

TECHNICAL BULLETIN

**MAINTENANCE EXPENDITURE LIMITS
FOR MEDICAL MATERIEL**

This copy is a reprint which includes current
pages from Change 1.

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED

HEADQUARTERS, DEPARTMENT OF THE ARMY

JUNE 1992

CHANGE
No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC 8 October 1993

MAINTENANCE EXPENDITURE LIMITS FOR MEDICAL MATERIEL

Approved for public release; distribution is unlimited.

TB MED 7, 22 June 1992, is changed as follows:

1. Remove old pages and insert new pages as indicated below.

Remove pages

B-5 and B-6
B-7 and B-8
B-11 and B-12
B-13 and B-14
B-15 and B-16

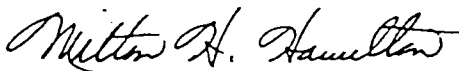
Insert pages

B-5 and B-6
B-7 and B-8
B-11 and B-12
B-13 and B-14
B-15 and B-16

2. File this transmittal sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

Official:



MILTON H. HAMILTON
*Administrative Assistant to the
Secretary of the Army*

GORDON R. SULLIVAN
*General, United States Army
Chief of Staff*

Distribution:

To be distributed in accordance with DA Form 12-34-E, block 3397, requirements for TB MED 7.

MAINTENANCE EXPENDITURE LIMITS FOR MEDICAL MATERIEL

You can help improve this bulletin. If you find any mistakes or if you know a way to improve procedures, please let us know. Send your comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, U.S. Army Medical Materiel Agency, ATTN: SGMMA-M, Frederick, MD 21702-5001.

Approved for public release; distribution is unlimited.

TABLE OF CONTENTS

		<i>Page</i>
CHAPTER	1. OVERVIEW	
Section	I. Introduction	1-1
	II. General	1-2
CHAPTER	2. INSPECTIONS	
Section	I. Retail Maintenance (Unit, DS, and GS Levels)	2-1
	II. Wholesale Maintenance (Depot Level)	2-2
CHAPTER	3. COST ESTIMATES	
Section	I. Retail Maintenance (Unit, DS, and GS Levels)	3-1
	II. Wholesale Maintenance (Depot Level)	3-3
	III. Pecuniary Liability	3-4
CHAPTER	4. LIFE EXPECTANCIES	
Section	I. Materiel Classifications	4-1
	II. Materiel Life Expectancies	4-2
	III. Life Expectancy Adjustments	4-2

***This bulletin supersedes TB 750-8-1, 15 August 1981.**

TB MED 7

CHAPTER	5.	MAINTENANCE EXPENDITURE LIMITS	
Section	I.	Introduction	5-1
	II.	Indefinite Life Materiel	5-1
	III.	Definite Life Materiel	5-1
	IV.	Exempt Materiel	5-4
	V.	Waivers	5-4
APPENDIX	A.	REFERENCES	A-1
	B.	LIFE EXPECTANCIES	B-1
GLOSSARY		GLOSSARY-1
INDEX		INDEX-1

CHAPTER 1

OVERVIEW

Section I. INTRODUCTION

1-1. Purpose.

This bulletin prescribes procedures to implement maintenance expenditure limits for medical materiel in both retail and wholesale medical materiel maintenance operations as directed by AR 40-61, AR 750-1, and AR 750-2. It also provides requirements and instructions for technical and verification inspections; gives procedures for estimating repair or overhaul costs; lists the life expectancies for medical equipment; and provides instructions to determine eligibility of unserviceable materiel for corrective maintenance services. This bulletin applies to the Active Army, the Army National Guard, and the U.S. Army Reserve.

1-2. References.

See appendix A.

1-3. Explanation of abbreviations and terms.

Abbreviations used in this bulletin are listed in the glossary; special terms are explained below.

a. Maintenance levels. A designation within the medical materiel maintenance system based on the extent of capabilities required for maintenance operations.

b. Maintenance capabilities. The availability of facilities; tools; test, measurement, and diagnostic equipment (TMDE); technical publications; trained maintenance personnel; management support; and repair parts to perform maintenance operations.

c. Retail maintenance. Maintenance performed at the unit, direct support (DS), and general support (GS) levels.

d. Wholesale maintenance. Maintenance performed at the depot level.

e. On-site maintenance. Maintenance performed where the materiel is located.

f. Off-site maintenance. Maintenance performed by DS, GS, and depot level maintenance operations not located on the same installation where the materiel is located.

g. Maintenance expenditure limit (MEL). The maximum expenditure permitted for one-time corrective maintenance of an end item, module, assembly, or reparable component to restore it to fully serviceable condition.

h. Technical inspection (TI). A detailed analysis of the reparability, maintenance effort, and cost to restore medical materiel to serviceable condition. As used in this bulletin, the term TI is not being used for the purpose of assigning a condition code for reporting excess materiel.

i. Verification inspection (VI). An inspection to validate the detailed analysis of a technical inspection when the TI determines an item is uneconomically repairable.

j. Standard materiel. A term used to describe an item with established essential characteristics and approval for use by the Defense Medical Standardization Board (DMSB). Standard materiel is always identified with national stock numbers (NSNs).

k. Nonstandard materiel. A term used to describe an item without DMSB established essential characteristics. Nonstandard materiel may be identified with NSNs.

Section II. GENERAL

1-4. Overview.

Medical materiel is an essential element of the health care delivery system. As such, materiel must operate in accordance with specified criteria and its appearance must reinforce and support the high military standards for patient care. If the appearance of an item of medical materiel used in a patient care or treatment area has deteriorated to the extent that it may have an adverse psychological impact upon patients, the materiel should be refinished. Costs associated with materiel refinishing will be included in repair or overhaul cost estimates.

1-5. Hazardous medical materiel.

Medical materiel declared hazardous will not be repaired unless the hazard can be eliminated by corrective maintenance.

1-6. Clinically undesirable medical materiel.

Medical materiel declared clinically undesirable for patient care and treatment by the DMSB or the Office of The Surgeon General (OTSG) will not be repaired or overhauled.

1-7. Federal supply groups and classes.

This bulletin is applicable to medical materiel (Class VIII) listed in table 1-1.

NOTE

The majority of medical materiel is contained in Federal supply groups 65 and 66.

Table 1-1. Federal supply groups and classes.

<i>Federal supply group</i>	<i>Federal supply class</i>
35	3540
41	4110
43	4310, 4330
46	4610
49	4940
61	6110
65	6515, 6520, 6525, 6530, 6540, 6545
66	6620, 6625, 6630, 6640, 6645, 6650, 6670, 6680, 6695
71	7105
79	7910

CHAPTER 2

INSPECTIONS

Section I. RETAIL MAINTENANCE (UNIT, DS, AND GS LEVELS)

2-1. Inspection requirements.

Two types of inspections, technical and verification, apply to retail maintenance operations. Inspection requirements are as follows:

a. Technical inspection.

(1) Perform a complete TI on each medical end item, assembly, module, printed circuit board (PCB), or other reparable component requiring corrective maintenance.

