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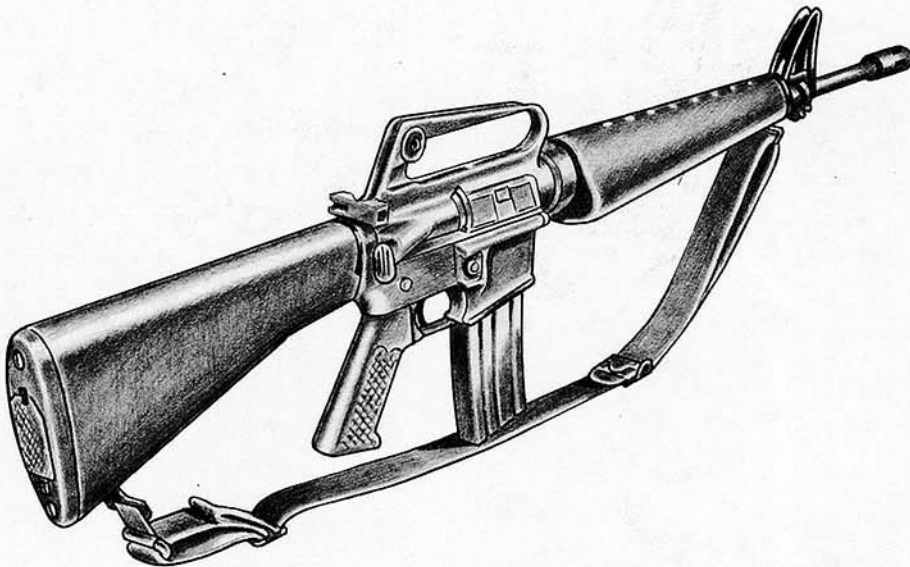
FM 42-9-4

FIELD MANUAL

MAINTENANCE AND REPAIR PARTS
CONSUMPTION PLANNING GUIDE FOR
CONTINGENCY OPERATIONS

ARMAMENT

RIFLE, 5.56mm, M16A1



HEADQUARTERS, DEPARTMENT OF THE ARMY

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FOREWORD

It is extremely important that the capability to reasonably predict repair-part requirements for wartime and contingency operations be established. Therefore, this manual provides a management tool immediately available for use in the field, in the Army School System, and by Army National Maintenance Points and Inventory Control Points. It provides reference data to commanders, logistics planners and item managers to assist in forecasting mission-essential maintenance and associated repair-parts requirements for contingency operations and war-reserve planning.

The data provided herein does not constitute authority for peacetime requisitioning or stockage of items in the field not authorized by peacetime procedures prescribed by Army regulations, policy and doctrine, as outlined in Chapter 1.

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Washington, D.C., 31 December 1976

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CHAPTER 1

INTRODUCTION

1-1. PURPOSE.

a. The purpose of this manual is to inform commanders, logistics planners, and item managers of the supply and maintenance requirements that may be generated by an end item during a contingency operation and for war-reserve planning.

b. Users of this manual are encouraged to submit recommended changes or comments to improve the manual. Comments should be keyed to the page, paragraph, and line of the text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publications) and forwarded direct to the Commander, US Army Logistics Center, ATTN: ATCL-MR, Ft Lee, VA 23801.

1-2. SCOPE.

a. This manual provides information relative to Mission-Essential Maintenance Operations (MEMO), maintenance times, mission-essential repair parts, and repair-part quantities for selected combat significant equipment. The manual is divided into 6 Chapters. The scope of each chapter is described below.

b. Chapter 1. Provides general information concerning the manual and provides instruction on its purpose and use.

c. Chapter 2. Outlines the procedure and

methodology by which the data presented in Chapters 3, 4, 5, and 6 are developed.

d. Chapter 3. Contains a usage profile (para 1-5k) of the end item in a contingency operation.

e. Chapter 4. A Contingency Maintenance Allocation Chart (CMAC) for the end item indicating which maintenance operations are essential, deferrable, or non-essential.

f. Chapter 5. A listing of the Mission-Essential Maintenance Operations (MEMO) for the end item and all the data pertinent thereto.

g. Chapter 6. A consolidated listing of the repair parts and quantities thereof that are expected to be consumed in support of the MEMO for the end item.

1-3. APPLICATION.

