

**Air Force Life Cycle Management Center (AFLCMC)**

**Standard Process**

**For**

**Packaging, Handling, Storage & Transportation (PHS&T) Data**

Process Owner: AFLCMC/LG-LZ

Date: 20 May 2021

Version: 5.0

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| **Record of Changes** | | |
| **Version** | **Effective Date** | **Summary** |
| 1.0 | 8 Feb 2016 | Basic document. Approved by S&P Board |
| 1.1 | 21 Feb 2017 | Annual review complete; no updates/changes required. Approved by S&P Board |
| 2.0 | 26 Feb 2018 | Annual review complete; updates/corrections completed. Approved by S&P Board |
| 3.0 | 21 Mar 2019 | Annual review complete; Administrative and table updates/corrections completed. Approved by S&P Board on 21 Mar 2019 |
| 4.0 | 20 Mar 2020 | Annual review complete; Administrative corrections completed. Approved by S&P Board on 19 Mar 2020 |
| 5.0 | 20 May 2021 | Annual review complete; Administrative and outdated AFI’s corrected. Approved by S&P Board on 20 May 21. |

1. **Description.**
   1. Program Offices shall identify, plan, resource and acquire PHS&T requirements to maximize availability and usability of the materiel whenever they are needed for

training or mission.

* 1. PHS&T is the combination of resources, procedures and designs to ensure that all system, equipment and support items are preserved, packaged, handled and transported properly. It also includes environmental considerations and equipment preservation for short or long-term storage and transportability. Some items require special environmentally controlled, shock-isolated containers for transport to and from facilities via all modes of transportation (land, rail, air, and sea).
  2. This Standard Process (SP) document does not replace or supersede any existing laws, regulations, directives, policies or instructions. AFLCMC will follow established Department of Defense (DoD) and Headquarters Air Force (HAF) guidance on PHS&T policy, as well as existing processes established by HAF and Headquarters (HQ) Air Force Materiel Command (AFMC) to accomplish assigned missions.

1. **Purpose.** 
   1. PHS&T is a major consideration in the design and procurement of materiel and applicable support equipment. AFFARS PGI 5347, AFMC PGI 5347.301-1(b) requires that when provided with the Purchase Request, include the PHS&T forms with the solicitation/contract. The purpose of PHS&T is to ensure all materiel procured under AFLCMC efforts can be efficiently handled, transported and stored without loss of functionality or damage to equipment.
   2. PHS&T focuses on identifying those unique requirements involved with packaging, handling, storing and transporting major end items of the weapon system along with spare parts, other classes of supply and infrastructure items. The requirements and constraints which a military environment imposes on these activities can significantly impact availability, reliability and life cycle costs of a weapon system. Additionally, PHS&T items may require unique life cycle support, such as maintenance of re-usable containers or special storage facilities similar to those required for explosives.
   3. This document applies to all AFLCMC organizations. It applies to all acquisition stages of supply procurement. This document applies to the procurement of new items, follow-on, Security Cooperation/Security Assistance Program, supplies purchased directly and contractor purchased supplies under information technology mandatory use contracts. FMS programs are governed by the Security Assistance Management Manual, however processes in this guide can assist in the management of FMS PHS&T requirement. This document applies to items being transported via First Destination Transportation or Second Destination Transportation. This document is not applicable to non-materiel purchases such as services and studies.
2. **Potential Entry/Exit Criteria and Inputs/Exits.**

3.1 Entry Criteria: Program Office (PO) identifies need for an item.

3.2 Exit Criteria: PHS&T data entered in government data systems.

1. **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 |
| PMs, PSMs, Logisticians, CM, FM, EN, PK and  Air Force Sustainment Center (AFSC) | A need is identified that an item is required by a user to a PO. | \*PO develops contractual documents for the procurement and delivery of an item. | Receipt of PHS&T data which is entered into Air Force system. | Traffic Management Office (TMO), Defense Logistics Agency (DLA), Depots, Defense  Contract Management Agency (DCMA), Department of Transportation (DOT), Storage Facilities, and Contractors |

\*The Program Office (PO) may include the Program Manager (PM), Product Support Manager (PSM), Contracting (PK), Financial Management (FM), Engineering (EN), Configuration Management (CM) and Logistician (LG) who are working as the Integrated Product Team (IPT) for a particular effort.

* 1. Process Flowchart. Figure 1 depicts flow for obtaining PSH&T data.

