THE GENERAL BOARD

United States Forces, European Theater

THE EMPLOYMENT OF ORDNANCE STAFF SECTIONS, ORDNANCE COMBAT SERVICE UNITS AND ORDNANCE SERVICE UNITS IN THE EUROPEAN CAMPAIGN

MISSION: Prepare Report and Recommendations on the Employment of Ordnance Staff Sections, Ordnance Combat Service Support Units and Ordnance Service Support Units in the European Campaign.

The General Board was established by General Orders 128, Headquarters European Theater of Operations, US Army, dated 17 June 1945, as amended by General Orders 182, dated 7 August 1945 and General Orders 313 dated 20 November 1945, Headquarters United States Forces, European Theater, to prepare a factual analysis of the strategy, tactics, and administration employed by the United States forces in the European Theater.

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THE EMPLOYMENT OF ORDNANCE STAFF SECTIONS, ORDNANCE COMBAT SERVICE UNITS AND ORDNANCE SERVICE UNITS IN THE EUROPEAN CAMPAIGN

CHAPTER 1

ORDNANCE STAFF SECTIONS

SECTION 1

INTRODUCTION

1. Foreword: The purpose of this study is to present an overall and integrated summary concerning the organization, assignment, employment and technique of Ordnance Staff Sections and Ordnance Units comprising Ordnance Service in the European Theater, and problems related to Ordnance Service. The period under consideration extends from the date of the approval of the "Overlord Appreciation and Outline Plan" by the Combined Chiefs of Staff in August 1943 to the close of the European Campaign in May 1945. Only those units categorized as Ordnance Combat Service Support Troops, Army Ground Forces and Ordnance Service Support Troops serving in the Communications Zone will be treated herein due to the imminent integration of all service force units within the Army Air Forces.

SECTION 2 - AT THE THEATER LEVEL

2. Theater Organization. In December 1943, the Ordnance Sections of Headquarters, European Theater of Operations, United States Army, and Headquarters, Service of Supply, were consolidated and placed under the control of the Commanding General, Service of Supply.[1] The detailed organization of Ordnance Service, Headquarters, Service of Supply, is shown in Appendix 1.[2] During the planning stage of Operation "Overlord", Ordnance Service, Headquarters, Service of Supply, functioned in two groups: A planning service located at theater headquarters and an operations service located in the field. Because of the nature of the operations, it was necessary to organize an amphibious division. Ordnance service units and installations were assigned to four Base Sections; Eastern, Western, Southern and North Ireland, each of which were provided with an Ordnance officer and a table of allowances staff. Eastern base section was primarily concerned with support of the air force, while Southern Base Section was to handle the concentration and marshalling of the invasion forces.

3. Senior Ground Force Headquarters. The senior United States Ground Force Headquarters was First US Army Group. The supervision of administrative and logistical plans for Operation "Overlord" was vested in the G-4 Section and certain special staff sections of this headquarters which functioned as the United States Administrative Staff of the 21 Army Group (British), the ground headquarters responsible for securing the lodgement on the continent.[3]

4. Relationship between European Theater of Operations, United States Army, and Communications Zone. The combined functions outlined in paragraph 2 above were continued after Communications Zone had arrived on the continent.

5. Organization of Communications Zone. The advance Section was the leading element of Communications Zone. It was designed as a mobile service force to accompany the army on to the continent and to follow the armies as they advanced to the east. As Advance Section, Communications Zone, progressed, base and intermediate sections were organized. These sections were consolidated or closed out as the logistical support progressed to the east with the opening of the Belgian ports. [4]

6. Southern Lines of Communications. Initial support of Operations "Dragoon" was provided by the Mediterranean Theater of Operations. In effect, two theaters of operations supplied two forces through separate ports until the forces had joined, at which time the Southern Lines of communications were absorbed by Communications Zone, European Theater of Operations. The advance elements of the southern force was called Continental Advance Section. [5]

7. Ordnance Technical Intelligence Units. Initially, only one team was available and this was assigned to European Theater of Operations and attached to First US Army. As other teams became available, they were likewise attached to the army groups for further attachment to the armies. Copies of reports were submitted directly to European Theater of Operations; Supreme Headquarters; Allied Expeditionary Forces; Headquarters, Army Groups; and in duplicate to the army Ordnance officer who transmitted one copy to the assistant chief of staff, G-2, of the army. [6,7]

8. Ordnance Staff of Regulating Stations. As each army in 12 Army Group became operational, a regulating station was assigned to serve it. The regulating station was charged with receiving requisitions for all classes of supply from the armies and forwarding these to the Communications Zone. With a full supply pipeline such a procedure is theoretically correct; however, Ordnance Class II and V supplies always contained a multitude of critical items, requiring a system of control more flexible than is the case with supplies consumed at a normal rate such as Class I and III. With respect to an Ordnance Class II requisition, submitted through the regulating station, only a small percentage could be filled expeditiously and called forward by the regulating station. The balance was placed on back order; however, the volume of work included in accounting and administration was beyond the capabilities of the Ordnance staff of the regulating station. The functions of the Ordnance staff of the regulating stations, by usage, developed into:

a. Following up truck and rail shipments on which expeditious delivery was required.

b. Reconnaissance for new rail heads and arrangements for work to prepare them for use.

c. Liaison at rail heads, to provide armies with information as to arriving shipments, locating cars and maintaining records of activity.

d. Receiving, passing on, and enforcing priorities for movement of supplies.

e. Furnishing personnel at airports when supplies were being received.

f. Information to army Ordnance service of initial shipment, scheduled arrival and final arrival of supply shipments.

The regulating station was of value in bringing trucked vehicles and ammunition forward by rail. The problem of segregation of artillery ammunition by lot number did not assume proportions sufficient to involve the regulating station; however, the need for safeguarding the integrity of lot numbers would have been present had an intensive program of this nature been in effect throughout the European Campaign. With such a program in effect, the Ordnance staff of the regulating station would have been required to assume an important role in calling ammunition shipments forward by lot number.

9. Movement Control. An agency was established by the Chief Ordnance Officer to coordinate the activities of Communications Zone Ordnance service in moving supplies within the Communications Zone and forwarding them to Advance Section depots. By usage, this agency developed into a control office, utilizing the cargo space of forward moving replacement vehicles to transport supplies to the armies and to bid for supplemental rail and motor transport. This control office was able to contribute the flexibility required in obtaining and forwarding Class II supplies, other than major items. [9] It was noted that the requirements of a field army in campaign averaged 5,000 long tons of Class II and IV supplies per month, not including tracked and wheeled vehicles and artillery. Wheeled vehicles and artillery are brought forward on roads by drivers from the armies and Communications Zone Ordnance service independent of any control measure by the regulating station. The cargo space thus provided was utilized by movement control to forward approximately 1,500 long tons of supplies per month loaded as requested by army liaison detachments maintained in Communications Zone depots. [9]

10. Port Ordnance Staffs. Port Ordnance officers and their staffs were not experienced in discharge and delivery of Ordnance materiel. Due to lack of experience, they were unable to impress port commanders with the proper procedures to reduce damage to Ordnance materiel in off-loading. Materiel handling equipment was not specially designed to handle Ordnance materiel and conventional type equipment was used, resulting in avoidable damage. [10]

SECTION 3

AT THE ARMY GROUP LEVEL

11. Organization. Headquarters, First US Army Group, was activated in October 1943. Initially the Ordnance section was not organized, all functions in connection with planning being handled by an officer on a temporary duty status from the Office of the Chief Ordnance Officer, European Theater of Operations. In March 1944, the Ordnance Officer was assigned and additional personnel arrived. [11]

12. Operations. In May 1944, G-4 and certain special staff sections of First United States Army Group commenced operations as the United States administrative staff of 21 Army Group (British), the ground force headquarters responsible for securing the lodgement on the continent. The assigned mission was the coordination of plans for the assault and build-up. A standard operating procedure was established which would result in a minimum of interference with the operation of the armies and at the same time provide the necessary information for exercising control and to inform the army group commander of the status of Ordnance supply. Information copies of normal reports prepared by the armies were required. Anticipated ammunition requirements were computed and compared against theater availability. On 14 July 1944, Headquarters, 12 Army Group was activated and personnel of First United States Army Group were transferred to the new Army Group. Third United States Army and 12 Army Group became operational on 1 August 1944. Ammunition shortages had developed during July and it was necessary to allocate ammunition between the armies from the start by limiting expenditures of critical types through command channels. This important function of apportioning available stocks of critical items of supply of not only Class V but of Class II as well, continued almost until the end of

the European Campaign. Due consideration of the projected activity of the various armies was established by study of their mission and an activity factor was applied to govern the apportionment of critical supplies to further the tactical mission. [11] Later when both army groups were supplied by Communications Zone, European Theater of Operations, supplies were apportioned between the army groups based on the weapons density therein. [5] The procedure of applying activity factors was continued within the army groups and resulted in the most economical application of available resources. [11]

13. Functions. The principal functions of the Ordnance staff at the army group level may be summarized as follows: [11]

a. Keep the commanding general informed at all times as to the current status and future prospects of supply of ammunition and Ordnance general supplies.

b. Allocate between the armies the available service units and all items of ammunition and general supplies which are in short supply.

c. Support the armies by giving them all possible assistance in obtaining the necessary service units and supplies.

d. Coordinate the efforts of Communications Zone sections in support of the field armies.

SECTION 4

ARMY ORDNANCE SECTION

14. Augmentation. It was found necessary to increase the personnel of the Ordnance sections of both First and Third United States Armies during the pre-operational phase in the United Kingdom in order to prepare plans, supervise issue of equipment and to discharge the duties of organizing and controlling a large number of Ordnance troops. [6,7]

15. Operations. Of the five armies, the Ordnance officers of three of them had served in two previous campaigns and certain officers of the Ordnance staffs of four armies had had previous combat experience. The remaining army had opportunity to learn the principles of combat Ordnance service during the operations in Brittany. Therefore, the five armies facing the Germans on the Siegfried Line and the Moselle River represented mature Ordnance combat experience. An analysis of the organization of Army Ordnance Service adopted by the five armies is given in Appendix 4. [12]

16. Command. Although Field Manual 9-5 charges the senior Ordnance Officer of a staff with command of Ordnance troops, there is no group of personnel established for exercising this command within the field army. All armies gave the Army Ordnance Officer operational control of Ordnance troops, which permitted him to direct, control and coordinate the activities of a large number of units, and at the same time relieved him from the maximum of administrative responsibilities. [13]

SECTION 5

CORPS ORDNANCE SECTION

17. Operations. A study of reports from various corps and conferences with corps Ordnance personnel indicates that the organization for the Ordnance Section, corps headquarters as prescribed in Tables of Organization and Equipment 100-1 was followed and was adequate. The same source indicates that the operation and functions of the corps Ordnance section

as currently prescribed by War Department publications were satisfactory.

18. Ordnance Troops with Corps. Ordnance troops, except bomb disposal squads, were not attached to corps. An Army Ordnance maintenance battalion of appropriate composition was given the mission of supporting a designated corps. Close liaison between this battalion, ammunition units operating the army supply point serving the corps, and the corps Ordnance Officer and his staff was encouraged. [14]

SECTION 6

DIVISION ORDNANCE SERVICE

19. Infantry Division. The Ordnance Section of the Infantry Division, as used in the European campaign, was properly organized and performed its mission in a satisfactory manner. The Ordnance light maintenance company (Table of Organization and Equipment 9-6) of the Infantry Division was inadequate to fully support the division, and all armies customarily reinforced the division with an Ordnance medium maintenance company which normally was transferred from army to army as divisions were shifted. Infantry divisions were habitually reinforced with a tank battalion, a tank destroyer battalion, and an anti-aircraft battalion, mobile. These reinforcements necessitated further Ordnance support than that provided by the organic Ordnance light maintenance company. [15]

20. Airborne Divisions. During combat on the ground, airborne divisions presented the same problems as infantry divisions. The airborne Ordnance maintenance company was deficient to a more marked degree than the Ordnance light maintenance company and was customarily backed up by an Ordnance medium maintenance company. [15]

21. Armored Divisions. Ordnance service in the armored divisions of both types was adequate. Minor adjustments of personnel and equipment were quite general:

a. Divisional Ordnance supply functions were centralized.

b. Maintenance companies preferred a platoon organization to the functional section arrangement.

c. The inspection section of headquarters company was not used.

d. The supply platoon of headquarters company was increased by 25 men.

e. Additional clerks were used in shops.

f. Excess artillery mechanics were employed as tank mechanics.

g. Emergency repair vehicles were improvised.

h. Tank transporters were pooled in headquarters company.

i. Artillery repair truck was not used.

j. Fuel and lubricant trucks were decentralized.

k. Additional trucks, one-quarter ton, were necessary for liaison.

l. Rocket launchers and carbines were of little use.

m. Wreckers were necessary in the supply platoon of headquarters company. [16]

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10. Remarks of Lt. Col. M. L. Driscoll, Ordnance Supply Officer, Ordnance Service, SOS-ETO and Communications Zone, ETOUSA since 1942 to April 1945. Appendix 3.

11. History of Ordnance Section, 12 Army Group.

12. Summary of Examination of the Organization of Army Ordnance Service based upon After Action Reports, Interviews, Visits and Inspections. Appendix 4.

13. Summary of statements of officers and Army Staff Memorandums pertaining to training of Ordnance troops. Appendix 5.

14. Letter of Headquarters, First US Army, Office of the Ordnance Officer, subject: "Army Ordnance Battalions in Support of Corps", dated 6 April 1944. Appendix 6, 18.

15. Summary of objective statements of experienced Ordnance officers pertaining to divisional maintenance units. Appendix 7.

16. Minutes of conference "Organization, Equipment, and Employment of Armored Maintenance Battalion", dated 24 September 1945. (Contained in files of Theater General Board, European Theater.)

CHAPTER 2

ORDNANCE COMBAT SERVICE SUPPORT UNITS

SECTION 1

GENERAL

22. Definition. Ordnance units in the field army furnish service support for combat and combat support elements of the army. They are referred to as Ordnance Combat Service Support Units. (Section V, War Department Circular 356, 2 September 1944).

SECTION 2

ORDNANCE GROUP HEADQUARTERS AND HEADQUARTERS DETACHMENTS

23. Employment. Armies were provided with three Ordnance groups, except in the case of First United States Army which had four [1-2-3] and Fifteenth United States Army which required only two because of its small size. Ammunition troops were commanded by an ammunition group headquarters in three armies.[1-2-4] In one army, communications personnel and equipment were added.[1] Several armies decentralized administration and control of all Ordnance activities in their sphere of responsibility to Ordnance groups and in all armies, groups were required to actively supervise and command Ordnance troops.[2-3-4] Ordnance groups commanding ammunition units were adjusted to provide technically qualified personnel.[1-2-4] Allocation of major items, local procurement, and industrial surveys were additional duties frequently required of Ordnance groups.[2-3-4] From two to six Ordnance battalions, as well as attached quartermaster service troops, truck companies and troops for local defense, comprised the command of Ordnance group headquarters.[1-2-]

SECTION 3

ORDNANCE BATTALION HEADQUARTERS AND HEADQUARTERS DETACHMENTS

24. Employment. Ordnance battalion headquarters commanded battalions of appropriate composition performing a number of missions. Points of similarity in the armies were:[1-2-3-4]

a. Forward battalions supported each corps.

b. Support battalions backed up forward battalions.

c. Intermediate battalions supported army service troops, army heavy field artillery and army anti-aircraft artillery.

d. Main battalions operated a wholesale depot of commodity type depot companies, the army unit rebuild and reclamation battalion, the vehicle and artillery reserve major items park, and the pool of evacuation companies.

e. An ammunition battalion operated the system of army ammunition depots, and another operated the forward ASP's.

25. Operations. Battalion headquarters were operational headquarters, actively supervising and coordinating the troop units they commanded. Additional transportation and communications personnel and equipment were frequently provided. Only a few ammunition battalions were available, therefore it was necessary to convert and re-train maintainance and supply battalions, adjusting the military occupational specifications to provide technically qualified ammunition personnel. From three to seven companies comprised the command of an Ordnance battalion headquarters.[1-2-3]

SECTION 4

ORDNANCE FIELD DEPOT COMPANIES

26. Retail Depots. It was the general custom to supply non-divisional using units through maintenance channels. Retail or forward depots served Ordnance companies of forward and support battalions in each corps sector as well as organic divisional Ordnance units.[1-2-3-4] The presence of two armored divisions in a corps frequently over-strained the capabilities of the retail depots and armored divisions were sometimes permitted to deal directly with the army main wholesale depot; or an extra depot company, if available, was established in the forward area to serve as a holding point for combat vehicle supplies.[2-3]

27. Wholesale Depots. The need for a single port of entry into the army for Ordnance class II and IV supplies made it advantageous to organize a wholesale depot of three or four commodity type depot companies. An appropriate breakdown of responsibilities proved to be:[1-2-3]

a. One depot company: Standard Nomenclature List Groups A,B,C, D,F, and Ordnance Publications.
b. One depot company: Standard Nomenclature List Group G - General Purpose Vehicles.
c. One depot company: Standard Nomenclature List Group G - Combat vehicles.
d. One depot company: Standard Nomenclature List Groups H,J,K, M,N and miscellaneous.

28. Publications. Rapidly changing troop lists made the efficient and expeditious handling of Ordnance publications a task of considerable magnitude. In one army, a small publications section was organized in a depot company to handle this task. Two vans and some tentage were provided to cover the temporarily large quantities of publications that arrived from time to time and distribution was effected through Ordnance supply channels. The system proved to be highly effective.[5]

29. Material Handling Equipment. Handling bulky items of Ordnance material such as major caliber gun tubes, engines and tank track required wreckers and cranes.[5] Wreckers were made available to depot companies and cranes were borrowed from the Engineers or from heavy artillery units whenever possible.

30. Local Procurement. Industrial resources of France, Belgium and Luxembourg were an invaluable asset in augmenting and supplementing Ordnance supply. Local procurement on the army level was variously charged to the main army wholesale depot battalion or to the rear Ordnance group.[2-3-4]

31. Army Vehicle and Artillery Park. The large holdings of reserve major items necessary to support a field army demanded special action to properly receive, inspect, service, maintain and move several hundred vehicles and artillery pieces.[1-2-5] Periods of peak activity such as that following the Ardennes campaign, required the exclusive services of five Ordnance companies. Motor vehicle distribution companies and depot companies were unable to perform the technical functions required in such a park and the full-time operation of two or more maintenance companies was required for maintenance work alone. The use of technical personnel and special equipment of third and fourth echelon maintenance companies to perform work that is essentially second echelon was not economical.

SECTION 5

ORDNANCE THIRD ECHELON MAINTENANCE COMPANIES

32. Medium Maintenance Companies. Companies of this type were associated with specific infantry divisions and normally remained with them throughout the European Campaign. As divisions were transferred from army to army, the associated Ordnance medium maintenance company was usually transferred also, thus building up a feeling of continous Ordnance support which was very beneficial.[1-2-3] Medium Maintenance companies also supported the artillery of corps.[1] This support likewise was continuous and a feeling of mutual confidence was established. The attachment of a tank battalion and the conversion of towed tank destroyer battalions to self-propelled carriages demonstrated the lack of tank mechanics in medium maintenance companies. Since armament and automotive equipment is found in balanced quantities in the forward areas, the medium maintenance companies were effectively employed.

33. Heavy Maintenance (Tank) Companies. Companies of this type were frequently employed in the forward areas as third echelon companies to afford the same scale of maintenance for the separate tank and tank destroyer battalions as enjoyed by the armored divisions.[1] Signal repair teams were attached to heavy maintenance (tank) companies to effect complete vehicle maintenance at one point.[1-2]

34. Medium Automotive Maintenance Companies. Units of this type were placed in forward battalions to support corps service troops. Other units were employed in intermediate battalions to support army service units. Occasionally an automotive maintenance company was required to operate a forward collecting point or to establish roadside service stations along main supply routes. Since many service units have a preponderance of automotive equipment, medium automotive maintenance companies proved to be both economical and efficient.[1-2-3-4]

35. Medium Maintenance Companies (Anti-aircraft Artillery). These units were deficient in capacity to do automotive work. Mobile anti-aircraft units have an automotive problem equally as important as the maintenance of their armament. A conference of anti-aircraft battalion commanders held by the anti-aircraft officer of the General Board reached the conclusion that Ordnance maintenance of anti-aircraft artillery in the European Campaign was deficient for the following reasons:

a. Armament and automotive maintenance had to be obtained from different Ordnance units.

b. Distances travelled to obtain armament maintenance were excessive due to the distribution of maintenance companies (anti-aircraft) and the anti-aircraft artillery units over a wide area.

c. Whenever anti-aircraft artillery units were concentrated as at Antwerp[X] and the anti-V-1 belt east of Liege, the companies were effective because armament maintenance was paramount and automotive maintenance was decreased.

d. In the First United States Army, forward anti-aircraft artillery battalions did not use electrical fire control equipment and medium maintenance companies (Table of Organization and Equipment 9-7) were required to maintain the balance of their equipment. This service was effective and expeditious and removed the objections expressed above.

36. Forward Area Recovery. First United States Army converted four Ordnance evacuation companies into Ordnance collecting companies by reducing the number of tank transporters and increasing the quantity of general purpose transportation. These units were employed to recover abandoned and unserviceable Ordnance equipment from the battlefield when evacuation was beyond the capabilities of the using arms, and to deliver it

to forward collecting points or to maintenance companies. These collecting companies provided a balanced means for effecting battlefield recovery. Other armies improvised agencies to accomplish this mission by using platoons of evacuation companies and flat-bed trailers.[6]

SECTION 6

ORDNANCE FOURTH ECHELON MAINTENANCE COMPANIES

37. Heavy Maintenance Companies (Tank). These units were employed in support battalions as fourth echelon companies in support of armored divisions and in the main army rebuild battalions.[1] Their use in support of armored divisions varied between the armies. Third United States Army, with a mass of armor, did not provide a supporting company for armored divisions feeling that the armored maintenance battalion was self-sufficient and authorized direct dealing with the rear group.[2] Other armies used heavy maintenance companies (tank) as holding points for replacement combat vehicles and evacuation points for unserviceable combat vehicles in addition to their fourth echelon capabilities. These units were initially deficient in ability to maintain artillery of types other than that found in armored units. Signal repair sections were attached to provide complete service at a single point.

38. Heavy Maintenance Companies (Field Army). These units were employed in support battalions to back up forward battalions; in intermediate battalions to support army heavy field artillery; and in main army rebuild battalions.[1-2-3-4] Although extremely capable in armament maintenance they proved to be deficient in automotive maintenance capabilities.

39. Heavy Automotive Maintenance Companies. These units were employed in support battalions to back up forward battalions; in intermediate battalions to back up medium automotive maintenance companies supporting army service troops; and in main army rebuild battalions.[1-2-3-4] Since many service units have a preponderance of automotive equipment, their strong automotive capabilities were both effective and efficient.

40. Salvage and Reclamation. Because of the Technical nature of Ordnance equipment and its size and weight, the system of separate collecting points and evacuation systems for Ordnance materiel has been found to be highly efficient. When the system for collecting and evacuating Ordnance materiel was kept completely under Ordnance control it afforded an excellent device for controlling the entire maintenance and supply program, as information was readily available as to the army's resources. Practically every type of Ordnance unit was used to operate Ordnance collecting points and while the results of their efforts were invaluable in reducing demands on Ordnance supply and in providing the flexibility needed in Ordnance field service, no existing type of company was found that could be employed without wasting the efforts of highly trained specialists and equipment and otherwise reducing the maintenance effort.[5]

41. Motor Vehicle Distributing Companies. Units of this type were used to pick up vehicles in Communications Zone depots and deliver them to the armies rather than to deliver vehicles from the army vehicle and artillery park to forward units.[1-2-3-4] Attempts to have this unit operate the vehicle and artillery park were unsuccessful due to lack of technical personnel and equipment. The efforts of this company in delivering vehicles had to be constantly supplemented by personnel from maintenance units resulting in reduction of the maintenance effort.

42. Evacuation Companies. Units of this type were of little value for forward area recovery and evacuation because of lack of balanced equipment. Their principle use was in bringing combat vehicles from Communications Zone depots to the army vehicle and artillery park and in transporting heavy supplies, forward displacement of depot stocks and emergency hauling of ammunition. Some deliveries of combat vehicles to forward units were accomplished, but there is no known instance of a tactical movement of an armored unit being accomplished by their use. Lack of spare parts for tank transporters caused a large dead-line and operation at reduced efficiency.[6]

43. Tire Repair Section. Sections of a mobile tire repair company were attached to the field armies.[1-2-3] These units operated above expected efficiency in effecting single sectional repairs within the army area. Employment of these sections resulted in the return of many tires to service expeditously and avoiding evacuation to the rear.

44. Ballistic and Technical Service Teams. Units of this type were used to determine relative muzzle velocity of artillery. The information obtained enabled artillery battalions to re-group their pieces for better results. Too few units were available and the demand for their services was greater than could be met.[7]

45. Army Ordnance Service. Attention is invited to Appendix 18, this study, entitled "Proposed Brief of Army Ordnance Service", which describes the technique and operation of Ordnance service in a typical army which is based upon the recommendations of experienced Ordnance officers.

SECTION 7

AMMUNITION SERVICE

46. Ammunition Companies. Ammunition supply always included a few critical types, throughout the European Campaign, and the scarcity of these types imposed requirements for extreme accuracy in accounting and administration. Because the personnel assigned to ammunition companies was generally in the lower three categories of the Army General Classification Test Groups, they were not capable of accurate stock control. It is axiomatic that ammunition on hand, but not accurately located and inventoried, cannot be issued. The inability of ammunition companies to accurately account for ammunition, especially critical types, caused a reduction of efficiency. Ammunition companies were not trained and conditioned to operate under conditions of peak activity often required of them, especially during periods of bad weather and short daylight hours. Civilian labor, speaking many foreign languages, could not be supervised with maximum efficiency by ammunition personnel of limited intelligence and practically no knowledge of languages other than poor English. Ammunition units were required to handle dangerous and unstable captured enemy ammunition without adequate training in elementary principles of safety. They were required to operate mobile supply points behind rapidly moving columns, to operate railheads, to receive ammunition delivered by air, to maintain motor equipment and cranes hastily issued to them to maintain their own defense of numerous occasions, and to prepare and execute destruction of ammunition in a retrograde movement. These duties were performed under officers frequently lacking leadership and sufficient education. That they succeeded in as large a degree as they did is entirely due to the never-ceasing efforts of their battalion and group commanders, their staffs, and the aggressive and intense supervision of army ammunition officers and army Ordnance officers. The need for augmented organic motor transportation for use within the ASP and depot was realized, and trucks were obtained for this purpose and to permit rapid displacement forward of small initial working stocks.[8-9] The attachment of quartermaster service companies to ammunition installations

was usual. Normally only the labor elements reported for work, the company headquarters remaining in its bivouac. In effect the labor section of ammunition companies were greatly increased by this means and also by use of civilian labor.

47. Bomb Disposal Squads. Units of this type were operational in the United Kingdom before the invasion. During the initial phases of the invasion, there was need for their services in the primary mission, but as the activity of the German Air Force diminished, they were used more and more to supervise activities in connection with captured enemy ammunition. Many accidents occured, demonstrating the instability of enemy ammunition as well as the lack of sound, basic instruction in ammunition principles.9 Bomb disposal squads were attached to corps, Ordnance groups, and army headquarters to provide area coverage.

48. Renovation. Limited renovation was accomplished by the armies, although during static periods it was realized that more extensive efforts could have been made had renovation personnel been available.

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7. Condemnation and Replacement of Artillery Tubes in Combat, Study No. 98, The General Board, European Theater of Operations.

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CHAPTER 3

ORDNANCE SERVICE SUPPORT UNITS

SECTION 1

GENERAL

49. Definition. Ordnance units whose primary mission is to furnish service in support of combat and combat support elements who normally operate in the Communications Zone are referred to as Ordnance service support units. These Ordnance units furnishing fifth echelon maintenance and bulk depot service for field armies are included therein. (Section V, War Department Circular No 356, 2 September 1944). Many of these units are similar to types found in the army area but are there referred to as Ordnance combat service support units.