This manual is designed for use by commanders, logistics planners, and item managers, as a basic reference to plan for contingency operations. It may also be used by intermediate and wholesale managers and logistics planners to augment existing procedures and data used to determine the adequacy, range, and depth of contingency reserve requirements.

1-4. LIMITATIONS.

a. Data contained in this manual is not to be construed as Department of the Army

policy or doctrine. Where conflicts arise, existing DA directives will apply.

b. Data in this manual does not replace technical data currently in effect but is intended to supplement such data to assist in forecasting maintenance and supply requirements.

c. Data was developed in the context of the established usage profile displayed in Chapter 3 of this manual. It may be modified to correspond to anticipated mission, or force structure.

d. Consumption quantities indicated do not represent recommended ASL or PLL stockage levels for a contingency operation. The quantity represents 120 days of consumption of these repair parts in a wartime situation.

e. Consumption quantities are raw usage figures and do not incorporate OST, RO, or Safety Level adjustments.

1-5. EXPLANATION OF TERMS.

a. *Contingency Maintenance Allocation Chart (CMAC)*: A maintenance allocation chart that identifies maintenance functions as essential, nonessential, or deferrable to guide repair of equipment during contingency operations.

b. *Consumption Quantity*: A quantity which is the anticipated consumption rate of a specific repair part based upon a specific equipment density and usage profile.

c. *Deferrable Maintenance Operation*: A maintenance operation whose deferral for approximately 120 days will not cause degradation of the end item to the extent that it is unable to perform its intended mission. Additionally, such deferral will not cause appreciable damage to other components. However, it should be performed as soon as operational considerations and parts availability permit.

d. *Frequency of Occurrence*: The number of times the listed mission-essential maintenance operation is expected to be performed on the density of equipment within the conditions stated in the usage profile.

e. *Frequency per 100 Operations*. The estimated utilization of a specific repair part given the mission-essential maintenance operation is performed 100 times. Since the

operation is performed 100 times, this number is expressed as a percentage of utilization.

f. *Maintenance Operation*: A maintenance task that is identified as a separate line number in the CMAC (i.e., service, repair, replace, etc.).

g. *Mission-Essential Maintenance Operation (MEMO)*: A maintenance operation that must be performed to insure that the end item continues to be capable of performing its intended mission. Preventive maintenance functions and services are also included as MEMO.

h. *Mission-Essential Repair-Parts List (MERPL)*: A listing of repair parts which are required to perform MEMO. This list is not to be used for requisitioning or retail stockage purposes.

i. *Nonessential Maintenance Operations*: A maintenance operation which may be deferred indefinitely within the confines of the conditions set forth in the usage profile without appreciably degrading the end item's mission performance.

j. *Quantity per Action*: The quantity of a specific repair part expected to be used each time the MEMO is performed.

k. *Usage Profile*: A situational outline that specifies environmental and performance characteristics of an end item in a given wartime situation.

1-6. SUGGESTIONS FOR USE.

a. Special training programs may be established to ensure that maintenance personnel are thoroughly capable of performing the mission-essential maintenance operations specified in this manual that will be required to be performed during a contingency operation. Hands-on training of this type could be performed under adverse circumstances (e.g. reduced visibility, time limits, lack of specified TMDE), to make the situation more realistic and compatible to actual combat situations.

b. A review of repair parts currently annotated as combat essential may be made and compared to those shown in this manual. Discrepancies should be noted, a decision made as to their actual essentiality, and appropriate steps taken to correct the list of combat-essential repair parts as necessary.

c. Repair parts annotated as combat-essential may be conspicuously marked to identify them as having first priority for movement. If practical, combat-essential stocks could be segregated and stored separately (e.g., stored in MILVANS). In a similar manner, items not marked as combat essential may be indicated as potential excess during contingency operations.

d. Intensive management practices may be initiated to ensure that combat-essential repair parts are in a good stockage position and that replenishment action is initiated in a timely manner when reorder points are reached.

e. Data contained in this manual may be used to assure that, when funds are limited, combat-essential repair parts have top priority.

f. To attain realism, field training exercises may be conducted with combat-essential repair parts; however, specific parts will be requisitioned only as authorized by current Army supply policies and procedures.

g. Requirements for equipment necessary to meet combat mission objectives (e.g., TMDE) may be identified and stocked at wholesale level for retail contingency ASL and PLL.

h. The US Army Materiel Development and Readiness Command (DARCOM) item managers and the US Army Maintenance Management Center (MMC) may utilize the guides to supplement existing data used to compute contingency operation stockage quantities. Field Activities will continue to obtain ASL/PLL support from MMC in accordance with Chapter 3 Section IV of AR 710-2.