NOTE

Materiel requiring minor corrective maintenance (e.g., replacing an electrical connector or power cord) that will not approach the MEL does not require a TI.

(2) Perform a partial TI on each medical item that cannot be provided corrective maintenance at the unit, DS, or GS levels because of capability limitations. A partial inspection includes all procedures listed in paragraph 2-2a except that troubleshooting and/or disassembly will be limited to assembly/module level.

NOTE

You must receive approval from your support maintenance activity before you ship nonstandard materiel for repair. If you receive approval, ship with the materiel the manufacturer's operational and service manuals, as well as routine maintenance request and TI information.

b. Verification inspection. Perform a VI on each medical item that costs \$5,000 or more and is determined to be uneconomically repairable by the TI.

NOTE

The individual performing the TI on an item is not authorized to perform the VI.

2-2. Inspection procedures.

a. Medical end items. If appropriate or applicable, the TI or VI will include—

(1) performing preventive maintenance checks and services (PMCS) on each item using its technical manual (TM), TM 8-6500-001-10-PMCS, or by completing equivalent checks and services using the manufacturer's manuals;

(2) operational testing of the equipment;

(3) troubleshooting the equipment to determine the extent of defective assemblies, modules, or parts;

(4) electrical safety testing;

(5) calibrating the equipment (if critical to determine corrective maintenance cost data);

(6) performing an inventory of accessories (components of end item or basic issue items) required to operate the equipment; and

NOTE

Consumable operating supplies are not usually considered accessories.

(7) determining if unserviceable materiel was rendered unserviceable due to fair wear and tear (FWT).

b. *Assemblies, modules, PCBs, or other reparable components.* Using the procedures in the preceding subparagraph, perform the TI or VI on these items when you inspect the end item. If you are unable to complete a TI, do a partial inspection, completing as many procedures as possible.

NOTE

Do not perform a TI prior to shipping assemblies, modules, PCBs, dental handpieces, surgical handpieces, x-ray tubes, etc., that are routinely exchanged or rebuilt at wholesale maintenance operations. These items are periodically identified in the SB 8-75 series.

2-3. Documentation and forms.

a. Documentation for a TI or VI will include information on malfunctions; a listing of defective assemblies, modules, PCBs, or parts; missing or unserviceable accessories; and other pertinent information for the subsequent determination of corrective maintenance costs. Documentation will also include the identification of the TI and/or VI inspector.

b. Forms are prescribed in TB 38-750-2 and/or ADMS 18-HL3-RPB-IBM-UM (The Army Medical Department Property Accounting System (AMEDDPAS)).

2-4. Inspection personnel.

a. Personnel authorized to perform and validate a TI or VI on medical materiel will be limited to—

- (1) Health Services Maintenance Technicians,
- (2) military Medical Equipment Repairers, and
- (3) DOD civilians trained in the maintenance of medical materiel.

b. Personnel authorized to perform a TI are listed below. The results of the TI will subsequently be reviewed and/or validated by personnel listed in the preceding subparagraph 2-4a.

- (1) Manufacturer's service personnel.
- (2) Trained and certified service personnel or third-party contractors.

Section II. WHOLESALE MAINTENANCE (DEPOT LEVEL)

2-5. Inspection requirements.

Two types of inspections, technical and verification, apply to wholesale maintenance operations. Inspection requirements are as follows:

a. *Technical inspection.*

- (1) Complete the TI initiated at retail maintenance operations.
- (2) Perform a TI on each medical end item, assembly, module, PCB, or other reparable component requiring corrective maintenance, upgrade, modification, or overhaul.

NOTE

Materiel requiring minor corrective maintenance (e.g., replacing an electrical connector or power cord) that will not approach the MEL does not require a TI.

(3) Perform a TI on each assembly, module, PCB, dental or surgical handpiece, x-ray tube, etc., that is routinely exchanged or rebuilt for retail maintenance operations. (Refer to the note in para 2-2b.)

b. Verification inspection.

(1) Perform a VI on each medical item that costs \$5,000 or more and shipped from a retail maintenance operation when the TI determines that the item is uneconomically repairable.

(2) Perform a VI on each medical item that costs \$5,000 or more and classified as uneconomically repairable by a TI initiated at a wholesale maintenance operation.

NOTE

The individual performing the TI on an item is not authorized to perform the VI.

2-6. Inspection procedures.

a. Medical end items. If appropriate or applicable, the TI or VI will include—

(1) performing PMCS on each item using its TM, TM 8-6500-001-10-PMCS, or by completing equivalent checks and services using the manufacturer's manuals;

(2) operating the item as required;

(3) troubleshooting the item to determine the extent of defective assemblies, modules, PCBs, or parts;

(4) testing the item with special test devices, as applicable;

(5) validating compliance of standard medical materiel with published essential characteristics;

(6) performing an electrical safety test;

(7) calibrating the item (if critical to determine corrective maintenance costs);

(8) inventorying accessories; and

(9) determining if unserviceable materiel was rendered unserviceable due to FWT.

NOTE

Inventory accessories and/or operating supplies received from retail maintenance operations. Document this information on their maintenance request.

b. Assemblies, modules, PCBs, or other repairable components. The TI or VI will include—

(1) performing PMCS on each item using the applicable TM, TM 8-6500-001-10-PMCS, or by completing equivalent checks and services using the manufacturer's manuals;

(2) testing the item with special test devices, as applicable;

(3) troubleshooting the item to determine the extent of defective subassemblies or parts;

(4) validating compliance of standard materiel with published essential characteristics; and

(5) calibrating the item (if critical to determine corrective maintenance costs).

2-7. Documentation and forms.

Documentation for a TI or VI will include information on malfunctions; a listing of defective assemblies, modules, PCBs, or parts; missing or unserviceable accessories; and other pertinent information for the subsequent determination of corrective maintenance costs. Documentation will also include the identification of the TI and/or VI inspector.

2-8. Inspection personnel.

a. Personnel authorized to perform and validate a TI or VI on medical materiel will be limited to—

(1) Health Services Maintenance Technicians,

(2) military Medical Equipment Repairers, and

(3) DOD civilians trained in the maintenance of medical materiel.

b. Personnel authorized to perform a TI are listed below. The results of the TI will subsequently be reviewed and/or validated by personnel listed in the preceding subparagraph 2-8a.

(1) Manufacturer's service personnel.

(2) Trained and certified service personnel or third-party contractors.

CHAPTER 3

COST ESTIMATES

Section I. RETAIL MAINTENANCE (UNIT, DS, AND GS LEVELS)

3-1. General.

a. Required corrective maintenance will neither be broken into separate cost estimates nor performed to bring the item to less than fully serviceable condition to bypass prescribed MELs.

b. The man-hours required to complete materiel alterations, modifications, or special application upgrades are not chargeable as corrective maintenance.

c. The applicable direct labor rate is computed in accordance with AR 40-61, AR 750-1, AR 750-2, and Army Medical Command or Command Surgeon directives and procedures.