SECTION 2

DISTRIBUTION AND EMPLOYMENT OF ORDNANCE SERVICE SUPPORT UNITS

50. Troop Distribution. The eventual distribution of Ordnance troops between the Communications Zone and the combat zone as planned 17 February 1945 is shown in Appendix 9.[1]

51. Headquarters and Headquarters Detachment, Ordnance Base Depot, T/O & E 9-312. Units of this type were assigned to base, intermediate and advance sections and to Headquarters, Communications Zone, to command troops and augment headquarters staffs. No Headquarters and Headquarters Detachment, Ordnance Group (T/O & E 9-312) were assigned to any element of Communications Zone.[2]

52. Ordnance Base Armament Maintenance Battalion, T/O & E 9-315. Units of this type were assigned to advance sections to furnish fifth echelon support to the armies, and in some armies they worked in army collecting points. Other units were distributed on an area basis to clean up material left by the rapid advance of the armies across Western Europe.[2,3]

53. Ordnance Base Automotive Maintenance Battalions, T/O & E 9-325. Units of this type were used in various ways. Engine re-build was almost entirely turned over to civilian industry. Two of these units were required as instructors and supervisors for this program. Another was converted into a power train re-build unit, while others were used on their intended mission, to clean up in the United Kingdom and behind the armies.[2,3]

54. Units Employed on their Primary Mission. Units of the types listed below were distributed among the base, intermediate and advance sections as required to accomplish the appropriate mission as outlined in War Department publications.[2,3]

a. Ordnance Motor vehicle distribution companies, T/O & E 9-377.

b. Ordnance tire repair companies, T/O & E 9-347.

c. Ordnance base depot companies, T/O & E 9-377.

d. Ammunition renovation companies, T/O & E 9-500 EC, AH, CD, AC.

e. Composite units of the T/O & E 9-500 series.

f. Ordnance evacuation companies, T/O & E 9-187

55. Employment of Ground Force type Units. The requirements for third and fourth echelon maintenance of its own equipment and equipment of tactical units located in the Communications Zone required the assignment of Ordnance medium automotive maintenance, heavy automotive maintenance, antiaircraft maintenance and depot companies, together with sufficient battalion headquarters to command them.[1]

56. Medium Maintenance Company, T/O & E 9-7. A specialized company using table of organization 9-7 as a basis for grades and ratings was organized to repair recoil mechanisms and recuperators. The scale of maintenance corresponded to arsenal repair.[1]

57. Heavy Maintenance Companies, Field Army, T/O & E 9-9, and Heavy Maintenance Companies, Tank, T/O & E 9-37. Units of these types were used in ports for processing combat vehicles and weapons and also assigned to advance sections to maintain equipment evacuated from the armies.[1] The use of the technical specialists and the equipment of a fourth echelon field company to perform first and second echelon maintenance in processing materiel was a waste of trained manpower and of valuable equipment. The armies expected to do their own third and fourth echelon maintenance and evacuate fifth echelon to Communications Zone. The assignment of heavy maintenance companies, field army and tank, was contrary to the principles of the echelons of maintenance and deprived the armies of the full means for doing their job.

58. Ammunition Companies, T/O & E 9-17. Units of this type were required to operate Communications Zone ammunition service, to take over army ammunition installations as the armies advanced, and to collect captured enemy ammunition.[1]

SECTION 3

OPERATION OF ADVANCE SECTIONS

59. Supply Functions. Advance Section and Continental Advance Section attempted to maintain mobile basic loads of fast-moving spare parts to fill the "Immediate Action" needs of the armies.[3] Due to an overall shortage of spare parts, provision for mobile basic loads was not realized and the retention of a large number of depot companies, badly needed by the armies, was a waste of manpower and equipment.

SECTION 4

CIVILIAN LABOR, LIBERATED MANPOWER UNITS AND PRISONERS OF WAR

60. Civilian Labor. Extensive use was made of civilian labor to augment Ordnance service in the Communications Zone. British civilian volunteers performed clerical work and served as drivers in the United Kingdom. Clerical personnel were brought to the continent. In France and Belgium, civilians were employed in all echelons for all types of skilled and unskilled labor. As mentioned above, the engine rebuild program was almost entirely a civilian enterprise and many other industries were operating exclusively for Ordnance service to manufacture major items, parts and supplies as well as to do maintenance and overhaul work on damaged materiel.[3]

61. Liberated Manpower Units. Ordnance units were organized from French liberated manpower, using United States Tables of Organization and Equipment. Italian cooperatives were organized along the same lines.[3]

62. Prisoners of War. Use of prisoners of war was restricted as to type of employment by provisions of the Geneva Convention. However,

after 10 May 1945 these restrictions were not effective and prisoners of war were organized into units and employed as required.[3]

63. Figures on Additional Labor. Appendix 17 herewith, shows the extent of additional labor employed directly by Ordnance service, Communications Zone, at various dates.

CHAPTER 3

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CHAPTER 4

TRAINING AND EQUIPMENT OF ORDNANCE UNITS

SECTION 1

MILITARY TRAINING

64. Application. Relatively few Ordnance units or individuals had occasion to actively engage the enemy. Such action as did occur involved the use of individual weapons, or weapons then available in shops for defensive action against an aggressive enemy. Training time spent in road marches, hand to hand combat, and tactics served no practical purpose.[1]

65. Deficiencies. An extensive communications net was employed by one army. It was necessary to start from the bottom and teach the entire subject to personnel concerned.[2] Staff officers were reluctant to use the communications facilities available to them due to lack of appreciation of their capabilities. Recovery units were deficient in reconnaissance, map reading, scouting and patrolling and security. These subjects were stressed during re-training after provisional reorganization of the units concerned.[3]

SECTION 2

TECHNICAL TRAINING

66. Officers. Officer material was poorly selected and inadequately prepared for their duties. Very few Ordnance officers knew how to organize their units for production, or how to obtain the utmost effort from the enlisted personnel.[4] Shop, depot and ammunition procedures and technical standards were generally accepted as they happened to exist without constructive effort for improvement being made by unit officers who were, for the most part, far less skilled in technical subjects than their enlisted personnel.

67. Maintenance Personnel. Artillery maintenance officers and mechanics were incapable of interpreting or explaining erratic performance of artillery pieces. Their knowledge was limited to carriage maintenance and none had ever seen partially worn artillery or knew the degrees of wear which could exist before performance became unacceptable.[5] Enlisted automotive and small arms mechanics were quite good. Instrument repairmen frequently were capable of better work than the equipment furnished them to work with. Due to selective service, professional watch repairmen were available in all units; yet the equipment provided was based on the pre-war volunteer army where such experienced personnel was seldom encountered. Enlisted machinists and welders were generally excellent due to the influence of civilian trained personnel.

68. Supply Personnel. Results were less than desirable, due to the intricacies of the Ordnance Supply system which is attributed to inadequate publications for supply, non-standard records and insufficient interchangeability data. An overall survey at the theater level indicated a 5% error in requisition makeup and editing by Ordnance units.[6]

69. Ammunition Personnel. Personnel in low intelligence categories could not apply effective control procedures. Lack of practical experience in handling ammunition under various conditions of light and weather and

peak loads caused low working efficiency until units had learned by practical experience.[7] Due to inadequate numbers of ammunition battalions, it was necessary to convert maintenance and supply battalion headquarters into ammunition battalions.[8,9] This resulted in reduced efficiency during the period when readjustment to the new mission was being accomplished and also deprived ammunition companies of the experienced military and technical leadership they needed so badly. Ammunition and bomb disposal personnel were not thoroughly grounded in safety regulations and ammunition theory, when required to handle captured enemy ammunition, many accidents occurred.[10]

70. Affiliated Units. The technical qualifications of affiliated units were excellent. Not only did these units have the necessary technical specialists in sufficient numbers to train others, but many non-commissioned officers had the ability to organize for production. The military organization, however, had to be re-built after the unit left the training center.[4]

71. Comparison between Army Service Force and Army Ground Force Trained Units. Initially, units trained by Army Service Forces were better qualified technically than units trained by Army Ground Forces. However, Army Ground Forces units were considered to have better officers, better morale, and better opportunities for training so that after a period of several months they developed much faster. It is noted that Army Service Force units lacked opportunity to work on materiel which was controlled by Army Ground Forces. Since Army Ground Forces were responsible for their own third and fourth echelon maintenance, it was only natural that this work be done by their own units, and fifth echelon and arsenal repair evacuated to Army Service Forces installations. Obviously third and fourth echelon units trained by Army Service Forces represented a duplication of effort that did not prove beneficial because of lack of training opportunities.[4]

72. Ordnance Schools. Training establishments of the Ordnance Department were not field service minded. Instruction was theoretical and insufficient emphasis was placed on field expedients and improvised methods.[4]

73. Civilian Automotive Advisors. Well chosen civilian automotive advisors of exceptional ability were utilized by First U.S. Army and by the Transportation Corps. Their services were invaluable in improving the standards of first and second echelons of automotive maintenance in using arms and services, especially the latter. Experience proved that, by virtue of their civilian status, and the prestige attached to their position, they were able to accomplish more in dealing with service units, especially colored truck units, than could be accomplished by officers, warrant officers or non-commissioned officers of Ordnance units.

74. Technical Observers. Representatives of manufacturers were attached to the Office of the Chief Ordnance Officer and operated from a central office to advise and assist Ordnance field service. Results obtained were not always beneficial due to their paramount interest in a single accessory of a major combination. Those individuals accredited to represent the manufacturer of a large volume of equipment, such as a line of general purpose vehicles, were valuable because of a broader outlook and prior experience.

SECTION 3

EQUIPMENT

75. Tool Sets. Supply of tool sets to the theater was inadequate to supply all requirements of Ordnance units prior to their arrival on the continent.[5] Unit equipment sets, third echelon No. 1, and special repair sets for artillery were especially difficult. Special repair tools for new equipment did not arrive concurrently with the equipment.[11]

76. Ordnance Technical Trucks. Many units arrived on the continent less authorized Ordnance technical trucks.[8] Since these trucks were shipped on wheels, special requirements for them received a low priority. Trucks 2½ ton, 6x6, cargo, were unsatisfactory as carriers for unit equipment sets, third echelon No. 1 and fourth echelon No. 2, because they could not be blacked out and gave insufficient cover from the elements. Many improvised shop bodies were constructed. Unit equipment sets, fourth echelon No. 2, were installed in vans in heavy automotive maintenance companies with excellent results.

77. Sewing Machines. Canvas repair was a major problem. Sewing machines proved to be essential items in all companies required to perform third and fourth echelon automotive, combat vehicle or artillery maintenance. Two machines are definitely needed in fourth echelon companies performing automotive maintenance.

78. Watch Repair. Skilled watch repairmen were available in maintenance companies because of selective service. Tools supplied were based on a volunteer army and did not make full use of available skills. Staking sets and watch makers lathes were needed.

79. Mobility. Prime movers were not authorized in sufficient numbers to provide mobility. During an amphibious operation or where supply must be maintained across the beach, it was essential that all vans be provided with either a prime mover or a dolly. When tactical depot or fourth echelon companies were moved long distances, prime movers had to be shuttled and the movement was prolonged.

80. General. Survey of recommendations for equipment received throughout the European Campaign reveals that the majority called for larger and more complete equipment. Tools provided when available, in authorized quantities, were generally adequate and capable of performing the job. Additional lathes were obtained so that all companies were provided with at least one. Lathes generally operated on a 24-hour basis.

81. Uniform. Suits working, herringbone twill, were authorized in insufficient numbers. With only two suits, it was not possible to keep working suits in proper condition, although most units obtained or built their own washing machines. Mackinaws were preferred to overcoats as working garments, but both soon became unsightly from constant use, leaving the Ordnance mechanic no suitable garment to wear on pass and off duty.

82. Tentage. Although existing buildings were utilized to the maximum extent, there was a constant need for additional shelter. Due to inactivity of the German Air Force, replacement factors in canvas were low and the theater reserve permitted many issues in excess of authorized allowances. Work in a temperate climate during winter months definitely proved the need for adequate shelter to be greater than authorized.

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CHAPTER 5

MISCELLANEOUS

SECTION 1

COMMUNICATIONS

83. Radio. First United States Army obtained and used radio communications throughout the European Campaign. Operators were obtained from personnel rendered excess by the reorganization of four evacuation companies as provisional collecting companies, and were given extensive training prior to the invasion of the continent. The sets were employed as follows:

Army Ordnance Officer	1 SCR 193
Four Ordnance groups	12 SCR 193
Eleven support, intermediate and main army Ordnance battalions	11 SCR 193
Three forward Ordnance battalions	15 SCR 193
Four ammunition supply points	4 SCR 193
Three corps Ordnance officers	3 SCR 193
Ordnance Officer, Advance Section	1 SCR 193
Four Ordnance collecting companies	9 SCR 284
Mobile sets and reserves	13 SCR 193

Operators were trained in voice and CW by the Signal Corps and a Signal Corps officer was obtained to serve as communications officer. A total of 240 voice and code operators were trained. The radio net was especially useful during the rapid movement across France and Belgium.[1]

84. Teletype. First United States Army obtained and used teletype to connect army Ordnance with each group headquarters, the main army wholesale depot battalion and ammunition supply points. During static periods this net was very useful, and was used for transmitting allocations of equipment and ammunition reports. Corps generally provided teletype service to ammunition supply points and this service was in effect 40% of the time. Teletype service to Ordnance groups and the main army wholesale depot was in effect 50% of the time. Considering the rapidity of movement during the first four months and the last three months of the campaign the service was very satisfactory.[2]

85. Telephone. First United States Army obtained switchboards of larger capacity for use in communication installations where they were used for interior control. Telephone communication was also used extensively in Ordnance group headquarters, battalion headquarters and the main army wholesale depot. Switchboards were tied into the army system so that staff officers and units could be contacted quickly by the army Ordnance section. Facility of telephone communications contributed materially to ease of control of Ordnance service.[2]

86. General. Interviews with a large number of Ordnance officers of all echelons, serving with all armies participating in the European Campaign, indicate a unanimous opinion that Ordnance communications are considered to be essential and that provision of augmented Ordnance communications will improve Ordnance service in future campaigns.[3]

SECTION 2

TRANSFERS OF UNITS BETWEEN ARMIES

87. Lost Time. Effort was made to support tactical operations with adequate Ordnance combat service support troops. Frequently the

tactical efforts of an army were of such short duration that Ordnance combat service support units arrived too late to be of practical use, or were ordered away so suddenly that little benefit was realized. Seventh United States Army was augmented by three Infantry, one Airborne and one Armored division between 17 and 22 January 1945. Six fourth echelon maintenance companies, four third echelon maintenance companies and two ammunition companies arrived between 27 January 1945 and 6 February 1945 to support this augmentation. The divisions departed from Seventh United States Army between 5 and 20 February 1945 and with two exceptions, the Ordnance companies departed between 15 February and 22 February 1945. These 12 companies arriving after the units they were to support had arrived, and, then departing concurrently with them, contributed little to Ordnance service of the Seventh United States Army.[4] One heavy automotive maintenance company did not even unpack and set up shop although it marched 600 miles down and back. In March 1945, two Infantry and two Armored divisions were attached to Seventh United States Army. Again three fourth echelon maintenance companies; five third echelon maintenance companies; and two ammunition companies were attached for thirty days arriving nearly concurrently with the divisions they were to support. It is noted that four of these maintenance companies were repeaters, i.e., had been included in the February increment. Their contribution to Ordnance service anywhere is doubtful.[4]

SECTION 3

UNUSUAL MISSIONS

88. Examples. The magnitude and range of operations involved Ordnance units in many strange requirements. Frequently Ordnance units found themselves doing work entirely different from the mission they had been trained for. Some of these requirements are outlined herein to point out the need for new types of Ordnance units and to illustrate temporary needs that may exist in the future in order that training of Ordnance units may be broadened.

89. Salvage and Reclamation. The system of Ordnance collecting points was kept separate from those of any other service. This was necessary for the following reasons:

a. No other service has materiel handling equipment capable of recovering and evacuating heavier items of Ordnance materiel.
b. Technical knowledge is required in handling and classifying Ordnance materiel.
c. Salvage and reclamation of Ordnance materiel is an extremely important means of supplementing Ordnance supply.
d. Captured enemy materiel presents problems identical with those outlined above.

These considerations caused First United States Army to reorganize four Ordnance evacuation companies into provisional Ordnance collecting companies to furnish balanced equipment for forward area recovery. Other armies used platoons of Ordnance evacuation companies, reinforced with flat-bed trailers and trucks, for the same purpose.[5] Many types of Ordnance companies were required to operate collecting points for the salvage and reclamation of Ordnance Materiel. A study of the histories of Ordnance units shows that the following types of Ordnance units were assigned this duty during the European Campaign.

Ordnance heavy maintenance company (field army)
Ordnance heavy maintenance company (tank)
Ordnance heavy automotive maintenance companies
Ordnance medium automotive maintenance companies

Ordnance base armament battalion.

In all instances the employment of these units to operate collecting points did not effectively employ the technical skill and ability of Ordnance trained personnel and much valuable technical equipment as a result was idle. Although wasteful of skilled manpower and equipment, the importance of the work done justified the employment of these companies in the absence of a specially designed Ordnance company for salvage and reclamation.

90. Vehicle and Artillery Park. The quantity of replacement combat and general purpose vehicles and artillery consumed by an active field army required a combination of several Ordnance companies to receive, inspect and make ready for issue, maintain in storage, deliver and issue this materiel. Various combinations of Ordnance units included:

Ordnance battalion headquarters
Ordnance motor vehicle distributing companies
Ordnance evacuation companies
Ordnance medium automotive maintenance companies
Ordnance heavy maintenance companies (field army)
Ordnance heavy maintenance companies (tank)

The employment of Ordnance maintenance companies to perform the work in an army vehicle and artillery park, which is largely second echelon, did not effectively employ the technical skill and ability of Ordnance trained personnel and in addition much valuable technical equipment was allowed to remain idle. However, the work was necessary and continuing, and in the absence of a specifically designed Ordnance unit it was imperative that it be done by third and fourth echelon maintenance units.

91. Captured Enemy Materiel. During the campaigns in western Europe, captured enemy materiel was handled in normal evacuation channels. However, the campaign of Central Europe was marked by mass surrender of large German forces and the capture of supply installations and arsenals. The volume of new and serviceable materiel captured required temporary measures of a special nature to handle it. In First United States Army an Ordnance battalion was assigned this mission. The battalion included: 6

Ordnance battalion headquarters
Ordnance mess detachment
Ordnance depot company
Ordnance ammunition company
Provisional Ordnance evacuation company (collecting)
Ordnance heavy maintenance company (field army)
Three Ordnance bomb disposal squads and one bomb disposal platoon.

92. Roadside Service Stations. Ordnance medium automotive maintenance companies were temporarily used by First and Seventh United States Armies to operate roadside service stations. 7

93. Miscellaneous Temporary Missions. Other missions temporarily assigned Ordnance units included:

a. Ordnance battlion headquarters (Table of Organization and Equipment 9-76) trained for maintenance and supply were required to command ammunition troops and operate ammunition supply. 8, 9

b. An Ordnance battalion headquarters was utilized as a railroad battalion operating ammunition trains into Third United States Army depots. 8

c. Ordnance heavy automotive maintenance companies were required to operate fifth echelon engine re-build plants, within First United

States Army, in order to obtain engines.

d. An Ordnance heavy maintenance company (tank) supervised commercial re-build of radial engines for tanks. [10]

e. Ordnance maintenance companies (antiaircraft) were employed for automotive maintenance. [11]

f. An Ordnance medium maintenance company was employed as a motor vehicle distributing company. [12]

g. Ordnance evacuation companies were employed to transport and launch landing vehicles, tracked for the Navy during the crossings of the Rhine River. [13]

h. An Ordnance motor vehicle distributing company was employed to haul ammunition. [8]

i. An Ordnance ammunition company was converted into a truck company and employed to handle ammunition. [14]

94. Proposed Headquarters and Headquarters Detachment, Ordnance Base Ammunition Depot. Headquarters, Theater Service Forces, European Theater, has submitted a proposed table of organization and equipment 9-376 for a headquarters and headquarters detachment, Ordnance base ammunition depot, which it is contemplated would operate a large (40,000 to 120,000 tons) ammunition depot in the Communications Zone. [14]

SECTION 4

PROPORTION OF ORDNANCE TROOPS

95. Build-up of Ordnance Troops. The proper percentage of Ordnance service troops in a theater of operations has been estimated to be 6%. [15] A study of Ordnance troop strength on the continent as compared to total troop strength on the continent is attached as Appendix No. 16. [16] The percentage initally was low, but by 31 August 1944, had reached 7.1% and remained above 7% throughout the European Campaign.

96. Augmentation by Civilian Labor and Prisoners of War. British civilians and nationals of liberated countries were employed in large numbers both by Ordnance service in Communications Zone and the armies. French and Italian manpower was organized into Ordnance companies using United States tables of organization and equipment. Liberal use was made of prisoners of war. Ordnance companies were also organized from prisoners of war. Figures on labor used by the armies are not available, but this assistance was obtained on a demand basis and fluctuated according to need and availability. A comparison of total Ordnance personnel (troops units, civilians, liberated manpower and prisoners of war) compared to total troop strength on the continent, is shown in Appendix No. 17. [17]

97. War Dog Teams. First United States Army successfully employed war dog teams to guard Ordnance depots, motor pools, also vehicle and artillery parks. The use of these teams released many technically qualified men from guard duty, thereby increasing unit efficiency.

SECTION 5

REDEPLOYMENT

98. Effect Upon Ordnance Units. The categorization of units and the redistribution of personnel in accordance with the point system for discharge played havoc with Ordnance service. Since many service or-

ganizations had been among the first units to arrive in the United Kingdom and especially since older personnel with families and high point count were found in service organizations, their inclusion in the point discharge system resulted in emasculation of Ordnance service. Personnel received as replacements for high point Ordnance personnel, were generally unskilled and not suited to the task of receiving, repairing and preparing for shipment the volume of materiel that flooded Ordnance installations.

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15. Letter, Chief of Ordnance to Ordnance Officer, Fifteenth US Army, 18 August 1945. (Appendix No. 15)

16. Ordnance Troop Strength compared to Total Troop Strength. (Appendix No. 16)

17. Total Ordnance personnel (troops, civilians, liberated manpower and prisoners of war) compared to total troop strength. (Appendix No. 17)

CHAPTER 6

CONCLUSIONS

SECTION 1

ORDNANCE STAFFS

99. Theater and Communications Zone Ordnance Staffs. The combination of Theater and Communications Zone Ordnance staffs was not conducive to proper coordination of resources and requirements. In problems arising between field forces and the Communications Zone there was no disinterested Ordnance staff to arbitrate the differences. This condition was notably true with respect to common user items such as general purpose vehicles, engine and major assemblies, items which were usually in short supply and in great demand by both field forces and Communications Zone units.

100. Ordnance Staff of Regulating Station. The Ordnance staff of the regulating station did not operate in the chain of Ordnance Class II and IV supplies except for tracked vehicles. The Ordnance staff of the regulating station did function in calling forward tracked vehicles and ammunition by rail. The Ordnance staff of the regulating station would have an important role to fill in an intensive program of segregation of artillery ammunition by lot numbers.

101. Movement Control. An agency to control movement of replacement wheeled vehicles and artillery was established by the Chief Ordnance Officer, European Theater of Operations. This agency furnished the necessary control and flexibility to move critical items of Ordnance Class II and IV supplies forward in the cargo space afforded by replacement wheeled vehicles. A requirement exists for a movement control section in the office of the Ordnance officer, Communications Zone, to coordinate the forward movement of replacement rolling major items and to utilize this cargo space for sending forward Ordnance Class II and IV supplies. A forward echelon of this agency with each army could replace the Ordnance staff of the regulating station and its activities be expanded to encompass all Ordnance supply movement.

102. Ordnance Staff of Ports. Ordnance officers experienced in water transportation and port activities were not assigned to duties at ports. Due to unrestricted use of conventional unloading gear, damage occurred to Ordnance materiel. A requirement exists for a Port Ordnance staff section trained in water transportation and port activities. Development and procurement of specialized unloading gear for Ordnance materiel is necessary to avoid damage to Ordnance materiel.

103. Army Group Ordnance Staff. The Ordnance staff of the army group apportioned critical items of supply among the armies and coordinated the efforts of Communications Zone in support of the armies. There is a requirement for an army group Ordnance staff in the administrative echelon of the army group.

104. Army Ordnance Section. The army Ordnance officer exercised operational control, but had no agency at his disposal to exercise actual command of Ordnance troops. The staff advisory and planning functions can be handled by a smaller section, but the control of operations and actual command of Ordnance service of a field army requires a separate organization, commanded by the army Ordnance officer. A requirement exists for an Ordnance brigade headquarters and headquarters company to discharge the responsibilities fixed by paragraph 4b, FM 9-5.

105. Corps Ordnance Staff. The corps Ordnance staff functioned as outlined in current War Department publications.

106. Division Ordnance Service. The division Ordnance staff of the infantry, airborne and the armored divisions functioned as outlined in current War Department publications. Organic divisional Ordnance troops of the infantry and airborne divisions were inadequate. Organic divisional Ordnance troops of the armored division were adequate. Sufficient organic Ordnance troops should be provided all divisions, current and proposed, to furnish complete third echelon maintenance, and supply and ammunition service to the division and all normal attachments.

SECTION 2

ORDNANCE COMBAT SERVICE SUPPORT UNITS

107. Ordnance Group Headquarters and Headquarters Company. In order to permit proper decentralization of command, control, supervision and operation, it has been found essential to build the group headquarters into a strong well staffed organization capable of exercising complete administrative and operational command over a maximum of six Ordnance battalions. It has further been found advisable to provide through the group headquarters certain pools of communications equipment required to maintain adequate communications with battalions and with army Ordnance, but not always required in the same battalions or in the same quantities in each battalion. The maintenance of technical and supply standards at a high level demands the presence in the group headquarters of a sufficient staff of highly qualified, reasonably high ranking officers. On the above basis the Ordnance group becomes the principal administrative and operational unit of Ordnance service within the field army. There is a requirement for four Ordnance group headquarters and headquarters companies with a type field army to command army Ordnance troops. Group headquarters should be provided on the basis of three supply and maintenance groups and one for ammunition.

108. Ordnance Battalion Headquarters and Headquarters Detachments. The Ordnance battalion headquarters is an operating body. Maximum time must be spent with troops, hence additional transportation is required. Administrative responsibilities must be kept to the minimum. There is a requirement for both supply and maintenance battalion headquarters and ammunition battalion headquarters. The principal functions of the battalion headquarters are to:

Balance work-load among companies
Insure maximum production from companies
Maintain high technical standards.

109. Ordnance Field Depot Companies. The principle of supplying non-divisional using units through maintenance channels has proven to be practical and efficient. Retail field depot companies are required and must be placed well forward to furnish Ordnance supply service to maintenance units of forward and support battalions and organic divisional Ordnance units. The amount of armor contained in Infantry divisions proposed by the General Board, European Theater, and the increased size of armored divisions, requires the presence of two retail depot companies in support of each corps. For the purpose of supporting heavy artillery, antiaircraft artillery and army service troops, one retail depot company is required in each intermediate battalion of the army service area. It has been found essential to provide a single port of entry for all Ordnance Class II and IV supplies received in the army. A wholesale depot battalion of four commodity type field depot companies is required to properly receive, store, move and issue approximately 5000 tons of Ordnance Class II and IV supplies, exclusive of major rolling items, generally held for a field army. The wholesale depot battalion furnishes Ordnance supply service to retail depots and units of the rear Ordnance group only.

110. Ordnance Publications Section, Army Wholesale Depot Battalion. There is a requirement for an agency to distribute Ordnance technical publications. Efficiency of Ordnance service is largely dependent on a constant, certain distribution of technical publications to insure uniformity of procedures. This can be assured only by a special organization designated to perform this mission exclusively.

111. Service Section, Army Wholesale Depot Battalion. A requirement exists for materiel handling equipment in the wholesale depot battalion. Equipment normally provided field depot companies is not capable of lifting heavy artillery gun tubes or handling large quantities of tank tracks and assemblies for combat vehicles. The most economical solution lies in a service section equipped with heavy materiel handling equipment and provided with operating personnel.

112. Local Procurement Section, Army Wholesale Depot Battalion. There is a requirement for personnel to exploit local resources as a means of supplementing Ordnance supply. A specialized section is required to exercise the local military commander's right of requisition and to otherwise obtain supplies within the army area as required for military needs.

113. Army Vehicle and Artillery Park Battalion. There is a requirement for a specially trained and equipped park battalion to control the large holdings of rolling major items required to support a field army in campaign. The functions of such a battalion are:

a. To receive, check, and receipt for rolling major items for the Army reserve.

b. To stock minor quantities of tools and accessories normally found to be short or missing on major items arriving from the rear.

c. To maintain necessary stocks of non-Ordnance items of supply, rations, ammunition, and gasoline necessary to combat load vehicles.

d. To inspect, process, degrease, assemble, test, combat load and prepare for issue and immediate use, rolling major items.

e. To store, account for, and perform necessary daily maintenance on the Army reserve of vehicles and towed artillery.

f. To provide reasonable security for a dispersed vehicle park area.

The employment of third and fourth echelon maintenance companies to perform this essentially second echelon work, is not economical.