CHAPTER 2

METHODOLOGY OF ANALYSIS

2-1. GENERAL.

This chapter provides an outline of the methodology used to develop the data presented in this manual. This methodology may also be applied by the user in analyzing other end items.

2-2. PREPARATION.

- a. Select an end item for evaluation.
- b. Obtain all technical manuals and available data relative to the selected end item.
- c. Establish a dedicated evaluation group composed of experienced maintenance and supply personnel so that a cross representation of the skills and technical knowledge required to properly analyze the end item for all aspects of the equipment at all maintenance levels is achieved.
- d. Develop a usage profile for the end item. (Chapter 3 provides basic requirements.) Usage profiles may be based on past, current, or anticipated performance data and serve to establish operating parameters within which maintenance and repair-part data is to be determined.

2-3. ANALYSIS.

- a. Critically review the current Maintenance Allocation Chart (MAC) relative to:
 - (1) Essentiality of each maintenance task

in terms of mission performance criticality within the context of the established usage profile. Those tasks and operations (i.e., adjust, test, replace, repair) vital to the mission capability of the end item (failure to perform them would significantly impair mission accomplishment) should be considered essential. Those maintenance tasks and operations, which if not performed, would not significantly affect mission performance, may be considered as candidates for deferred or nonessential maintenance.

(2) The effect of environment on essentiality of a maintenance task or operation as well as the range and depth of repair-parts requirements.

b. Develop a 120 day Mission-Essential Repair-Parts List (MERPL) in support of previously established mission-essential maintenance task or operations (MEMO). Repair parts selected for the MERPL should not include:

- (1) Parts readily available through shop or service stocks such as common hardware.
- (2) Reusable parts.
- (3) Parts easily fabricated (e.g., stock gasket materiel in lieu of specific gasket line items).
- (4) Parts contained in TOE maintenance repair kits, shop sets, and tool kits.

c. Determine quantity of each MERPL item that should be recommended for ASL and PLL stockage to support the usage profile.

- (1) At this point of development, essential

maintenance tasks and operations and the repair parts to support them have been identified. Three significant factors influence MERPL quantities.

(a) How often will the specific maintenance task or operation be performed within the context of the usage profile?

(b) How many, of a specific part required, will normally be used in the task performance?

(c) Are all repair parts identified for a specific task required each time the task is performed? Assume the task is to be performed 100 times. If all parts are required each time the task is performed, each part has a percentage of utilization of 100. While some parts may be considered to have a frequency of utilization of 100, others may not, e.g., 75%, 30%, or 10%. These parts may still be considered essential and worthy of stockage.

(2) These factors are addressed in Chapter 5 as: Frequency of Occurrence, Quantity per Action and Frequency per 100 Operations. The product of these factors represent MERPL quantities. (Table 2-1)

(3) MERPL quantities are provided in Chapter 6 for each spare (repair) part by level of maintenance in NIIN sequence. Multiple

listing of the same spare (repair) part occurs when the same spare (repair) part is used in different maintenance tasks.

d. Request an ASL or PLL from the US Army Materiel Development and Readiness Command (DARCOM) in accordance with Chapter 2, Section V, AR 710-2, and compare their recommended peacetime ASL or PLL with the MERPL listing established to support your usage profile.

(1) Reduce the 120 day MERPL quantities to appropriate ASL or PLL quantities.

(2) Identify variances between line items in the MERPL-based ASL or PLL quantities and in the DARCOM recommended listing.

(3) Forward the variance listing with a copy of your usage profile, revised CMAC, MEMO, MERPL, and appropriate comments to DARCOM and request that:

(a) Variances be reviewed and resolved where appropriate.

(b) War-reserve and contingency-package programming be updated to incorporate resolved variances as appropriate.

(c) A revised DARCOM recommended ASL or PLL be developed when significant variances are noted i.e., a greater than 30% mismatch between the two listings.