NOTE

The direct labor rate may be combined with the indirect labor rate for a composite labor rate.

d. A corrective maintenance cost estimate includes the following cost elements:

- (1) Direct labor.
- (2) Direct materiel.
- (3) Indirect labor and materiel (overhead).
- (4) Packaging and freight.
- (5) Miscellaneous.

3-2. Direct labor cost estimate.

Compute the direct labor cost estimate by multiplying the chargeable man-hours required to perform corrective maintenance, as determined by a TI, with the applicable direct labor rate. Significant criteria in the determination of a direct labor rate are listed below:

a. Chargeable man-hours include that labor (military or civilian) which can be specifically identified to the corrective maintenance.

b. Non-chargeable man-hours include the TI and all other labor that is classified as indirect labor (para 3-4).

3-3. Direct materiel cost estimate.

Determine the direct materiel cost estimate by identifying all chargeable materiel costs required to perform the corrective maintenance, as determined by a TI.

a. Chargeable materiel includes the following:

- (1) Repaired, rebuilt, or replacement assemblies, modules, or PCBs.
- (2) Repair parts.

b. Non-chargeable materiel examples include—

- (1) recording charts and paper;
- (2) common filters typically replaced by operator personnel;

TB MED 7

- (3) electrodes;
- (4) dental drills, burs, handpieces, etc.;
- (5) light bulbs;
- (6) batteries (rechargeable or not rechargeable);
- (7) radiographic/fluoroscopic tubes;
- (8) common hardware;
- (9) materiel associated with equipment installation;
- (10) materiel associated with equipment alteration, modifications, or special applications; and
- (11) other materials consumed during operation of the equipment.

NOTE

Non-chargeable material includes items which are expected to be used up during the operation of equipment.

c. Standard materiel is costed at the current price listed in the appropriate supply manual or the Army Master Data File (AMDF). Nonstandard materiel will be costed at the current replacement cost.

3-4. Indirect labor and materiel cost estimate.

Compute the indirect or overhead cost estimate by multiplying the chargeable man-hours required to perform the corrective maintenance, as identified by a TI, with the applicable indirect rate.

a. Chargeable indirect costs include the following:

- (1) Maintenance operations expenses identifiable to a work center or the maintenance shop performing the corrective maintenance, although not identifiable to a specific job.
- (2) General and administrative expenses.
- (3) Supervisory and administrative man-hours.

b. Non-chargeable indirect costs include the following:

- (1) Replacement of basic issue list items.
- (2) The labor or materiel expenses for applying alterations or modifications.
- (3) Operating expense items.

3-5. Freight and packaging cost estimate.

a. Freight will not be included as an element of cost when the maintenance materiel to be repaired is located in CONUS. When the materiel to be repaired is located overseas and no local capability exists, the cost of freight to CONUS will be included as an element of cost. The cost of freight includes all transportation and handling cost from point of use or storage to the designated CONUS point of repair.

b. When materiel cannot be repaired on-site, and costs are incurred to prepare the materiel for shipment, such costs (including materials) will be included in the cost estimate regardless of origin or destination.

3-6. Miscellaneous cost estimate.

Determine the miscellaneous cost estimate by identifying all chargeable contractual services acquired incidental to, and identifiable with a specific corrective maintenance action.

3-7. Corrective maintenance cost estimate.

Determine the total corrective maintenance cost estimate by combining the estimated costs for each of the five cost elements.

Section II. WHOLESALE MAINTENANCE (DEPOT LEVEL)

3-8. General.

A corrective maintenance cost estimate includes the following cost elements:

- a. Direct labor.
- b. Direct materiel.
- c. Indirect labor and materiel (overhead).
- d. Packaging and freight (contractual corrective maintenance only).
- e. Miscellaneous.

3-9. Direct labor.

Determine the chargeable direct labor man-hours, required to perform corrective maintenance, as determined by a TI.

- a. Chargeable man-hours include that labor (military or civilian) which can be specifically identified to the corrective maintenance.
- b. Non-chargeable man-hours include the TI and all other labor that is classified as indirect labor.

NOTE

The man-hours required to complete equipment alterations, modifications, or special application upgrades are not chargeable as corrective maintenance.

3-10. Direct materiel cost estimate.

- a. Chargeable materiel includes the following:
 - (1) Repaired, rebuilt, or replacement assemblies, modules, or PCBs.
 - (2) Repair parts.
 - (3) Accessories and operating supplies when required by DMSB essential characteristics for corrective maintenance of wholesale supply system materiel.
- b. Non-chargeable materiel examples include—
 - (1) recording charts and paper;
 - (2) common filters typically replaced by operator personnel;
 - (3) electrodes;
 - (4) dental drills, burs, handpieces, etc.;
 - (5) light bulbs;
 - (6) batteries (rechargeable or not rechargeable);
 - (7) radiographic/fluoroscopic tubes;
 - (8) common hardware;
 - (9) materiel associated with equipment installation; and
 - (10) materiel associated with equipment alteration, modifications, or special applications.
- c. Standard materiel is costed at the current price listed in the appropriate supply manual or the AMDF. Nonstandard materiel will be costed at the current replacement cost. The cost of fabricated items will be based on actual cost, when possible.

NOTE

Although costs for items such as dental/surgical handpieces and radiographic/fluoroscopic tubes are non-chargeable for corrective maintenance of an end item, the materiel costs for the maintenance of these items are chargeable.

3-11. Indirect labor and materiel.

All indirect labor and materiel is a chargeable cost.

3-12. Packaging and freight cost estimate.

A packaging and freight cost estimate only applies when an item must be shipped to a manufacturer or a third-party contractor for corrective maintenance. Chargeable costs include all packaging, handling, and freight expenses from the wholesale maintenance operation to the manufacturer or contractor.

3-13. Composite cost estimate.

Compute a composite cost estimate by multiplying the chargeable man-hours required to perform a corrective maintenance, as determined by a TI, with the direct labor, indirect labor, and indirect materiel rates. The composite rate is computed in accordance with AR 37-55, AR 37-60, AR 37-110, AR 40-61, AR 750-1, AR 750-2, and U.S. Army Medical Materiel Agency (USAMMA) directives and procedures.

3-14. Miscellaneous cost estimate.

Determine the miscellaneous cost estimate by identifying all chargeable contractual services acquired incidental to, and identifiable with a specific corrective maintenance action.

3-15. Corrective maintenance cost estimate.

Determine the total corrective maintenance cost estimate by combining the direct materiel cost; the packing and freight cost; and the composite cost.

Section III. PECUNIARY LIABILITY

3-16. Estimated cost of damages (ECOD).

a. An ECOD will be prepared when a TI supports an investigation of pecuniary liability and actual cost cannot be determined.

b. Basic policy for an ECOD in support of a report of survey is contained in AR 735-5.

CHAPTER 4

LIFE EXPECTANCIES

Section I. MATERIEL CLASSIFICATIONS

4-1. General.

Three basic classifications of medical materiel are established to control corrective maintenance expenditures. The classifications are indefinite life, definite life, and exempt materiel. Only definite life materiel has life expectancies.