114. Third Echelon Maintenance. There is a requirement for a medium maintenance company containing balanced technical personnel and equipment, necessary to perform third echelon maintenance on armament, combat and general purpose vehicles in the proportions usually found in the forward areas of the combat zone. The medium maintenance company employed in the European Campaign was deficient in tank and anti-aircraft fire control maintenance. A requirement exists for a medium automotive maintenance company containing balanced technical personnel and equipment necessary to perform third echelon maintenance on general purpose vehicles and small arms in the proportion found in service troops. The medium automotive maintenance company employed in the European Campaign, although small, was generally effective. Maintenance companies (anti-aircraft) cannot be effectively employed because of the distribution of anti-aircraft artillery units

over the entire army area. These units are deficient in automotive maintenance capabilities and cannot support automotive equipment in the proportions found in mobile anti-aircraft units. There is not a requirement for maintenance companies (anti-aircraft) in the field army.

115. Fourth Echelon Maintenance. There is a requirement for a heavy maintenance company capable of supporting the medium maintenance company with balanced technical personnel and equipment necessary to perform fourth echelon maintenance on armament and combat vehicles in the proportion usually found in the forward areas of the combat zone. A requirement does not exist for the current heavy maintenance companies, tank and field army, after a single heavy maintenance company is established. There is a requirement for a mobile heavy automotive maintenance company to support the medium maintenance and medium automotive maintenance company with balanced technical personnel and equipment necessary to perform fourth echelon maintenance on general purpose vehicles. The heavy automotive maintenance company employed in the European Campaign was generally effective, after its shop equipment had been mounted in vans and shop trucks to improve its mobility. It is not intended that fourth echelon companies be limited to fourth echelon work. Tactical considerations frequently require that third echelon shops be cleared. It is also an important function of the battalion and group headquarters to insure an equitable distribution of the work-load. It is therefore necessary that fourth echelon companies accept third echelon work from third echelon companies whenever necessary. Fourth echelon work beyond the capacity of the armies should likewise be evacuated to fifth echelon organizations of Communications Zone.

116. Salvage and Reclamation. A requirement for Ordnance recovery companies exists and is fully discussed in Study No. 96, The General Board, European Theater. There is a requirement for salvage and reclamation companies to exploit this important means of supplementing Ordnance supply. Ordnance salvage and reclamation is of such magnitude and importance that it cannot be associated with the program of any other service. The employment of third, fourth and fifth echelon maintenance units for the operation of collecting points, is not economical.

117. Vehicle Distribution Companies. A requirement exists for the motor vehicle distribution company and tank transporter company in connection with the vehicle and artillery park battalion. An additional requirement for tank transporter companies is realized in the problem of the tactical transportation of armored units and in supplementing the delivery by rail of combat vehicles. A reserve of tank transporter companies should be available to the armies and capable of being marshalled on relatively short notice for the tactical movement of armored units.

118. Tire Repair Companies. There is a requirement for tire repair companies in the army area. The importance of performing single section repair of tires in the army area was demonstrated in the European Campaign and is an important means of insuring the mobility of the armies.

119. Ballistic and Technical Service Detachments. The trend towards higher velocities requires frequent relative calibration of muzzle velocities in order to insure accuracy of field and anti-aircraft artillery and to determine the ability of tank and anti-tank weapons to pierce hard targets. A requirement exists for ballistic and technical service detachments and is fully discussed in Study No. 98, The General Board, European Theater.

120. Ammunition Companies. The labor sections of ammunition companies were increased by attachment of Quartermaster service companies and by civilian labor, forcing the conclusion that existing company headquarters can handle more personnel. A requirement exists for an

augmented ammunition company. Difficulties with ammunition accounting and administration is largely attributed to the low intelligence factor of ammunition troops and is fully discussed herein and in Study No. 100, The General Board, European Theater. There is a requirement for an ammunition depot company to provide personnel capable of maintaining the accounting and administration of an army ammunition depot on a sufficiently accurate basis to improve ammunition service. Ammunition personnel requires further technical training in ammunition theory and safety measures to avoid accidents in handling unstable ammunition.

121. Bomb Disposal Squads and Platoons. A requirement exists for bomb disposal squads and platoons to neutralize, evacuate and destroy unexploded bombs and missiles. Technical training in ammunition theory and safety measures should be intensified to enable personnel of these units to train and supervise army ammunition personnel and personnel of other arms and services.

122. Renovation Platoons. The possibility of renovating ammunition in army ammunition depots and ammunition supply points during static periods demonstrates the need for a pool of ammunition renovation platoons available to the armies when required.

SECTION 3

ORDNANCE SERVICE SUPPORT UNITS

123. Ordnance Service in the Communications Zone. Ordnance service units are required in the Communications Zone to provide retail Ordnance depot service, third and fourth echelon maintenance and retail ammunition service to units organic to or stationed in the Communications Zone; and to provide wholesale Ordnance depot service, fifth echelon maintenance and wholesale ammunition service for the entire theater of operations. No provision or allowance should be made for performing any retail Ordnance depot service or any part of third and fourth echelon maintenance for the field armies. Therefore, no Ordnance units of types classed as Ordnance combat service support units should be provided or authorized the Communications Zone except for its own organic needs or for the needs of combat units temporarily stationed in the Communications Zone.

124. Fifth Echelon Maintenance and Wholesale Depot and Ammunition Service. Organization, employment, technique and equipment of the following type units in fifth echelon maintenance wholesale depot and ammunition service is sound and requires no major change:

Headquarters and Headquarters Detachment, Ordnance Base Depot, Table of Organization and Equipment 9-312.
Base Armament Maintenance Battalion, Table of Organization and Equipment 9-315.
Base Automotive Maintenance Battalion, Table of Organization and Equipment 9-325.
Motor Vehicle Distribution Company, Table of Organization and Equipment 9-337.
Tire Repair Company, Table of Organization and Equipment 9-347.
Base Depot Company, Table of Organization and Equipment 9-377.
Ammunition Renovation Company, Table of Organization and Equipment 9-500 FC, AR, CD, AC.
Composite units of the Table of Organization and Equipment 9-500 series.
Evacuation Companies, Table of Organization and Equipment 9-187.

A requirement exists for combat vehicle and general purpose vehicle preparation companies of the types included in the vehicle and artillery park battalion for use in Communications Zone vehicle parks to avoid the uneconomical use of third and fourth echelon maintenance companies. Base armament and automotive maintenance battalions should support designated armies and should be phased in as early as possible.

125. Ammunition Service. A requirement exists for a headquarters and headquarters detachment, Ordnance base ammunition depot, to operate large ammunition depots of the Communications Zone.

126. Mobile Basic Loads. In the rapid advance, mobile basic loads of fast moving parts which were to be maintained by Advance Section and Continental Advance Section, became objectives only. The project failed because of an overall shortage of spare parts. It also caused diversion of a number of depot companies whose services were badly needed at the time by the armies.

127. Manpower and Local Manufacture. Exploitation of resources found in the liberated and conquered areas, such as manpower and local manufacture, was a valuable and large part of Ordnance service.

SECTION 4

TRAINING OF ORDNANCE TROOPS

128. Military Training. Training of Ordnance troops beyond basic individual training was wasteful since only rarely did Ordnance units engage the enemy. Both officers and enlisted personnel were deficient in use of communications, map reading, scouting, patrolling and security.

129. Technical Training. Technical training of Ordnance personnel was generally unsatisfactory. Officers were not well chosen and lacked technical knowledge and ability to organize for production. Enlisted personnel, such as automotive mechanics, instrument repairmen, machinists and welders were occasionally highly skilled due to previous civilian training. In generally, knowledge of artillery maintenance did not extend beyond repair of the carriage. Due to selective service, many professional watch repairmen were available, although the tools furnished them were inadequate to utilize their skill. Supply personnel were generally poor, and required intensive training. This condition was made worse due to inadequate publications, non-standard records, and complex and confusing parts numbering. Ammunition personnel did not possess sufficient intelligence to accomplish efficient accounting and administration. By and large, officers selected for ammunition companies lacked leadership and experience, both military and technical. These circumstances reduced the overall efficiency of ammunition companies below that of other Ordnance units. Ammunition and bomb disposal personnel were not thoroughly grounded in safety regulations and ammunition theory. Many accidents occurred for this reason, in particular, when personnel were called upon to handle enemy ammunition or hazardous materials.

130. Affiliated Units. The technical qualifications of personnel of affiliated units were excellent. Affiliated units were able to quickly organize for production and had sufficient technical specialists to train others. Military organization, however, was deficient and was rebuilt after the unit had departed from the training center, resulting in deferred availability of the organization.

131. Who Should Train Ordnance Units. A comparison between Ordnance units trained by Army Service Forces and Army Ground Forces indicated that units being trained by Army Service Forces had better initial technical prospects. However, Army Ground Forces trained units had better officers, morale and opportunities for training; and after

a period of several months greater development was realized. Army Service Forces trained units lacked opportunity for training since all of the equipment was in Army Ground Force hands. Third and fourth echelon units trained by Army Service Forces were inadequately trained for this reason and the training of third and fourth echelon units by Army Service Forces constituted a duplication of effort.

132. Ordnance Schools. Training establishments of the Ordnance Department were not sufficiently realistic in the instruction given to students. Instruction was theoretical and insufficient emphasis was placed on field expedients and extemporization. These deficiencies impaired the overall Ordnance effort until units had gathered practical field experience on the job.

133. Civilian Automotive Advisors. Civilian Automotive Advisors were employed successfully and their efforts had a beneficial effect on first and second echelon automotive maintenance.

134. Technical Observers. Technical Observers charged with a single accessory of a major combination were of little value, however those representing the producers of a volume of equipment were qualified "fleet" maintenance men, and contributed excellent advice and assistance to Ordnance field service.

135. Equipment.

a. Tool sets did not arrive in the theater in sufficient time to permit issue to all Ordnance units participating in the landing on the continent. Special repair tools for new equipment did not arrive concurrently with the equipment.

b. General purpose cargo vehicles were unsatisfactory shop vehicles for mounting third and fourth echelon unit equipment tool sets as they afforded insufficient cover from the elements and could not be blacked out. Many shop type bodies were improvised with good results.

c. Sewing machines for repair of canvas were a prime necessity for third and fourth echelon units. Staking sets and jeweler's lathes for use by watch repairmen were not authorized and were needed to utilize available skills.

d. Working uniforms were satisfactory, but were authorized in insufficient quantities to permit frequent changes required by Ordnance personnel engaged in dirty work. Standards of cleanliness could not be maintained nor was the Ordnance soldier able to present the appearance desired when off duty or on pass.

e. Insufficient tentage was authorized Ordnance units in the theater. Cold weather and lack of canvas impeded Ordnance service during periods of cold weather and short working days.

SECTION 5

COMMUNICATIONS

136. Radio. First United States Army established a radio net connecting the Army Ordnance Officer with group headquarters and key battalions prior to the landing in Normandy. Throughout the European Campaign it was demonstrated that radio communications were necessary for the control of Ordnance units.

137. Teletype. Teletype equipment was used by First United States Army and proved to be of great value. It was especially valuable in handling the details of supply administration in army Ordnance service.

138. Telephone. The telephone equipment authorized Ordnance units and the operating personnel provided by current tables of organization and equipment is inadequate. Larger switchboards were used by many units, notably in ammunition depots and ammunition supply points. Linemen, linemen's tools and trained operators were not provided by tables of organization and equipment. Ordnance battalions were able to establish telephone communications with attached Ordnance companies with a minimum of assistance from the Army Signal System.

139. Interviews with Ordnance Officers. Ordnance officers interviewed, expressed the unanimous belief that better communications facilities would materially improve and expedite Ordnance service.

SECTION 6

EMPLOYMENT OF ORDNANCE UNITS

140. Misuse of Ordnance Units. Hasty and ill-considered assignment and re-assignment of Ordnance units to support temporary and short-term efforts by the armies, resulted in dispersion of the Ordnance effort. It is essential that organic Ordnance of divisions be sufficiently powerful to furnish all third echelon maintenance for the division and its long term, normal attachments. When this is accomplished, the backbone Ordnance support of an army can accept a temporary overload more easily than they can adjust themselves to a short-term readjustment of missions. Assignment of Ordnance troops to an army should be based on establishing a backbone of fourth echelon support and wholesale depot service, in lieu of the factors now prescribed in FM 9-5. For a discussion of the structure of Ordnance service with a field army, see Appendix 18.

141. Departures from Principal Mission. Exigencies of the service frequently required Ordnance companies to deviate from their normal missions in order to meet needs which had not been anticipated. Since no Ordnance company had been organized, trained or equipped to perform these missions, it was necessary to utilize existing companies which resulted in uneconomical use of technical skills and equipment.

SECTION 7

REQUIREMENTS FOR ORDNANCE TROOPS

142. Proportion of Ordnance Personnel to other Troops Supported.

a. The proportion of Ordnance personnel to other troops supported is extracted from Appendices 16 and 17:

Ordnance troop strength on the continent compared to total troop strength on the continent: 7.1%
Army Ground Force Ordnance troop strength compared to total Army Ground Force strength: 5.1%
Army Air Force Ordnance troop strength compared to total Army Air Force strength: 3.8%
Communications Zone Ordnance troop strength on the continent compared to total Communications Zone troop strength on the continent: 21.6%
Communications Zone Ordnance troop strength plus civilian and liberated manpower units and prisoners of war compared to total Communications Zone strength: 27.1%
Total Ordnance Personnel on the continent (Ordnance troops, civilian personnel, liberated manpower units, prisoners of war) compared to total troop strength on the continent: 10.3%

143. Results Obtained. It is impossible to assess the proportion of Ordnance personnel that should be available from a study of the European Campaign. The impetus of supply from the rear did not exist until after 1 March 1945. How much of this must be attributed to inexperience of Ordnance personnel, difficulties of inland transportation, continued dispersion of effort between the United Kingdom and the continent imperfect organization inadequate reserve and stock levels, cannot be clearly determined.

144. War Dog Teams. First United States Army employed war dog teams to guard Ordnance depots, motor parks and ammunition installations. The use of these teams was economical and resulted in a saving of manpower.

145. Redeployment. The need for the early arrival of service troops in a potential theater of operations was realized in the buildup in the United Kingdom. The same consideration applies equally to the close-out of a theater of operations. It should be thoroughly understood that service troops have not completed their mission until materiel is properly disposed of and their release should be predicated upon this basis.

CHAPTER 7

RECOMMENDATIONS

SECTION 1

Ordnance Staffs

146. Theater and Communications Zone Ordnance Staffs. Recommend that a theater Ordnance staff be established entirely separate from the Communications Zone Ordnance staff, to insure a disinterested and informed agency capable of arbitrating the competitive requirements of the armies and Communications Zone for common user items and to insure the proper application of supply resources.

147. Ordnance Staff of Regulating Station. Recommend that the Ordnance Staff of the Regulating Station be replaced by an Ordnance Movement Control Section, an agency established in the office of the Ordnance Officer, Communications Zone, and furnishing liaison detachments with each army for the specific purpose of coordinating the forward movement of Ordnance supply.

148. Ordnance Staff of Ports. Recommend that Ordnance personnel be selected and trained in water transportation and port activities in order to provide capable experienced personnel for duty at ports. Further recommend that development of special handling equipment for Ordnance materiel be initiated, and procurement be authorized, to reduce avoidable damage in off-loading at ports.

149. Army Group Ordnance Staff. Recommend that appropriate agencies of the War Department draw up a Table of Organization and Equipment for an army group Ordnance staff in the administrative echelon of the army group. Reference is made to Appendix 19, attached.

150. Army Ordnance Section. Recommend that appropriate agencies of the War Department draw up Tables of Organization and Equipment for an Ordnance Brigade Headquarters and Headquarters Company as an agency for the army Ordnance officer to exercise command of army Ordnance troops as required by F. 9-5. Reference is made to Appendix No. 20. Further recommend that the Ordnance section of army headquarters be reduced to an advisory and planning staff section when the Ordnance brigade headquarters and headquarters company is organized. Reference is made to Appendix No. 21.

151. Division Ordnance Service. Recommend that appropriate organic Ordnance troops be provided for all type divisions, current or proposed, to furnish complete third echelon maintenance and supply and ammunition service to the division and all normal attachments.

SECTION 2

ORDNANCE COMBAT SERVICE SUPPORT UNITS

152. Headquarters and Headquarters Company, Ordnance Group. Recommend that four headquarters and headquarters companies, Ordnance Group, be assigned to each type field army to command Army Ordnance troops. Employment to be on the basis of three each for operation and control of supply and maintenance units, and one for ammunition service. Further recommend that appropriate agencies of the War Department draw up tables of organization and equipment for headquarters and headquarters company, Ordnance supply and maintenance group and for headquarters and headquarters company Ordnance ammunition group. Reference is made to Appendix No. 22.

153. Ordnance Battalion Headquarters and Headquarters Detachment. Recommend that appropriate agencies of the War Department revise present Tables of Organization and Equipment 9-76 to provide technically qualified headquarters to command combinations of supply and maintenance companies and to command ammunition companies. Reference is made to Appendix No. 23.

154. Ordnance Field Depot Company. Recommend that a minimum of 12 depot companies be assigned to each type field army; four companies to operate a wholesale depot, specialized along commodity lines; two companies to handle retail supply for army artillery and service units; and two companies to operate a retail depot in support of each of the three corps. Reference is made to Appendix 24.

155. Ordnance Publications Section, Army Wholesale Depot Battalion. Recommend that appropriate agencies of the War Department draw up a Table of Organization and Equipment for an Ordnance publications section, army wholesale depot battalion. Reference is made to Appendix No. 25.

156. Service Section, Army Wholesale Depot Battalion. Recommend that appropriate agencies of the War Department draw up a Table of Organization and Equipment for a service section, army wholesale depot battalion, for the purpose of handling heavy items of equipment carried in the army wholesale depot battalion. Reference is made to Appendix No. 26.

157. Local Procurement Section, Army Wholesale Depot Battalion. Recommend that appropriate agencies of the War Department prepare a Table of Organization and Equipment for a local procurement section, army wholesale depot battalion. Reference is made to Appendix No. 27.

158. War Dog Teams. Recommend that a pool of war dog teams be provided each field army for guarding large Ordnance supply installations and pools of materiel held in depots and pools.

159. Army Vehicle and Artillery Park Battalions. Recommend that appropriate agencies of the War Department draw up Tables of Organization and Equipment for certain new type Ordnance companies, and revise certain of the present type units, to comprise an Army vehicle and artillery park battalion, reference Appendix No. 28. The composition of the recommended battalion is shown below:

	Unit	T/O & E	Ref. App. No.
1	- Headquarters and Headquarters Detachment, Ordnance Battalion	*9-76	23
1	- Ordnance vehicle depot company	New unit	29
1	- Ordnance wheeled vehicle preparation company	New unit	30
1	- Ordnance combat vehicle preparation company	New unit	31
1	- Ordnance motor vehicle distributing company	*9-337	32
2	- Ordnance tank transporter company	New unit	33

*Recommended revision

160. Third Echelon Maintenance. Recommend that appropriate agencies of the War Department draw up tables of organization and equipment for an Ordnance medium maintenance company capable of performing third echelon maintenance and Ordnance supply service for the combination of armament, combat and general purpose vehicles found in the forward areas of the combat zone. Reference is made to appendix No. 34. Further recommend that current tables of organization and equipment for the Ordnance medium automotive maintenance company be revised to increase its capacity. Reference is made to appendix No. 35. There is no requirement for the maintenance company (antiaircraft) with the field army.

161. Fourth Echelon Maintenance. Recommend that appropriate agencies of the War Department draw up Tables of Organization and Equipment for an

Ordnance heavy maintenance company capable of supporting the medium maintenance company with balanced technical personnel and equipment necessary to perform fourth echelon maintenance on armament and combat vehicles in the proportion found in forward areas of the combat zone. Concurrently with the organization of a single heavy maintenance company, recommend that the heavy maintenance companies, tank and field army, be eliminated. Reference is made to appendix No. 37. Recommend that the heavy automotive maintenance company be continued to support the medium maintenance company and the medium automotive maintenance company with fourth echelon automotive maintenance. Reference is made to appendix No. 36, which is a proposed revision of the present Table of Organization and Equipment.

162. Salvage and Reclamation. Recommend that appropriate agencies of the War Department draw up a Table of Organization and Equipment for an Ordnance salvage and reclamation company to operate Ordnance collecting points. Further recommend that the physical separation of Ordnance salvage and reclamation from the programs of other services be continued to be practiced as it was in the European Campaign. Reference is made to appendix No. 38. There is not a requirement for units of this type in the peacetime army.

163. Vehicle Distribution Companies. Recommend that appropriate agencies of the War Department draw up a Table of Organization and Equipment for an Ordnance tank transporter company as a component of vehicle and artillery park battalions and to provide for the tactical transportation of armored units and to supplement delivery of combat vehicles by rail. Reference is made to appendix No. 33. Further recommend that the motor vehicle distribution company be revised as indicated in appendix No. 32.

164. Tire Repair Company. Recommend that one mobile Ordnance tire repair company be assigned to each field army for operation in the army service area to insure continued mobility of wheeled vehicles. A requirement for mobile tire repair companies with ground forces exists in peacetime to insure development of mobile tire repair equipment

165. Ballistic and Technical Service Detachments. Reference is made to paragraph 25, Theater General Board Study No. 98, Condemnation and Replacement of Artillery Tubes in Combat. Recommend that appropriate agencies of the War Department revise present Ballistic and Technical Service Detachment Table of Organization and Equipment 9-500 ED to provide additional personnel. Reference is made to Appendix No. 39.

166. Ammunition Companies. Recommend that the present Ordnance ammunition company, Table of Organization and Equipment 9-17 be revised to include increased personnel. Reference is made to appendix No. 40. Recommend that appropriate agencies of the War Department draw up a Table of Organization and Equipment for an Ordnance ammunition depot company capable of conducting the accounting and administration of an army ammunition depot. Reference is made to appendix No. 41.

167. Bomb Disposal Squads and Platoons. Recommend that bomb disposal squads be assigned on the basis of one per corps, one per Ordnance group and one platoon per army for removal and destruction of explosive missiles, neutralization of hazardous materials; and to train and supervise army ammunition personnel and personnel of other arms and services.

168. Ammunition Renovation Platoons. Recommend that a pool of ammunition renovation platoons be maintained in the Communications Zone for employment by field armies during static periods as required.

SECTION 3

ORDNANCE SERVICE SUPPORT UNITS IN THE COMMUNICATIONS ZONE

169. Ordnance Service Support Units.

a. Recommend that Ordnance service support units be assigned to the Communications Zone to provide wholesale Ordnance depot service, fifth echelon maintenance and wholesale ammunition service for the entire theater of operations. Further recommend that sufficient Ordnance service units of types similar to Ordnance combat service support units be assigned to Communications Zone to provide retail depot service, third and fourth echelon maintenance and retail ammunition service to units organic to or stationed in the Communications Zone.

b. Recommend no Ordnance unit of a type similar to Ordnance Combat Service support units be assigned to the Communications Zone except as required for Ordnance Service to organic units of the Communications Zone and for combat units temporarily stationed therein.

c. Recommend that appropriate agencies of the War Department amend current army regulations, field manuals and technical manuals to conform to the policy outlined above.

170. Fifth Echelon Maintenance, Wholesale Depot and Ammunition Service. Recommend that existing types of fifth echelon maintenance, wholesale depot and ammunition service units be continued for service in the Communications Zone without major changes. Recommend that combat vehicle and general purpose vehicle preparation companies be assigned to Communications Zone vehicle parks. Reference is made to appendices 30 and 31. Recommend that base armament and base automotive battalions be designated to support specific field armies and that units of this type be phased into operations sufficiently early to establish complete and sound Ordnance service on the basis of proper division of echelons of responsibility.

171. Headquarters and Headquarters Detachment, Ordnance Base Ammunition Depot. Recommend that appropriate agencies of the War Department prepare a Table of Organization and Equipment for a Headquarters and Headquarters Detachment, Ordnance base ammunition depot, to operate large ammunition depots of the Communications Zone. Appendix 42, this study, was prepared in the Office of the Chief Ordnance Officer, European Theater of Operations.

SECTION 4

TRAINING OF ORDNANCE TROOPS

172. Military Training. Recommend that Ordnance troops be given thorough basic individual training, but that less emphasis be placed on unit training.

173. Technical Training. Recommend that improved and continuing efforts be directed to procuring technically qualified officer personnel capable of obtaining production from Ordnance troops. Recommend that maintenance methods and tool equipment be adjusted to take fullest advantage of available skills during periods of selective service. Recommend that improved methods of accounting and administration be developed to reduce training time required for supply and ammunition personnel. Recommend that special attention be directed to the problem of placing officers having highest qualities of leadership in ammunition companies. Recommend that the policy of affiliated units be continued, but that the military organization of the affiliated unit not be recruited from the same source as the technical personnel and that it be perfected before the unit is enrolled. Recommend that training courses at Ordnance schools be designed to emphasize field expedients and extemporized repairs.

174. Units Not Required in the Peacetime Army. Units of the following types are required during active operations, and they are not recommended for inclusion in the peacetime army. They should be activated whenever active operations are contemplated, or whenever a Communications Zone is organized for training purposes.

Service Section, Army Wholesale Depot Battalion
Motor Vehicle Preparation Company
Combat Vehicle Preparation Company
Vehicle Depot Company
Salvage and Reclamation Company
Ammunition Depot Company
Bomb Disposal Squads and Platoons
Ammunition Renovation Platoons
Headquarters and Headquarters Detachment,
Ordnance Base Depot
Base Automotive Maintenance Battalion
Ordnance Recoil Repair Company
Base Armament Maintenance Battalion
Ordnance Motor Vehicle Assembly Company (Portable)
Ordnance Base Depot Company
Headquarters and Headquarters Detachment,
Ordnance Base Ammunition Depot
Ordnance Tire Repair Company

Recommend that the technique of these units be included in Ordnance courses of instruction and that development of technique and equipment for units of these types be continued at Ordnance arsenals and proving grounds engaged in production, maintenance and testing of Ordnance materiel. To insure the rapid development of units of these types, it is further recommended that Ordnance detachments of service companies at Ordnance arsenals and proving grounds be designated as cadres for units of these types to continue the development of technique and equipment in connection with the concurrent activities of arsenals and proving grounds.

175. Equipment. Recommend that a truck-mounted shelter be designed for installation on standard general purpose cargo vehicles to provide suitable Ordnance technical vehicles. Recommend that canvas shelter be provided on the basis of mechanics required to work independently of Ordnance technical vehicles, to afford protection from the elements and to lengthen the working day. Recommend additional working suits and a working overcoat be authorized to each Ordnance soldier required to engage in dirty work. Recommend that canvas repair facilities be made available to each third and fourth echelon maintenance company. Recommend that Ordnance maintenance units be shipped to overseas theaters of operations with their tool equipment and basic loads of spare parts, convoy loaded, to insure complete equipment and ready availability for work.

SECTION 5

COMMUNICATIONS

176. Radio, Teletype and Telephone. Recommend that sufficient communications equipment be authorized Ordnance troops to insure a radio net for command and technical communications; a teletype net for supply and ammunition accounting and administration; and telephones for intra-installation control.

177. Civilian Automotive Advisors. Recommend that civilian automotive advisors, of proven ability, be incorporated in theater plans for Ordnance service.

178. Technical Observers. Recommend that technical observers be limited to those representatives accredited to producers of large volumes of equipment and be limited to qualified "fleet" maintenance men.

SECTION 6

REDEPLOYMENT

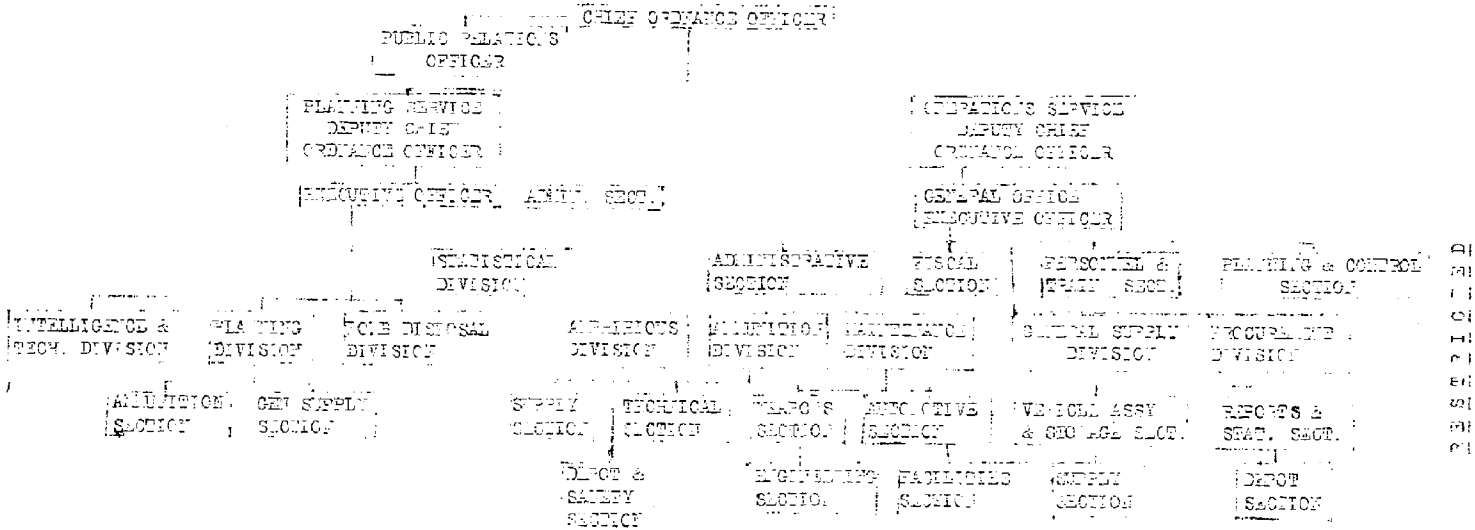
179. Curtailment of Operations. Recommend that in future planning whenever it becomes possible to terminate or to curtail operations in any theater that a sufficient and balanced Ordnance service remain to accomplish the maintenance and preservation of Ordnance equipment incident to close-out operations. Those Ordnance units left behind must retain their trained personnel and be considered as intact units for purposes of return to the Zone of Interior, if they are to be utilized economically.

