specific guidance on generating contractual requirements).
         5. Works with SEWG to obtain input on SE/ATS-related RFP requirements and underlying strategy.
         6. When ATS requirements are anticipated, facilitates meeting between PO engineers and ATS Standardization IPT engineers to establish UUT requirements expectations and contract requirements; see Attachment 5 for guidelines on UUT requirements data.
         7. Develops requirements for logistics support and other deliverables required to conduct SE Activation (see Sections 4.6 and 7.2) after SERD approval (e.g., SE procurement, provisioning technical data, technical order updates) as appropriate for the program’s contract and product support strategies.
         8. Conducts and manages the SERD process by establishing document controls, consolidating, and evaluating comments from the SEWG stakeholders, ensuring all reviewing activities coordinate on the SERD package, and jointly resolving any conflicting recommendations prior to SERD approval.
         9. After contract award, holds SE Guidance Conference to ensure the contractor and government share the same understanding of SE-related contractual expectations. See Section 4.5 for details on SE Guidance Conference.
         10. For contractor-submitted SERDs, SE Manager retrieves SERDs from PO storage location (e.g., SharePoint site, hard drive location). Uploads SERD into LMDS IAW instructions in Attachment 4 and verifies the upload was successful.
         11. Reviews SERDs developed IAW LPD requirements for completeness of information and compliance with data element definitions (as found in SAE-GEIA-STD-0007; see Section 7.5), this includes contract requirements. During review ensures the SERD addresses SE minimum requirements in both technical and quantitative terms, ensuring that the SERD and associated documentation provides all necessary test requirement data to allow for sufficient analysis of the test requirements by ATS PG. During review uploads other documentation deemed relevant to the SERD review (e.g., government requirements document, deficiency report, technical data, drawings, schematics, etc.) in LMDS.556266
         12. Creates / validates SE Form 603 in LMDS for each SERD (see Attachment 6 for blank form).
         13. Identifies appropriate PO reviewers (PO ES, PO Engineer, PO Logistician) to conduct internal SERD Review and distributes SERD via LMDS for review.
         14. For Depot-level SE, identifies DMAWG representative to conduct SERD review and distributes SERD via LMDS for review.
         15. Reviews the current SERD Package (including attachments) and comments, approvals, and disapprovals that were submitted in order to provide final adjudication and determine how to disposition the SERD Package.
         16. Facilitates the resolution of any SE recommendation disconnects (e.g., substitutes proposed by a reviewer) through appropriate channels prior to final disposition of SERD.
         17. Populates CRM based on SERD reviewer comments with changes that need to be made to the SERD.
         18. Completes SE Form 9 in LMDS to reflect approval, disapproval with comments, or a requirement to revise and resubmit the SERD (see Attachment 7 for blank form).
         19. For contractor-created SERDs, works with contracting officer to generate Contracting Officer Letter with attached SE Form 9 (and CRM if applicable) to be transmitted to contractor.
         20. For Government-Created SERDs, extracts completed SE Form 9 and delivers to government requiring activity.
         21. BEST PRACTICE: Completes SE Activation Worksheet for each SERD-approved SE item (see Sections 4.6 and 7.2).
      7. Program Office Equipment Specialist or Designated Representative
         1. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Approvals” tab within LMDS.
         2. Confirm accurate assignment of ICC and adjust if necessary; ICC values are defined in SAE-GEIA-STD-0007, and SE and ATE definitions are included in Section 9.1 of this process.
         3. Validate SE requirements described in SERD Section 1 (Functional Analysis); confirm that requirement is accurate, complete, and valid for the system.
         4. Evaluates and updates (if necessary) recommended SMR Code from SERD.
         5. Assesses if the recommended item is an appropriate solution to the operational, maintenance, test, or repair requirements.
         6. When reviewing SERDs for peculiar equipment, determines if a similar item exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of the recommended PSE (for commonality research methodology, reference MIL-HDBK-300).
         7. Indicate requirement for nuclear certification IAW AFI 63-125, *Nuclear Certification Program*, and notate on SE Form 603, block 11.
         8. PO ES interrogates D043 (or other relevant supply system) to locate any initial data on the equipment and uploads a screenshot of the D043 screen to the SERD in LMDS IAW instructions in Attachment 4.
         9. For SERDs that reference existing technical manuals, review to determine accuracy and consistency between the SERD and referenced manual.
         10. Reviews recommended SE quantity for adequate supply and provides assessment in “Comments” box on “Form 603 Approvals” tab in LMDS.
         11. Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
         12. For approved SERDs with new, peculiar equipment, works with SE Manager to identify appropriate ES on completed SE Form 9, block 13.
         13. For approved SERDs, aids the SE Manager in completing the Form 9 and identifying relevant requirements to facilitate SE Activation (see Sections 4.6 and 7.2).
      8. Program Office Engineer
         1. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.
         2. Validate SE requirements described in SERD Section 1 (Functional Analysis); confirm that requirement is accurate, complete, and valid for the system.
         3. Ensure proposed SE meets contract and specification requirements to perform its intended maintenance or operational task on relevant system(s).
         4. Ensures that environmental and physical constraints, such as size, weight, power, temperature and humidity, and interfaces, have been factored into SE criteria and selection as required.
         5. Works with Center-level or PO System Safety functional and Acquisition Environmental office to determine if equipment is safe to operate by complying with all Environmental, Health, and Safety regulations and guidance. For assistance, contact the ESOH Support Workflow at [AFLCMC.WNVV.PESHEESOHP2@us.af.mil](mailto:AFLCMC.WNVV.PESHEESOHP2@us.af.mil).
         6. Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