4-2. Indefinite life materiel.

This classification of materiel is divided into three subclassifications.

a. Hospital furniture. This subclassification of materiel is characterized by infrequent replacement because of slow deterioration and wear out. Hospital furniture includes narcotics and/or medicine cabinets, surgical stands, mechanical beds, etc.

b. Basic electrical, mechanical, or electromechanical items. These items include patient lamps, sphygmomanometers, basic otoscopes/ophthalmoscopes, stethoscopes, and other low cost materiel. This subclassification is characterized by frequent replacement because of fast wear out due to high use and industrial or technological obsolescence.

c. Special purpose items. These items include a wide range of assemblies/modules such as x-ray tubes, dental/surgical handpieces, PCBs, etc. These items are characterized by interchangeability between equipment and replacement because of industrial obsolescence.

4-3. Definite life materiel.

This classification of materiel is characterized by—

- a. deterioration and wear out with use and age,
- b. declining MELs based on life expectancies,
- c. regular replacement based upon economic considerations, and
- d. replacement by exception based on other factors. These factors include the following:
 - (1) Long term requirement for the materiel which must be available on a continuous basis.
 - (2) Nonavailability of like or replacement materiel.
 - (3) Lengthy acquisition timeframes.
 - (4) Industrial obsolescence, including industry's inability to provide satisfactory repair parts support.
 - (5) Nonavailability of funds for replacement materiel.
 - (6) Technological obsolescence, including the availability of more clinically and/or logistically effective replacements.

4-4. Exempt materiel.

Exempt materiel is selected end items, assemblies, modules, PCBs, and other repairable components which may be excluded from MEL control by the Army Service Item Control Center (SICC). Selected exclusions may be granted by the SICC or OTSG to wholesale maintenance operations to retain items in service regardless of cost to meet critical operational requirements.

Section II. MATERIEL LIFE EXPECTANCIES

4-5. Indefinite life materiel.

Indefinite life materiel has no fixed life expectancies.

4-6. Definite life materiel.

a. Life expectancies for a wide range of medical end items are provided in alphabetical sequence in Appendix B. Items with varying nomenclatures are listed with their common variations. The life expectancies are expressed in years.

b. Life expectancies for medical end items not listed in appendix B should be based on analyzes of similar items coupled with the manufacturers' recommendations and/or USAMMA determinations.

4-7. Exempt materiel.

Medical materiel, when excluded from MEL control, is granted indefinite life.

Section III. LIFE EXPECTANCY ADJUSTMENTS

4-8. Materiel in service.

All medical materiel is considered in service (use) when ready for clinical or nonclinical use in the care and treatment of patients. The in-service date starts the life expectancy of materiel.

4-9. Adjustments.

a. Retail maintenance.

(1) Adjustments to life expectancies may be approved by Army Medical Commands for abnormal or subnormal use and for materiel overhauled at DS/GS levels of maintenance or overhauled through contractual services.

(2) Adjustments to life expectancies for materiel modification, alteration, or upgrade, if required, will be established by the directing authority.

b. Wholesale maintenance. Adjustments to life expectancies for materiel overhauled or rebuilt will be provided by USAMMA.

CHAPTER 5

MAINTENANCE EXPENDITURE LIMITS

Section I. INTRODUCTION

5-1. General.

a. This chapter provides the MEL that applies to each corrective maintenance action for medical materiel. The MEL is to ensure economic and operational effectiveness of both retail and wholesale maintenance operations. An MEL also ensures that it is more economical and operationally effective to perform corrective maintenance than to replace the materiel.

b. The current replacement (acquisition) cost is used for an MEL determination.

c. The MEL is a mandatory one-time expenditure limit unless the materiel is exempt (para 4-4 and para 4-7) or granted a waiver (para 5-6).

d. The MEL computation factors are provided in subsequent paragraphs for each materiel classification.

5-2. Computation procedures.

The computation of an MEL consists of multiplying the MEL factor by the current replacement cost.

Section II. INDEFINITE LIFE MATERIEL

5-3. Indefinite life MEL factors.

The MEL factors for indefinite life materiel subclassifications are listed in table 5-1.

Table 5-1. MEL factors.

Hospital furniture	80 percent
Basic electrical, mechanical, or electromechanical materiel	80 percent
Special purpose items	90 percent

Section III. DEFINITE LIFE MATERIEL

5-4. Definite life MEL factors.

a. The MEL factors for definite life materiel are provided in figure 5-1 and table 5-2.

b. The MEL for materiel which has reached or exceeded its life expectancy will be 10 percent. This percent will remain constant as long as the materiel is in use, regardless of its age.

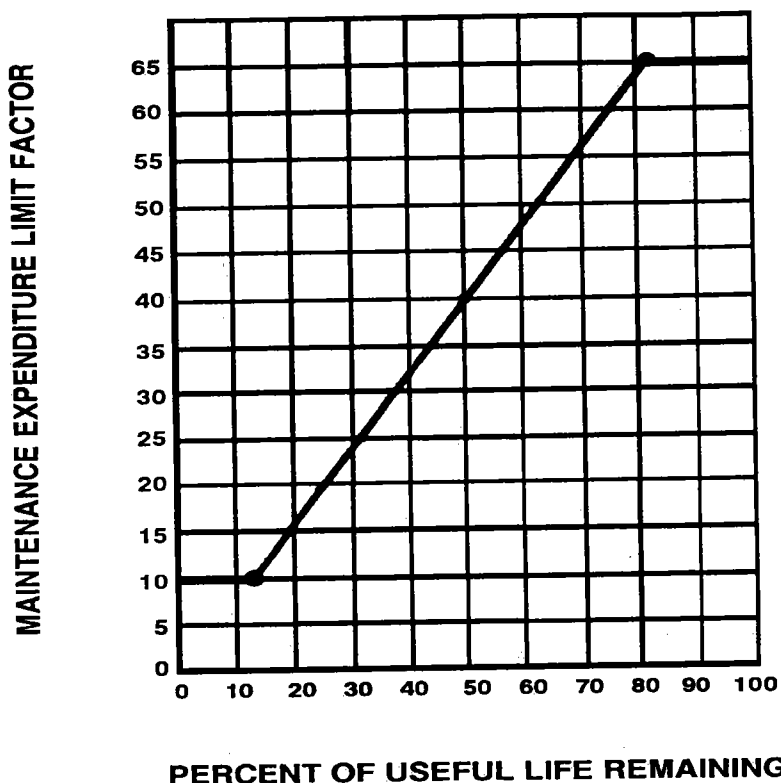


Figure 5-1. MEL factor graph.

c. Graph instructions.