SECTION 7

ASSIGNMENT OF ORDNANCE TROOPS

180. Basis of Assignment. Recommend that the basis of assignment of Ordnance units be established as the development of an adequate Ordnance service structure, rather than the employment of factors as now outlined in FM 9-5. Further recommend that the basic structure of Ordnance service not be affected by temporary or short-term overloads, and that no elements other than minimum third echelon maintenance and ammunition companies be transferred to meet temporary or short-term overloads.

Organization Chart
ORDNANCE DEPARTMENT
Hq. SOS ETO USA



Source of Information: Monthly Statistical Report, Ordnance Service, Service of Supply, European Theater of Operations, Sep 1944.

APPENDIX NUMBER 2

STATEMENTS OF OFFICERS PERTAINING TO

REGULATING STATIONS IN THE EUROPEAN THEATER

Statements of Lt. Col. E. G. Atkinson, Ordnance Supply Officer, First US Army, throughout the European Campaign.

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As far as First Army Ordnance was concerned the 25th Regulating Station performed the following functions:

a. Diligently followed up the movement of supplies by rail or truck on which expeditious shipment was desired. Results were partially effective.

b. Reconnoitered the location of new railheads.

c. Manned railheads with personnel to serve as freight agents to supervise switching, spotting, and movement of cars, and to maintain records of activity.

d. Supervised the preparation of new railheads for use including all contact with Engineer Railway Construction personnel and Transportation Corps personnel.

e. Received and passed on to higher headquarters priorities for the movement of supplies.

f. f. Checked that priorities in loading and movement of supplies were followed.

g. Furnished personnel to seaports where supplies were being received. These personnel were only stationed there to notify the proper Army service when supplies arrived for them and to guard it until transportation representing the Army service arrived.

h. Received and passed on to the appropriate Army service information regarding the initial shipment, scheduled arrival, and final arrival of shipments of supplies from the rear. This information usually arrived too late to be of use.

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Towards the end of 1944 a subdivision of the Office of the Chief Ordnance Officer was established for the coordination of all transportation for the Ordnance activities. This was called Ordnance Movement Control. It functioned especially well and soon succeeded in increasing materially the flow of supplies to the armies. It not only coordinated all movement of supplies by Ordnance transport but also was the sole bargaining agent for Ordnance for supplemented rail and motor transport.

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The undersigned does not have complete data available as to the quantity of supplies received through the regulating station for any particular period by First Army. The quantity of Class II and IV Ordnance supplies received were approximately as follows:

5,000 long tons bulk supplies per month
or 420 cars of bulk supplies per month

6,000 long tons of full truck vehicles per month
or 200 each combat vehicles per month
or 180 carloads of combat vehicles per month

40 tons of bulk supplies by air per month.

This checks quite closely with several months experience that the Ordnance Class II and IV railhead handled about 20 cars per day. In addition to the above, the Army received approximately the following by road on Communication Zone or Army Ordnance transportation:

1,500 long tons of bulk supplies
2,500 general purpose wheeled vehicles
100 combat vehicles by tank transporter

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Statements of Lt. Col. W. M. P. Northcross, Ordnance Officer, 42nd Regulating Station during the European Campaign.

The 42nd Regulating Station supported 9th US Army and it is believed that the smooth operation of the supply services of that Army was greatly enhanced by the support given. At the beginning of operations this was not my belief, but as time went on, I, as well as the service people in 9th Army, was convinced that the Regulating Station system of supply control was sound, if used properly.

Tables of Organization, 27-22, was used as a guide in the original set-up, but in each section an officer of field grade, usually a Lieutenant Colonel, was placed on detached service. Due to the type of contacts that was necessary for section chiefs to make, this proved to be a judicious move. In 9th Army, the Regulating Officer was attached to G-4 Section and the station in turn attached to his office. Administrative matters continued through Communication Zone channels. Daily contacts were made by section chiefs with their opposite numbers in Army. Not much contact was made with army groups. In Germany, we sent them copies of monthly reports of operations and copies of drafts against credits. They sent us copies of allocations of Class V material. That was all.

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When a new area was to be occupied several possible railheads were selected and a choice offered to the Ordnance Officer. In Ninth Army we invariably used one railhead for Class V and one for Class II supplies. It is known that this centralized operation is preferable to operation of several railheads of each type. Having been agreed upon, stocks were moved forward and all shippers advised of change of address.

All requisitions for Class II supplies were placed on the Ordnance Officer of the Regulating Station by the Army Ordnance Officer. These were submitted in two classes: Bulk and Deadline or Emergency. On bulk requisitions one copy was withdrawn and the remainder dispatched immediately to the issue depot by messenger in the old reliable jeep. If distances were great, planes were practicable, but in no case can you depend upon normal message center channels. Deadline requisitions were teletyped to the issue depot and controlled item requisitions teletyped to Ordnance Section, Communication Zone. Major items status reports augmented by weekly battle loss reports were flown to Paris for automatic releases of these items.

Weekly the Army Ordnance Officer furnished the Ordnance Officer, Regulating Station, with a list of critical items and it was upon this list that priorities of shipments were established. Contact was made to liaison officers at depots and to Transportation Section, Ordnance Movement Control to effect early shipments, in accordance with these priorities.

Immediately upon shipment, traffic dispatch advices by TWX were received and by means of large blackboards the status of these shipments was visually recorded. Passing information was received from Key Way Stations and personnel stationed at railheads recorded receipts. This system is entirely necessary and efficient and is the key to the whole service. Back order records and dues in are thus kept on major items, controlled items, critical items and for bulk requisition items by requisition number only. Army can then ascertain the status of any required supplies by telephoning to Regulating Stations. Verbal requisitions by telephone followed the same channels.

Class V allocations were made by Army Group to Headquarters Communication Zone who in turn established credits at Class V depots for armies concerned. Armies placed their requisitions on the Ordnance Officer, Regulating Station, and indicated priorities on certain items. The Ordnance Officer, Regulating Station, then called shipments forward by teletype, based upon these requests, considering the tonnage lift available, and the ability of the railroad and unloading personnel to handle. Shortage of motive power was often a controlling factor as well as bridge capacity. Lost wagons were reported to Paris who established new credits to cover.

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Some statistics: The average strength of Ninth Army was about 200,000 men. For this force we normally kept 30,000 tons of ammunition in the Class V depot and 16,000 tons in Class II and IV. Of the latter, 6,000 tons were spare parts and 10,000 tons major items, including tanks and vehicles. Day in and day out we delivered 1,000 tons of ammunition daily. This represented about 75 rail cars, foreign type. Class II would average 20 wagons per day, receipts, or 450 tons. Quite a sizeable amount of tonnage represented by tanks and vehicles moved overland and this latter movement was regulated in the same manner as rail. In all some 300 tons of Class II major items and 150 tons of spare parts were delivered. From October 1, 1944 to May 1, 1945, 200,000 tons of ammunition were delivered to Ninth Army and 120,000 tons of Class II and Class IV. The records filed with 42nd Regulating Station will show this material broken down by items. Nor does this include evacuation of salvage, excess Ordnance supplies and captured enemy material, which would probably be 20% of the amounts above.

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Further the Ordnance Officer should have at his disposal a heavy maintenance battalion, four evacuation companies and one depot company for support and evacuation purposes. In the campaign just passed we were afforded little or no help from Advance Section in this regard, nor did that agency contribute anything of importance in supply. Likewise it was an impossibility to dispose of excess materiel through Advance Section channels. The above attached troops would be kept close up and would be especially valuable when Army troops were on the move. The BAM Battalions were not mobile enough and simply were not in the picture.

The tables of organization should be amended to provide for a Lieutenant Colonel, Ordnance, sufficient additional commissioned and enlisted personnel to provide suitable liaison with rear supply depots and increased enlisted officer personnel to maintain adequate records and situation boards. Teams of two more persons per railhead are required. The Lieutenant Colonel should have sufficient experience to supervise the attached battalion and companies as well as maintain the necessary contacts, and have vision to see the picture as a whole. Transportation should be increased accordingly.

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Statements of Lt. Col. John Ray, Ammunition Officer, First US Army, from November 1943 to 17 December 1944.

The regulating station was an ADSEC agency which dealt directly with staff officers in army headquarters. To my knowledge, they had no contact with the army groups. I used the regulating station to transmit requisitions to the Ordnance Officer, Communications Zone. These requisitions were prepared daily. In order to implement his responsibility, the regulating officer placed a small checking agency on our railheads and sometimes in our depots when shipment was by truck. The purpose of this check was to compare requisition numbers as placed and as received and to compare receipt by item with requested items. Train loads were received pertaining to as many as ten requisitions. Some shipments arrived two weeks late; some as much as six weeks late; some not at all. We were unable to determine from the regulating officer or from Communications Zone Ordnance or from ADSEC transportation officer when a particular requisition should be expected to arrive in the army sector. Sometimes even in the case of air shipments we would receive shipments destined for Third or Seventh US Armies, and conversely. Since this unhappy situation prevailed, we informally changed the mission of the Ordnance staff officer of the regulating station and charged him with the responsibility of running down each shipment from point of origin to point of destination and providing us with advice of expected time of arrival. In several cases, the regulating officer provided us with excellent service in the matter of re-routing shipments already on rails; for example, considerable trans-shipment and transportation was saved by high-balling complete trainloads through the Liege depot area up to ASP 127 in the vicinity of Aachen.

Statement of: Lieutenant Colonel M. L. Driscoll, Ordnance Supply Officer, COS-ETO and Communications Zone, ETOUSA, from June 1942 to April 1945.

SUBORDINATE: Ordnance Officer, The General Board, European Theater of Operations.

Materials for handling equipment in MTO appeared to be generally adequate except it did not have the desired modifications and adaptations necessary to adequately handle Ordnance equipment. Steel slings were placed through undercarriages of combat vehicles and looped to the center of the vehicle, where the stress of lift was placed. Lifting eyes were not used for the most part. Gear should be made to utilize lifting eyes for a direct lift on combat vehicles thereby not damaging the running gear of the vehicle. Many bogie wheels and tracks were damaged by use of slings. Heavy wheeled vehicles were lifted by placing slings around extremities of frames which were then looped to the center of the vehicle to be attached to the cargo hook which caused a cross stress and many bent frames of vehicles. Another scheme was used to lift heavy wheeled vehicles which utilized one cargo net for each set of wheels, these nets were looped to center of vehicle to be attached to cargo hook for the lift. This scheme did not equalize the stress on all wheels and often damaged bogies, steering mechanisms, etc. It is believed that a frame should be constructed for wheeled vehicle lifts, using spreader bars to equalize stress and obtain a direct equalized stress lift.

Many OVM kits on vehicles were damaged by use of steel cables (without spreader bars) as they were looped over the vehicle. Wrecker superstructures were also damaged by steel cables.

The cranes, fork-trucks, etc., were generally adequate but poorly operated. Special gear for handling Ordnance equipment should be provided all ports, and Ordnance supervision is needed to reduce damage to equipment.

Processing of equipment at ports was performed by Ordnance personnel, but adequate space was usually lacking. The largest complaint at ports was that non-trained personnel would operate equipment after discharge without the vehicle or equipment being processed for operation, which often caused troubles to engines and steering devices. Many burned-out engines resulted in operation by untrained port personnel.

Ordnance maintenance personnel are required at ports and were usually assigned there, but were made to keep away from discharge points. Material discharged from ships was usually moved by port personnel to areas where the port Ordnance officer became responsible for delivery and processing.

Port usually ships material to destination called for on cargo disposal instructions issued by chief of service, or to nearest service installation. All boxed vehicles and artillery were shipped to nearest park or assembly point where the motor vehicle assembly companies were located. We had very little trouble with boxed material, except to get prompt delivery in types desired.

Boxed Class II parts and equipment were sent to sorting areas from quayside, these boxes were then shipped from sorting areas to depots when the transportation was available, otherwise it was necessary on the Continent for Ordnance to move it with Ordnance personnel. In the UK everything was moved from quayside in 24 hours to designated depots. The system in UK was exceptional and very well organized as British agencies were responsible for discharge and shipments.

Continental sorting Areas at ports lacked transportation to clear areas, therefore large dumps were often not emptied for as much as 90 days, which caused supply services many difficulties, as they did not have a record or know what was in the areas or where it was at any given time.

Convoy loadings make it necessary to establish service areas for each supply service in the port area to receive, process, and issue material to units in the convoy. This method is desirable under combat conditions and when transportation is not available in desired quantities. This method is fine if all material is loaded in one convoy and all the convoy discharges at one port. Units can be equipped in the field very easily if the plan is carried out to perfection.

We had one group of wreckers (75) at Depot O-640, Tidworth, with bent frames caused by use of steel slings mentioned above.

Numerous shop trucks were damaged by use of slings looped through wheels and frames and looped over bodies which damaged the bodies as a direct lift was not made. Many cased vehicles were damaged as "box hooks" were not used, slings were used which caused boxes to collapse, causing damage to material therein. Many combat vehicle engines were burned up at ports as they were driven by port personnel before being processed and due to hydrostatic lock.

Many combat vehicles in UK and the Continent had running gear damaged, by use of steel cables mentioned above because longshoremen would not use lifting eyes even though Ordnance notified port authorities.

Pilfering of cargo was encountered at all ports due to lack of guards. Watches, binoculars, pistols, etc., were the items most often pilfered.

Port Ordnance Officers should be trained and have trained personnel assigned for proper discharge and delivery of Ordnance material.

Port Ordnance personnel should be of the type familiar with proper discharge and delivery of material, in order that port commanders will permit Ordnance personnel to supervise all activities. Usually port Ordnance personnel are only advisors and delivery agents.

Unserviceable or incomplete Ordnance material received at ports is usually shipped to nearest Ordnance park or depot where it is inspected and shipped to the appropriate Ordnance shop. SOP states the procedure for this type of material regardless whether it comes from a port or otherwise. Material coming from a port usually is investigated by receiving installations and a report made to Chief Ordnance Officer so that corrective action can be taken to prevent a recurrence at ports. Usually chief of transportation is notified of unusual cases and most flagrant deficiencies in handling of Ordnance equipment.

Much damage was also caused by handling in ports in UK and due to poor storage in ships.

W. L. DRISCOLL
Lt Col, Ord Dept.

Summary of examination of the organization of Army Ordnance Service based upon After Action Reports, Interviews, Visits and Inspections.

	1st US Army	3rd US Army	7th US Army	9th US Army	15th US Army
1. Army Ordnance Section controlled allocation of major items.	Yes	No*	No	Yes	Yes
2. Administrative and technical control was centralized in Army Ordnance Section.	Yes	No	No	Yes	Yes
3. Command of ammunition troops was integrated.	Yes	Yes	Yes	Yes	Yes
4. Specific battalions were designated to support the Corps	Yes	Yes	Yes	Yes	Yes
5. Forward and rear groups were used	Yes	Yes	Yes	Yes	Yes
6. Specific medium maintenance companies were designated to support infantry divisions.	Yes	Yes	Yes	Yes	Yes
7. A wholesale Army Ordnance Depot was organized along commodity lines.	Yes	Yes	Yes	Yes	Yes
8. A 4th echelon battalion conducted unit rebuild	Yes	Yes	No	Yes	Yes
9. A vehicle and artillery holding park was organized	Yes	Yes	No	Yes	Yes
10. Local procurement was used to supplement normal supply and was emphasized.	Yes	Yes	Yes	Yes	Yes
11. Reclamation was emphasized	Yes	No	Yes	Yes	Yes
12. Evacuation companies were grouped in a battalion.	Yes	No	Yes	Yes	Yes
13. Formalized recovery of unserviceable material was executed by elements of evacuation companies	Yes	Yes	Yes	Yes	Yes

*Note: Limited to very critical items only.

Appendix No. 4

HEADQUARTERS
FIRST UNITED STATES ARMY
APO 230

STAFF MEMORANDUM)
:
NUMBER 24)

18 March 1944

COMMAND AND OPERATIONAL CONTROL

1. In order to clarify the subject of "Command" insofar as it relates to the relationship between special staff section chiefs of this headquarters and the troops of their branch, the policy of the Commanding General is hereinafter set forth.

2. "Command" insofar as it pertains to the First US Army can be defined in two categories:

a. Complete command, which entails all the prerogatives of a commander as described by Army Regulation 600-20. This may well be exemplified as that relationship which normally exists between a regimental or separate battalion commander and his subordinates.

b. Operational control, which entails those prerogatives of a Commander delegated to an individual to enable him to direct, control and coordinate the activities of a large number of units, and at the same time relieving him from the maximum of administrative responsibilities.

3. This operational control, as indicated in 2 b above is that authority which the Commanding General desires to delegate to the special staff section chiefs of this headquarters. Some of the more important responsibilities and limitations are as follows:

a. Those functions which are delegated to special staff section chiefs to exercise over the troops of their branch are as follows:

(1) Transfer of personnel between subordinate Army units to the extent that recommendations will be made to the Adjutant General for transfers of officers of company grade and enlisted personnel, and to the G-1 for field grade officers. These recommendations will be concurred in and orders issued automatically, except in unusual cases, when the matter of transfer may be placed before the Chief of Staff for decision.

(2) Issuance direct to subordinate Army units in the name of the Army Commander of normal operating orders and instructions necessary to the accomplishment of the mission.

(3) Preparation, publication, and supervision of execution of technical training directives, memoranda, orders, and other similar publications of a technical nature which pertain to subordinate Army units, in the name of the Army Commander.

(4) The re-location of supplies within subordinate Army units wherever necessary to accomplish the most satisfactory results.

(5) Remark or recommendation on efficiency reports and on recommendations for the promotion, decoration, and reclassification of personnel of subordinate Army units. For this purpose, all documents of this nature will be routed to G-1, who will note them and immediately circulate them to the special staff section concerned prior to general staff or command action.

(6) The issuance of necessary orders in combat to move Army service troops within the Army zone of operation wherever such moves are

indicated to best accomplish the mission. All such moves will be coordinated with other interested sections of the headquarters.

4. All other elements of command will be retained by the Army Commander.

/s/ W. B. Keene
W. B. KEANE,
Brigadier General, G. S. C.,
Chief of Staff

DISTRIBUTION:
"A-1" - Hq First US Army
"A-1" - Planning Group

R E S T R I C T E D

Statement of: Lt. Col. K. R. Daniels, Executive Officer, Ordnance Section, Headquarters Third US Army.

"The Ordnance Officer never in the campaign exercised complete command of Ordnance troops. He was, however, granted operational control verbally by the Army Commander. His authority was such in Third US Army that it amounted to actual command."

Statement of: Capt J. O. Yates, Assistant Operations Officer, Ordnance Section, Headquarters Seventh US Army.

"Early in the campaign an attempt was made to secure complete command of Army Ordnance troops as it was done in the Fifth US Army. This authority was never granted although the army commander did delegate operational control to the Ordnance Officer."

E X T R A C T

Ninth US Army SOP, 24 September 1944.

* * * *

Control of Chiefs of Services.

Under direction of the army commander, the chiefs of services (Chemical, Ordnance, etc.) exercise operational control over all units pertaining to their respective service assigned or attached to Ninth US Army which are not otherwise assigned or attached.

By command of Lieutenant General SIMPSON:

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Note: Staff Memo No. 16, Headquarters Fifteenth US Army, subject: "Command and Operational Control", dated 31 January 1945, is an exact copy of Staff Memo No 24, Headquarters, First US Army, 18 March 1944.

HEADQUARTERS
FIRST UNITED STATES ARMY
Office of the Ordnance Officer
APO 230

6 April 1944

SUBJECT: Army Ordnance Battalions in Support of Corps.

TO : Ordnance Officer, V, VII, XIX Corps.

1. For operational reasons it has been necessary to relieve all non-divisional Ordnance troops (except Bomb Disposal Squads) from attachment to Corps. With proper operating policies in effect, it is believed that this method of operation may be caused to effect better Ordnance Service to units of Corps.

2. It is not the intent of the Army Ordnance Officer to deprive the Corps Ordnance Officer of direct access to sufficient Ordnance troops to permit him to discharge his responsibilities, as enunciated in FM 9-5 as amended by Changes 1 and 2, and as further interpreted by Ordnance Standard Operating Procedure for Combat dated 21 February 1944 (particularly par. 2b of Section III). By placing all resources at the immediate disposal of Army Ordnance Service it will be possible to effect promptly those changes required to assure adequate and properly balanced support in the forward areas.

3. It is intended that there be at all times at least one Battalion with the sole mission of supporting a designated Corps. The composition of this Battalion will be altered as required to meet the needs of the Corps based upon the recommendation of the Corps Ordnance Officer to Army Ordnance. The Corps Ordnance Officer will have direct access to the resources and facilities of that Battalion, but without being removed by any administrative responsibilities.

4. To effectuate the above, the following policies are expressed to you, and will be transmitted to the Battalion Commanders concerned, for full application during combat.

a. Authority to move units of forward Battalions, within the limits of the Corps area, is delegated to the Battalion Commander. He is directed to locate his elements in accordance with the directions of the Corps Ordnance Officer, who is responsible for securing needed concurrence as to time of movement and location from Corps G-3 and G-4.

b. The Corps Ordnance Officer is authorized and encouraged to communicate directly with the Battalion Commander of the supporting forward Battalion on all matters connected with Ordnance support for elements of the corps.

c. The Battalion Commander is directed to comply with the wishes of the Corps Ordnance Officer in all respects connected with the time, place, and manner of employing his repair and evacuation facilities, and furnishing supply of other than controlled items to all non-divisional Corps units.

d. The Corps Ordnance Officer is requested to advise Army Ordnance promptly and continously with respect to required changes in the composition of forward battalions, and will bring to the attention of the Army Ordnance Officer any deficiencies in the service rendered by the forward battalion.

Appendix No. 6

RESTRICTED

5. With respect to Ammunition Supply, Corps Ordnance Officers are authorized direct communication with the Depot Commander of ASP's, assigned to the supply of the Corps. Corps Ordnance Officer is expected to recommend to Army levels of supply for such ASP's, and time and place of establishment of new supply points. Corps Ammunition Officer will receive a copy of Status of Stock Reports from ASP's supplying Corps, and is authorized to limit issues and designate substitutes when necessary.

6. The attention of Corps Ordnance Officers is particularly invited to the necessity for the following:

a. Establishment of Division and Army Ordnance maintenance facilities well forward. In general, third echelon facilities should be on a line with the service echelons of Divisional and Corps Artillery Battalions.

b. Prompt advance information to Army Ammunition Officer with respect to tactical plans that affect ammunition supply.

c. Continuous information to forward Ordnance Battalion concerning location and prospective movement of Corps units.

d. Information to the command concerning the locating of supporting elements, and extensive sign-posting on routes to Ordnance Installations.

7. If there are any questions with respect to the policies outlined herein, request they be brought up promptly in order that a satisfactory solution may be reached.

/s/ J. B. Medaris
/t/ J. B. MEDARIS
Colonel, Ord. Dept.
Ordnance Officer.

Lt. Col. John C. Sheehan, Commanding Officer 185 Ordnance Battalion

Col. James D. Sams, Commanding Officer, 52 Ordnance Group

Lt. Col. K. B. Daniels, Deputy Ordnance Officer, Ninth US Army

Major Charles Askins, Jr., Recovery and Evacuation Officer, First US Army

Col. L. S. Fletcher, Operations Officer, First US Army

Col. W. W. Garner, Ordnance Officer, Ninth US Army

Lt. Col. R. G. Atkinson, Ordnance Supply Officer, First US Army

	Lt. Col. Sheehan	Col. Sams	Lt. Col. Daniels	Major Askins	Col. Fletcher	Col. Garner	Lt. Col. Atkinson	
Was Light Maintenance Company of Infantry Division adequate?	No	No	No	No	No	No	No	
Ordnance company of medium maintenance type should be organic to Infantry division?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Ordnance of Airborne division was inadequate?	No	No	---	No	---	---	---	
Ordnance company of medium maintenance type should be organic to Airborne division?	Yes	Special	---	Yes	---	---	---	
Was maintenance battalion of Armored division adequate?	Yes	Yes	---	---	---	---	Yes	

Statement of: Colonel J. B. Medaris, Ordnance Officer, First U. S. Army, throughout the European Campaign, pertaining to mission, organization, operation and equipment of Ordnance units.

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The Ordnance Vehicle Depot Battalion. Earnest and continued attempts to combine existing organizations into an efficient unit for the receipt, processing for issue, storage and delivery to using units of wheeled and tracked vehicles, trailers and artillery have met with no success. Invariably, regardless of what combinations may be attempted, the result is insufficient equipment and manpower of the type required, and a surplus of the type not needed for the job. The mission is present in every force of any size. A field army cannot avoid this requirement and render efficient service.

Salvage and Reclamation. No existing Ordnance organization is suitable for the task of collecting point operation, and again we are faced with the necessity for wasting manpower and equipment to accomplish this essential task. The Ordnance collecting point is believed to be one of the most important links in the supply and maintenance chain, and its efficient operation has a broad influence on the continuing replacement requirements for Ordnance equipment.

Miscellaneous. To finish the complete rounding out of Army Ordnance service, the following miscellaneous units are required:

Publications Depot section. Under existing regulations, the problem of prompt and accurate distribution of Ordnance publications within a field army in combat is a very difficult one. It was smoothly and successfully solved by the establishment of a special section attached to the army main depot, with this sole mission. Through close coordination within the Ordnance service, the depot was provided with a troop list which was usually more correct than the official army G-3 list, and certainly more up-to-date. It is recommended that a 9-500 section be organized and provided on the basis of one per field army.

Service Section (Army Depot). At any point where the army receives heavy supplies by rail, special equipment and facilities are required to facilitate loading and unloading and to furnish skilled packing and boxing service toexpedite forwarding the material. It is believed that this need should be filled by a 9-500 unit, one per field army, normally attached to the army main depot.

Communications. Inspections of Ordnance Department Equipment Tables will show such fallacies as switchboards, telephones and wire, without linemen, linemen's tools, switchboard or telephone operators. In general, the internal demand far exceeds the equipment provided by the Table of Equipment, and I believe justly so. In the operation of ammunition depots and AoP's for example, it is essential that there be sufficient internal communication between bays, sub-depots, receiving points and the main depot office. The same thing is true within Ordnance battalions. Much of the theoretical load now placed on the army signal officer should be transferred to the Ordnance battalion. It is a fundamental concept among all tactical troops that each headquarters is responsible for communications to the next echelon below and I believe we are unjust to the signal officer in general in laying any burden upon him for establishing any communications to companies, except where a company is operating as an isolated unit. If we can accept the above conclusion, Ordnance battalions and companies must be provided with such wire, line-laying personnel, and

equipment to permit them to establish their own internal telephone communications up to distances from companies as high as ten miles. With respect to other methods of communication, we must think in two separate directions. First of all, due to the volume of detailed administrative traffic required, the teletype reaches a high degree of usefulness when it can be employed. The availability of teletype service will vary greatly with the situation, and it is here that we must avoid confusion in our thinking. Teletype is most desirable, but will increase in efficiency as the situation becomes static. Radio is emergency equipment, to take over as movement begins and to become absolutely essential in critical situations.

Our experience indicated that we might expect Corps to provide teletype connection to the ASP in its area, and that such connection would be available 40% of the time. We were able to maintain teletype connections to group headquarters 50% to 60% of the time, and to the main Class II depot approximately 50% of the time. I believe this is sufficient to justify the equipment. Since the War Department seems to object to pool equipment, I recommend one teletype and operator for each group and battalion headquarters. The battalion units can be used where required within the army, - for ASP's and Class II depots.