         7. For approved SERDs, aids the SE Manager in completing the Form 9 and identifying relevant requirements to facilitate SE Activation.
      9. Program Office Logistics Manager
         1. Logistics review can be conducted by any combination of logisticians within the PO, including the SE Manager, as appropriate.
         2. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.
         3. Assesses the “SE Non-Proliferation Effort” as described in the SERD for adequacy.
         4. Assesses the proposed SE for compliance with the program’s overall Product Support Strategy and any logistics-related requirements tied to the 12 Product Support elements.
         5. Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
      10. Depot Maintenance Activation Working Group Representative as Applicable
          1. Reviews SERDs with a MLF of D (which indicates that the SERD is for depot SE).
          2. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.
          3. Validate SE requirements described in SERD Section 1 (Functional Analysis).
          4. Reviews Depot Level SERDs (as designated by MLF) & determines/identifies if a similar item already exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of acquiring the recommended SE (for commonality research methodology, reference MIL-HDBK-300).
          5. Coordinates SERD review through the applicable MAPT.
          6. Ensures allocation of SERDs to the appropriate level of maintenance (as shown via the MLF field).
          7. Determines if quantities and production lead times (if applicable based on SE acquisition strategy) are compatible with present and planned depot workloads.
          8. Provides quantity and justification when increasing or decreasing the quantity recommended by the contractor.
          9. Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
   3. Support Equipment & Vehicles Product Group (AFLCMC/WNZ)
      1. Participates in program SEWGs as necessary to provide SE expertise in generation of program’s SE strategy, requirements, and SERD Process plan.
      2. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.
      3. When reviewing SERDs that recommend SE not currently used within the DoD, determines if similar SE already exists in USAF or DoD (or may be modified) that will satisfy the requirement in lieu of the recommended PSE based on the underlying SE.
      4. When SERD recommends SE tied to human systems, the SE&V PG coordinates the SERD review with subject matter experts in Human Systems Division (AFLCMC/WNU).
      5. When reviewing SERDs that recommend items managed by SE&V PG, advises on supportability of proposed equipment.
      6. When reviewing SERDs that recommend items managed by SE&V PG, identify assigned ES in SE Form 603, block 14A “Comments” field.
      7. When reviewing SERDs that recommend items managed by SE&V PG, distribute SERD Review Package to assigned IM to complete Section 13 of the SE Form 603 via the “Approvals” tab in LMDS.
      8. Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
      9. If SE&V PG concurs with a SERD proposing an item that is not in the SE&V PG portfolio, then SE&V PG generates a Peculiar Waiver signed by the SE&V Director or Senior Materiel Leader and adds it to the SERD package.
   4. Automatic Test Systems Product Group (AFLCMC/WNA)
      1. Evaluates requirements data to determine if sufficient for analysis.
      2. Performs selection analysis to determine an appropriate ATS solution that is, to the maximum extent, common.
      3. Assists PO in developing an EA, as necessary, to ensure recommended solution is cost effective.
      4. Provides a determination memo recommending the ATS solution, which is identified in the analysis.
      5. Family of Testers IPT provides a ROM to the ATS Standardization IPT compiling the ATS SIL equipment ROM, and all necessary programmatic costs associated with accepting the new workload.
   5. Automatic Test Systems – Systems Integration Laboratory
      1. Provide a ROM to the FoT IPT that covers capability gaps identified in the selection analysis report provided by ATS PG.
      2. Ensure as much commonality as possible when considering instrumentation for use in augmentation.
   6. Using and Training Commands
      1. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.
      2. Validate SE requirements described in SERD Section 1 (Functional Analysis).
      3. Reviews the SERD package to determine if the recommended item is an appropriate solution to the operational, maintenance, test, or repair requirements.
      4. When reviewing SERDs for peculiar equipment, determines if a similar item exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of the recommended PSE (for commonality research methodology, reference MIL-HDBK-300).
      5. Checks alerts and safety of flight data for applicable SERDs.
      6. Determines if the quantities and lead times (if applicable depending on SE acquisition strategy) are compatible with present and/or planned workloads and missions.
      7. Provides quantity and justification when altering the quantity recommended by the contractor.
      8. Completes “Form 603 Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
   7. Air Force Metrology and Calibration Product Group (AFLCMC/WNM)
      1. Determines whether the level of data provided in the SERD is sufficient for an adequate SERD review; missing information needed to complete review must be documented in “Comments” box of “Form 603 Approvals” tab within LMDS.
      2. When reviewing SERDs for peculiar equipment, determines if a similar item exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of the recommended PSE.
      3. Evaluates whether the SERD-recommended item will require calibration.
      4. Identifies associated data that may need to be purchased (e.g., CMRS).
      5. Identifies other SE or TMDE that may be required to support the SERD-proposed SE.
      6. Evaluates whether the SERD-recommended item has sufficient measurement range and accuracy to support SERD functional analysis requirements.
      7. Identifies potential proprietary issues that may impact fielding / sustainment of the proposed SE.
      8. Determines when performance specifications cannot be verified (i.e., specification beyond measurement capability) and the potential impact.
      9. Completes “Approvals” tab in LMDS to indicate concurrence, non-concurrence with appropriate justification, and/or other standard DoD recommendation to satisfy requirement identified on SERD.
2. **Tools.**
   1. LMDS is the primary electronic tool for routing SERDs through required stakeholders. Instructions on the use of this tool can be found in Attachment 4.