TABLE 2-1 SAMPLE COMPUTATION OF CONSUMPTION QUANTITIES

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOUR REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPERA TION(%)
				MIN	PROB	MAX	MIN	PROB		
(1) 1301-4-2	Replace	1234-00-56-7890	GADGET	5	10	15	00.4	00.5	00.7	100
(2) 1301-5-1	Repair	1234-00-56-7809	COILER TERMINAL	0	2	5	04.8	06.0	09.4	050
(3) 1301-6-1	Replace	1234-00-56-7089	LINE	0	1	3	00.1	01.5	02.5	010

Sample Computation to determine consumption quantity for listing in MERPL in Chapter 6, utilizing the formula of Probable Frequency of Occurrence x Quantity per Action x Frequency per 100 Operations.

- (1) for NSN 1234-00-56-7890 the computed consumption quantity is $10 \times 1 \times 1.00 = 10$ ea
- (2) for NSN 1234-00-56-7809 the computed consumption quantity is $2 \times 2 \times 0.50 = 2$ ea
- (3) for NSN 1234-00-56-7089 the computed consumption quantity is $1 \times 1 \times 0.10 = 0$ ea

(.3 or above stock 1, below .3 stock 0)

CHAPTER 3

USAGE PROFILE

3-1. GENERAL.

a. The usage profile describes the operational, environmental, and doctrinal factors utilized as a basis for data developed and provided in Chapters 4, 5, and 6.

b. Generic Nomenclature of Item: Rifle, 5.56mm, M16A1.

c. NSN: 1005-00-073-9421.

d. LIN: R94977.

3-2. PROFILE CONSIDERATIONS.

a. Usage profile was developed based on training utilization.

b. This usage profile is applicable to only the Rifle, 5.56mm, M16A1 and the conditions

stated in paragraph 3-3.

c. Primary operational mode consideration - not applicable.

3-3. DATA.

a. End Item Quantity - 100 Rifles, 5.56mm, M16A1.

b. Operation Duration - 120 days.

c. Operating Conditions:

(1) Operation based on 24-hour/day requirement.

(2) Night operations are required.

(3) Climatic Conditions - climatic conditions range from hot, dry, sandy, to cold, rainy.

d. End Item Usage - 200 rds/day/weapon.

e. Terrain Analysis - Not applicable.

CHAPTER 4

CONTINGENCY MAINTENANCE ALLOCATION CHART

4-1. GENERAL.

a. This chapter contains a revised maintenance allocation chart to identify those maintenance operations that are essential, deferrable or nonessential to keeping the end item combat ready in a contingency operation.

b. Maintenance functions which are shown as being mission-essential are listed in Chapter 5 in the MEMO.

4-2. EXPLANATION.

a. Abbreviations or symbols used in the chapter are:

M - Mission-Essential Maintenance Operation.

D - Deferrable Maintenance Operation.

N - Nonessential Maintenance Operation.

%% - Maintenance function which may be performed at a lower level of maintenance if authorization is granted.

* - Identifies a recommended reallocation of a maintenance function.

b. Numerical designations found within the 'category of maintenance' designates the probable amount of time required to perform the operation. They are provided for planning and management purposes.

TABLE 4-1 CONTINGENCY MAINTENANCE ALLOCATION CHART

FOR

RIFLE, 5.56mm, M16A1

GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY				REMARKS
			C	O	F	H	
1-1	RIFLES, 5.56mm, M16 AND M16A1 MAGAZINE ASSY	1 inspect	M 0.1				HAND GUARDS CAN BE REPAIR- ED ONLY AT D.S.
		2 service	M 0.4				
		3 install	M 0.0				
		4 replace	M 0.1				
2-1	UPPER RECEIVER GROUP	1 inspect	M 0.2				
		2 service	M 0.3				
		3 repair		M 0.5			
2a-1	HAND GUARD ASSY	1 inspect	M 0.1				
		2 service	M 0.1				
		3 install	M 0.1				
		4 replace		M 0.4	*		
		5 repair		D 0.4			
2b-1	BARREL & FRONT SIGHT ASSY	1 inspect	M 0.2				
		2 service	M 0.3				
		3 replace			M 0.7		
		4 repair		M 0.5			
2c-1	REAR SIGHT	1 inspect	M 0.1				
		2 service	M 0.2				
		3 repair			M 0.6		
2d-1	LOW LIGHT LEVEL, FRONT SIGHT	1 inspect	M 0.1				
		2 service	M 0.1				
		3 install			M 0.6		
		4 replace			M 0.7		
3-1	BOLT, CARRIER GROUP	1 inspect	M 0.2				
		2 service	M 0.3				
		3 repair		M 0.5			