With respect to radio, I am fundamentally and unalterably convinced that radio communications of some type are necessary to the maintenance of control among Ordnance units in the type of warfare that may be anticipated for the present and future. Again we must visualize war as an unpredictable succession of emergencies, and must provide certain equipment on the same basis that fire fighting equipment is allowed. The more critical the situation, either from the standpoint of a rapid advance or a disastrous defeat, the more essential is the preservation of continuity of supply of weapons and ammunition. Let me emphasize here, that it may be said without challenge that an army can fight on short rations and with ragged clothes, but when an army is without ammunition and guns it is no longer an army. It must, therefore, be assumed that the replacement of combat material and continuity of Class V supply must take the highest priority in any critical situation. This priority can be maintained only if continuous control can be exercised, and that can be depended upon only to the extent that communications are effective. I, therefore, believe that the minimum radio net for Ordnance operation must include a command net, linking the army Ordnance officer with each group commander, and a group net for each group linking it with its battalions. It must also provide for certain additional equipment of lesser range capable of being pooled by battalion commanders and placed at the more isolated installations under rapidly moving conditions. For the above purpose, six frequencies are required for an army having four groups; one for the command net, one for each group net and one frequency for the pool of sets of approximately the 193 type, having a range of approximately 35 miles. This latter group of sets can be operated through proper net control without interference on a single frequency. The command net must have powerful stations capable of communicating over a range of at least 100 miles and the group nets should have from 50 to 75 miles range and at times even this will be too small, but intelligent pooling of facilities under the direction of a competent communications officer at army Ordnance headquarters, will solve these problems as they arise.

EVENTUAL DISTRIBUTION OF ORDNANCE TROOPS
AS PLANNED 17 FEBRUARY 1945

		Communications Zone	6 and 12 US Army Groups	SHAEF	USSTAF
1. Army Service Force Type	T/C&E				
Hq & Hq Det, Ord Base Depot	9-312	10			
Base Armament Maint Bn	9-315	13			
Base Auto Maint Bn	9-325	7			
Motor Veh Distribution Co	9-337	16	4		
Tire Repair Co	9-347	10			
Motor Veh Assembly Co	9-348	15			
Base Depot Co	9-377	41			
Ammunition Renovation Co EC,AH,CD,AC.	9-500	2			
Bn Hq & Hq Det, Composite	9-500AD	27			
Recovery Plat, Composite	9-500CK	3			
Co Hq & Hq Det, Composite	9-500AC	18			1
Bomb Disposal Plat, Composite	9-500FC		4		
Ammo Renovation Plat, Com.	9-500EC	1			
Vehicle Distribution Det,Comp,	9-500CH	1			
Service Det, Composite	9-500CL	1			
Bomb Disposal Squad	9-500EB	29	57		34
Ballistic & Tech Serv Det	9-500ED	1	5		
Corps Fuze Team	9-500EE	7			
General Supply Team, Comp.	9-500CB	1			
Mess Team, Comp.	9-500AJ	1			
Mess Team, Comp.	9-500AH	2			
2. Army Ground Force Type	T/C&E				
Medium Maintenance Co	9-7	1	53		
Heavy Maint Co (FA)	9-9	6	33		
Hq & Hq Det, Ord Group	9-12		15		
Ammunition Company	9-17	57	45		
Heavy Maint Co (TK)	9-37	2	31		
Depot Company	9-57	22	35		
Hq & Hq Det, Ord Bn	9-76	51	63		2
Med Auto Maint Co	9-127	33	57	1	
Evacuation Company	9-187	23	24		
Heavy Auto Maint Co	9-197	64	34		
Maint Co (AA)	9-227		19		8

Extracted from Letter, Headquarters, Communications Zone, European Theater of Operations, Office of the Chief Ordnance Officer, APO 887, file number 370A, subject: "Basis for Assignment of Certain Type Ordnance Units to the Communications Zone", dated 17 February 1945.

SUMMARY OF STATEMENTS OF ORDNANCE OFFICERS

PERTAINING TO TRAINING OF ORDNANCE UNITS

Lieutenant Colonel Arthur H. Travers, formerly a forward Battalion Commander in Seventh US Army, at present Operations Officer, Seventh US Army Ordnance Section. From Memorandum to Colonel Lynde, Subject: "Notes on Visit to Seventh Army Headquarters, September 20-21" by Major B. L. Bratton, dated 26 September 1945.

Lieutenant Colonel Travers estimates that approximately 80% of the tactical training of Ordnance troops as it was conducted by the Army Special Troops Headquarters could be dispensed with.

Major Ralph W. Williams, formerly Company Commander, 790th Ordnance Light Maintenance Company, 45th Infantry Infantry Division, at present Maintenance Officer, Seventh US Army Ordnance Section. From Memorandum to Colonel Lynde, Subject: "Notes on Visit to Seventh Army Headquarters, September 20-21", by Major B. L. Bratton, dated 26 September 1945.

In the training period there were certain things, such as the 25 mile hike, which could have been eliminated, also the air-ground liaison training. However, the necessity for sufficient tactical training must not be overlooked. On several occasions the 790th Light Maintenance Company was under artillery fire and has also bombed and strafed. It also had to organize a defense of its own on several occasions.

Remarks of Lieutenant Colonel K. R. Daniels, Deputy Ordnance Officer, Third US Army, dated 26 September 1945.

There was little or no need to apply the tactical training which Ordnance troop units had received in the Zone of Interior. Not over five Ordnance units in Third US Army had occasion to engage the enemy. Although much time had been spent in the States in perfecting the technique of road marches, the tactical situation in Third US Army prevented units from marching on the road. The customary method of advance was by infiltration. It is realized, however, that our air superiority permitted considerable license in the method of road marches.

Remarks of Colonel W. B. Loats, Ordnance Officer, 51 Ordnance Group, dated 18 September 1945.

Believes that much of tactical training required of Ordnance troops in the Zone of Interior was wasted effort. Cites specifically men training, all Ordnance units need were road marches. 25 mile hikes were of no value as Ordnance units are mounted technical organizations. Indorses marksmanship courses, particularly the battle courses with minimum of known distance firing. Indorses battle indoctrination course. Extent of tactical training varied considerably according to ideas of commanders of special troops to which Ordnance units were attached. There was no established set policy as to how much training Ordnance units should receive. Frequently, technical training suffered.

Memorandum to Major B. L. Bratton from Major C. F. Lincoln, Assistant Ammunition Officer, Fifteenth US Army, formerly Operations Officer, 71 Ordnance Group from D-Day to VE Day, 12 September 1945.

Tactical training proved valuable to the 57 Ordnance Ammunition Company insofar as it pertains to rifle marksmanship. In an engagement with approximately fifty-five SS Grenadiers, the 57 Ordnance Ammunition

Company inflicted 39 fatal casualties and wounded the remainder at the cost of one dead and one wounded.

Remarks of Colonel T. F. Nixon, Ordnance Officer, Third US Army throughout the European Campaign.

Military training definitely should not be eliminated in the training of an Ordnance soldier. I remember an Ordnance unit coming into Normandy parked its vehicles in the middle of a field; dug foxholes in the middle of a field; pitched tents in the middle of fields, and did not take advantage of hedgerows, natural camouflage, which were available to them. Ordnance soldiers should know how to sleep warm with a few blankets, should know how to protect themselves, how to set up a defense of their area. Soldiers should be trained not only in offensive tactics but in defensive tactics as well. In time of war there are occasions when a unit has to retreat. An Ordnance soldier, well trained in military subjects, would not become panicky at such a time but would retreat swiftly and orderly, thereby saving many lives.

Remarks of Colonel L. S. Fletcher, formerly Headquarters First US Army, now Headquarters, Negove Base, San Francisco, California.

1. Improve quality of officers in both military and technical units.

2. Provide a stronger "inspection for quality" set up in each unit responsible only to the Commanding Officer and prevent poor work going to the troops. Improve availability of supplies, less attention to tons and more to how much of the requisitions are being filled.

APPENDIX NUMBER 11

SUMMARY OF STATEMENTS OF OFFICERS PERTAINING

TO TRAINING OF ORDNANCE UNITS

Remarks of Colonel C. R. Sublett, formerly commanding the 69th Ordnance Group and now commanding the 70th Ordnance Group, dated 26 September 1945.

Companies from FLORA were technically qualified but were not military organizations. The noncommissioned officers had to be changed and three additional months were required to make a good organization. In general, affiliated units were good as far as their technical qualifications went; but in each case the noncommissioned officers had to be readjusted.

Remarks of Lieutenant Colonel K. R. Daniels, Deputy Ordnance Officer, Third US Army, dated 26 September 1945.

It is considered that the technical training of the Ordnance School was excellent. However, the technical training was limited to fixed malfunctions, in order to teach proper methods of reducing stoppages. Students of this school did not learn how to improvise and knew nothing of field expedients. Inspectors and really qualified artillery mechanics were lacking. All technicians of Ordnance units should go to schools. Prior to coming overseas, troop units under supervision of Third Army Headquarters in the Zone of Interior had approximately 80% of its students graduate from technical schools. The best results are obtained by sending students after they have had some experience in an organization. The demands of Ground Forces and the requirements of the Ordnance job preclude adequate unit technical training. It is felt that at least one year, and preferably two, is required to produce a well rounded Ordnance unit. Companies received from FLORA required nine additional months to be brought to a satisfactory standard. Affiliated units were excellent because the personnel were of a higher degree of intelligence, and, in some cases, were excellent mechanics.

Remarks of Colonel W. B. Moats, Commanding Officer, 51st Ordnance Group, dated 18 September 1945.

In training Ordnance technicians, the first step is nomenclature and use of tools. After that, effort is directed to teaching team work and speed. Aberdeen and other branch automotive schools went too completely into electrical theory instead of teaching them what they were to do. Technical 4's and 5's who could not get to schools were unit trained. Training was limited to nomenclature, use of tools, assembly and disassembly and trouble shooting. It is felt these men were as good or better than Aberdeen trained men. 75 to 80% of technicians should be school or unit-school trained. More time should be devoted to field expedients and improvisations. This is better than overnight marches.

Technical training most Ordnance units received was individual; team work was not stressed. It required 60 days to train company commanders how to organize for production. During this period, production was increased 100% with same personnel. It was frequently necessary to relieve company commanders in order to get production. A majority of company commanders did not know capability of their units. Many errors were made in selection of officer personnel. Men without any technical background often commanded companies and had no ideas of production. The Ordnance Officers Candidate School was opened up to entire Army; I have received over 400 Officers Candidate School graduates, many with no

business in a technical unit. Many came from medical units and had to be taught the job after they were commissioned. I do not believe Ordnance units operated at maximum efficiency. Many did not know what efficiency was. It is my belief that companies of 51 Ordnance Group did not reach peak of efficiency until October. 51 Ordnance Group had target of 30 vehicles per day per medium automotive maintenance company (third echelon), 25 vehicles per day per heavy automotive maintenance company (third and fourth echelon). These were shop jobs and did not include roadside repairs. Maintenance (antiaircraft) companies were used for automotive work, which had to be taught them after arrival. I believe medium maintenance companies could have done antiaircraft job equally as well. There is a tendency to allow a section to idle if no work is allocated to the section.

Units were allowed 15% for company overhead at first, later cut to fifteen men. Companies did not know how to utilize their personnel. It was SOP that when company was in shops that all men work; had break period in morning and in afternoon. All men were required to be at work rest of time. 836th Depot Company claimed that it had had service with every army and contended that it had never received a specific mission and never stayed with any army long enough to learn their system. The morale was poor. Frequent transfer of companies is uneconomical as units do not learn procedure and morale suffers. Divisional light maintenance companies frequently misused and developed into gadgeteering units. I believe an augmented medium maintenance company is better suited for an Infantry division. Battalions do not operate properly. Some want to channel requisitions through Battalion S-4. Some want to bring in all administrative personnel to Battalion Headquarters. A comprehensive and specific training program for battalions and groups should be established. All operated differently, assuming different perogatives.

Remarks of Lieutenant Colonel Marks, Chief Training Officer, Theater Service Forces, European Theater.

Reference the relative capabilities of Ordnance units trained by Army Ground Forces and those trained by Army Service Forces: During my tour of inspections with the Inspector General's Department for 16 months I noticed one thing was quite evident. The preliminary training of Army Service Force units was far better than Army Ground Force units. However, at the end of a nine month period, Army Ground Force units were far superior to Army Service Force units. This was due, in my opinion, to the fact that Army Ground Forces had the vehicles and the weapons to work with, whereas Army Service Forces did not have the work, and Army Ground Forces would not give them any. Army Service Forces seldom had enough actual productive work to adequately enable their units to practice their training. Army Ground Forces units had better officers, better leaders, whereas Army Service Forces had a low caliber of officer personnel. Army Service Forces received officer reinforcements from Army Ground Forces and all these officers were usually the officers not wanted by Army Ground Forces or wash-outs of some nature. Also Army Service Forces had a terrific time getting the necessary equipment. It is my opinion that Ordnance Personnel should be trained in a replacement center for five or six weeks of basic military training, eight to ten weeks of technical training and four weeks of unit training and team work. The unit should then be turned over to Army Ground Forces for work in the field.

The minimum amount of time to successfully train an Ordnance unit to perform its primary mission is six months. I would definitely recommend the consolidation of training responsibilities of both Army Ground Forces and Army Service Forces under one head.

Remarks of Major Long, Assistant Training Officer, Theater Service Forces, European Theater.

The preliminary technical performance by Army Service Forces is much better than Army Ground Forces. Army Ground Forces units know what is going on when they hit the theater. The morale in Army Ground Forces units far excels that of Army Service Forces units. Every officer I have talked to is of the opinion that the Army Ground Forces unit is better trained by a well balanced training program. This program instills into the Army Ground Forces soldier an appreciation of what the ground force soldier goes through. I would definitely recommend training of both Army Ground Forces units and Army Service Forces units under one head.

Memorandum to Major B. L. Bratton from Major C. F. Lincoln, Assistant Ammunition Officer, Fifteenth US Army, formerly Operations Officer, 71st Ordnance Group, from D-Day to VE Day; 12 September 1945.

The ability to live in the field under varying conditions was easily and quickly learned, and from personal experience it is felt that no prior training is required. Conditions vary so much that the ingenuity of the unit concerned is the guiding factor. What little satisfactory technical training ammunition troops received was applied to the fullest extent. Deficiencies became obvious immediately and it is felt that all technical training was of value.

The percentage of technicians that must be school trained depends entirely upon two factors:

a. What percentage of the personnel can read and write.

b. Is the school so equipped as to teach your personnel more than you could personally, and does it teach in a practical manner.

It was found that officers and men who had attended the ammunition school at Aberdeen, Maryland, were more inclined to back new ideas and tremendous tonnages than those individuals who entered the operation with an open mind.

It is felt that an Ordnance ammunition company should have the opportunity to handle large quantities of ammunition under varying conditions for at least six months prior to entering on combat operations. Any less time will result in rough operation and sometimes dangerous experiments tried in the field.

First US Army Report of Operations, Annex 13, Ordnance Section: Appendix I, Ammunition Division; VII, Lessons Learned; B, Training.

The ammunition companies of a field army must be trained to operate a large army depot. This training must be so conducted as to include the handling of large tonnages of unsegregated ammunition arriving at the depot night and day, during good and bad weather. Companies must be trained to report accurately even under these difficult conditions.

Statements of various Ordnance Officers serving with all Armies, to the question: "Were communications adequate during the European Campaign, and how could they be improved?

An Ordnance teletype net would be of great assistance to operations in the field. This was proved by First US Army in their operations on the continent.

Statement of Lt. Col Abner C Hutcherson
Hq 26lst Ord Bn

A radio net would prove invaluable to Ordnance troops with corps and Armies. Closer contact would eliminate much duplication of effort and reduce downtime considerably.

Statement of Capt Jack F Siegel
532nd Ord Tank Maint Co

Add qualified telephone and radio personnel and equipment to all units. Add messenger personnel and transportation. Operate Bn-Co net (25-mile radio) and Co-Bn net (100-mile radio), and Group-Army net with Telephone and Telegraph (Teletype, if conditions permit).

Statement of Col James D. Sams
52nd Ord Gp

Communication is inadequate and radio facilities should be provided down to and including units of company size.

Statement of Capt J. I. Thurston
2615t Ord Maint Co (AA)

All companies should have phone, teletype, radio communication with higher headquarters and supported troops.

Statement of Capt E. W. Lewis
Hq 193rd Ord Bn

Ordnance teletype net between Army, Group, and Battalions would be desirable.

Statement of Lt Col A. H. Travers,
Hq Seventh US Army

Ordnance Teletype from Army installations to the rear would be an improvement.

Statement of 1st Lt. J. D. Vickers
984th Ord Depot Co

Communication is inadequate between companies, battalions and group headquarters. An Army Ordnance radio net down to and including companies would be of great assistance.

Statement of Major Lardis C. Compton
503rd Ord Tank Maint Co

Communication is inadequate. Battalion should be connected with Army by radio communication as field phone service is often useless as lines are often too long.

Statement of 1st Lt. Harvey V. Mason
567th Ord Hl Co (PA)

Teletype and radio should be used in higher headquarters down to Ordnance Groups and Battalions.

Statement of Capt Leonard L. Dugan
257th Ord Bn

Teletype net would be a great improvement over other types of communication in dealing with army supply problems. First US Army did use Ordnance Radio net to good advantage.

Statement of Capt Vernon D. Enwald
3539th Ord MAM Co

Under circumstances of European Campaign, communications were good. Ordnance teletype or radio network would be practicable and effective. Reason: Expediting critical items, a more important problem than bulk flow of supply.

Statement of WOjg Roy C. Hemerly
980th Ord Depot Co

Communications could be improved. A low power radio net would save time, equipment, and probably lives.

Statement of 1st Lt Woodrow A. Ruth
3472 Ord MAM Co

Definitely radio net for maintenance units; teletype for depot and base installations.

Statement of Lt. Col A. D. Loring
43rd Ord Bn

Ordnance teletype and/or radio would be an enormous improvement, preferably teletype however, as written message makes for greater accuracy.

Statement of Lt. Col A. N. Huddleston
44th Ord Bn

From conversation with unit commanders who were in the "Bulge" it would seem that teletype or radio would be the answer to those situations.

Statement of Major A. W. Edwards
19th Ord Bn

Communication is not adequate. It could be improved by authorizing Ordnance Companies Telephones and Field Wire. A radio set would be very practicable. During a rush or drive, jeep messenger was the only means of communications.

Statement of 1st Lt A. J. Fischer
3422nd Ord MAM Co

The idea of a radio net is very good, and seems to be practical. In fast moving operations, communications become very difficult sometimes, with no telephone service, and long messenger runs. Have observed the radio net working in other units and it seemed to be very satisfactory.

Statement of 1st Lt. R. R. Todd
Hq 7th US Army, Ord Section

An Ordnance radio net would be practical in my opinion.

Statement of 1st Lt R. L. Speyde
47th Ord MM Co

It can be improved by use of radio. A radio net would be practical in that battalions are generally quite some distance from their units.

Statement of 1st Lt E. H. Chatteway Jr
129th Ord MM Co

Present Communication is inadequate. Radio and radio telephone are the only answers. Teletype at Main Depots and Group Headquarters only.

Statement of Lt Col E. T. Martin
Hq 66th Ord Bn

Communication was not adequate when speed was essential. Equipping units with radio could offset this.

Statement of Capt E. J. Bagwell
45th Ord MM Co

I believe that radio communication would be a distinct advantage to Ordnance Maintenance and Supply.

Statement of Capt D. E. McCune
314th Ord Bn

A system of radio communication would improve Ordnance service.

Statement of 1st Lt A. C. Blackwell
548th Ord HM Co (FA)

By addition of radio in all Ord Units T/E's, radio and teletype net would be practical.

Statement of Maj Jack E. Hughes
150th Ord Bn

Communication was never adequate. A radio net would be very practicable if manned by trained, interested operators.

Statement of Maj Leslie W. Stewart
74th Ord Depot

Telephone communication was not satisfactory on active fronts and radio would have been a big aid.

Statement of Maj Charles F. Hudson
196th Ord Bn

Radio network very desirable. Teletype in most cases not practicable because of constant moving of units.

Statement of Maj Howard Coleman
252nd Ord Bn

Ordnance teletype system would be a great assistance--communication is poor.

Statement of Maj S. R. Browden
270th Ord Serv Bn

Headquarters, Seventh US Army, Office of the Ordnance Officer; memo from Captain J. C. Yates, Operations Officer, to Major J. I. Bratton, Operations Officer, Fifteenth US Army, 16 October 1945.

Seventh Army was augmented by three infantry divisions, one airborne division and one armored division between the 17th and 22d of January. These divisions departed between the 5th and 20th of February after cleaning out the Colmar Pocket. Ordnance units as follows were attached to Seventh Army:

	UNIT	ARRIVED
536	Ordnance Heavy Maintenance Company (Tank)	1 February
557	Ordnance Heavy Maintenance Company (Tank)	29 January
134	Ordnance Heavy Automotive Maintenance Company	30 January
256	Ordnance Medium Maintenance Company	7 February
3472	Ordnance Medium Automotive Maintenance Company	28 January
3526	Ordnance Medium Automotive Maintenance Company	27 January
3499	Ordnance Medium Automotive Maintenance Company	2 February
131	Ordnance Heavy Maintenance Company (Field Army)	6 February
514	Ordnance Heavy Maintenance Company (Field Army)	30 January
900	Ordnance Heavy Automotive Maintenance Company	29 January
586	Ordnance Ammunition Company	28 January
457	Ordnance Ammunition Company	29 January

These units with two exceptions departed between the 15th and 22d of February. It will be noted that the arrival of Ordnance units was from one to two weeks after arrival of divisions. This was undesirable for two main reasons:

a. Necessity of providing insufficient but essential Ordnance support by "doubling-up" a new division with an old division and its supporting company.

b. Interruption of Ordnance service by reassigning the support when the new Ordnance companies finally arrived.

In March, two infantry divisions and two armored divisions were attached to Seventh Army and the following Ordnance units arrived nearly concurrently:

212 Ordnance Battalion Headquarters and Headquarters Detachment
24 Ordnance Battalion Headquarters and Headquarters Detachment
70 Ordnance Battalion Headquarters and Headquarters Detachment
142 Ordnance Heavy Maintenance Company (Field Army)
3424 Ordnance Medium Automotive Maintenance Company
3472 Ordnance Medium Automotive Maintenance Company
3499 Ordnance Medium Automotive Maintenance Company
488 Ordnance Evacuation Company
256 Ordnance Medium Maintenance Company
134 Ordnance Medium Maintenance Company
124 Ordnance Bomb Disposal Squad
28 Ordnance Bomb Disposal Squad
37 Ordnance Bomb Disposal Squad
912 Ordnance Heavy Automotive Maintenance Company
533 Ordnance Heavy Maintenance Company (Tank)
697 Ordnance Ammunition Company
209 Ordnance Ammunition Company
329 Ordnance Depot Company

These units remained for about a thirty day period, the period the

divisions were attached.

It is recommended, based on Seventh Army's experience, that in cases of transfer for an estimated thirty days tactical units to another Army, that only minimum necessary direct supporting Ordnance units be transferred, and that they move to the new Army concurrently with the move of tactical units. It is definitely preferable to have the same Ordnance units that supported the tactical units in the former army move to the new army (for example, a supporting medium maintenance company move with its infantry division).

HEADQUARTERS
THEATER SERVICE FORCES
EUROPEAN THEATER

Rear - APO 887
13 September 1945

AG 322 O&E-AGO

SUBJECT: Proposed Table of Organization and Equipment 9-376

TO : Commanding General, US Forces, European Theater (Main), APO 757

1. In accordance with the provisions of letter, your headquarters, AG 322 O&E subject: "Commission of Recommendations for Changes in Tables of Organization and Equipment and Improvement of Materiel", 6 July 1945, inclosed is a proposed Table of Organization and Equipment 9-376.

2. During the three years of operations in this Theater (including the build-up, offensive and redeployment phases), Battalion headquarters organized under Table of Organization and Equipment 9-15 and 9-76 have proven to be entirely inadequate to provide sufficient officer and enlisted strength capable of performing the primary mission of operating a large (40,000 ton - 150,000 ton) Class V Depot. Table of Organization 9-15, 1 April 1943, has been rescinded by War Department Cir 64, 28 February 1945, but it was the basis on which early depots were organized. As a result, it was necessary to combine two such battalion headquarters and place ammunition company personnel on special duty with the battalion headquarters in order to carry out the responsibilities of the depot commander in regard to operations, administration and supply of the depots. Innumerable weaknesses result from such combinations of units and individuals. After much consideration of depot responsibilities, the recommended officer and enlisted strength as shown in Incl No 1 was decided necessary. Each position has been rated in the grade of responsibility to be assumed by personnel occupying such vacancy. "Rank" must be available to any depot headquarters since this personnel must direct and supervise the duties of units attached or assigned. A greater responsibility is assumed by a depot headquarters due to the fact that units, because of military necessity, are continually being transferred in and out of depots, leaving depot headquarters personnel alone familiar with depot stocks and areas and greatly increasing the burden of administration and supply.

3. This type Table of Organization is necessary to operate any depot with an average handling capacity of 2,500 tons or more per day - a total stock of 40,000 to 120,000 tons. Experience in this theater has proved that one such ammunition unit will be needed in each service force installation of this size, and is only appropriate for service forces. Normally, at least one such depot will be needed for each field army supported.

4. The recommended Table of Equipment is a result of much consideration of Theater experience and research of other Tables of Equipment of comparable size units. The use of T/E equipment of units attached for duty to a depot has proven inadequate to operate same. It must be noted that T/E equipment is usually authorized a unit so that it can perform its primary mission in the field in a temporary installation. However, an ammunition depot in Communications Zone is a permanent installation which must perform all the functions of an ammunition depot in the Zone of Interior as well as other functions peculiar to theater of operations. In fact, in order to accomplish the mission of ammunition supply in this theater, it was found necessary to obtain War Department approval for two "P-000" Projects (GS-59 and GS-7), which included all types of operating supplies and equipment without which the mission of the depots could not have been completed successfully. This recommended Table of Equipment

includes equipment necessary for the depot headquarters itself to operate as well as a few items which form as a nucleus of equipment for the actual operations of a depot. With such a table of equipment this depot headquarters could set up operations. Time would then be available to procure additional necessary equipment before operations actually began on a large scale.

FOR THE COMMANDING GENERAL:

S/ Richard P. Fisk
RICHARD P. FISK
Lt Colonel, AGD
Assistant Adjutant General

1 Incl: as stated

E X T R A C T

(Letter from Lt. Gen. L. H. Campbell, Jr. War Department, Office of the Chief of Ordnance, Washington 25, D. C. to Colonel M. M. Lynde, Ordnance Officer, Headquarters, Fifteenth US Army, dated 19 August 1945.)

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This last thought brings up a question which I consider vitally important and that is what is the proper ratio of Ordnance troops to the total forces supported. The general impression that I gain from reports which we have received is that we have never had enough Ordnance troops to support the operations. Also, there was a tendency to phase the Ordnance units too late in the operation so that when they did arrive, a large backlog had accumulated. We have always considered that 6% was a fair ratio of Ordnance troops for a continental operation. However, we never attained this ratio, and I believe that ETO near the end of the operations had 5.4%. You did have a relatively large civilian component doing Ordnance work. This question should be carefully studied and a requirement set up for Ordnance units considering the number required both with and without utilizing local labor.

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ORDNANCE TROOP STRENGTH AND MISCELLANEOUS MILITARY AND NON-MILITARY PERSONNEL, COMPARED WITH TOTAL STRENGTH OF COMMUNICATION ZONE ARMY Ground Forces, Army Air Forces and Total Strength Employed on the Continent.

% Figures indicate relation of Ordnance troops to total troops in each category.

Com Z	30 June 1944	31 Aug 44	31 Oct 44	31 Dec 44	28 Feb 45	30 Apr 45
Total	175,409	124,964	142,724	280,887	242,876	204,312
Ord Troops	11,908	20,107	36,653	47,735	49,775	56,183
Foreign Civilians	0	0	3,649	5,622	15,384	28,395
French Ord Units (Military)	0	0	0	669	2,740	2,400
Italian Ord Units (Military)	0	0	0	3,689	4,409	3,938
PW Employed by Ord	0	0	0	2,387	10,381	24,008
Total Ord Mil & Non-Mil	11,908	20,107	40,302	60,102	82,689	114,924
Percentage	6.8	16.1	28.1	21.4	34.0	56.2
AGF						
Total	609,976	600,466	738,323	1,107,977	1,415,283	1,570,391
Ord	18,281	34,169	47,727	58,739	72,360	80,407
Percentage	3.0	5.7	6.5	5.3	5.1	5.1
AAF						
Total	-------	98,351	153,097	177,687	194,150	256,482
Ord	-------	3,864	6,486	7,163	7,411	7,533
Percentage	--	3.9	4.2	4.0	3.8	2.9
TOTAL						
Total	785,475	823,781	1,030,495	1,554,184	1,819,395	1,972,444
Ord	30,189	58,080	90,866	113,637	129,546	144,123
Percentage	3.8	7.1	8.8	7.3	7.1	7.3

Source: Total Troop Strength on Continent. Statistical Section SGS, USFET (Main) Major Leonard Kameky

Ordnance Troop Strength Monthly Statistical Reports, Ordnance Service. Planning and Control Division, Control Section Ordnance, Headquarters Communications Zone, European Theater of Operations, United States Army.