A worksheet for planning and identifying the program’s reviewers necessary to access LMDS and participate in the SERD Process can be found in Attachment 2.

Instructions for accessing and registering for LMDS can be found in Attachment 3.  
<https://elma.csd.disa.mil/SE>

* 1. The SE Activation Worksheet is designed to aid the PO SE Manager in identifying, executing, and tracking all of the tasks required to successfully develop and field SERD-approved SE.  
     <https://usaf.dps.mil/sites/41289/Pages/SitePages/Support-Equipment.aspx>
  2. The AFLCMC PSCRT (formally RFP Toolkit) is designed to assist PSMs, PMs and logisticians in the development of common product support tasks within a SOW. The AFLCMC PSCRT includes suggested SOW language and tailoring considerations written by subject matter experts across the 12 Product Support Elements for multiple acquisitions phases, and is an excellent resource for starting to build SE and SERD-related contract requirements.  
     <https://usaf.dps.mil/sites/41289/Pages/SitePages/Product-Support-Contracts-Requirements-Tool.aspx>
  3. The AFLCMC/LZS Support Equipment SharePoint site contains SE and SERD Process resources, including training, template SERD Contract Data Requirements List forms (DD Form 1423-1), and points of contact.  
     <https://usaf.dps.mil/sites/41289/Pages/SitePages/Support-Equipment.aspx>
  4. The IHS Engineering Workbench is a resource for accessing commercial standards, including SAE-GEIA-STD-0007 and TA-HB-0007. These are the LPD standards and are critical for the SERD Process. Licenses for accessing this service are only in place for certain locations. For instructions on accessing the IHS Engineering Workbench, visit the following link to the AFLCMC/AFRL Engineering Standards site and follow the instructions in the red text:  
     <https://usaf.dps.mil/teams/23231/sitepages/home.aspx>
  5. The Office of the Assistant Secretary of Defense for Sustainment website contains pages for DoD ATS Policy information, including a library containing ATS standardization documentation:  
     [Office of the Assistance Secretary of Defense for Sustainment](https://www.acq.osd.mil/log/MR/ats.html)