TABLE 4-1 (CONT) CONTINGENCY MAINTENANCE ALLOCATION CHART

FOR
RIFLE, 5.56mm, M16A1

GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY				REMARKS
			C	O	F	H	
4-1	LOWER RECEIVER GROUP	1 inspect	M 0.2				ONLY REPAIR AUTH IN CO IS PIVOT PIN, DETENT, & SPRINGS. STOCKS CAN BE REPAIRED AT DS LEVEL ONLY.
		2 service	M 0.3				
		3 repair		M 0.2			
4a-1	STOCK ASSEMBLY	1 inspect	M 0.1				
		2 service	M 0.2				
		3 replace		M 0.1			
		4 repair			D 0.4		
	BIPOD, RIFLE, M3						
1-1	BIPOD	1 inspect	D 0.1				
		2 service	D 0.2				
		3 install	D 0.0				
		4 replace		D 0.3			
		5 repair		D 0.3			
2-1	CASE	1 inspect	D 0.1				
		2 service	D 0.2				
		3 replace		D 0.3			
		4 repair		D 0.2			

CHAPTER 5

MISSION-ESSENTIAL MAINTENANCE OPERATIONS

5-1. GENERAL.

This chapter is the composite listing of all Mission-Essential Maintenance Operations (MEMO) designated in the CMAC (Chapter 4).

5-2. EXPLANATION.

The repair parts required to support the identified MEMO are shown here along with the basic data required to compute the MERPL quantity for listing in Chapter 6.

NOTE: The figure shown in the column headed, 'Frequency per 100 Operations,' is a percent of utilization.

TABLE 5-1 MISSION-ESSENTIAL MAINTENANCE OPERATIONS
 RIFLE, 5.56mm, M16A1
 OPERATOR/CREW

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOURLY REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPERATIONS (%)
				MIN	MAX	MIN	PROB	MAX		
1-1-1	INSPECT			D	A I L L Y	.1	.1	.2		
1-1-2	SERVICE			D	A I L L Y	.3	.4	.5		
1-1-3	INSTALL					.1	.1	.1		
1-1-4	REPLACE	1005-00-921-5004	MAGAZINE ASSY	15	20	40	.1	.1	.2	20
2-1-1	INSPECT			D	A I L L Y	.1	.2	.3		
2-1-2	SERVICE			D	A I L L Y	.1	.3	.4		
2a-1-1	INSPECT			D	A I L L Y	.1	.1	.1		
2a-1-2	SERVICE			D	A I L L Y	.1	.1	.2		
2a-1-3	INSTALL			D	A I L L Y	.1	.1	.1		
2b-1-1	INSPECT			D	A I L L Y	.1	.2	.2		
2b-1-2	SERVICE			D	A I L L Y	.2	.3	.4		
2c-1-1	INSPECT			D	A I L L Y	.1	.1	.1		
2c-1-2	SERVICE			D	A I L L Y	.1	.2	.2		
2d-1-1	INSPECT			D	A I L L Y	.1	.1	.1		
2d-1-2	SERVICE			D	A I L L Y	.1	.1	.1		

TABLE 5-1 (CONT) MISSION-ESSENTIAL MAINTENANCE OPERATIONS

RIFLE, 5.56 mm, M16A1

OPERATOR/CREW

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOURLY REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPERA TION (%)
				MIN	PROB	MAX	MIN	PROB		
3-1-1	INSPECT			D	A I L Y	.1	.2	.2		
3-1-2	SERVICE			D	A I L Y	.2	.3	.5		
4-1-1	INSPECT			D	A I L Y	.1	.2	.3		
4-1-2	SERVICE			D	A I L Y	.2	.3	.4		
4a-1-1	INSPECT			D	A I L Y	.1	.1	.1		
4a-1-2	SERVICE			D	A I L Y	.1	.2	.3		