RESTRICTED

Appendix No. 16

COM Z FOREIGN CIVILIANS, FOREIGN UNITS & POW ON THE CONTINENT

	30 June 44	31 Aug 44	31 Oct 44	31 Dec 44	28 Feb 44	30 Apr 45	31 May 45
Foreign Civilians	0	0	3,649	5,622	15,384	28,395	32,421
French Ord Units (Military)	0	0	0	669	2,740	2,400	338
Italian Ord Units (Military)	0	0	0	3,689	4,409	3,938	3,944
POW Employed by Ordnance	0	0	0	2,387	10,381	24,008	4,218
POW Ordnance Units							* 26,858
TOTALS	0	0	3,649	12,367	32,914	58,741	67,779

Source: To and including 31 Dec 44: Hq Com Z, ETOUSA, OCOC, Personnel Status Reports.
28 Feb 45 to 31 May 45 : Hq Com Z, ETOUSA, OCOC, Ord Com Z Troop Status Reports.

* - May 1945 - German Prisoners of War were organized into Ordnance units using United States T/O & E.

Appendix 17-A

COM Z FOREIGN CIVILIANS, FOREIGN UNITS & POW ON THE CONTINENT

	30 June 44	31 Aug 44	31 Oct 44	31 Dec 44	28 Feb 45	30 Apr 45	31 May 45
Belgian Civilians	0	0	90	872	3,338	7,196	8,537
French Civilians	0	0	397	1,629	4,919	10,214	10,417
British Civilians	0	0	50	49	48	44	49
Miscellaneous	0	0	3,112	3,072	4,154	7,941	9,938
Italian Co-Ops	0	0	0	0	2,925	3,000	3,480
French Ord Units (Military)	0	0	0	669	2,740	2,400	338
Italian Ord Units (Military)	0	0	0	3,689	4,409	3,938	3,944
POW Employed by Ordnance	0	0	0	2,387	10,381	24,008	4,218
POW Ordnance Units							26,858
TOTALS	0	0	3,649	12,367	32,914	58,721	67,779

Source: To and including 31 Dec 44: Hq Com Z, ETOUSA, OCOO, Personnel Status Reports.
28 Feb 45 to 31 May 45 : Hq Com Z, ETOUSA, OCOO, Ord Com Z Troop Status Reports.

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Appendix 17-B

PROPOSED BRIEF OF ARMY ORDNANCE SERVICE

SECTION I: GENERAL

1. This brief for Ordnance units is intended as an orientation course for units and as a reference and guide for individuals in the performance of their duties.

2. Ordnance units referred to herein are those recommended in this study. Divisions are of the type recommended by the General Board, European Theater, and include sufficient organic Ordnance to execute complete third echelon maintenance.

SECTION II: ORGANIZATION: (See Incl 6)

1. Under normal conditions a Forward Army Ordnance Battalion will be placed in direct support of each Corps. Basis for make-up of this battalion is as follows:

Forward Battalion

a. Headquarters and Headquarters Detachment, Ordnance Battalion (1).

b. Ordnance Medium Maintenance Company(1). Supports Corps Artillery.

c. Ordnance Medium Maintenance Company(1). Supports non-divisional armor.

d. Ordnance Medium Automotive Maintenance Company (1). Supports Corps troops.

e. Ordnance Recovery Company (1). Performs battlefield recovery and evacuation.

2. The facilities of the above battalion will be employed as requested by the Corps Ordnance Officer. In the case of an isolated Corps, the forward Battalion will be attached to Corps. The forward Battalion is located just in rear of the Corps Rear Boundary.

3. Under normal conditions, each Forward Type Battalion will be backed up by a support Battalion. This battalion operates the collecting point for the Corps, and furnishes fourth echelon support for the forward battalion. Basis for make-up of this battalion is as follows:

Support Battalion

a. Headquarters and Headquarters Detachment, Ordnance Battalion (1).

b. Ordnance Heavy Automotive Maintenance Company (2)

c. Ordnance Heavy Maintenance Company (2)

d. Ordnance Depot Company (Retail) (2)

e. Ordnance Salvage and Reclamation Company (1). Operates Collecting Point.

4. Normally, Ordnance companies will be attached to appropriate

Ordnance battalions with the battalion in turn being attached to appropriate Ordnance group. Forward and Support Battalions located in rear of a Corps are attached to the same Forward group.

5. Army Service Troops, Army Artillery and Army anti-aircraft artillery are supported by an Intermediate Ordnance group consisting of a number of battalions and attached companies as required. One Heavy Maintenance Company of the group is assigned the mission of supporting Army Heavy Artillery (8" Gun, 240mm Howitzer) without regard to location, assignment or attachment. A minimum of one (1) Depot company is assigned to one of the battalions of this Ordnance group. Battalions of this group are located between the Army rear boundary and the Corps rear boundary and generally along the Main Supply Routes. Normally, the Intermediate Ordnance Battalion is made up as follows:

Intermediate Ordnance Battalion

a. Headquarters and Headquarters Detachment, Ordnance Battalion (1).

b. Ordnance Medium Maintenance Company (1)

c. Ordnance Medium Automotive Maintenance Company (2)

d. Ordnance Heavy Maintenance Company (1).

e. Ordnance Heavy Automotive Maintenance Company (1).

f. Ordnance Depot Company (1). (Retail)

6. The Main Army Wholesale Depot Battalion, the Main Army Maintenance Battalion and the Vehicle and Artillery Park Battalion are located in the Army Service Area and comprise the main Army Depot and a Maintenance Group.

a. Main Army Supply Battalion consists of the following units. Depot companies specialize as indicated:

(1) Headquarters and Headquarters Detachment, Ordnance Battalion (1).

(2) Ordnance Depot Company (1). SNL Groups A,B,C,E, and F.

(3) Ordnance Depot Company (1). SNL Groups G-1 to G-499, Incl.

(4) Ordnance Depot Company (1). SNL Groups G-500 and up.

(5) Ordnance Depot Company (1). SNL Groups H,J,K,M & Misc.

(6) Ordnance Detachment (1). Service Section.

(7) Ordnance Detachment (1). Publications Section

(8) Ordnance Detachment (1). Local Procurement Section.

b. Main Army Maintenance Battalion:

(1) Headquarters and Headquarters Detachment, Ordnance Battalion (1).

(2) Ordnance Heavy Maintenance Company (2).

(3) Ordnance Heavy Automotive Maintenance Company (2).

(4) Ordnance Recovery Company (1).

(5) Ordnance Salvage and Reclamation Company (2)

(6) Ordnance Tire Repair Company with 8 Mobile Units (1).

c. Artillery and Vehicle Park Battalions:

(1) Headquarters and Headquarters Detachment, Ordnance Battalion (1).

(2) Ordnance Depot Company (1). Special Vehicle.

(3) Ordnance Combat Vehicle Preparation Company. (1).

(4) Ordnance Wheeled Vehicle Preparation Company (1).

(5) Ordnance Motor Vehicle Distributing Company (1).

(6) Ordnance Tank Transportation Company (2).

7. All ammunition troops will operate under one Ammunition Group Headquarters. Army Operates ASP's in Corps sectors, using one ammunition company for each Corps ASP. Army depots and ASP's are operated by the army. Ordinarily two ammunition battalion headquarters are required, one forward and one rear. Truck companies, and troops for local defense are normal attachments to the Ammunition Group.

SECTION III: MAINTENANCE

1. Principles.

a. The primary purpose in stocking major items in maintenance companies is to permit prompt exchange for repairable items, repair of the received item, and its return to stock. This procedure served to maintain using units at peak efficiency. In the case of employed artillery the exchange will take place at the battery position, being the only method for maintaining battery fire-power without interruption. Maintenance companies are authorized and encouraged to exchange controlled items for similar items without written authority, providing the item presented for exchange is repairable within the Army's fourth echelon.

b. The removal of parts or accessories from any item for repair of another item (commonly termed as "cannibalizing") is strictly prohibited in the first and second echelons. In the third echelon (organic and non-divisional Ordnance units) unserviceable parts and accessories on a serviceable vehicle or weapon may be replaced by identical serviceable parts and accessories removed from a deadlined vehicle or weapon, provided: the unserviceable parts and accessories are assembled to the deadlined vehicle or weapon; and the replacement of parts and accessories is directed and supervised by the responsible Ordnance shop officer. In the fourth echelon (Heavy Maintenance Companies) an item which has been properly inspected and declared not repairable by the responsible Ordnance shop officer will be completely reduced to scrap and all serviceable parts, accessories, assemblies and sub-assemblies removed, protected and properly stocked. All unserviceable, but repairable, assemblies will be reconditioned, exchanged or evacuated.

c. Organic maintenance units normally confine their efforts to replacing parts, repairing assemblies and sub-assemblies and applying certain modifications. Heavy Maintenance Companies do all that the organic maintenance units do, and, in addition, rebuild major items, assemblies and sub-assemblies. They also reclaim units and parts and apply

modifications. Organic maintenance units must remain mobile and normally will not undertake work that would require more than forty-eight working hours to complete. This limit must be disregarded when the tactical situation clearly warrants such action and it is desired to retain a job for instructional purposes.

d. Liaison parties must contact every supported unit daily. When major caliber artillery is emplaced and in action, liaison agents should remain in contact with the artillery battalion. Ordnance support is of sufficient importance for group and battalion commanders to personally visit unit commanders and chiefs of staff to determine if Ordnance service is satisfactory.

(1) Liaison parties are fact-finding bodies. Having determined a requirement for maintenance work they submit a report which will enable the shop officer to send a properly balanced and equipped team to do the job. The practice of sending contact parties to look for work is not encouraged, and with aggressive liaison parties it is entirely unnecessary.

e. Basic loads are revised as maintenance experience is accumulated, any part that shows no consumption for sixty days will be investigated. Unless there is reason to believe that operating conditions have been less severe than normal, the part will be turned in to the supporting depot or the quantity stocked will be reduced and amount on order will be cancelled. Where addenda rates are obviously inadequate, report will be submitted through battalion to group. Group will make such investigation as deemed necessary and after consolidating and editing all such recommendations, will forward them to the Army Ordnance Officer.

f. Using organizations obtain all supplies through the maintenance company designated to support them. Ordnance publications are likewise distributed through maintenance companies.

g. Collecting Points will be manned continuously by salvage and reclamation companies whose personnel are qualified to inspect and classify items for evacuation to higher echelon; immediate repair; or as non-repairable. Inspectors at collecting points will inspect materiel turned in to determine whether it has been cannibalized and will question personnel accompanying material in an effort to locate and obtain possesion of missing parts.

h. Shop Scrap and Salvage. Battalion and group commanders will frequently inspect shop scrap and salvage piles to determine that proper efforts are made to effect reclamation and utilization of scrap metal.

2. Inspections.

a. Spot Check Inspection of Vehicles, other than Combat Vehicles.

(1) The purpose of spot check inspections of preventive and second echelon maintenance is to determine the standards of maintenance of each unit. This is the means by which the commanding general is informed of the condition of general purpose, special equipment, and special purpose vehicles in the army.

(2) Two spot check inspection teams will be organized in each Ordnance maintenance company, except heavy maintenance companies, composed of one officer and three enlisted men for one team and one non-commissioned officer and three enlisted men for the other team. The officer

will supervise activities of both inspection teams. Only personnel qualified for automotive maintenance will be detailed on inspection teams.

(3) Spot check inspection teams will be trained to inspect on-vehicle weapons (30 and 50 caliber machine guns) and will include these in their inspection.

(4) From time to time, instructions will be issued by the Army Ordnance Officer covering items requiring special attention by spot check inspection teams.

(5) A list of the units to be inspected should be furnished Ordnance groups weekly. It is imperative that these units be inspected promptly and reports of inspection be forwarded to the Army Ordnance Officer, attention Automotive Officer.

(6) Reports of inspections will be complete and will list in detail all deficiencies found. Mimeographed forms similar to OO Form 7350 will be produced and furnished by Ordnance groups as required.

(a) Complete information will be given; for example, the correct vehicular nomenclature will be given: Truck, ¼-ton, 4x4, US Registration No. _____.

(b) All items which are not self-explanatory will be covered by an appropriate remark at the end of the form.

(c) Deficiencies found will be called to the attention of the officer or NCO of the organization accompanying the inspection team.

(d) The officer or NCO in charge of the spot check inspection team will sign the report.

(7) A cover letter will be prepared as an attached form (Inclosure #1), "Automotive Spot Check Inspection Report", by the inspecting officer.

(8) It is the responsibility of Corps Ordnance Officers to have spot check inspections made of corps troops and units attached to Corps, divisions excepted. For these inspections, they may use inspection teams from forward army Ordnance battalions. Division Ordnance Officers are responsible for spot check inspections within division and attached units. These inspections will be accomplished by inspection teams from division maintenance units. No reports are required to be submitted by division and corps Ordnance officers to army Ordnance Officer unless called for by separate instructions. As a guide, it is desired that 10% of the vehicles in each unit be inspected each month.

(9) Corps Ordnance officers will make spot check inspections of divisions from time to time, to verify standards and army Ordnance will make spot checks on corps and divisions for the same purpose.

(10) Normally spot check inspections will be made in the unit's bivouac area. However, spot check teams will make a portion of their inspections at ammunition supply points, water points, quartermaster supply points, and at any other places where traffic will not be affected. In no case will inspection teams delay vehicles in movement of supplies or troops to inspect vehicles.

(11) Special attention is invited to the inspection of tire maintenance which is of vital importance in combat.

(12) Automotive Spot Check Inspections will be made of units or organizations without prior announcement in order to reflect the normal operating condition of vehicles.

(13) Officer or NCO in command of inspection teams should, at all times, have an extract with him of his authorization to make spot check inspections of motor vehicles.

b. Ordnance Type "A" Technical Inspections.

(1) General:

(a) Type "A" technical inspection is the term applied to the re-fitting service necessary to place the equipment of a unit in first class condition after combat. It includes a thorough inspection of all materiel according to the principles outlined hereafter. It has been established that a unit serving in a battle area must receive a type "A" technical inspection every 90 days or its combat efficiency, i.e., its mobility and technical operation of its weapons is impaired to a serious degree.

(2) Responsibility:

(a) It is the duty of Ordnance officers of all echelons to inspect materiel of subordinate units constantly to insure that it is at peak efficiency. Division Ordnance officers frequently have the opportunity to conduct a type "A" technical inspection of regimental combat teams or battalions during short periods of inactivity. Corps Ordnance officer can arrange to inspect elements attached or assigned to Corps when these are available. Both of these officers should take action to insure that units are adequately inspected. The facilities of the forward Ordnance battalions are available to accomplish these inspections and further reinforcement can be obtained upon request to the Commanding Officer of the forward Ordnance group. From time to time a unit will be placed under Army control for purposes of refitting. Under these circumstances the mission of conducting the inspection will be assigned one of the Ordnance groups. It is desired to re-emphasize that type "A" technical inspections are not the prerogative of any one echelon of command, but that all echelons, divisions, corps and armies are expected to utilize every effort to insure re-fitting at least once every 90 days. To permit the Army Ordnance officer to keep up the necessary records and to avoid duplication of effort it is desired that inspection reports be forwarded in technical channels. After a brief study these reports will be returned to the unit conducting the inspection for their files. Information as to proposed or current inspection is also desired at earliest moment.

(3) Procedure:

(a) As soon as possible, it is necessary for the responsible Ordnance officer and the inspecting Ordnance officer to meet and draw up a detailed schedule for the inspection. An estimate should be made of major item replacements likely to be required and the Ordnance group must take the necessary action to obtain these and locate them near

the site of the inspection. The number of inspection teams should be determined and arrangements made to move the inspectors and recorders in as early as possible. The using organization is responsible for presenting its material in an orderly fashion, clean and ready for inspection. The requirements of the inspectors in this regard must be put lined at this first meeting.

3. Unit Record of Services.

a. General.

(1) Ordnance Maintenance units will keep an Ordnance Unit Record of Services File for each separate organization they support. Upon transfer of responsibility for Ordnance support the file will be completed, closed out and transmitted to the new supporting unit.

b. Contents of file.

(1) The Ordnance Unit Record of Services file will consist of the following documents:

(a) Ordnance Unit Record of Services Folder.

1 This is an envelope of approximate size which will give the information shown below on its face. See Incl #2 as an example. This form will be prepared by the supporting Ordnance unit.

a. Unit designation.
b. Commanding Officer and Supply Officer.
c. Maintenance Officer and any assistants.
d. Calendar of inspections conducted.

(b) Inspection Reports.

1 Blotter records will be kept of all inspections made during a calendar month. Upon change of maintenance support during the month, the monthly Report of Inspection of Artillery Material will be brought up to date, prior to transfer of the folder.

(c) Modification Work Order Report.

1 Status of modification of equipment will be kept up to date. A monthly report, in letter form, giving the total requirements of modification Work Order kits for each separate organization, will be submitted by each Ordnance Group.

(d) Transfer.

1 When an organization is transferred from one Ordnance Maintenance Unit to another for maintenance support, an accurate record of its supply requirements must be placed in the folder for the information of the new Ordnance Maintenance Unit. The minimum requirement is the complete file of Turn-in Slips or Posted Requisitions for the past 30 day period, pertaining to the supported organization. The supported

organization will be informed that its requisitions have not been cancelled and every effort must be made to insure continuity of support by intelligent cooperation between old and new Ordnance Maintenance Unit. Back-orders for common items will be filled by the new Ordnance Maintenance Unit from its stock. Items of an unusual nature, received by the old Ordnance Maintenance Unit as the result of back-orders will be forwarded to the new Ordnance Maintenance Unit.

c. Letter of Transmittal:

(1) Upon transfer of maintenance support the old Ordnance Maintenance Unit will prepare a letter to the new Ordnance Maintenance Unit, with copy to Army Ordnance, listing all inclosures and will transmit them by the most reliable means available. This transfer will be confirmed by a receipt. If the transfer involves relief from assignment or attachment to Army, the records will be sent thru the Army Ordnance Officer.

4. Stock Accounting for Maintenance Companies.

a. Stock cards will show quantity "Due In" and on "Back Order" on reverse side. Maximum and minimum stock levels will be entered on obverse side. Each card must accurately reflect the current status of the stock item it represents. Supply personnel of maintenance companies should be organized into stock groups, such as:

Small Arms (Groups A & B)
Artillery (Groups C & D)
Combat Vehicles (Group G-2 - 499)
General Purpose Vehicles (Groups 500 and up)
Instruments (Group F)
Miscellaneous (Groups H, J, K and L)

b. Ordnance HAM and MAM Companies will require no artillery, instrument or combat vehicle sections, their general purpose vehicle section should include sufficient personnel to cover sub-groups of different manufacture such as GMC; Chrysler; Ford; Motorcycles; trailers; Ordnance Heavy Vehicles. It is preferable that personnel will have had shop experience with the materiel they handle. Decentralization is emphasized because it is the only system that permits a measure of personal knowledge of the stock, and is, therefore, the first step towards eliminating duplication of stock items and facilitating substitution of parts. Reordering is a responsibility of the Stock Group Chief who prepares a "Want-List" which includes both stock replacement and a requirement for items needed but not available. This "Want-List" is incorporated into a requisition by the Company Supply Officer. The requisition number is noted on the "Want-List" which is returned to the Stock Group Chief for posting to the "Dues-In" section of the stock card. Posting will include requisition number and date. When an item is not available for issue it is included in the Want-List and an entry is posted to the back-order section of the stock card. This entry will include date and the designation of the organization making the request. Upon receipt of all or part of this item, issues will be made to organizations having the oldest back-orders. The

maximum stock level is the quantity of the item carried in the Basic Load. The minimum stock level is the re-order point. Until experience has indicated that a change is necessary, the minimum level will be set at 2/3 of the maximum level.

5. Modifications.

Modifications are authorized by the following authorities only: Chief of Ordnance; Chief Ordnance Officer of the Theater; Army Ordnance Officer.

b. No weapon or vehicle will be permanently altered or modified except as prescribed by one of the authorities mentioned above. Temporary alterations or modifications may be executed by Ordnance units if the weapon or vehicle can be restored to its normal condition by the nearest depot within a reasonable length of time. Sound judgement must be exercised to avoid engineering complications.

c. Modifications are classified as "must" or "desirable". "Must" modifications are those based on safety or critical engineering requirements and will be applied when modification kits are available. Desirable modifications are those based on improved functioning, or minor engineering requirements and will be applied when opportunity permits. "Must" modifications will be applied by Ordnance echelons whenever the opportunity presents itself.

d. Proposed modifications should be drawn up in the same form as those published by the Chief of Ordnance or forwarded thru established Ord Dept channels for study and remarks prior to being transmitted to the Army Ordnance Officer.

6. Organization for Maintenance.

a. Ordnance Battalion and Group Headquarters are technical headquarters as well as command headquarters. It is essential that these headquarters examine and verify all reports of a technical nature concerning the units under their control and that they actively supervise and judge the quality of the maintenance work done in company shops. Battalion and Group Staff Ordnance Officers must know the capabilities and limits of all Ordnance material in the units which they support. They must be able to instruct users, troops in maintenance and operation of Ordnance material. Because of the complexity of Ordnance material, it has been found desirable that at least one officer on each staff be thoroughly proficient in all aspects of the operation, maintenance and supply of each of the following classes of material:

Armament.....Groups A, B, C, D and F
General Purpose Vehicles.....Groups G-300 and up
Combat & Special Purpose Vehicles....Groups G-2 to G-299

This is not to be construed as authorizing an increase in the number or the indefinite assignment of maintenance officers to Battalion and Group Headquarters from their maintenance companies, as the Commanding Officer, Executive Officer, and Maintenance Officers being primarily responsible for maintenance, are by training and assignment, in addition to discharge these duties.

7. Ordnance Support of Field Artillery Units.

a. Non-divisional artillery units attached to Corps (except 8" Gun and 240mm Howitzer) will normally receive direct support and 3rd echelon maintenance from elements of the forward battalion, primarily the Medium Maintenance company assigned to the support of Corps Artillery.

b. When requested by a Corps Ordnance Officer, and concurred in by the Army Ordnance Officer, due to an excess of artillery in the Corps over the capacity of the forward battalion, direct support of 8" Howitzer and 155mm Gun Battalions may be transferred to support battalion. In such cases, specific Operations Orders will issue from Army Headquarters transferring support.

c. A Heavy Maintenance company or companies attached to the intermediate Group will furnish direct support and 3rd echelon maintenance for all 8" Guns and 240mm Howitzers in the Army regardless of location or attachment.

d. A Monthly Report of Inspection of Artillery Materiel is required to be submitted on prescribed form (see inclosure 3) by all companies maintaining artillery. This report covers artillery of 4.5" caliber and over and will be prepared covering a full calendar month and submitted to arrive at Army prior to 050900 each month.

(1) Under the space marked "Tube" appears three columns: "Normal Charge", "Super-Charge", and "Total". The total desired is not the total projectile rounds but the total full service rounds fired. Erosion factors for computing full service rounds are always given in the last page of the firing tables for that particular weapon and will be used in all computations of full service rounds.

(2) When reporting on howitzers the three columns referred to above should be left blank. A separate sheet will be attached showing the breakdown by zones, as shown below, or the three columns may be divided into a sufficient number of zone columns to fill in necessary information without attaching a separate sheet.

Carr. No.	Tube No.	Zone 2.	Zone 3.	Zone 4.	Zone 5.	Zone 6.	Zone 7.	FSR
3061	9300		97	282	1963	1663	4112	4664

SECTION IV: SUPPLY

1. Principles.

a. Technicalities and interpretations of rules and regulations will not be allowed to interfere with prompt supply of required items. In questionable cases the items will be supplied, if available; a receipt secured; and the circumstances reported to Army.

b. First priority for supply is to furnish the items required to maintain existing equipment in effective operating condition. Failure to accomplish this mission increases the demand for supply of new items beyond the scale that can be supported.

c. When any item cannot be maintained it must be replaced with a minimum loss of time.

d. Replacement major items, when issued by Ordnance Service to the using unit, must be complete and ready for immediate use. To the maximum extent permitted by availability all such items will be complete with authorized accessories. Combat vehicles will be combat loaded. Where full complement of accessories is not available, shortages will be made up by transfer from the item being exchanged. Where this is impossible due to shortage or unserviceability the using unit will be notified and asked if it desires the item in its incomplete state. Conversely, a check will be made with the unit turning in items for exchange to assure that all available accessories are turned in at the same time.

e. All Ordnance Equipment is the property of the U.S. Government for the benefit of the Army as a whole. Unidentified items must be picked up on record at once when found or received. The fact that an item is not "on paper" does not alter in any respect responsibility for its custody nor change the total quantity authorized to be on hand.

f. Using units will not be required to present demands on any special printed or mimeographed form. The minimum requirement for issue is a demand, in writing describing the article required in sufficiently accurate terms as to assure correct supply, stating a basis, and signed by an officer or warrant officer. Ordnance units, however, will place requirements on depots in correct form, properly divided by SNL Groups, with correct part numbers, on ONC Form 400 or a replica thereof, properly authenticated, basis shown, and in duplicate. Divisions are to be considered as Ordnance units, since the Division Ordnance unit is the requisitioning agency. Form 400 (revised) will show the following column headings: Stock Number; Nomenclature and unit; Authorized or Maximum level; On Hand; Due In; Required; Approved.

g. Thorough and complete back-order systems must be maintained. A requisition, once placed, will not be killed without specific direction from Army. Back order records will be transferred from one Ordnance unit to a different unit, with the unit Record of Service. Units must be made aware of the back-order system and instructed not to duplicate an existing open demand.

h. Demands will not normally be accepted from any individual other than Ordnance Supply Officers or Supply Officers of separate units not having an Ordnance Supply Officer except in an emergency. In such case the Ordnance Supply Officer or responsible supply officer will be notified at once, his wishes ascertained, and followed if practicable.

2. Status Report Items.

a. Controlled Items. Authority to allocate controlled major items is reserved to the Army Ordnance Officer, except that, from time to time, Corps Ordnance Officers may be given credits in forward battalions for specific allocation by them. While such credits are open Army will not make any allocations of credit items to units of that Corps. Corps Ordnance Officers will issue written allocations against such credits, and will furnish a copy to Army Ordnance promptly. Battalion Commanders of forward battalions will honor allocations written by Corps only to the extent of credits received from Army.

b. Maintenance of Supply Levels. Primary responsibility for maintaining necessary levels within Army of all items listed on Status Report rests with the Army Ordnance Officer. All requisitions on sources outside Army for such items will be prepared by Army.

(1) Normally, credits on stocks in Army Depots will be issued to the forward Group Commander, who will be responsible for calling forward quantities required to maintain stock levels in forward Ordnance units, and for balancing levels with units under his command.

(2) Allocations of Status Report Items to using units will normally be issued to Battalions. Battalion Commander is responsible for delivery to the using unit from stocks within the Battalion. If the allocation represents an overdraft against Battalion resources, Battalion will call on Group for supply.

(3) Group Commanders will furnish Army with a copy of all Transfer Orders issued covering shifting of stocks of Status Report Items between battalions.

(4) Group Commanders are particularly charged with assuring that limited stocks of special items present in only a few units of Army are so transferred as to be kept in the immediate area of the appropriate using unit.

c. Reports. The normal reporting unit is the Ordnance Battalion. Reports will be forwarded to Army with copy to Group as follows:

(1) Daily. Major items and Maintenance Report (brief form - Inclosure 4). Reports will be rendered as of 1800 hours, delivery coordinated by Group Commander to assure arrival in Army by 0900 hours daily.

(2) Twice Monthly. Major Items Balance Sheet. (Form and instructions herewith - Inclosure 5). As of 1800 hours on the 5th and 20th of each month. Coordinated by Group Commanders to arrive in Army by 0900 hours on the 8th and 23rd respectively.

3. Non-Status Report Items.

a. Items not carried on Status Report will normally not be controlled. Certain items in critical short supply may be announced from time to time as "frozen", "controlled", "rationed" or "in short supply".

(1) "Frozen Items" Any item announced as "frozen" will not be issued by an Ordnance unit to any using organization for any purpose until further instructions are received. Items may be frozen for technical reasons, or to permit collecting all supplies to fill a particularly urgent requirement.

(2) "Controlled Items" Any items announced as "controlled items" will immediately be made subject to the following procedures:

(a) Where applicable, exchange for repairable items may be effected.