(1) Determine the percent of useful life remaining for each item by applying the following formula. Years should be converted to months for simplicity.

$$\frac{\text{LIFE REMAINING IN MONTHS}}{\text{LIFE EXPECTANCY IN MONTHS}} = \text{PERCENT OF USEFUL LIFE REMAINING}$$

EXAMPLE:

$$\frac{5 \text{ YEARS}}{10 \text{ YEARS}} \quad \text{OR} \quad \frac{60 \text{ MONTHS}}{120 \text{ MONTHS}} = .50 \text{ OR } 50\% \text{ USEFUL LIFE REMAINING}$$

(2) Using figure 5-1 to find the percent of useful life remaining, read up vertically to a point of intersection with the baseline. Then, project a horizontal line to the maintenance expenditure limit factor.

(3) Table 5-2 provides the percent of useful life remaining to help you calculate an MEL factor.

Table 5-2. MEL factor computation.

PERCENT USEFUL LIFE REMAINING	MEL FACTOR
12.50	0-10
13.75	11
15.00	12
16.25	13
17.50	14
18.75	15
20.00	16
21.25	17
22.50	18
23.75	19
25.00	20
26.25	21
27.50	22
28.75	23
30.00	24
31.25	25
32.50	26
33.75	27
35.00	28
36.25	29
37.50	30
38.75	31
40.00	32
41.25	33
42.50	34
43.75	35
45.00	36
46.25	37
47.50	38
48.75	39
50.00	40
51.25	41
52.50	42
53.75	43
55.00	44
56.25	45

Table 5-2. MEL factor computation - continued.

57.50	46
58.75	47
60.00	48
61.25	49
62.50	50
63.75	51
65.00	52
66.25	53
67.50	54
68.75	55
70.00	56
71.25	57
72.50	58
73.75	59
75.00	60
76.25	61
77.50	62
78.75	63
80.00	64
81.25	≥65

Section IV. EXEMPT MATERIEL

5-5. Exempt MEL factor.

No MEL factor applies for exempt materiel.

Section V. WAIVERS

5-6. Policy.

Basic policy for waivers is contained in AR 40-61, AR 750-1, and AR 750-2.

a. Medical treatment facilities. The commander may grant a one-time waiver of an MEL for corrective maintenance of medical materiel. Commanders will ensure that—

- (1) the replacement materiel is not available,
- (2) an urgent need for the materiel exists to save life or prevent patient distress, and
- (3) maintenance capability exists to complete the corrective maintenance prior to the arrival of the replacement materiel.

b. Field medical units. The commander may grant a one-time waiver of an MEL for corrective maintenance of medical materiel only when directed to prepare for deployment. Commanders will ensure that the replacement

materiel is not available from the supply system and maintenance capability exists to complete the corrective maintenance prior to deployment.

c. Army Medical Commands and Command Surgeons. The commander or Command Surgeon may grant a permanent waiver to an MEL provided that replacement materiel is approved and submitted for acquisition.

d. Service Item Control Center. The commander may grant waivers of MELs for corrective maintenance of standard materiel used in field medical units.

5-7. Procedures.

a. Waiver documents should be maintained at unit level maintenance activities for the life of the materiel.

b. Waivers for corrective maintenance of materiel shipped to DS, GS, or depot level support maintenance activities must be provided with the maintenance request.

APPENDIX A

REFERENCES

AR 37-55	Uniform Depot Maintenance Cost Accounting and Production Reporting System
AR 37-60	Pricing for Materiel and Services
AR 37-110	Budgeting, Accounting, Reporting, and Responsibilities for Industrial Funded Installations and Activities
AR 40-61	Medical Logistics Policies and Procedures
AR 735-5	Policies and Procedures for Property Accountability
AR 750-1	Army Materiel Maintenance Policy and Retail Maintenance Operations
AR 750-2	Army Materiel Maintenance Wholesale Operations

Appendix B

LIFE EXPECTANCIES

EQUIPMENT	LIFE EXPECTANCY IN YEARS
Absorptiometer, Dual Photon, X-ray	8
Absorptiometer, Single Photon, X-ray	8
Aerator	12
Air Compressor	15
Air Sampler	10
Alcohol Analyzer	8
Amalgamator	6
Amino Acid Analyzer	8
Analyzer	
Alcohol	8
Amino Acid	8
Antibody Susceptibility	8
Blood Gas/pH	8
BUN	6
Carbon Dioxide	5
Carbon Monoxide	8
Cell	10
Clinical Chemistry	8
Coagulation	5
Defibrillator	8
ECG Monitor	5
Electrical Safety	8
Electrolyte	7
Electrosurgical	10
Enzyme	5
Esophageal Motility	7
Glucose	7
Hearing Aid	10
Infusion Pump	5
Lactate	7
Lithium	8

Middle Ear	10
Nitrogen	8
Nitrous Oxide	8
Oxygen	10
Pacemaker Function	8
Platelet Aggregation	5
Pulmonary Function	10
Radioimmunoassay	8
Sodium/Potassium	8
Ultrasonic Unit	9
Vision Function	10
Anesthesia Apparatus	10
Antibiotic Susceptibility Analyzer	8
Apnea Monitor	7
Arthroscope System	10
Articulator, Dental	10
Aspirator	
Dental	10
Surgical	10
Thoracic	10
Uterine	10
Audiometer	10
Audiometric Booth	15
Auditory Function Screening Device	10
Auscultoscope	10
Autotransfusion Unit	8
Balance, Electronic	7
Balance, Mechanical	10
Basal Metabolism Unit	8
Bassinet	12
Bath	
Paraffin, Clinical Laboratory	10
Paraffin, Physical Therapy	12
Sitz	10
Water	10
Whirlpool	10
Battery Charger	10

Bed	
Air Fluidized	10
Birthing	12
Circle, Electric	12
Electric	12
Hydraulic	12
Pediatric	15
Bilirubinometer	8
Biofeedback System	8
Blast Cleaning Unit, Dental	10
Blender, Clinical Laboratory	10
Blood Cell Processor	10
Blood Flow Detector, Ultrasonic	10
Blood Gas/pH Analyzer	8
Blood Glucose Monitor	8
Blood Grouping System, Automated	9
Blood Pressure Apparatus, Electronic	7
Blood Recovery System	8
Blood Warmer	8
Booth, Audiometric	15
Bronchoscope, Fiberoptic (FO)	6
Bronchoscope, Rigid	10
BUN Analyzer	6
Cabinet, Dental (Sand Blasting)	10
Cabinet, Warming	12
Calibrator-analyzer	8
Calibrator, Audiometer	8
Calibrator/Generator ECG	8
Caloric Irrigation Unit	10
Camera	
Endoscopic	8
Fundus	8
GAMMA	8
Identification (X-ray Film)	8
Multi-image	10
Radiographic Photospot	8
Scintillation	8

TB MED 7

Surgical	8
Video	8
Capnograph	10
Carbon Dioxide	
Analyzer	5
Monitor, Exhaled Gas	10
Monitor, Transcutaneous	10
Carbon Monoxide Analyzer	8
Cardiac Output Unit	6
Cart, Resuscitation	10
Casting Unit, Dental	8
Cell	
Analyzer	10
Separator	8
Saver	8
Washer	5
Central Gas Systems	10
Centrifuge	
Cell Washing	8
Laboratory, Floor	10
Laboratory, High Speed	6
Laboratory, Table Top	8
Refrigerated	8
Chair	
Dental	10
Examination/Treatment	10
Optometry	10
Podiatric	10
Chamber, Hyperbaric	15
Chest, Medical Instrument and Supply Sets	16
Chloridometer	10
Chromatography Equipment, Gas	10
Circulatory Assist Unit, Intra-Aortic Balloon	8
Cleaner	
Bedpan	10
Dental, Steam	8
Ultrasonic	10