1. **Delivery Approach.** 
   1. Training Method. The Product Support Division (AFLCMC/LZS) developed and delivered SE Manager training that covers a wide array of subjects relevant to PO SE Managers, including in-depth information on the SERD Process. Training was developed in coordination with other SERD Process stakeholders, including the SE&V PG, ATS PG, and AFMETCAL PG. This training has also been supplemented by separate training sessions focused solely on the SERD Process for requesting programs. Due to the COVID-19 pandemic, training in 2020-2021 was delivered virtually via CVR Teams. Over 900 users were trained in 2020-2021 via by-request program training, AFLCMC Focus Weeks, and out-of-cycle training offerings. Going forward, training sessions are offered periodically via AFLCMC Focus Weeks and by program request.
   2. Available Training. See 8.1 for training methodology. SERD Process training is made available as part of the SE Manager Overview Training, which is offered periodically at AFLCMC Focus Weeks and more often as dictated by program requests.
   3. Change Management Plan. See Attachment 8 for the SERD Process Change Management Plan, which includes a communication plan, for information on how the SERD Process is being implemented and institutionalized.
2. **Definitions, Guiding Principles, Ground Rules, Assumptions and/or Acronyms**.
   1. Definitions:
      1. Support Equipment - all equipment (mobile or fixed) required to operate and maintain a weapon system in all operational conditions, in its intended environment, and at all levels of maintenance. This includes associated multiuse end items, ground handling, aerospace ground equipment, maintenance equipment tools, metrology, and calibration equipment, TMDE, ATE and ATS, Munitions Materiel Handling Equipment and SE for the maintenance of SE.
      2. Common Support Equipment – SE used across multiple USAF and/or DoD systems.
      3. Peculiar Support Equipment – SE used on a single system.
      4. Automatic Test Equipment – An instrument or set of instruments controlled through means other than direct, manual input; ATS instrumentation is operated through software commands issued from a system controller utilizing a test program.
      5. Automatic Test System – consists of ATE and the TPS required to satisfy a particular UUT testing requirement.
      6. Test Program Set – consist of a test program (software) and specific hardware (often referred to as Interface Test Adapters) to allow interfacing between the ATE and the UUT to allow for automated fault isolation and detection to determine faulty hardware in the UUT. TPSs are developed after the ATS Standardization Process is complete.
      7. Program Office – any entity responsible for the management of a particular system with associated SE and/or test requirements.
      8. Peculiar Waiver – a memo waiving the AFI 63-101/20-101 requirement for CSE or ATS; a waiver can be granted for technical, financial, and schedule reasons. Waivers can also be temporary or permanent depending on requirements.
      9. Automatic Test System Standardization – the implementation of common ATS for new test requirements workload IAW AFI 63-101/20-101; use of common ATS reduces total life cycle cost of ATS for the USAF.
      10. Unit Under Test – represents any item to be tested. The term is most often utilized to describe Line Replaceable Units and Shop Replaceable Units and can include Shop Replaceable Assemblies, Weapons Replaceable Assemblies, circuit cards, aircraft black boxes, and/or other removable components from weapon system platforms.
   2. Acronyms

**Table 4. Acronyms**

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| AFLCMC | Air Force Life Cycle Management Center |
| AFMETCAL | Air Force Metrology and Calibration |
| ATE | Automatic Test Equipment |
| ATS | Automatic Test Systems |
| BCA | Business Case Analysis |
| CDRL | Contract Data Requirements List |
| CMRS | Calibration Measurement and Requirement Summaries |
| COTS | Commercial Off-the-Shelf |
| CRM | Comment Resolution Matrix |
| CSE | Common Support Equipment |
| DMAWG | Depot Maintenance Activation Working Group |
| DoD | Department of Defense |
| EA | Economic Analysis |
| ECD | Estimated Completion Date |
| ES | Equipment Specialist |
| ESOH | Environment, Safety, and Occupational Health |
| FoT | Family of Testers |
| IAW | In Accordance With |
| ICC | Item Category Code |
| IM | Item Manager |
| IPT | Integrated Product Team |
| L&MR | Logistics and Materiel Readiness |
| LMDS | Logistics Management Data System |
| LPD | Logistics Product Data |
| MAPT | Maintenance Activation Planning Team |
| MLF | Maintenance Level Function |
| OSD | Office of the Assistant Secretary of Defense |
| PEO | Program Executive Officer |
| PG | Product Group |
| PM | Program Manager |
| PO | Program Office |
| POC | Point of Contact |
| PSCRT | Product Support Contract Requirements Tool |
| PSE | Peculiar Support Equipment |
| PSM | Product Support Manager |
| RFP | Request for Proposal |
| ROM | Rough Order of Magnitude |
| SE | Support Equipment |
| SE&V | Support Equipment & Vehicles |
| SERD | Support Equipment Recommendation Data |
| SEWG | Support Equipment Working Group |
| SIL | Systems Integration Laboratory |
| SIPOC | Supplies, Inputs, Process, Outputs, Customers |
| SMR | Source, Maintenance, and Recoverability |
| SOW | Statement of Work |
| TMDE | Test, Measurement, and Diagnostic Equipment |
| TPS | Test Program Set |
| USAF | United States Air Force |
| UUT | Unit Under Test |
| WBS | Work Breakdown Structure |