(b) Credits may be issued by Army to Corps, Divisions or other units. Requisitions may be approved by Ordnance companies or Depots to the extent of the credit remaining to the requisitioning unit. Where requisition is submitted by a Corps unit or a Division, specific approval of the Corps or Division Ordnance Officer will be required for issue against credit held by him.

(c) Requisition from units having no credit balance will be sent to Army Ordnance for approval and designation of point of issue.
(d) Authority for balancing stocks of controlled items will be the same as for Status Report Items.
(e) Controlled items will be reported along with, and in the same manner as status report items, appended to daily major items and maintenance report and twice monthly major items balance sheet.
(f) Control of the type listed will normally be applied only to major assemblies and similar key items, but may be applied to any item.

(3) "Rationed Items" An item may be announced as "rationed" when visible supplies are insufficient to maintain normal stock levels, and a procedure is required to assure equitable distribution of existing stocks. Following will govern:

(a) Items may be announced as "Rationed" by general classifications, or by designation of specific items.
(b) At the time an item is announced as "rationed" a basis for issue will be furnished. A wide variety of basis may be used. For example, rationing may be on the basis of dead-line requisitions only; by direct exchange only; on the basis of special editing; or based on a specific allowance per major item in the unit.
(c) Special reports are not required on rationed items, and balancing of stocks will follow normal procedures unless otherwise indicated.

(4) "Items in Short Supply". When items are announced as "in short supply" direct responsibility is imposed on every element of Ordnance Service to exercise maximum judgement and care in conserving the item named. No specific controls are imposed, but depot, shop and supply officers will exercise an especially high degree of judgement in effecting distribution.

(a) Reviews. To avoid excessive administrative detail, regular periodic reviews will be avoided. Spot reviews of selected items will be made on special call. Upon receipt of message directing review the following procedure will be effected without delay:

1 Exact stock on hand of serviceable items available for issue will be counted.
2 Back-order files will be checked, and a total taken of all orders on file, not filled, believed to be still required by units being served.

3 Information will be consolidated by Battalions and forwarded direct to Army Ordnance by the most expeditious means, giving the totals under 1 and 2. Replies to requests for review should be dispatched in a matter of a few hours from the receipt of call.

4 Call for review will usually be accompanied by a temporary order to "freeze stocks" or imposition of other temporary control.

b. Editing. The administrative operation of "editing" requisitions will be carefully controlled to avoid unreasonable limitations being imposed upon units. The following rules will govern:

(1) Requisitions from all second echelon units will be edited strictly in accordance with published OSP & E.

(2) Requisitions from Ordnance units will not be edited to any arbitrary standard of maintenance rates, but the published MESP & E will be used as a guide as to quantity and variety.

(3) Requisitions for controlled, rationed, or short supply items must show quantity on hand and due-in to the requisitioning unit. Others will normally indicate this information, but issue will not be refused solely because the information is not shown.

c. Immediate Action Requisitions. Special requisitions, plainly identified as "Immediate Action" are authorized and will receive special handling in accordance with the following:

(1) Immediate action requisitions will be submitted only to cover functional parts required to repair an unserviceable major item in the hand of the troops. An item held in an Ordnance shop for the account of a specific using unit and not having been replaced to the unit, is considered to be in the hands of the troops.

(2) All immediate action requisitions must bear a certificate, signed by an officer, stating that the parts listed are required for the repair of an unserviceable major item that is part of the authorized equipment of the unit.

(3) The Ordnance Unit receiving an Immediate Action requisition is responsible for a prompt solution to the problem, in the following ways:

(a) By issue of the required parts.
(b) By exchanging the major item or assembly requiring repair.
(c) By reporting to the Battalion their inability to fill the requirement.

(4) An unfilled Immediate Action demand having been presented to a Battalion will be followed through to a positive conclusion without delay.

d. Maintenance of Supply Levels. The quantity of spare parts, supplies and accessories carried in Ordnance Maintenance and Depot Companies will be fifteen days for their current weapons list (list of major items in hands of supported units both vehicles and weapons). Battalion commanders are authorized to

transfer stock between companies in order to balance loads, prevent dissipation of parts in short supply, and to facilitate maintenance operations.

(1) Requisitioning Periods. Requisitions within Army Ordnance for replenishment of stock will be submitted periodically on a review basis which will insure that replenishment requisitions are not submitted more often than once each week. Each depot will establish a schedule for submission of normal weekly requisitions by units based on it for supply. Requirements for immediate use may be submitted at any time. Every effort will be made to estimate requirements in advance in order that the number of requests for any given item are reduced to the minimum and piecemeal daily requisitioning is not resorted to.

(2) Reports.

(a) All third and fourth echelon shops including divisional ordnance units will prepare and forward to the Army Ordnance Officer direct, monthly as of the last day of the month, complete report of all parts, supplies, and accessories consumed during the month. Items issued to second echelon units will be listed as consumed. Items reconditioned and returned to stock will be deducted. Items transferred to other Ordnance units will not be included. Reports will be prepared in triplicate by divisions, and by companies, and will not be consolidated. They will be forwarded to reach Army not later than the 10th of the month.

(b) Ordnance Officers of Corps and Divisions, and Supply Officers of separate Army units, will submit to the Army Ordnance Officer semi-monthly a brief informal memorandum covering the following:

1 Special maintenance difficulties.
2 Special difficulties with material.
3 Any anticipated extraordinary demands for supplies, assemblies or major items in greater than normal share.
4 Critical supply shortages seriously affecting combat efficiency. Specific items and quantities required will be listed.
5 Negative reports are not required, but in the absence of a report it will be assumed that conditions are normal.
6 This informal report should accompany the Material Status Report, and will serve to keep the Army Ordnance Officer advised of the special needs of all units, in order that assistance may be rendered promptly, and supply and maintenance requirements may be anticipated.

(c) A daily report of the quantity of "Frozen" or "Controlled" items received from the Advance Section Communications Zone is prepared under the supervision of the Main Army Depot and Maintenance Group Commander.

(d) A Semi-monthly report of the quantity of each "Rationed" item received from Advance Section, Communications Zone is prepared under the supervision of the Main Army Depot and Maintenance Group Commander as of same reporting period as the Material Status Report.

(e) Spot "Reviews" of individual items as required.

4. Delivery and Movement of Supplies.

a. Impetus of Supply. The impetus of supply is from rear to front. All Ordnance units will normally make delivery of required supplies to the receiving unit, unless a receiving unit representative has called in person with the requirement.

b. Responsibility. Within Ordnance Service, responsibility rests with the installation upon which the call or requisition is placed to arrange transportation and delivery.

c. Use of Transportation. Maximum use will be made of transportation available to Ordnance for movement of supplies, and request will be placed on GHQ for truck companies only as a last resort. Transportation available to Ordnance should be utilized in the following priority:

(1) Replacement vehicles moving forward.

(2) Evacuation units moving forward.

(3) Organic transportation or Ordnance units.

(4) Special assembly of organic Ordnance transport, including vehicles of ammunition units, by arrangement through the Army Ordnance Office.

SECTION V - AMMUNITION.

1. GENERAL:

a. The administrative control of the storage and issue of Class V supply (Ord) (Engr) (Cml) within the Army is exercised by Ammunition Section, Army Ordnance Office. Establishment and maintenance of prescribed stock levels in all installations will be effected by Army. Under certain conditions authority to effect resupply to various Ammunition Supply Installations may be delegated to Army Ammunition Group and/or Battalion Commanders.

b. No toxic gases in any form will be received, issued or stored by any unit without specific authority from the Army Commander.

c. The AIC Code will be employed only in conjunction with prescribed standard nomenclature.

2. SUPPLY PROCEDURES:

a. Issues: Units will draw ammunition from designated Army ASP's or Depots upon presentation of a transportation order signed by the Unit Ammunition Officer or Unit S-4. Transportation orders will bear a certificate substantially as follows:

"I certify that the above items are required to reconstitute the organic load of this unit, replacing ammunition lost or expended in combat."

(1) Ammunition will not be issued to units for anticipated expenditures except as specifically authorized by Army.

(2) When the supply situation of certain items so requires, the expenditure or issue will be limited by command action.

b. Reports: Reporting periods end at 0600 hours daily. Reports to reach the Army Ammunition Office not later than 1000 hours of the same day.

(1) Special instructions will be submitted to Operating Ammunition Units concerning the required information and form of all Ammunition Reports.

3. ASP's and DEPOTS:

a. Safety Requirements:

(1) General:

(a) References:

1 Ordnance Safety Manual O.O. Form No. 7224.

(b) Depots and ASP's will store captured ammunition in original containers in an "Enemy Ammunition Area" separated from serviceable U.S. ammunition by at least 500 yards. Multi-lingual signs as required will be displayed to prohibit unauthorized entry.

(c) Depots and ASP's will operate a "Destruction Area" at least 800 yards from Ammunition Storage Bays. This area will be used for destruction of loose captured ammunition and of unreclaimable U.S. Stocks. The area will be enclosed in barbed wire, marked with multi-lingual signs prohibiting unauthorized entry, and will be cleared of its stocks by burning or demolition in accordance with Section VII O.O. Form 7224 at least weekly.

(d) Depots and ASP's will operate a "Maintenance Area" at least 500 yards from regular storage areas for the purpose of inspecting, remarking, repacking, repainting and re-fuzing ammunition. Renovation will not be attempted. Ammunition requiring renovation will be stored in this area and evacuated to Communication Zone as soon as possible.

(e) Depots and ASP's will operate a "Salvage Area" at least 500 yards from regular storage areas, for the storage of inert salvagable ammunition components and packing material. Such material will be inspected for active components before stacking. Empty wooden boxes or crates will be issued to U.S. Army troops units when requested.

(f) Vehicles are the greatest fire hazard in a Depot or ASP in the event of air attack. Truck convoys will not be permitted to congest the Depot or ASP. Trucks will not be parked closer than 10 yards from one another while loading, unloading, or waiting. Each ASP and Depot must provide a "Truck Dispersal Area" for waiting trucks.

(g) Each section of each ASP or Depot will provide a "Smoking Area". Smoking will not be permitted elsewhere in the ASP or Depot. Multi-lingual signs will indicate the SMOKING AREA. Multi-lingual signs throughout the installation will be used to enforce no smoking rules.

(h) Troops will not bivouac closer than 500 yards to ammunition stacks. ASP and Depot Commanders will report the presence of U.S. army troops within that area to the next higher Administrative Headquarters in order that troop units may be ordered to evacuate.

(i) Open fires are not permitted within 500 yards of ammunition stacks.

(j) When terrain indicates the desirability of providing one "Destruction Area", for the joint use of two or more depots or ASP's, Ordnance Group or Battalion Commanders will so recommend to the Army Ordnance Officer for approval.

(k) Depot and ASP Commanders will require units to deliver captured, damaged and salvage ammunition to the appropriate areas outlined above. In no cases will these categories be dumped in regular ammunition storage areas.

(l) Civilians will not be allowed within any ASP or Class V Depot except as authorized civilian labor under the direct control of U.S. Military personnel.

(m) A fire point will be established at the entrance to each bay. Each fire point will contain two (2) buckets of water, two (2) buckets of sand, one (1) CO_2 fire extinguisher, and two (2) shovels. Depot and ASP Commanders will procure fire fighting equipment as required through normal supply channels. Additional instructions for control of fires are included in Par 3 b, below.

(n) All ammunition 105mm and larger will be segregated in storage by lot number.

(o) Normally roadside storage will be used in all Ammunition Installations. Exceptions will be authorized only by the Army Ordnance Officer. After obtaining necessary clearances roads will be restricted to the exclusive use of ammunition traffic.

(2) Depot Safety Storage.

(a) In addition to the provisions of Section I above. Depot operation will conform to all safety rules to include storage by quantity distance tables and by war risk category. Particular attention will be given to prevention of spread of fire as a result of enemy action.

(3) ASP Safety Storage.

(a) The following safety rules, in addition to those outlined in Section I will govern ASP layout operation:

1. At least 3 sections per ASP. Each section will contain proportionate quantities of all items.

2. Not more than 1000 tons per section.
3. Not more than 300 tons per bay.
4. Adjacent stacks in a bay will contain only those items authorized by Appendix II to OO Form 7224 to be stored together.
5. Stacks in each bay will be separated by one yard per ton. 30 tons maximum per stack. Stacks at least 10 yards from hedgerows, and at least 10 yards from one another.
6. Bays within a section will be separated from each other by 100 yards.
7. Sections separated from each other by 500 yards.

b. Control of Fires.

(1) General.

(a) Upon the outbreak of fire in any Army Ammunition Depot or ASP, it is important that all necessary resources be mobilized at the earliest possible moment to isolate the fire, keep loss and damage to a minimum, and to prevent the fire from serving as a beacon for enemy air attack. To achieve these ends most efficiently, Standing Operating Procedure is effective as prescribed in the following paragraphs.

(2) Duties and Responsibilities.

(a) DEPOT OR ASP COMMANDER: The Depot Commander is designated Fire Marshal. Immediately upon the outbreak of fire the following agencies will be notified by telephone, or in absence of telephone connection, by the fastest available means:

Agency

Army Ordnance Officer
Group Commander
Corps Ordnance Officer

Telephone communication will be immediately followed by a confirming messenger. In each case, the report will give the coordinates of the most accessible road junction which will serve as a reporting and assembling point for the resources to be mobilized. The Depot or ASP Commander will be directly responsible for the immediate installation of telephone service at the mobilization point and availability of messenger. He will also be responsible for the coordination of all fire-fighting efforts unless relieved of this responsibility by the Army Ordnance Officer (or a competent representative thereof), the Group Commander or the Battalion Commander.

(b) ARMY ORDNANCE OFFICER: It will be the responsibility of the Army Ordnance Officer to provide the following resources. Subsequent action will be taken as indicated in parentheses.

1. Tank-dozers - One or more as available. (Action to be requested from the Armored Section, Army Headquarters.)
2. Necessary reinforcements of Military Police. (Action to be requested from Army or Corps Provost Marshal for installations within the respective service area.)
3. Army Engineers. (Action to be requested from Army Engineer Officer.)
4. Bulldozers, armored if possible. (Action to be requested from Army Engineer Officer.)
5. Engineer Fire Fighting Unit. The unit responsible for the area in which the fire occurs will be notified immediately by the depot commander. Additional units that are needed will be requested from the Army Engineers.
6. Tanks, light or medium. (Action to be taken by the Army Ordnance Officer through Ordnance channels for delivery from the nearest Ordnance installation having such tanks.

(3) Commitment of Personnel and Equipment.

(a) PROVOST MARSHAL: Utilizing such military police as may be required, the Provost Marshal will take the necessary steps to see that the area is properly guarded. Individual soldiers or detachments attempting to leave the area will be collected at a straggler collecting point and held for orders. Such personnel will, under the supervision of any officer or non-commissioned officer available, be utilized to evacuate motor vehicles to a designated assembly point as near as possible to the rendezvous mentioned in Section III, Par 4b(1). Only authorized personnel will be admitted to the area. As a general rule, the area should be sealed at a distance of approximately 1/4 miles from the perimeter of the Depot or ASP.

(b) ARMY ENGINEER: Army Engineers will, upon being requested by the Army Ordnance Service, dispatch to the scene of the fire such engineer personnel and equipment as deemed necessary. Within the limitations imposed by availability, the type of engineer personnel and equipment that may be furnished will include: Fire Fighting Units, Combat Engineers, and heavy engineer equipment, including bulldozers.

1. Upon arrival at the fire, engineer unit commanders will report to the Ordnance Fire Marshal conducting the fire fighting and will perform such tasks, incident to the fire fighting as may be directed by the Fire Marshal. Normal fire fighting duties of engineer units will include the following:

a. Provision of hose connection from nearest available water supply to perimeter of burning area. (Depot Commanders are reminded to take into consideration the limited capabilities of fire fighting units when selecting depot sites. A convenient source of water is essential.)
b. Employment of available fire fighting equipment.
c. Recommendations to the fire marshal as to the fire fighting technique.
d. Smother hot or burning fragments.
e. Prepare fire breaks.
f. Erect earth fire walls.
g. Operate heavy engineer equipment.

2. Engineer units and equipment will be released at the earliest practical time. Decision as to time of release will be effected by mutual agreement between the engineer unit commander and the fire marshal.

4. RECEIPT OF AMMUNITION FROM UNITS.

a. Army ASP's will accept from any unit serviceable American ammunition in original containers suitable for reissue. Ammunition normally packed in clover leaf containers will be assumed to be in original containers if presented in sealed fiber cylinders even though the clover leaf may be missing.

b. ASP's will not accept serviceable ammunition not in containers suitable for reissue. This applies to loose machine gun belts, loose small arms ammunition, or any type of artillery or mortar ammunition or miscellaneous items not in sealed containers.

c. If a unit presents artillery ammunition (types normally segregated by lot) for return to the ASP in original containers, composed of small mixed lots, it will be accepted but will be earmarked for reissue to the same unit on it succeeding Transportation Orders.

d. ASP's will accept all types of unserviceable American ammunition either at its inspection area or at the destruction ground according to the condition of the ammunition with respect to its potential hazard.

5. ENEMY AMMUNITION.

a. Maximum use will be made of civilian labor in depots, dumps, and installations containing enemy war materials. Civilian technical labor, if available, will be utilized to render harmless all bombs, ammunition, explosives and items which require special handling prior to the time they are to be placed in installations for captured enemy materiel. Ammunition will not be handled by American troops except where necessary to protect medical installations, lines of communications or essential bivouac or billeting areas. Small quantities of loose ammunition and duds will be destroyed in place, if practicable. Ammunition once subjected to blast or explosion will not be moved unless absolutely necessary. Ammunition containers will not be opened.

Guards placed at ammunition areas will be posted a reasonable distance (300-500 yards) from explosive agents and will be provided with adequate shelter (Slit Trench with overhead cover). When movement of ammunition is required due precautions will be taken by Engineer or Bomb Disposal personnel to avoid accidents. Movement will be supervised by qualified Ordnance personnel.

SECTION VI: COMMUNICATIONS

1. TELEPHONE - MINIMUM REQUIREMENTS.

a. Groups and Battalions will arrange to have telephone connections with the nearest switchboard having major wire service to Army Headquarters.

b. Maximum use of telephone will be made, and wire will be laid according to facilities available and tactical situation as required by the Battalion Commander.

c. Army Ordnance Officer will be kept informed at all times as to what wire service is available and through what circuits.

d. Unit Communication Officers will be responsible for the training of telephone personnel, installation of wire lines, and maintenance of wire lines within their units.

2. MESSENGER - MINIMUM REQUIREMENTS.

a. Groups and Battalions will establish messenger service to units within their command as needed, either by special or scheduled messenger to augment existing means or to provide communications where no other facilities are available.

b. Where applicable, units will establish scheduled messenger service to insure delivery of Ammunition Reports at the time specified.

c. Unit Communication Officers will be responsible for the training and supervision of messenger personnel.

3. RADIO - MINIMUM REQUIREMENTS.

a. Groups and Battalions will train enlisted personnel until sufficient operators and tenders have been trained to insure a 24 hour operation in emergencies.

4. TELETYPE - MINIMUM REQUIREMENTS.

a. Groups and Battalions will plan supply and administrative procedures and operating personnel on the basis of reports transmitted and received by teletype.

SECTION VII: SALVAGE

1. COLLECTING POINTS.

a. The establishment and control of these points is a responsibility of all Groups. Personnel from salvage and reclamation companies will be assigned duties of inspection, classification, repair, reclamation and salvage of equipment collected therein. Recovery platoons and companies will normally be charged with the collection of materiel, but maintenance companies may also be used for this purpose if the need should arise. Organization and operation of collecting points should conform to the following general plan as closely as possible.

b. A control office will be charged with the control of all collecting activities, the dispatch of recovery units, the submission of all reports and the keeping of all records.

c. An Inspection Unit will be charged with the receipt, inspection, classification and distribution within the Collecting Point of all materiel received. When a piece of equipment is received, two copies of a tally-in will be made on which will be entered the proper nomenclature of the item, classification (repairable third, fourth or fifth echelon; not repairable, fit only for reclamation of components; not repairable, fit only for salvage) and proposed distribution. (The classification and proposed disposition will also be chalked in a conspicuous place on the equipment concerned.) One copy of this tally-in will be given to the unit turning in the equipment and the remaining copy will be sent to the control office. If the material is brought in by evacuation platoons, the one copy of the tally-in will be given to them. They will, in turn, use their copy to complete their report of activities and as a receipt for materiel delivered.

d. The maintenance section will be charged with protecting major items and assemblies from deterioration. The degree of protection required depends on the recommended disposal. If an item is to be evacuated to the communications zone shop, compound rust preventive, light is recommended. If the evacuation is to a local third or fourth echelon shop, oil, lubricating preservative, medium, will generally suffice. Gun tubes will be thoroughly cleaned and dried. They will be oiled if evacuated to a third or fourth echelon shop and greased if evacuated to a communications zone shop. Weapons will be cleaned and oiled and will be boxed or otherwise protected from damage. Fire control instruments will be placed in their carrying case and those not having cases will be boxed to prevent injury or damage. Machined surfaces will be protected from injury. Loading and unloading will be supervised to insure that damage does not occur. Salvage will be segregated into classes such as scrap, usable armor plate, usable flat stock, bar stock and such other items as experience has shown may be required from time to time. Ordnance Officers of salvage and reclamation companies are authorized to declare items or assemblies as suitable for reclamation only. When this is done the item will be reduced to scrap and all repairable assemblies removed and processed through shops.

e. Priorities for the handling of equipment by Collecting Points will be governed by directives from the Army Ordnance Officer. Generally, priorities will be as follows:

(1) The immediate removal of equipment from main supply routes, highways and byways. (This may, in the case of enemy equipment, only require removal to a nearby field of such equipment, as may be obstructing traffic.)

(2) U.S. equipment will receive priorities over enemy equipment at all times unless otherwise specified.

(3) Priority for recovery of U.S. equipment will be as follows:

(a) Serviceable.
(b) Repairable third and fourth echelon.
(c) Repairable fifth echelon.
(d) Non-repairable, fit only for reclamation of components.
(e) Non-repairable, fit only for salvage.

(4) Priority for recovery of enemy equipment will be as follows:

(a) Serviceable.
(b) Repairable.
(c) Fit only for salvage. (Will not normally be collected unless there is no other profitable employment for recovery units.)

(5) Burned-out hulls, U.S. and enemy will not be handled.

f. The supply section will keep a record of all parts and accessories reclaimed. They will prepare and ship to Main Army Depots all major assemblies, sub-assemblies reclaimed. They will issue on demand to other Ordnance installations such American Ordnance materiel as they may require and are unable to procure from other sources. The procedure for the issue of American Ordnance materiel from a collecting point will be the same as that outlined for a maintenance company.

g. Materiel received in Collecting points will not be issued direct to using units. They will be instructed to contact their Ordnance maintenance unit, who in turn will endeavor to satisfy their needs through normal supply channels. If this is not possible, the maintenance unit may obtain from the Collecting point such articles of American Ordnance materiel as may be procurable from equipment to be scrapped. No repairable equipment may be stripped for this purpose. Major items repairable in third and fourth echelon which may be beyond the capacity of the Collecting Point itself will be distributed among the maintenance companies of the battalion or support battalions. Major items and assemblies repairable in fifth echelon will be protected from further deterioration and evacuated to the rear to fifth echelon installation of communications zone. Full advantage will be taken of all available transportation by use of a return load principle of operation. In this way a great deal of the fifth echelon evacuation can be taken care of with a minimum requirement for transportation.

h. A daily activity report will be submitted to the Army Ordnance Officer as of 0900 hours showing the following:

ITEM.	RECEIVED LAST 24 HOURS						EVACUATED LAST 24 HOURS				TOTAL ON HAND				
	Serviceable	Repairable 3rd 4th Echelon	Repairable 5th Echelon	Fit only for Reclamation	Salvage	Total for Day	Disassembled for parts	3rd and 4th Echelon	For reclamation	5th Echelon	Column #3	Column #4	Column #5	Total Column #6	Total Columns 12-13-14-15
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Section I American Materiel.															
Section II Enemy Materiel															

A certificate signed by an officer will be submitted on all vehicles to be reduced to scrap. This certificate will show the unit and WD number whenever it is possible to obtain same. In other cases a complete description of the vehicle will be given, such as truck, 1/4 ton, 4 x 4, number unknown and a general description of cause of unserviceability. Complete duplicate set of records will be kept at all times, showing the contents of the Collecting Point by classification. When one battalion turns over the control of this point to another battalion or to Advance Section, Communications Zone, one set of records will be forwarded to the Army Ordnance Officer and one set turned over to the unit taking over control.

2. SUPPLY OF TOOLS.

a. Tools have always been in short supply, and at the same time, the procedure for handling tools has not been too clearly established. In order to derive the maximum benefit of those tools which are available, and to simplify the procedure for procurement, the following SOP will be adhered to in the future:

(1) Tools will be considered in three (3) categories:

(a) TOOL SETS -ie, Unit Equipment Set, 2d echelon, No. 1; Tool Sets, armorers, etc. These sets will be handled in the same manner as all other Materiel Status Report items, and will be replaced by allocation.

(b) COMPONENT PARTS OF TOOL SETS - ie, Wrenches, Hammers, Electric Drills, Chisels, etc.
1. Unserviceable tools will be handled on a unit for unit exchange basis - i. e., a serviceable tool for an unserviceable tool. This will be accomplished through normal supply channels.

2. Lost or otherwise missing tools will be requisitioned by the using units once a month. These requisitions will be submitted to the supporting maintenance units. The supporting units will not be an action agency; they will merely receive requisitions for the convenience of the using units and will forward all copies expeditiously to the Main Army Depot Battalion. This battalion will consolidate all requisitions and submit army requirements to the Communications Zone. Upon receipt of the tools, the Main Army Depot Battalion will, based upon the back order requirements, make up individual unit shipments which will reach the using unit through normal channels.

3. Requisitions will reach the maintenance companies by the 15th of each month. The same shortage will be requested only once.

4. It is estimated that it will take 30 days from receipt of the requisition until fillage can be expected.

(c) EXPENDABLE TOOLS AND ACCESSORIES - i.e., Hammer handles, hack saw blades, grinding stones, cleaning rods, etc. These tools will be issued at all times as requisitioned.

3. SIGNS.

a. Groups, battalions and all type Ordnance companies will make liberal use of locator and directional marker signs to advertise their locations. Marker signs will have a crimson or red background with yellow lettering, and should be of sufficient size to permit 6 inch letters to be used. Directional arrows may be used or sign may be in shape of an arrow. Locator signs may be mounted in a suitable frame.

4. PUBLIC AND PRIVATE PROPERTY IN ENEMY COUNTRIES.

a. ARTICLES OF WAR APPLICABLE:

Attention is directed to the following Articles of War:

AW 79. CAPTURED PROPERTY TO BE SECURED FOR THE PUBLIC SERVICE: All public property taken from the enemy is the property of the United States and shall be secured for the service of the United States, and any person subject to military law who neglects to secure such property or is guilty of wrongful appropriation thereof shall be punished as a court-martial may direct.

AW 80. DEALING IN CAPTURED OR ABANDONED PROPERTY. Any person subject to military law who buys, sells, trades or in any way deals in or disposes of captured or abandoned property, whereby he shall receive or expect any profit, benefit, or advantage to himself or any other person directly or indirectly connected with himself, or who fails whenever such property comes into his possession or custody or within his control to give notice

thereof to the proper authority and to turn over such property to the proper authority without delay, shall, on conviction thereof, be punished by fine or imprisonment, or by such other punishment as a court-martial, military commission, or other military tribunal may adjudge, or by any or all of said penalties.

b. METHOD OF ACQUISITION OF PROPERTY:

(1) Public Property - All public property of the enemy is seized upon occupation and becomes the property of the United States. All commanders will take the action indicated in AW 79. It is encumbent on all military personnel to guard and preserve all captured public property.

(2) Private Property - In no case will private property of a personal nature be seized, plundered, removed or unnecessarily damaged. When it is believed essential to secure private property for military purposes, action will be taken by formal requisitions and not by pure seizure. Where the owner is absent, copies of requisitions will be furnished to local Military Government officials.

(3) Caution - In a totalitarian state such as Germany, it will often be difficult to distinguish between state (public) and private ownership. For this reason personnel requisitioning property must exercise sound judgment.

c. ACTION AND REPORTS OF ORDNANCE TROOPS:

(1) Whenever public property is secured by any element of Army Ordnance a prompt report of the circumstances will be made to the Ordnance Group Headquarters. This report will include a brief description of the property, location, and designation of the current guard. The Group will coordinate the guarding of the property (representatives of other services as well as tactical units have similar instructions) and will cause a detailed inventory of Ordnance supplies to be made by a technically qualified party. A report (including a brief description of the property as well as a detailed inventory of Ordnance supplies and the location) will be submitted by fast messenger to the Army Ordnance Officer by the group.