Vacuum	8
Vacuum, Surgical	6
Clinical Chemistry Analyzer	8
Coagulation Analyzer	5
Coagulation Timer	8
Coagulator, Sonic	10
Collector, Dust	10
Collimator, Radiographic	10
Colonoscope	5
Color Vision Tester	12
Colposcope	7
Compression Unit, Intermittent	10
Compressor, Air	15
Co-oximeter	10
Counter	
Blood Cell	10
Cell	5
Colony	8
GAMMA	8
Particle	8
Pill	10
Platlet	8
Scintillation	8
Crusher, Syringe and Needle	10
Cryogenic Blood Banking Equipment	10
Cryostat	10
Cryosurgical Unit	10
Cryosurgical Unit, Ophthalmic	10
CT Scanner	8
Curing Unit, Dental, Acrylic	8
Cutter-aspirator, Vitrectomy	8
Cutter, Bone	10
Cutter, Cast	8
Cutter-vacuum, Orthopedic Cast	6
Cystic Fibrosis Screening Devices	10
Cystometer	10
Cystoscope	10
Cystourethroscope	10

TB MED 7

Darkroom, X-ray	6
Defibrillator	8
Defibrillator Analyzer	8
Defibrillator/Monitor	8
Demineralizer	8
Densitometer, Recording	8
Dental Engine	8
Dental Operating and Treatment Unit	10
Depth Perception Apparatus	10
Dermatome	10
Diathermy Unit	10
Diathermy Unit, Ultrasonic	12
Diluter	10
Dispenser, Paraffin	10
Distilling Apparatus	15
Dosimeter, Radiation	10
Dosimeter, Sound	10
Drill, Bone	10
Drill, Cranial	10
Dryer, X-ray Film	10
Dynamometer	15
Dynamometer Exercise System	12
ECG Monitor	7
ECG Monitor Analyzer	5
EEG Monitor	8
Electrical Safety Analyzer	8
Electrocardiograph	
Interpretive	8
Multichannel	8
Three Channel	8
Electrocautery Unit	10
Electroencephalograph	10
Electrolyte Analyzer	7
Electromyograph	10
Electronystagmograph	8
Electro-oculograph	8
Electrophoresis Unit	8
Electroretinograph	8

Electrosurgical Analyzer	10
Electrosurgical Unit	8
Endoscope	10
Endoscopic Power Supply	10
ENT Treatment Unit	12
Enzyme Analyzer	5
Ergometer	10
Esophageal Motility Analyzer	7
Evoked Potential Unit	10
Exerciser, Physical Therapy	15
Eye Movement Monitor	8
Fetal Heart Detector	8
Fetal Monitor	10
Fiberoptic Light Instruments	8
Fibrometer	10
Filter/Tank Unit, Pharmaceutical	6
Fluorometer	10
Freezer	
Blood Cell	10
Blood Plasma	12
Laboratory	10
Furnace, Dental	8
GAMMA Camera	8
GAMMA Counter	8
Gas Sampling Unit	10
Gas Scavenger System, Anesthesia Unit	10
Gastroscope, Flexible	5
Gastroscope, Rigid	5
Generator, Hydrogen	10
Glucose Analyzer	7
Grinding/Polishing Machine, Dental	8
Headlight	12
Hearing Aid Analyzer	10
Heart-Lung Bypass System	8
Heart Rate Monitor	7
Heat Sealing Unit	10
Heat Treating Unit, Ophthalmic	10
Heater, Heat Treatment Pad	10

TB MED 7

Hemodialysis Unit	5
Hemoglobinometer	10
Hood	
Chemical	10
Dental Laboratory	10
Fume	10
Isolation, Laminar Air Flow	10
Microbiological	12
Humidifier	10
Hydrocollator	10
Hyperbaric Chamber	15
Hypodermic Injection Unit	8
Hypo/Hyperthermia Unit	10
Hypothermia Apparatus	10
Illuminator, X-ray Film, Motorized	8
Immunodiffusion Equipment	10
Incubator	
Aerobic	10
Anaerobic	10
Infant	10
Infant, Transport	8
Test Tube, Laboratory	10
Infusion Controller	10
Infusion Pump	10
Infusion Pump Analyzer	5
Injector	10
Injector, Angiographic	10
Insufflator	10
Irrigator	10
Isokinetic Exercise Equipment	12
Lactate Analyzer	7
Lantern, Color Perception Testing	12
Laparoscope	10
Laser	
Argon	10
Carbon Dioxide	10
Dye	10
Krypton	10

Nd:YAG	10
Ophthalmic	10
Lathe, Dental Laboratory	8
Lavage Unit, Dental, Oral	8
Lavage Unit, Surgical	8
Lensometer	12
Lift, Patient	10
Light (Lamp)	
Bilirubin	10
Dental	10
Dental Activator	8
Examination	10
Infrared	10
Fiberoptic	8
Microscopic	10
Phototherapy	10
Surgical	10
Ultraviolet	10
Line Isolation Monitor	25
Linear Accelerator	7
Liquid Oxygen System	10
Lithotripter, Extracorporeal	5
Lithotripter, Ultrasonic	5
Lithium Analyzer	8
Loader, X-ray Film	6
Magnet, Eye	10
Magnetic Resonance Imaging Equipment	5
Manikin	6
Marker, Ocular	8
Mercury Monitor/Detector	10
Metal Detector, Magnetic	14
Meter, Foot Candle	8
Meter, Leakage, RF	8
Microscope	
Contact Lens	8
Electron	10
Laboratory	12
Operating	12

TB MED 7

Phase Contrast	12
Stereo	12
Ultraviolet	12
Microsurgical Instruments	10
Microtome	
Cryostat	10
Rotary	10
Middle Ear Analyzer	10
Mixer, Clinical Laboratory	10
Mixer, X-ray Film Chemistry	10
Mixer-Investor, Vacuum	8
Moist Therapy Pack Conditioner	10
Monitor	
Apnea	7
Blood Glucose	8
Carbon Dioxide, Exhaled Gas	10
Carbon Dioxide, Transcutaneous	10
ECG	7
EEG	8
Eye Movement	8
Fetal Heart, Ultrasonic	7
Heart Rate	7
Oxygen, Transcutaneous	8
Pressure	8
Pulse	7
Radiation	8
Respiration	10
Temperature	8
Transcutaneous	7
Nebulizer, Pneumatic	10
Nebulizer, Ultrasonic	10
Nephroscope	10
Nitrogen Analyzer	8
Nitrous Oxide Analyzer	8
Oculoplethysmograph	8
Ophthalmometer	11
Organ Preservation System	10
Osmometer	10