TABLE 5-2 MISSION-ESSENTIAL MAINTENANCE OPERATIONS
 RIFLE, 5.56 mm, M16A1
 COMPANY & BATTALION LEVEL

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE			MANHOUR REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPERATIONS (%)
				MIN	PROB	MAX	MIN	PROB	MAX		
2-1-3	REPAIR	1005-00-017-9546	HANDLE CHARGING	5	10	15	.4	.5	1.0	1	10
		1005-00-978-1038	TUBE GAS							1	20
		1005-00-978-1023	PIN EJECTOR PORT C							1	5
		5365-00-999-0864	RING RETAINING							1	30
		5360-00-978-1025	SPRING EJECTOR POR							1	25
		1005-00-978-1022	COVER EJECTOR PORT							1	15
		5315-00-840-3812	PIN SPRING							1	10
		5360-00-523-8084	SPRING BOLT							1	20
		1005-00-017-9542	RECEIVER UPPER							1	10
		1005-00-999-0405	LATCH, CHARGING, HA							1	40
		5360-00-999-0404	SPRING, CHARGING, H							1	80
		1005-00-145-6378	PIN, FRONT SIGHT, T							1	50
		1005-00-234-1568	POST ASSY, FRONT-S							1	50
		1005-00-979-3930	DETENT, FRONT, SHT							1	50

TABLE 5-2 (CONT) MISSION-ESSENTIAL MAINTENANCE OPERATIONS
 RIFLE, 5.56 mm, M16A1
 COMPANY & BATTALION LEVEL

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOURLY REQUIREMENTS		QTY PER ACTION	FREQ PER 100 OPERATION PERCENTAGE	
				MIN	PROB	MAX	MIN			PROB
2a-1-4	REPLACE	5360-00-979-3931	SPRING, FRONTSIGHT					1	50	
		1005-00-978-1030	DETENT, REAR SIGHT	15	20	30	.3	.4	.5	10
2b-1-4	REPAIR	1005-00-056-2251	HANDGUARD L.H.					1	100	
		1005-00-056-2252	HANDGUARD R.H.	10	20	25	.3	.5	.8	100
3-1-3	REPAIR	5320-00-055-3066	RIVOT TUBULAR					1	20	
		1005-00-017-9543	SWIVEL SLING					1	20	
		1005-00-992-7280	WASHER LOCK					1	5	
		1005-00-979-3929	POST FRONT SIGHT	10	15	25	.4	.5	.9	20
		5315-00-999-1509	PIN F.P. RETAINER					1	100	
		1005-00-017-9547	PIN FIRING					1	100	
		1005-00-992-7285	BOLT ASSY					1	50	
		1005-00-992-7288	EXTRACTOR S.A.					1	5	

TABLE 5-2 (CONT) MISSION-ESSENTIAL MAINTENANCE OPERATIONS
RIFLE, 5.56 mm, M16A1

COMPANY & BATTALION LEVEL

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOUR REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPERATIONS (%)	
				MIN	PROB	MAX	MIN	PROB			MAX
4-1-3	REPLACE	1005-00-992-7289	SPRING EXTRACTOR						1	20	
		1005-00-992-7283	KEY BOLT CARRIER						1	5	
		1005-00-992-7294	PIN, BOLT, CAM						1	10	
		1005-00-992-7287	RING, BOLT						1	60	
		1005-00-992-7290	PIN, EXTRACTOR						1	10	
		5315-00-514-2358	PIN, SPRING, TUBU						1	10	
		1005-00-992-7291	EJECTOR						1	30	
		1005-00-992-7292	SPRING, EJECTOR			5	10	15	.1	.2	.3
		5360-00-992-7292	SPRING EJECTOR							1	20
		1005-00-992-6667	DETENT EJECTOR							1	30
		5360-00-992-6655	SPRING DETENT							1	50
		1005-00-992-6654	DETENT TAKEDOWN							1	30
		1005-00-992-6653	PIN TAKEDOWN							1	5
		5360-00-992-6665	SPRING ACTION							1	40

TABLE 5-2 (CONT) MISSION-ESSENTIAL MAINTENANCE OPERATIONS

RIFLE, 5.56 mm, M16A1

COMPANY & BATTALION LEVEL

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOURLY REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPERA TION (%)	
				MIN	PROB	MAX	MIN	PROB			MAX
4a-1-3	REPLACE	1005-00-992-6651	RETAINER BUFFER						1	20	
		1005-00-992-6649	SEAR AUTOMATIC	10	15	25	.4	.5	.9	1	10
		1005-00-017-9549	STOCK ASSY BUTT							1	100