**Figure 1. PHS&T Flowchart**

|  |  |  |
| --- | --- | --- |
| Contractor | 1.10 Prepares and submits PHS&T data  1.6 Receives RFP, develops and sends proposal    Sends data  back for  corrections | |
| Program Office | 1.11 Receives, Reviews and forwards reparable valid PHS&T data  Start  1.7 Receives and evaluates contractor proposal Identify RQMTs to Purchase items  1.5 Receives inputs, makes and issues RFP  1.3 Review of Contractual Documents    1.9 Awards Contract  1.1 Identify RQMTs to Purchase items  1.2 Draft Contractual Document          Send Data  back for  corrections | |
| AFLCMC PHS&T Office | No  1.13 Ensures PHS&T data is entered into AF System (D35T Stock Control System)  \*1.12 Is PHS&T Data Correct?  1.8 Participates in Evaluation of contracts Proposals when requested  1.4 Reviews/Develops PHS&T data for reparable items and signs AFMC 158 and DD Form 1653    Yes |

**END**

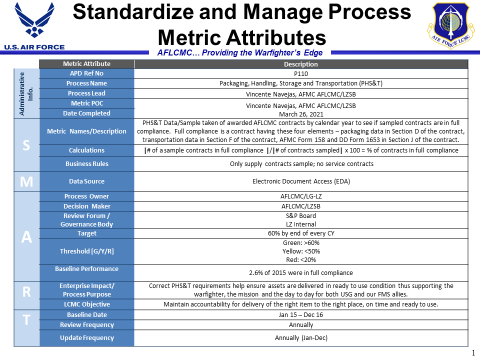
* 1. Work Breakdown Structure (WBS). Attachment 1 shows the entire WBS for PHS&T. Table 2 is just an excerpt depicting level 1 activities within the WBS.

**Table 2. PHS&T WBS Excerpt**

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| --- | --- | --- | --- | --- | --- |
| **WBS** | **Activity** | **Process (Activity Description)** | **OPR** | **Time** | **Output** |
|  | **Short name or title of process** | **What is the process?** | **Who performs the activity?** | **Estimated days to complete activity** | **What is the output?** |
| 1.1 | Identify Need to Purchase Items | Identify the need for the procurement of items for the program | Program Office from user | 30-90 days | Identification of required equipment/ hardware |
| 1.2 | Draft Contractual Documents | Draft contractual documents for the procurement of acquisition items | Program Office | 30-90 days | PR, RFP, SOO, SOW, CDRLs, etc. |
| 1.3 | Review of Contractual Documents | Reviewed contractual documents to ensure PHS&T requirements are captured | Program Manager | 30-90 days | PR, RFP, SOO, SOW, CDRLs, etc. |
| 1.4 | Provide PHS&T Data & Forms (Sub tasks may be performed in parallel) | Review contractual documents on reparable items and provide PHS&T forms for inclusion in contractual documents | AFLCMC PHS&T Office | 15-90 days | PHS&T requirements, completed and signed AFMC Form 158 & DD Form 1653 |
| 1.5 | Release RFP | Contractual documents are revised with all necessary changes and RFP is released | Program Office | 90-180 days | Revised contractual documents |
| 1.6 | Receive RFP | RFP received to propose on the development of the equipment/hardware | Contractors | 30-90 days | Proposal |
| 1.7 | Receive contractor proposal | Receive proposals from contractors and source selection is held for competitive contracts | Program Office (If requested by the Program Office, AFLCMC PHS&T Office will participate in the source selection process.) | 90-180 days | Reviewed proposals |
| 1.8 | Evaluate Proposal | Evaluate proposals submitted by contractors | PM, PSM, FM, PK, EN, CM and LG | 90-180 days | Winning contractor proposal selected |
| 1.9 | Award Contract | Award contract to the winning contractor | Program Office | 60-120 days | Signed and awarded contract |
| 1.10 | Submit PHS&T Data | PHS&T Data is submitted IAW PHS&T requirements, forms and CDRLs | Contractor | 30-60 days | PHS&T Data |
| 1.11 | Receive PHS&T Data | Receive correct PHS&T reparable data and forwards data to AFLCMC PHS&T Office | Program Office | 5-14 days | PHS&T data pending approval by the government |
| 1.12 | Correct and Complete PHS&T Data | Verify the PHS&T data received is complete and correct. If not, send back to contractor via Program Office for corrections and resubmittal. \*Once data is correct, Provisioning Guidance will take place (Reparable assets only). | AFLCMC PHS&T Office | 5-14 days | Valid PHS&T Data |
| 1.13 | Enter PHS&T Data Into Systems | Ensure PHS&T data is entered into government systems (D035T Stock Control System) | AFLCMC PHS&T Office | 14-21 days | PHS&T data entered into government systems (D035T) |

1. **Measurements.**
   1. Process Results. Determine compliance from sampling of awarded contracts.