Oven, Dental	8
Oven, Drying	10
Oximeter	10
Ear	10
In Vitro	10
Pulse	5
Oxygen	
Analyzer	10
Blender	10
Concentrator	8
Meter	8
Oxygen-Air Proportioner	10
Oxygenator	10
Pacemaker, Cardiac, External	5
Pacemaker, Function Analyzer	8
Package Sealer	10
Pad, Circulating Fluid, Localized Heating/Cooling	10
Percussor	5
Perimeter	10
Peritoneal Dialysis Unit	8
pH Meter	10
Phonocardiograph	8
Phorometer	12
Phoropter	12
Photometer, Flame	8
Photometer, Reflectance	10
Phototachometer	5
Phototherapy Unit	10
Phototherapy Unit, Hyperbilirubinemia	8
Physiologic Monitor System	
Acute Care	7
Cardiac Catheterization	7
Neonatal	7
Stress Exercise	7
Pill Counter, Pharmaceutical	10
Pipette, Automatic	10
Platelet Aggregation Analyzer	5
Plethysmograph	10

TB MED 7

Pneumatic Tester	8
Pneumothorax Unit	12
Porcelain Furnace, Dental	10
Pressure Monitor	8
Pressure Pad, Alternating	10
Processor	
X-ray Film, Automatic, Dental	8
X-ray Film, Automatic, Full Size	6
X-ray Film, Automatic, Table Top	7
Projector	
Chart, Eye	10
Cine	10
Microscope	12
Ophthalmic	10
Prophylactic Unit, Dental, Ultrasonic	6
Pulmonary Function Analyzer	10
Pulse Monitor	7
Pulse Oximeter	5
Pump	
Breast	10
Enteral Feeding	10
Infusion	10
Suction	10
Syringe, Oxytocin	10
Vacuum	10
Volumetric	10
Radiation Counter	8
Radiation Monitor	8
Radiographic/Fluoroscopic Unit, General Purpose	10
Radiographic/Fluoroscopic Unit, Mobile	8
Radiographic Table Systems	10
Radiographic Unit	
Chest	8
Dental	8
General Purpose (to 500 mA)	12
General Purpose (over 500 mA)	8
Mammographic	10
Mobile	8

Therapeutic	8
Tomographic - (Computer Assisted)	8
Tomographic - (Not Computer Assisted)	10
Radiometer	8
Radiometer, Ultraviolet	8
Radiotherapy Unit	8
Recorder	
Chart	10
Echocardiographic	8
Long Term	6
Long Term ECG, Portable	5
Tape	8
Video Disk	8
Refractometer	10
Refractor, Ophthalmologic	10
Refrigerator	
Biologic	12
Blood	12
Blood Bank	10
Cold Pack Therapy	12
Laboratory	12
Morgue	12
Refrigerator/Freezer	12
Regulator, High Pressure, Gas	10
Renal Transport Unit	8
Respiration Monitor	10
Resuscitator, Pulmonary, Gas	6
Resuscitator, Pulmonary, Manual	10
Rotator	10
Sanitizer	12
Saw	
Autopsy	10
Bone	10
Surgical	10
Scale	
Autopsy	12
Bed	10
Floor	14

TB MED 7

Infant	15
Laboratory	8
Scanner	
Computed Tomography (CT)	8
Long-term Recording, ECG	7
Ultrasonic, General Purpose	8
Scintillation Camera	8
Scintillation Counter	8
Sealing Machine	10
Sealing Machine, Unit Dose	10
Sensitometer, Radiographic	10
Shaker, Laboratory	10
Sharpener, Dental	7
Sharpener, Microtome Knife	10
Simulator	
Arrhythmia	7
ECG	10
Medical Functions	8
Radiotherapy	10
Sink, Portable	12
Sink, Surgical Scrub	12
Slide Stainer	10
Slit Lamp	10
Sodium/Potassium Analyzer	8
Spectrometer, Mass	8
Spectrophotometer	8
Sphygmomanometer, Electronic	10
Spirometer	10
Stapler, Automatic, Suture	5
Sterilizer	
Agar	10
Ethylene Oxide	12
Inoculating Loop	15
Steam	12
Steam/Ethylene Oxide	12
Steam, Table Top	10
Stethoscope, Electronic	10
Stethoscope, Ultrasonic	7

Stimulator	
Bone Growth	10
Nerve	10
Visual	18
Stirrer	10
Stretcher	15
Suction Apparatus	10
Suction/Pressure Unit	10
Syringe Pump, Oxytocin	10
Table	
Examination/Treatment	15
Fracture	15
Nuclear Medicine	10
Obstetrical	20
Operating	15
Orthopedic	10
Physical Therapy	15
Urological	15
Tachistoscope	10
Tachometer, Strobe	8
Telemetry Unit	10
Temperature Monitor	8
Tent, Oxygen	8
Test Set, Electrosurgical	8
Tester	
Color Vision	12
Current Leakage	8
Defibrillator	8
Pulp	8
Thermometer, Electronic	5
Thermoregulator	8
Thyroid Uptake System	10
Timer	10
Timer, Coagulation	8
Tissue Embedding Equipment	10
Tissue Processor	10
Titration	10
Tonometer	10

TB MED 7

Tourniquet, Pneumatic	10
Traction Unit	10
Transcutaneous Monitor	7
Transilluminator	12
Treadmill	8
Turning Frame, Orthopedic	10
Tympanometer	10
Ultrasonic Cleaning Systems	10
Ultrasonic Unit	
Analyzer	9
Dental Prophylaxis	6
Diagnostic	12
Ultrasound Unit, Therapeutic	7
Unit Dose Packing System	10
Urinary Collection Unit, Precision Measurement	8
Urodynamic Measurement System	7
Vacuum Mixing Device, Dental	8
Vacuum System, Dental	12
Vaporizer, Anesthesia Unit	10
Vectorcardiograph	7
Ventilator	
Air Evacuation	10
Anesthesia Unit	10
Neonatal	10
Volume	10
Vibrator, Mixer, Dental	10
View Box	
Rh Typing	10
X-ray	12
Vision Function Analyzer	10
Vision Tester, Color	12
Vitrectomy Unit	7
Warmer	
Blood	8
Radiant, Infant	10
Slide, Histology	10
Solution	12

Washer	
Bedpan	10
Labware	8
Surgical Instruments	8
Washer/Sterilizer	8
Water Bath, Electric	10
Welding Unit, Orthodontic	8
Wheelchair, Manual	6
Wheelchair, Powered	5
X-ray	
Absorptiometer, Dual Photon	8
Absorptiometer, Single Photon	8
Calibration/Verification System	8
Chemical Mixer	10
Film Changer, Cassette	10
Film Dryer	8
Film Duplicator	8
Film Handling Equipment, Automatic, Daylight	6
Film Processor	8
Film Processor, Automatic, Cline	6
Film Processor, Automatic, Dental	8
Film Processor, Automatic, Full Size	6
Film Processor, Automatic, Table Top	7