TABLE 5-3 MISSION-ESSENTIAL MAINTENANCE OPERATIONS
 RIFLE, 5.56 mm, M16A1
 DIRECT SUPPORT LEVEL

CMAC LINE NUMBER	OPERATION	PART NSN	PART NOUN	FREQUENCY OF OCCURRENCE		MANHOURLY REQUIREMENTS			QTY PER ACTION	FREQ PER 100 OPER- ATION(%)	
				MIN	MAX	MIN	PROB	MAX			
2b-1-3	REPLACE	1005-00-152-3441	BARREL ASSY RIFLE	3	5	10	.5	.7	1.1	1	100
2c-1-3	REPAIR	5315-00-282-3642	PIN, SPRING	10	15	20	.4	.5	.9	1	100
		1005-00-978-1029	DRUM REARSIGHT, WIND							1	5
		1005-00-978-1032	SPRING HELICAL, COMP							1	10
		1005-00-978-1028	SEREN REARSIGHT, WI							1	2
		1005-00-978-1027	SPRING FLAT							1	50
2d-1-3	INSTALL	1005-00-145-6378	POST ASSY FRONT	0	0	1	.4	.5	.9	1	75
2d-1-4	REPLACE	1005-00-071-8015	SIGHT, REAR, STL, PHOS-C	20	25	50	.4	.5	.9	1	25

CHAPTER 6

MISSION-ESSENTIAL REPAIR-PARTS LIST

6-1. GENERAL.

This chapter is a listing of the repair parts, and the quantities thereof, that are expected to be consumed in support of the MEMO for the end item during a contingency operation.

6-2. EXPLANATION.

a. The consumption quantities are broken down into quantities estimated to be required to support varying end item densities.

b. The unit of measure code is annotated in the remarks column if different from the repair part's unit of issue.

TABLE 6-1 MISSION-ESSENTIAL REPAIR-PARTS LIST
120 DAY CONSUMPTION QUANTITIES

ORGANIZATIONAL LEVEL
RIFLE, 5.56 mm, M16A1

PART NSN	PART NOUN	UNIT OF ISSUE	CMAC LINE NUMBER	END ITEM DENSITIES				REMARKS
				1-5	6-20	21-50	51-100	
1005-00-017-9542	RECEIVER UPPER	EA	2-1-3	1	1	1	1	
1005-00-017-9543	SWIVEL SLING	EA	2b-1-4	1	1	2	4	
1005-00-017-9546	HANDLE CHARGING	EA	2-1-3	1	1	1	1	
1005-00-017-9547	PIN FIRING	EA	3-1-3	1	3	8	15	
1005-00-017-9549	STOCK ASSY BUTT	EA	4a-1-3	1	3	8	15	
5320-00-055-3066	RIVOT TUBULAR	MX	2b-1-4	1	1	2	4	
1005-00-056-2251	HANDGUN L.H.	EA	2-1-3	1	4	10	20	
1005-00-056-2252	HANDGUN, R.H.	EA	2-1-3	1	4	10	20	
1005-00-145-6378	PIN FRONT SIGHT TAPE	AY	2-1-3	1	1	3	5	
1005-00-234-1568	POST ASSY FRONT H-3	AY	2-1-3	1	1	3	5	
5315-00-514-2358	PIN SPRING TUBULAR	HD	3-1-3	1	1	1	2	
5360-00-523-8084	SPRING BOLT	EA	2-1-3	1	1	1	2	
5315-00-840-3812	PIN SPRING	EA	2-1-3	1	1	1	1	
1005-00-921-5004	MAGAZINE ASSY	AY	1-1-4	1	1	2	4	
1005-00-978-1022	COVER EJECTOR PORT	EA	2-1-3	1	1	1	2	