**Figure 2. Process**



1. **Roles & Responsibilities.** 
   1. AFLCMC PHS&T Office (AFLCMC/LZS) will:
      1. Complete and sign AFMC Form 158 (Packaging Requirements) and DD Form

1653 (Transportation Data for Solicitations).

* + 1. Assist in reviewing contractual packaging and transportation requirements (selection of FAR/DFARS Clauses, Statement of Objectives (SOO) or Statement of Work (SOW) and DIDs for DD Forms 1423, *Contract Data Requirements List* for data items).
    2. Attend Data and Design Reviews as required.
    3. Evaluate contractor submitted data when requested by the Program Office.
    4. Support specialized container testing if requested by the Program Office.
    5. Assist the Program Office in obtaining Certificates of Equivalency (COE), Department of Transportation Special Permits, and Competent Authority Approval (CAA) for hazardous material movement when required.
    6. Assist with resolution of packaging and transportation discrepancies as required.
    7. Evaluate packaging and transportation data in source selections if requested by the Program Office.
    8. Assist program offices when required with other PHS&T issues not listed.

6.1.10 Inform the Program Office on the need to interrogate Container Design Retrieval System (CDRS) before designing a new specialized container IAW DI-PACK-80683, Container Design Retrieval System (CDRS) Search Request. For new specialized containers, advise the Program Office on the need to provide this information to CDRS with Government approved specialized container designs IAW DI-PACK-80684, Container Design Retrieval System (CDRS) Data Input.

6.1.11 Verify preservation/packaging data (DI-PACK-80120) and transportation data (DI-PACK-80877) is entered into the government systems i.e., D035T-Stock Control System (SCS) Shipping Information System, Special Packaging Instruction Retrieval & Exchange System (SPIRES) and/or Hazardous Materials Information Resource System (HMIRS). Data can only be entered into these systems by a Packaging or Transportation Specialist.

* 1. AFLCMC Program Offices will:
     1. Ensure appropriate contractual language is incorporated within the Request for Proposal (RFP) for supply solicitations to include PHS&T data.
     2. Review and write contractual packaging and transportation requirements. (FAR/DFARS clauses, SOO/SOW, DD Form 1423, etc.).
     3. Work with AFLCMC PHS&T Office on the completion of AFMC Form 158, DD Form 1653 and other specified PHS&T documentation and ensure these documents are attachments to the solicitation and contract.
     4. Coordinate any required changes to the submitted PHS&T data with AFLCMC PHS&T Office.
     5. Send requests for evaluation and development of containers to Air Force Packaging Technology and Engineering Facility (AFPTEF) - AFLCMC/EZPA as appropriate.
     6. Send PHS&T data received from the Contractor to AFLCMC PHS&T Office for review. Ensure PHS&T data is entered into government systems.
     7. Ensure specialized container testing is accomplished, if required.
     8. Evaluate packaging and transportation discrepancies.
     9. Obtain COE, Department of Transportation special permits and CAA for hazardous material movement if required.

1. **Tools.**
   1. Data Item Descriptions (DIDs) can be viewed at <http://quicksearch.dla.mil/>. PHS&T DIDs

are:

7.1.1 DI-PACK-80120, *Preservation and Packing Data*

7.1.2 DI-PACK-80121, *Special Packaging Instructions*

7.1.3 DI-PACK-80455, *Packaging Plan*

7.1.4 DI-PACK-80456, *Packaging Test Plan*

7.1.5 DI-PACK-80457, *Packaging Test Report*

7.1.6 DI-PACK-80458, *Packaging Cost Analysis*

7.1.7 DI-MGMT-80554, *Transportation Discrepancy Report*

7.1.8 DI-PACK-80683, *Container Design Retrieval System (CDRS) Search Request*

7.1.9 DI-PACK-80684, *CDRS Data Input*

7.1.10 DI-PACK-80877, *Transportation Data Report*

7.1.11 DI-PACK-80880, *Transportability Report*

7.1.12 DI-PACK-80932, *Air Transportability Report*

7.1.13 DI-ILSS-80967, *Spares Shipping Data Sheets*

7.1.14 DI-PACK-81059, *Performance Oriented Packaging Test Report*

7.1.15 DI-MISC-81499, *Packaging Kit Contents List*

7.1.16 DI-PACK-81582, *Packaging Development Data Report*

1. **Delivery Options/Approach.**
   1. Training. Courses/Assistance available through Defense Acquisition University (DAU) or AFLCMC specific to PHS&T:
      1. 8.1.1 CLL 013: DoD Packaging

8.1.2 CLL 045: Designing for Transportability

8.1.3 LOG 0460: The Twelve Integrated Product Support Elements

8.1.4 LOG 360: The DoD Shelf-Life Program

8.1.5 LOG 1000: Life Cycle Logistics Fundamentals

8.1.6 LOG 105: Fundamentals of System Sustainment Management

8.1.7 AFLCMC PHS&T training during AFLCMC Focus Weeks.

8.1.8 One-on-one assistance is available from AFLCMC PHS&T Office.

8.2 Change Management Plan. The PHS&T Change Management Plan located in Attachment 5 describes the approach and methods used for implementing and institutionalizing this SP.