GLOSSARY

AMEDDPAS	Army Medical Department Property Accounting System.
AMDF	Army master data file.
AR	Army regulation.
BUN	Blood, urea, and nitrogen.
CONUS	Continental United States.
CT	Computed tomography.
DA	Department of the Army.
DMSB	Defense Medical Standardization Board.
DOD	Department of Defense.
DS	Direct support.
ECOD	Estimated cost of damages.
ECG	Electrocardiogram.
EEG	Electroencephalogram.
ENT	Ears, nose, and throat.
FO	Fiberoptic.
FWT	Fair wear and tear.
GS	General support.
mA	Milliampere.
MED	Medical.
MEL	Maintenance expenditure limit.
Nd	Neodymium.
NO	Number.
NSN	National stock number.
OTSG	Office of The Surgeon General.
para	Paragraph.
PCB	Printed circuit board.
pH	Potential of hydrogen.
PMCS	Preventive maintenance checks and services.
RF	Radio frequency.
Rh	Rhodium.
SB	Supply bulletin.
SICC	Service Item Control Center.
TB	Technical bulletin.
TI	Technical inspection.
TM	Technical manual.
TMDE	Test, measurement, and diagnostic equipment.

TB MED 7

USAMMA

VI

YAG

U.S. Army Medical Materiel Agency.

Verification inspection.

Yttrium-aluminum-garnet.

INDEX

This index is organized alphabetically by topic and by subtopic. Topics and subtopics are identified by paragraph number.

Adjustments, life expectancies, 4-9

Army Master Data File (AMDF), 3-3, 3-10

Army Medical Command, 3-1, 5-7

Army Service Item Control Center (SICC), 4-4

Calibration, 2-2, 2-6

Chargeable indirect costs, 3-4

Chargeable materiel, 3-3, 3-4, 3-10

Command Surgeon, 3-1, 5-7

Computation procedures, 5-2

Consumable operating supplies, 2-2

Corrective maintenance, 2-1, 2-5, 3-1, 3-4, 3-12, 3-13, 4-1, 5-1, 5-7, 5-8

Cost estimate

 Composite, 3-13, 3-15

 Corrective maintenance, 2-2, 3-1, 3-7, 3-8, 3-15

 Direct labor, 3-1, 3-10

 Materiel, 3-4

 Miscellaneous, 3-6, 3-14

Defense Medical Standardization Board (DMSB), 1-3, 1-6

Definite life materiel, 4-1, 4-3, 4-6

Direct labor, 3-9, 3-13

Direct labor rate, 3-1, 3-2

Direct materiel cost estimate, 3-3, 3-2, 3-10, 3-15

Documentation, 2-3, 2-7

Electrical safety testing, 2-2, 2-6

Estimated cost of damages (ECOD), 3-16

Exempt materiel, 4-1, 4-4, 4-7, 5-5

Fair wear and tear (FWT), 2-2

Federal supply class, 1-7

Federal supply group, 1-7

Forms, 2-3

Freight cost estimate, 3-1, 3-5, 3-8, 3-12, 3-15

Hazardous materiel, 1-5

Indefinite life materiel, 4-1, 4-2, 4-5, 5-4

Indirect labor, 3-4, 3-11, 3-13

Indirect labor and materiel cost estimate, 3-4, 3-11

Inspection

Personnel, 2-4, 2-8

Procedures, 2-2, 2-6

Requirements, 2-1, 2-5

Technical, 1-1, 1-3, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 3-2, 3-3, 3-4, 3-9, 3-13, 3-16

Verification, 1-3, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8

Inventory of accessories, 2-2, 2-6

Life expectancies, 4-6

Life expectancies adjustments, 4-9

Maintenance

Capabilities, 1-3

Corrective, 2-1, 2-5, 3-1, 3-4, 3-12, 3-13, 4-1, 5-1, 5-7, 5-8

Expenditure limits, 1-1, 1-3, 2-1, 2-5, 3-1, 4-3, 4-4, 4-7, 5-1, 5-2, 5-4, 5-5, 5-6

Expenditure limits factors, 5-2, 5-3, 5-4, 5-5

Expenditure limits factor graph, 5-4

Levels, 1-3

Off-site, 1-3

On-site, 1-3, 3-5

Man-hours, 3-1, 3-4, 3-9

Manufacturer's manuals

Operational, 2-1, 2-2, 2-6

Service, 2-1, 2-2, 2-6

Material refinishing, 1-4

Materiel cost estimate, 3-4

Materiel in service, 4-8

Miscellaneous cost estimate, 3-6, 3-14

National stock number (NSN), 1-3

Non-chargeable indirect costs, 3-4

Non-chargeable materiel, 3-3, 3-10

Nonstandard materiel, 1-3, 2-1, 3-3

Office of The Surgeon General (OTSG), 1-6, 4-4

Off-site maintenance, 1-3

One-time expenditure limit, 5-3

On-site maintenance, 1-3

Operational testing, 2-2

Overhaul, 2-5

Overhead, 3-4

Packaging cost estimate, 3-1, 3-5, 3-8, 3-12, 3-15

Partial technical inspection, 2-1

Pecuniary liability, 3-16

Preventive maintenance checks and services (PMCS), 2-2, 2-6

Purpose, 1-1

Refinishing, material, 1-4

Reparable components, 2-1

Retail maintenance

 Calibration, 2-2

 Definition, 1-3

 Electrical safety testing, 2-2

 Inventory of accessories, 2-2

 Operational testing, 2-2

 Partial technical inspection, 2-1

 Preventive maintenance checks and services (PMCS), 2-2

 Reparable components, 2-1

 Technical inspection, 2-1, 2-2, 2-3, 2-4, 3-3

 Troubleshooting, 2-2

 Verification inspection, 2-1, 2-2, 2-3, 2-4

Standard materiel, 1-3, 3-3, 3-10

Supply class, 1-7

Supply group, 1-7

Technical inspections, 1-1, 1-3, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 3-2, 3-3, 3-4, 3-9, 3-13, 3-16

Testing, 2-6

Troubleshooting, 2-2, 2-6

U.S. Army Medical Materiel Agency (USAMMA), 3-13, 4-6, 4-9

Undesirable materiel, 1-6

Uneconomically repairable, 2-5

TB MED 7

Unserviceable materiel, 2-2, 2-6

Verification inspection, 1-1, 1-3, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8

Waivers, 5-6, 5-7

Wholesale maintenance

Calibration, 2-6

Definition, 1-3

Electrical safety testing, 2-6

Inventory of accessories, 2-6

Preventive maintenance checks and services (PMCS), 2-6

Technical inspection, 2-5, 2-6, 2-7, 2-8

Testing, 2-6

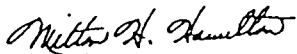
Troubleshooting, 2-6

Verification inspection, 2-5, 2-6, 2-7

By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:



MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army

Distribution:

To be distributed in accordance with DA Form 12-34-E, block 3397, Maintenance Expenditure Limits for Medical Materiel requirements for TB MED 7.

PIN: 069993-000