TABLE 6- 1 (CONT) MISSION-ESSENTIAL REPAIR-PARTS LIST
120 DAY CONSUMPTION QUANTITIES

ORGANIZATIONAL LEVEL

RIFLE, 5.56 mm, M16A1

PART NSN	PART NOUN	UNIT OF ISSUE	CMAC LINE NUMBER	END ITEM DENSITIES			REMARKS
				1-5	6-20	21-50 51-100	
1005-00-978-1023	PIN EJECTOR PORT COV	EA	2-1-3	1	1	1	
5360-00-978-1025	SPRING EJECTOR PORT	EA	2-1-3	1	1	2	3
1005-00-978-1030	DETENT REAR SIGHT	EA	2-1-3	1	1	1	2
1005-00-978-1038	TUBE GAS	EA	2-1-3	1	1	1	2
1005-00-979-3929	POST FRONT, SIGHT	EA	2b-1-4	1	1	2	4
1005-00-979-3930	DETENT FRONT, SIGHT	EA	2-1-3	1	1	3	5
5360-00-979-3931	SPRING FRONT SIGHT D	EA	2-1-3	1	1	3	5
1005-00-992-6649	SEAR AUTOMATIC	EA	2A-1-4	1	1	1	1
1005-00-992-6651	RETAINER BUFFER	EA	2A-1-4	1	1	1	2
1005-00-992-6653	PIN TAKEDOWN	EA	2A-1-4	1	1	1	1
1005-00-992-6654	DETENT TAKEDOWN	EA	2A-1-4	1	1	2	3
5360-00-992-6655	SPRING DETENT	EA	2A-1-4	1	1	3	5
5360-00-992-6655	SPRING ACTION	EA	2A-1-4	1	1	2	4
1005-00-992-6667	DETENT EJECTOR	EA	4-1-3	1	1	2	3
1005-00-992-7280	WASHER LOCK	EA	2b-1-4	1	1	1	1

TABLE 6-1 (CONT) MISSION-ESSENTIAL REPAIR-PARTS LIST
120 DAY CONSUMPTION QUANTITIES

ORGANIZATIONAL LEVEL
RIFLE, 5.56 mm, M16A1

PART NSN	PART NOUN	UNIT OF ISSUE	CMAC LINE NUMBER	END ITEM DENSITIES				REMARKS
				1-5	6-20	21-50	51-100	
1005-00-992-7283	KEY BOLT CARRIER	EA	3-1-3	1	1	1	1	
1005-00-992-7285	BOLT ASSY	EA	3-1-3	1	2	4	8	
1005-00-992-7287	RING BOLT	EA	3-1-3	1	2	5	9	
1005-00-992-7288	EXTRACTOR S.A.	EA	3-1-3	1	1	1	1	
1005-00-992-7289	SPRING EXTRACTOR	EA	3-1-3	1	1	2	3	
1005-00-992-7290	PIN EXTRACTOR	EA	3-1-3	1	1	1	2	
1005-00-992-7291	EJECTOR	EA	3-1-3	1	1	3	5	
1005-00-992-7292	SPRING EJECTOR	EA	3-1-3	1	1	3	5	
5360-00-992-7292	SPRING EJECTOR	EA	4-1-3	1	1	1	2	
1005-00-992-7294	PIN BOLT CAM	EA	3-1-3	1	1	1	2	
5360-00-999-0404	SPRING, CHARGING HAN	EA	2-1-3	1	2	4	8	
1005-00-999-0405	LATCH CHARGING HAN	EA	2-1-3	1	1	2	4	
5365-00-999-0864	RING RETAINING	EA	2-1-3	1	1	2	4	
5315-00-999-1509	PIN F.P. RETAINER	EA	3-1-3	1	3	8	15	

TABLE 6-2 MISSION-ESSENTIAL REPAIR-PARTS LIST
 120 DAY CONSUMPTION QUANTITIES
 DIRECT SUPPORT LEVEL
 RIFLE, 5.56 mm, M16A1

PART NSN	PART NOUN	UNIT OF ISSUE	CMAC LINE NUMBER	END ITEM DENSITIES				REMARKS
				1-5	6-20	21-50	51-100	
1005-00-071-8015	SIGHT, REAR, STL, PHOS-C	EA	2d-1-4	1	1	3	6	
1005-00-145-6378	POST, ASSEMBLY, FRONT	AY	2d-1-4	1	4	9	18	
1005-00-152-3441	BARREL, ASSEMBLY, RIFLE	EA	2b-1-3	1	1	3	5	
5315-00-282-3642	PIN, SPRING	HD	2c-1-3	1	3	8	15	
1005-00-978-1027	SPRING, FLAT	EA	2c-1-3	1	2	4	8	
1005-00-978-1028	SCREW, REAR SIGHT, WI	EA	2c-1-3	1	1	1	1	
1005-00-978-1029	DRUM, REAR SIGHT, WIND	EA	2c-1-3	1	1	1	1	
5360-00-978-1032	SPRING, HELICAL, COMP	EA	2c-1-3	1	1	1	2	

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31 DECEMBER 1976

By Order of the Secretary of the Army:

BERNARD W. ROGERS
General, United States Army
Chief of Staff

Official:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

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