

MIL-STD-1538 (USAF)  
11 April 1973



MILITARY STANDARD  
SPARE PARTS AND MAINTENANCE SUPPORT OF  
SPACE AND MISSILE SYSTEMS  
UNDERGOING RDT&E

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DEPARTMENT OF THE AIR FORCE

Spare Parts and Maintenance Support of Space and Missile Systems  
undergoing RDT&E

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1. This standard has been approved for use by the Department of the Air Force.
2. Recommended corrections, additions or deletions should be addressed to HQ Space and Missile Systems Organization (SAMSO), Attn: DRLS, PO Box 92960, Worldway Postal Center, Los Angeles, California 90009.

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MILITARY STANDARD  
SPARE PARTS AND MAINTENANCE SUPPORT OF SPACE  
AND MISSILE SYSTEMS UNDERGOING  
RDT&E

1. SCOPE.

1.1 Purpose. This standard establishes procedures under which the contractor shall provide spare parts and maintenance services.

1.2 Application. This standard shall be utilized when a contractor self-support concept is to be applied wherein all spare parts and maintenance services are provided by the contractor as part of the total contract cost.

2. REFERENCE DOCUMENTS.

2.1 Not Applicable.

3. DEFINITIONS.

3.1 Application: For the purpose of this standard, the following definitions shall apply:

3.1.1 Spare Parts. The term spare parts includes assemblies, subassemblies, components, parts, repair kits and raw materials required or anticipated to be required as replacement of like items during manufacturing, operation, maintenance, repair or overhaul of Aeronautical Vehicle Equipment (AVE), Aerospace Ground Equipment (AGE), Test Support Equipment (TSE) or any other equipment identified as part of the contract including Government Furnished Property (GFP).

3.1.2 Maintenance. The term maintenance includes but is not limited to that effort required to perform day-to-day maintenance and repair of unserviceable AVE, AGE, TSE, spare parts, or any other equipment identified as part of the contract including GFP. The term also includes the retest, calibration, corrosion prevention and other refurbishment actions required to maintain equipment identified as part of the contract in a serviceable condition. A serviceable condition is that condition whereby the material meets the serviceability requirements established for acceptance of newly fabricated article or as directed by the Procurement Contracting Officer (PCO).

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3.1.3 Critical-to-Launch Spare Parts. Includes those airborne and/or ground equipment parts, subject to failure, which can be replaced at the launch complex during the pre-launch exercise without causing cancellation of the launch.

#### 4. GENERAL REQUIREMENTS & PROCEDURES.

##### 4.1 Requirements.

##### 4.1.1 Spare Parts.

4.1.1.1 The contractor shall be responsible for furnishing all spare parts required in performance of the contract. Such parts shall be obtained by procurement of off-the-shelf contractor, subcontractor or vendor items (using existing government qualified products lists if available) or by manufacture of new items by the contractor or subcontractors. It is the intent that the contractor will provide complete spare parts support for the entire contract including spare parts required in the maintenance of equipment furnished by the government (GFP), except in those cases where the contract provides for the government to furnish spare parts for specified items of GFP. This, however, does not preclude the contractor from obtaining available DOD Standard (Federally Cataloged) spare parts from DOD Supply Activities when difficulty is encountered in obtaining like items by contractor procurement or manufacture or when the government has provided lists of excess or long supply items applicable to equipment supported by the contractor, provided such spare parts meet program need dates and reliability requirements of the system being supported. The fact that such items are not available in the DOD system in time to meet required dates does not relieve the contractor of his responsibility for meeting established program schedules.

4.1.1.2 The selection of items, determination of quantities and determination of internal distribution shall be based on the provision of adequate support at the lowest possible inventory level so as to minimize obsolescence due to design changes and to minimize logistics deterrents to engineering changes.

##### 4.1.2 Maintenance.

4.1.2.1 The contractor shall provide the necessary services and facilities to accomplish repair, modification, overhaul and acceptance testing as required for all end items, spares and GFP included as part of the contract. Repair or overhaul and subsequent acceptance testing shall be in accordance with the contractor's established overhaul and repair procedures and the applicable CI specification in effect at the time

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each component was originally accepted by the government including such approved modifications thereto or as directed by the PCO. Repair/overhaul may be accomplished at test and launch sites or at contractors, subcontractors or vendors plants as determined by the contractor. Determination of the economic feasibility of repair or overhaul and the establishment of sources for repair/overhaul of spare parts is the responsibility of the contractor.

#### 4.2. Procedures.

4.2.1 Upon receipt of the executed contract, the contractor shall proceed, in accord with his AF approved make-or buy program if applicable, to procure or fabricate the quantities of spare parts he determines will be required in support of contract performance. Procurement and/or fabrication shall be effected no earlier than necessary to ensure delivery of spare parts required, with due consideration given to possible economics in coordinating spare parts procurement/fabrication with procurement and fabrication of production articles.

4.2.2 When the contractor has been provided with excess lists or lists of items in long supply within the DOD system, such lists will be reviewed for applicability to equipment being supported. When spare parts are identified as applicable, the contractor shall requisition such spare parts from the appropriate DOD source on a "fill or kill" basis. Such requisitions shall be submitted in sufficient time to allow contractor procurement/fabrication if items are not forthcoming from government sources.

4.2.3 The contractor shall develop internal working procedures which encompass the following requirements:

(a) Stock levels will be determined on basis of overall program needs and will be independent of the site location of the stock. Levels shall be programmed to vary with anticipated utilization. Shipments in advance of estimated requirements will not be made except when it is clearly in the best interest of the test programs and/or activation tasks to do so.

(b) Maximum utilization shall be made of existing assets. Where practical and economical, equipment and parts will be reclaimed from completed laboratory, static, field and flight testing and repaired, overhauled or modified to suitable condition for use in support of later test or activation tasks. Only spare parts which are dimensionally and functionally interchangeable with production units will be selected for reclamation. Manufacturing spares and post manufacturing spares will be cross-utilized.

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(c) Stock levels shall be minimized by maximum economical reliance on repair, overhaul and modification of available assets. Repair, overhaul and modification turn-around time will be a prime determinant in establishing the minimum stock level period for each item. Spare parts repaired or overhauled are subject to the same serviceability, reliability and quality requirements as new production equivalents.

(d) Where feasible (with particular emphasis on high cost and critical items) inventory cost will be minimized by stockage of repair, overhaul and modification bits, pieces and components (relatively low cost items) in conjunction with a preplanned and flexible expedited repair, overhaul and modification program, as opposed to stocking subassemblies and end items themselves (the relatively high cost items).

(e) Contractors providing spare parts support to launch programs shall develop and maintain listings of "critical-to-launch" spare parts showing quantities required and available at launch sites during the 30-day period prior to scheduled launch. Status reports of "critical-to-launch" spare parts will be submitted as authorized by the Contractor Data Requirements List (CDRL) appended to the contract.

4.2.4 The contractor shall establish a spare parts modification program as necessary to assure the continued compatibility of spare parts design with configuration of the equipment end item. Cost of spare parts modification shall be subject to separate negotiation in conjunction with negotiation of costs of end item configuration change.

4.2.5 The contractor shall establish and maintain an availability schedule for all spare parts so as to be compatible with test and/or maintenance schedules of the program.

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