1. **References to Law, Policy, Instructions or Guidance**.
   1. [AFI 63-101/20-101 *Integrated Life Cycle Management*, 30 Jun 20](https://static.e-publishing.af.mil/production/1/saf_aq/publication/afi63-101_20-101/afi63-101_20-101.pdf)
   2. [AFMCI 63-1201 *Integrated Life Cycle Systems Engineering and technical Management,* 2 Dec 2022](https://static.e-publishing.af.mil/production/1/afmc/publication/afmci63-1201/afmci63-1201.pdf)
   3. [*Product Group Charter – Automated Test Systems and Support Equipment* (2019)](https://usaf.dps.mil/:f:/r/sites/21192/ATS%20Policy%20Procurement/ATS%20Charter%202019?csf=1&web=1&e=gXFRLd)
   4. [*DoD Automatic Test Systems Handbook* (2004)](https://usaf.dps.mil/:b:/r/sites/21192/ATS%20Policy%20Procurement/DoD_ATS_Handbook_2004.pdf?csf=1&web=1&e=s4bDk4)
   5. [*DoD ATS Selection Process Guide* (2016)](https://www.acq.osd.mil/log/MR/ATS/.ats_library.html/DoD_ATS_Selection_Process_RevA_092017.pdf)
   6. [*DoD ATS Master Plan,* (2017)](https://www.acq.osd.mil/log/MR/ATS/.ats_library.html/2017_DoD_ATS_Master%20Plan_22_June_2017.pdf)
   7. [AFLCMC/LZS Product Support Division Support Equipment SharePoint](https://usaf.dps.mil/sites/41289/Pages/SitePages/Support-Equipment.aspx)
   8. [Support Equipment & Vehicles Product Group SharePoint](https://usaf.dps.mil/teams/21567/default.aspx)
   9. [Automatic Test Systems Product Group SharePoint](https://usaf.dps.mil/sites/21192/default.aspx)
   10. [Air Force Metrology and Calibration SharePoint](https://usaf.dps.mil/sites/23069/SitePages/AFLCMC%20WNM%20-%20AFMETCAL%20Division.aspx)
   11. [MIL-HDBK-300P *Support Equipment Data Sources* (28 Aug 19)](https://usaf.dps.mil/sites/41289/Pages/Shared%20Documents/Support%20Equipment/MIL-HDBK-300P%20Change%201.pdf#search=MIL%2DHDBK%2D300P)
2. **List of Corresponding SP/IPGs.**
   1. [AFLCMC Standard Process for Automatic Test Systems (ATS) Standardization](https://usaf.dps.mil/:w:/r/teams/21710/gov/APDSP/Automatic%20Test%20Systems%20(ATS)%20Standardization.docx?d=w9ec4cd79cef54edfa30514e0ae31b2ba&csf=1&web=1)
   2. [AFLCMC Internal Process Guide for Product Support Contract Requirements Tool](https://usaf.dps.mil/:w:/r/teams/21710/gov/APDIPG/Product%20Support%20Contract%20Requirements%20Tool%20(PSCRT).docx?d=w940e24acc59e463793f0471d5ba2e867&csf=1&web=1)

**12.0 List of Attachments:**

|  |  |
| --- | --- |
| **Attachment 1. SERD Process Excel WBS** |  |
| **Attachment 2. LMDS SERD Module New Program Setup Worksheet** |  |
| **Attachment 3. LMDS Registration Instructions** |  |
| **Attachment 4. SERD Training Slides (with LMDS instructions)** |  |
| **Attachment 5. UUT Requirement Data Guidelines** |  |
| **Attachment 6. SE Form 603 – SERD Evaluation Transmittal Form** |  |
| **Attachment 7. SE Form 9 – SERD Disposition Form** |  |
| **Attachment 8. SERD CMP** |  |
| **Attachment 9. Test Requirement Document Data Item Description (DI-ATTS-80041A)** |  |