1. **Definitions, Guiding Principles or Ground Rules & Assumptions**. See Attachment 4 for a list of acronyms and abbreviations.
2. **References to Law, Policy, Instructions or Guidance:**
   1. Policy/Instructions.
      1. AFMCI 24-201, *HQ AFMC Packaging and Materials Handling Policies and Procedures*
      2. AFMAN 24-206, *Packaging of Material*
      3. AFMAN 24-604, *Preparing Hazardous Materials for Military Air Shipments*
      4. 10.1.4 AFMAN 24-210\_IP, Packaging of Hazardous Material
      5. 10.1.5 AFI 63-101/20-101, Integrated Life Cycle Management
      6. 10.1.6 MIL-STD-129, Military Marking for Shipment and Storage
      7. 10.1.7 MIL-STD-130N, Identification Marking of U.S. Military Property
      8. 10.1.8 MIL-STD-648, Specialized Shipping Containers
      9. 10.1.9 MIL-STD-2073-1E, Standard Practice for Military Packaging
      10. 10.1.10 MIL-STD-1366, Interface Standard for Transportability Criteria
      11. MIL-STD 1791, Designing for Internal Aerial Delivery in Fixed Wing

Aircraft

* + 1. MIL-STD 209, Interface Standard for lifting and Tiedown Provisions
    2. AFFARS PGI 5347 – AFMC PGI 5347, Transportation
    3. DoD 4140.01, DOD Supply Chain Material Procedures Managament Procedures: Vol 9, Material Programs
    4. DoD 4140.65-M, Issue, Use and Disposal of Wood Packaging Material (WPM)
    5. DTR 4500.9-R, Defense Transportation Regulation (DTR), Part II – Cargo Movement
    6. DoD 5220.22-M, National Industrial Security Program Operating Manual
    7. DLMS 4000.25, Defense Logistics Management System (DLMS), Volume 2, Supply Standards and Procedures, Chapter 17, Supply Discrepancy Reporting
    8. DODI 4540.07, Operation of the DoD Engineering for Transportability and Deployment Program
    9. FED-STD-313F, Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities
    10. Code of Federal Regulations (CFR), Title 29, Labor
    11. Code of Federal Regulations (CFR), Title 49, Transportation
    12. International Civil Aviation Organization (ICAO) Technical Instructions For The Safe Transport of Dangerous Goods by Air
    13. International Air Transport Association (IATA) Dangerous Goods Regulations
    14. International Maritime Organization (IMO) International Maritime Dangerous Goods (IMDG) Code
    15. American Society for Testing and Materials (ASTM) D3951-18, Standard Practice for Commercial Packaging
    16. TO 00-85B-3, How To Package Air Force Spares
    17. Defense Security Cooperation Agency (DSCA) 5105.38-M, Security Assistance Management Manual (SAMM)
    18. AFMAN 16-101, International Affairs and Security Assistance Management
    19. AFMCI 16-101, Security Cooperation (SC), Security Assistance (SA), and Foreign Military Sales (FMS) Management
    20. Special Packaging Instructions Retrieval & Exchange (SPIRES): <https://spires.wpafb.af.mil/Logon.aspx?ReturnUrl=%2fSPIRES.aspx>
    21. Hazardous Material Information Resource System Next Generation (NextGen): <https://www.dla.mil/HQ/InformationOperations/Offers/Products/LogisticsApplications/HMIRS.aspx>
  1. FAR clauses under FAR 52.247 may be applicable to transportation requirements.
  2. DFARS sections under DFARS 247.3 may be applicable.
  3. DFARS sections under DFARS 225.73 is applicable for acquisitions for Foreign

Military Sales (FMS).

**List of Attachments:**

|  |  |
| --- | --- |
| **Attachment 1:** Entire PHS&T WBS |  |
| **Attachment 2:** AFMC Form 158, *Packaging Requirements* |  |
| **Attachment 3:** DD Form 1653, *Transportation Data for Solicitations* |  |
| **Attachment 4:** Acronyms and Abbreviations |  |
| **Attachment 5:** Change Management Plan |  |