(2) In the case of public property taken from the enemy, similar to supplies furnished by the Ordnance Department, authority is granted to Ordnance companies to appropriate and remove reasonable quantities for use in their maintenance and supply activities. Supplies appropriated in this way will be reported in the same manner as outlined above, except that remarks covering quantities removed will be included in the detailed inventory.

(3) To implement this procedure it is directed that each Group immediately organize technically qualified parties capable of identifying, conducting inventories of, and exploiting Ordnance Supplies. In the Forward Ordnance Groups it is desired that a properly qualified officer of the augmented Group Headquarters be utilized as a Staff Officer to control the activities of the various parties of the Forward Group.

d. PRECAUTIONS:

(1) As the Army advances into hostile territory, extreme care must be taken to neutralize or control captured or abandoned enemy materiel. It is desirable to keep this materiel in serviceable condition. However, it must either be collected or rendered temporarily incapable of use against us, should the enemy infiltrate back through the lines. Artillery pieces should be evacuated or immobilized by the removal of a wheel and rendered incapable of firing by the removal of the breech block or similar essential parts.

(2) In the event of a withdrawal, this materiel must be destroyed, but destruction is not to be resorted to unless the situation appears critical. It may frequently be necessary to place a considerable quantity of small arms taken either from the military or collected from civilians by Military Government in a place of safe-keeping. Units should bear this in mind in selection of bivouac and an adequate "strong room" must always be considered. Units should prepare hasps and acquire locks and material for window bars now. The proper handling and processing of impounded civilian arms will be facilitated if tags are on hand in advance so that weapons may be properly identified. It is probable that all captured vehicles will be dis-assembled to the extent that wheels, engines, etc., may be removed. Care must be taken to report stocks of wheels, etc., that may be found.

DATE_____

SUBJECT: Automotive Spot Check of the _____ APO_____

TO : Ordnance Officer, Headquarters, Fifteenth United States Army, APO 408.

1. A spot check inspection to verify 1st and 2nd echelon maintenance of motor vehicles of the subject organization was made on _____

2. The following items were checked and found to be as noted:

a. Motor vehicles preventive maintenance roster and forms.

Dispatching Records _____
Trip Tickets _____

1000 mile and 6000 mile checks _____
Lubrication _____

b. Follow up of deficiencies noted on trip tickets _____

c. Tire and tube preventive maintenance _____

d. Training of mechanics _____

e. Supervision and enforcement of 1st and 2nd echelon maintenance _____

f. Care and cleanliness of tools and maintenance equipment

g. Number of tire guages _____ Check on guage _____

h. Availability of manuals for mechanics _____

Are they used? _____

i. Number of vehicles deadlined due to:

(1) Lack of Parts* ---------: _____
(2) Accidents ---------: _____
(3) In Ordnance Shops ------: _____
Total Deadlines ---------: _____

j. Number of awards for motor vehicle drivers and mechanics

* List on reverse side: Requisition Number, date and supply installation to which requisition was submitted, and parts required.

3. Original spot check forms are enclosed covering the inspection of this organization.

_____
Name Rank Org'n

Inclosure #1,
Appendix 18.

UNIT RECORD OF SERVICES FOLDER

Unit_____ T/O&E_____ Dated_____

Commanding Officer:

Supply Officer:

Maintenance Officer:

Calender of Inspections Conducted

Artillery_____

Spot-Check Automotive_____

Type A Technical_____

Inclusure 2,

Appendix No. 18.

MONTHLY REPORT OF INSPECTION OF ARTILLERY MATERIEL

SUBMITTED BY: _____ ORDNANCE COMPANY: _____ FOR MONTH OF: _____

MAJOR ITEM: _____

CARRIAGE NO.	TUBE				RECOIL MECHANISM:			EQUILIBRATORS		BREECH GROUP PARTS REPLACED DURING MTH					REMARKS
	SERIAL NO.	ROUNDS FIRED			REPLACED THIS MONTH (DATE)	ESTIMATED REPLACE-MENTS NEXT 30 DAYS	SERIAL NO.	ROUNDS FIRED	REPLACED THIS MONTH (DATE)	ESTIMATED REPLACE-MENTS NEXT 30 DAYS	TIME PRESENT EQUIL. IN SERVICE (MONTHS)	REPLACED THIS MONTH (QUANTITY)	ESTIMATED REPLACE-MENTS NEXT 30 DAYS	PAD, GAS CHECK	RING SPLIT FRONT	RING SPLIT REAR	RING, LINER	BUSHING, OBTURATOR SPINDLE VENT	PLUG (& GASKET) OBTURATOR SPINDLE	PIN, FIRING	REASON FOR REPLACEMENT OF MAJOR ASSEMBLIES
		NORMAL CHARGE	SUPER CHARGE	TOTAL																	

It is essential that gun books be evacuated with major items so that proper entries may be made at time of repair or replacement of components. Gun books are to be evacuated with cannon or tube assemblies (tube and breech ring) and all entries pertaining to the carriage copied into the new gun book.

Inclosure 3, Appendix 18

MAJOR ITEMS EXCHANGED OR REPLACED DURING MONTH

COMPLETE WEAPONS:

Model:_____ Carriage No:_____ Serial No. Tube:_____ Reason for Replacement:_____

TUBES OR CARROW:

Model:_____ Serial No. _____ Actual: total Rounds Fired _____ Full Service rounds _____ Reason For Replacement:

RECOIL MECHANISMS:

Model: _____ Serial No. _____ TOTAL ROUNDS FIRED _____ Reason for Replacement; _____

EQUILIBRATORS (PNEUMATIC ONLY)

Piece Mark No: _____ Serial No: _____ Time in Service, Months: _____ Reason for Replacement:_____

Inclosure 3
Appendix 18

Ord Co _____ Ord Bn _____ TO: _____

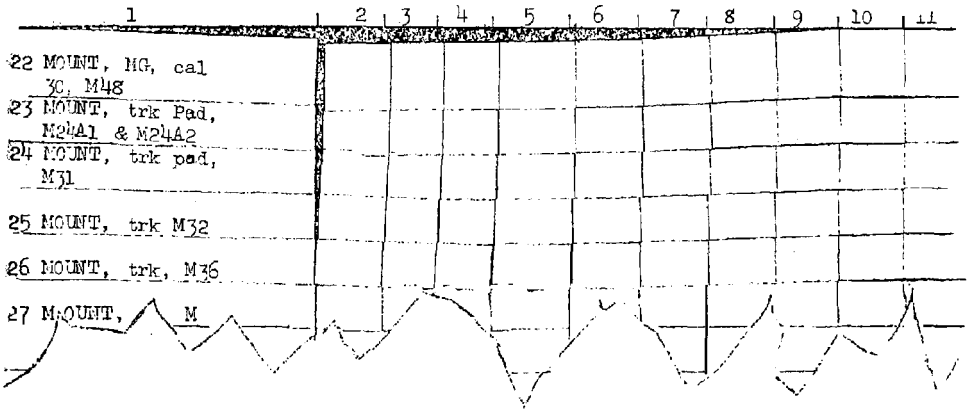
STATUS OF MAJOR ITEMS AND MAINTENANCE REPORT

As of _____ Hours _____ 19____

This report includes all major items listed in Material Status Report

1	Unassigned Rec'd past 24 hours 2	Issued in past 24 hours 3	Allocated not delivered 4	Unallocated available for issue 5	Ready 24 hours 6	Ready over 24 hours 7	Awaiting delivery 8	Ready 24 hours 9	Ready over 24 hours 10	Received in past 24 hours 11
1 CART, hard M3A4										
4 GUN, 37mm M3A1 (AT) & Carr M4A1										
5 GUN, auto. 40mm M1 & Carr M2										
6 GUN, mach, cal 30 M 1919A4										
7 GUN, mach cal 30 M 1919A4 flax										
8 GU M										

Inclosure 4,
Appendix 18.



Pages 1 & 2 only are reproduced herewith to illustrate the form. Column 1 is subject to constant revision as the list of controlled items changes. From time to time the list of controlled items and identifying code numbers will be published by this office, to enable Groups to reproduce Status of Major Items and Maintenance Reports for their own use.

MAJOR ITEMS BALANCE SHEET

AS OF _____ HOURS _____ 19____ _____ CMD H QRS SIGNED _____ (Commanding)

SEE INSTRUCTIONS ON REVERSE SIDE

Nomenclature	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Inclosure 5,

Appendix 18

MAJOR ITEMS BALANCE SHEET

1. Report will cover all controlled major items.

2. Submitted by ordnance groups for troops under group control as of 1600, 5th and 20th of each month.

3. Signed copy of report to be delivered by courier to Army Ordnance Officer by 0900, 8th and 23rd of each month.

4. Instructions for preparation of report:

Column 1. On hand unassigned regardless of condition.

2. Received by evacuation from other Army ordnance units. (Unserviceable).

3. Received by transfer from other Army ordnance units. (Serviceable).

4. Received for exchange - Repairable 4th Echelon.

5. Received for exchange - Not repairable 4th Echelon. Attach breakdown showing unit from which received.

6. Received from Communications Zone (outside Fifteenth Army) - If from other than Communications Zone, attach details of source, date, place and quantity.

7. Rebuilt from parts and assemblies from condemned items.

8. Received by recovery - unassigned.

9. Received from units other than Army ordnance units. Serviceable - not otherwise covered. Attach details of units from which received and reasons for turning in and any other pertinent data.

10. Total on hand and received. (Total 1 - 9)

11. Torn down for parts.

12. Issued for direct exchange.

13. Issued on allocation.

14. Transferred to other Army ordnance shops. (Serviceable)

15. Evacuated to other Army shops. (Unserviceable)

16. Evacuated to ordnance shops outside Army. If other than Communications Zone shops give details and attach sheets.

17. Total credits. (Sum of 11 thru 16)

18. Total on hand this report. (Column 10 minus Column 17)

19. Due on allocations not delivered. (Support by numbers of allocations attached)

20. Due out by transfer order. Support by list of transfer order numbers and indicate to whom transfer directed if written by other than Army ordnance.

21. Held for evacuation. (Unserviceable)

22. Condemned. (Not yet stripped)

23. In shops - R.F.I. in 24 hours unassigned.

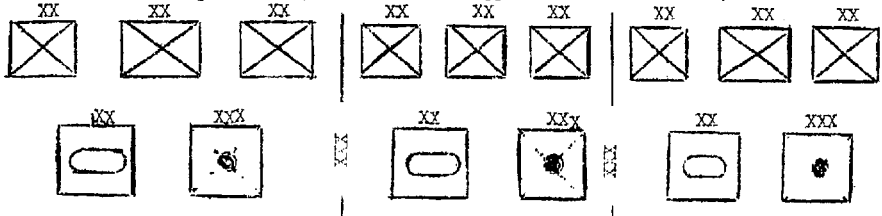
24. Other than repairable in shops - unassigned.

25. Balance available for immediate issue.

26. Unaccounted for - plus or minus

Appendix 18,
Inclosure 5

Diagram of Typical Ordnance Support in the Field Army



Forward Ord Bn
Hq & Hq Det, Ord Bn (1)
Ord MM Co(Corps Arty)(1)
Ord MM Co (Non-Div Armor) (1)
Ord MAM Co (1)
Ord Recovery Co (1)

Forward Ord Bn
Hq & Hq Det, Ord Bn (1)
Ord MM Co(Corps Arty)(1)
Ord MM Co (Non-Div Armor) (1)
Ord MAM Co (1)
Ord Recovery Co (1)

Forward Ord Bn
Hq & Hq Det, Ord Bn (1)
Ord MM Co(Corps Arty)(1)
Ord MM Co (Non-Div Armor) (1)
Ord MAM Co (1)
Ord Recovery Co (1)

Ordnance Support Bn
Hq & Hq Det, Ord Bn (1)
Ord HAM Co (2)
Ord Depot Co (Retail)(2)
Ord HM Co (2)
Ord Salv & Reclam Co (1)

Ordnance Support Bn
Hq & Hq Det, Ord Bn (1)
Ord HAM Co (2)
Ord Depot Co (Retail)(2)
Ord HM Co (2)
Ord Salv & Reclam Co (1)

Ordnance Support Bn
Hq & Hq Det, Ord Bn (1)
Ord HAM Co (2)
Ord Depot Co (Retail)(2)
Ord HM Co (2)
Ord Salv & Reclam Co (1)

Ord Intermediate Bn
Hq & Hq Det, Ord Bn (1)
Ord MM Co (1)
Ord HM Co (1)
Ord MAM Co (2)
Ord HAM Co (1)
Ord Dep Co (Retail) (1)

Ord Intermediate Bn
Hq & Hq Det, Ord Bn (1)
Ord MM Co (1)
Ord HM Co (1)
Ord MAM Co (2)
Ord HAM Co (1)
Ord Dep Co (Retail) (1)

Main Army Depot
Hq & Hq Det, Ord Bn (1)
Ord Depot Co (4)
Ord Detachment (3)

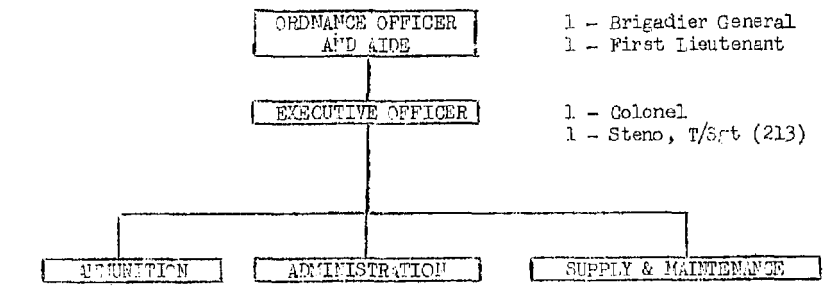
Main Army Maintenance Bn
Hq & Hq Det, Ord Bn (1)
Ord HM Co (2)
Ord HAM Co (2)
Ord Recovery Co (1)
Ord Salv & Reclam Co (2)
Ord Tire Rep Co with 8 Mob Units (1)

Artillery & Veh Park Bn
Hq & Hq Det, Ord Bn (1)
Ord Dep Co (1)
Ord Com Veh Prep Co (1)
Ord Wheeled Veh Prep Co (1)
Ord Mot Veh Dist Co (1)
Ord Tk Trans Co (2)

Note: Each Division supported by organic third echelon Ordnance unit.

ORDNANCE SECTION

ARMY GROUP HEADQUARTERS
(Recommended)



RECAPITULATION

1 – Brigadier General	Ordnance Officer
1 – Colonel	Executive Officer
1 – Colonel	Ammunition Officer
1 – Colonel	Supply & Maintenance Officer
2 – Major	Asst Ammunition Officer Maintenance Officer
2 – Captain	Asst Ammunition Officer Administration Officer
1 – 1st Lieutenant	Aide
1 – Warrant Officer	Asst Supply Officer
3 – M/Sgt (502)	Chief Clerk Ammunition Supply & Maintenance Administration
1 – T/Sgt (213)	Stenographer
4 – T/3 (055)	Clerk, General
1 – T/4 (405)	Clerk Typist
1 – T/4 (213)	Stenographer

Total Officer	8
Warrant Officer	1
Total Enlisted	10
AGGREGATE	19

ORDNANCE BRIGADE
HEADQUARTERS AND HEADQUARTERS COMPANY

REPLACEMENT DEPOT (c)

EXECUTIVE DIVISION
1 - Colonel
1 - S/Sgt Steno (213)
O EM
1 1

AMMUNITION

1 - Colonel
1 - Lt Colonel
1 - Major
2 - Captain
1 - WO Chief Clerk (4514)

1 - M/Sgt Ammunition NCO (525)
1 - S/Sgt Ammunition NCO (525)
1 - T/4 Statistical Clerk (212)
1 - T/4 Steno (213)
1 - T/4 Clerk Tycist (405)
2 - T/5 Clerk General (055)
1 - T/5 Clerk Tycist (405)

O WO EM
5 1 8

TECHNICAL

1 - Colonel
1 - Lt Colonel
2 - Major

1 - M/Sgt Chief Clerk (502)
1 - T/Sgt Statistical Clerk (212)
1 - T/4 Clerk General (055)
2 - T/4 Steno (213)
1 - T/4 Clerk Tycist (405)

O WO EM
4 0 5

MAINTENANCE AND SUPPLY

MAINTENANCE (c)

1 - Colonel (b)
1 - Lt Colonel
1 - Major
2 - Captain
1 - WO Maintenance Service (4513)

1 - M/Sgt Chief Clerk (502)
1 - T/Sgt Clerk General (055)
1 - T/3 Motor Inspector (413)
1 - T/3 Armament Inspector (511)
1 - T/4 Steno (213)
1 - T/4 Clerk General (055)
1 - T/4 Clerk Tycist (405)
1 - T/5 Clerk Tycist (405)

O WO EM CAA
5 1 8 3

SUPPLY

1 - Colonel (b)
1 - Major
2 - Captain
1 - WO Supply Officer (4530)

1 - M/Sgt Ordnance Supply (514)
1 - T/Sgt Clerk Statistical (212)
1 - T/4 Steno (213)
1 - T/4 Parts Clerk Auto (442)
1 - T/4 Parts Clerk Armament (648)
2 - T/4 Clerk Tycist (405)
2 - T/4 Clerk General (055)
1 - T/5 Clerk Tycist (405)
1 - T/5 Clerk General (055)

O WO EM
4 1 11

OPERATIONS (ADMINISTRATION)

1 - Colonel
2 - Major
2 - Captain
1 - 1st Lieutenant
1 - 2nd Lieutenant
1 - WO Administrative Assistant (2600)

1 - M/Sgt Chief Clerk (502)
1 - M/Sgt Operations NCO (824)
1 - T/Sgt Operations NCO (824)
1 - T/Sgt Message Center Clerk (667)
1 - T/Sgt Communications NCO (542)
1 - T/Sgt Administrative NCO (502)
1 - T/Sgt Classification Specialist (275)
1 - T/3 Classification Specialist (275)
1 - T/3 Clerk Typist (405)
1 - T/3 Steno (213)
1 - T/3 Radio Repairman (648)
1 - T/3 Airplane & Engine Mechanic (747)
1 - T/3 Draftsman (070)
5 - T/4 Radio Operator (740)
4 - T/4 Teletype Operator (237)
1 - T/4 Radio Repairman (648)
4 - T/4 Steno (213)
1 - T/4 Airplane & Engine Mechanic (747)
4 - T/4 Clerk General (055)
2 - T/4 Clerk Typist (405)
1 - T/4 Message Center Clerk (667)
1 - T/5 Message Center Clerk (667)
6 - T/5 Clerk General (055)
8 - T/5 Clerk Typist (405)
2 - T/5 Telephone Switchboard Operator (650)

O WO EM
7 1 52

HEADQUARTERS COMPANY

1 - 2nd Lieutenant Supply and Mess
2 - 2nd Lieutenant Liaison Pilot
1 - 1st Sgt (585)
1 - S/Sgt Supply Sgt (821)
1 - S/Sgt Mess Sgt (824)
1 - T/4 Cook (060)
1 - T/4 Truck Driver (345)
1 - T/5 Clerk Typist (405)
1 - T/5 Cook (060)
3 - T/5 Truck Driver (931)
1 - Pfc Cook (060)
2 - Pfc Cooks Helper (590)
12 - Pfc Truck Driver (345)
4 - Pfc Basic (521)

O WO EM
3 0 29

12 - Trailer, 1/4-ton, 2 wheel, cargo
12 - Trailer, 1-ton, 2 wheel, cargo
1 - Trailer, 250 gal., water
3 - Semi-trailer, 6-ton, 2 wheel
14 - Truck, 1/4-ton, 4x4
4 - Truck, 3/4-ton, 4x4, weapon Carrier
10 - Truck, 2-1/2-ton, 6x6, cargo
3 - Truck, tractor, 4-5 ton, 4x4
1 - Sedan, light
1 - Airplane, Liaison Type

RECAPITULATION

(a)	Ordnance Section Army Headquarters	Brigade Headquarters	Headquarters Company	Total
OFF	7	26	3	36
WO	0	4	0	4
EM	10	85	29	124
Total	17	115	32	164

Notes:

(a) Carried in Army Ordnance Section, Appendix 21, not included in Brigade total.

(b) One or other may be designated as chief of Supply & Maintenance Division to coordinate efforts of the two sub-divisions.

(c) 3 Civilian Automotive Advisors are required to coordinate and administrate the activities of Army CAA's.

HEADQUARTERS THE GENERAL BOARD
OFFICE OF THE ORDNANCE OFFICER
APO 408

Appendix No. 20 **20 DEC 1945**

ORDNANCE SECTION, ARMY HEADQUARTERS
T/O & E 200-1, Recommended Revision

(Recommended revision of the Ordnance Section, Army Headquarters (T/O & E 200-1 to be effected when recommended headquarters and headquarters company, Ordnance Brigade, is organized. (see Appendix No. 20)

ORDNANCE OFFICER AND AIDE	1 - Brigadier General 1 - First Lieutenant 1 - Steno (213) S/Sgt
DEPUTY ORDNANCE OFFICER	1 - Colonel (4512) 1 - Steno (213) Tec 4

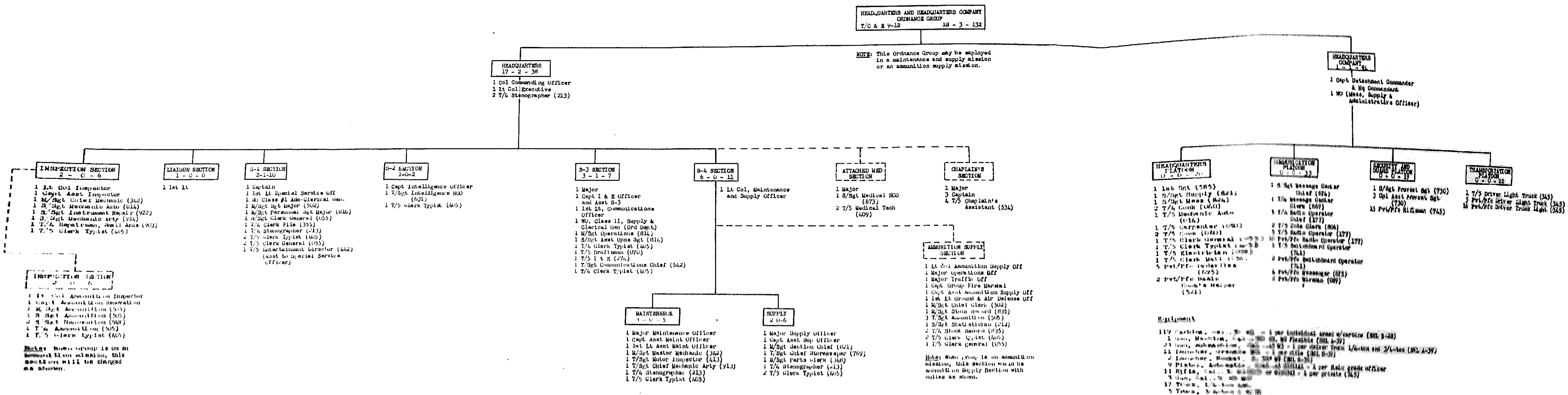
MAINTENANCE & SUPPLY	AMMUNITION	ADMINISTRATION	LIAISON
1 - Major 1 - Clerk (502) T/Sgt 1 - Clerk Typist (405) Tec 4	1 - Major 1 - Am NCO (505) T /Sgt 1 - Typist (405) Tec 4	1 - Captain 1 - Chief Clerk (502) M/Sgt 1 - File Clerk (055) Tec 4 1 - Typist (405) Tec 5	1 - Captain 1 - Driver (345) Tec 5

1 Brigadier General.....Ordnance Officer
1 Colonel.....Deputy Ordnance Officer
2 Major.....1 Maintenance & Supply
1 Ammunition
2 Captain.....1 Administration
1 Liaison Officer
1 First Lieutenant.....Aide

1 M/Sgt (502).....Chief Clerk
1 T/Sgt (505).....Ammunition Clerk
1 T/Sgt (502).....Chief Clerk, Maintenance & Supply
1 S/Sgt (213).....Stenographer
1 Tec 4 (213).....Stenographer
2 Tec 4 (405).....Clerk Typist
1 Tec 4 (055).....Clerk, File
1 Tec 5 (405).....Clerk Typist
1 Tec 5 (345).....Driver

Total Officer	7
Total Enlisted	10
AGGREGATE	17

Note: The Ordnance Section, Army Headquarters (as proposed) is a planning and policy section only and does not operate. The Army Ordnance Officer commands Army Ordnance Service through the Headquarters and Headquarters Company, Ordnance Brigade. See recommended T/O & E inclosed in this study as appendix 20.

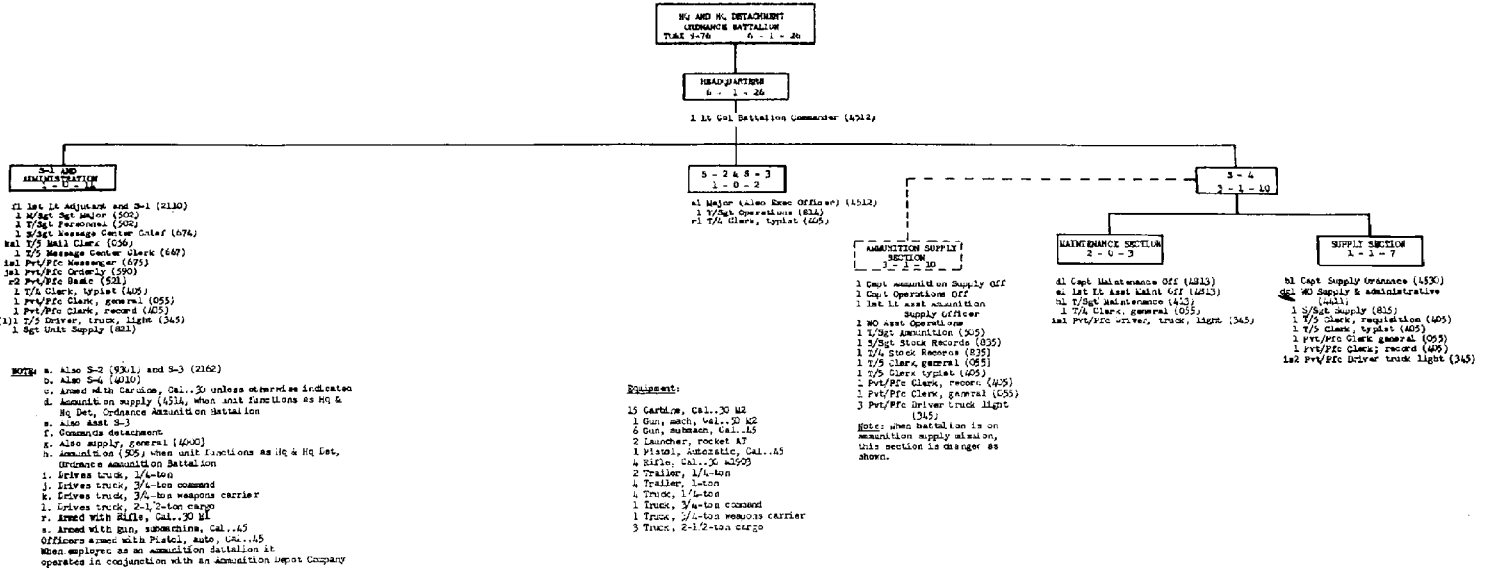


Equipment

[illegible]

Appendix No. [illegible]

HEADQUARTERS THE GENERAL BOARD
OFFICE OF THE ORDNANCE OFFICER
APO 408
20 DEC 1945



Appendix No. 23

HEADQUARTERS THE GENERAL BOARD
OFFICE OF THE ORDNANCE OFFICER
APO 408
20 DEC 1945

ORDNANCE FIELD DEPOT CO
T/O&E 9-57 5-1-180

COMPANY HEADQUARTERS PLATOON
1 - 1 - 58

COMPANY HEADQUARTERS SECTION
1 - 1 - 13

1 Maj Company Commander
a1 AC Mechn Motor Mess Supply
1 1st/Sgt (585)
b1 T/Sgt Section Chief (813)
1 S/Sgt Mess (824)
1 S/Sgt Supply (821)
1 Sgt Company Clerk (405)
2 T/4 Cook (060)
1 T/5 Cook (060)
1 T/5 Mail Orderly (056)
d11 Pvt/Pfc Clerk general (055)
2 Pvt/Pfc Cooks Helpers (521)
16 Carbine, Cal..30
2 Launcher, rocket, AT
1 Trailer, 1-ton, 2-wheel cargo
1 Trailer, 2-wheel, 250-gal

MOTOR POOL SECTION
0 - 0 - 29

1 S/Sgt Motor Sgt (813)
x1 Cpl Motor Cpl (813)
1 T/4 Mechanic (014)
x1 T/4 welder (257)
x11 T/5 Driver Light Truck (345)
2 T/5 Mechanic (014)
r11 T/5 Driver truck heavy (245)
1 T/5 Driver truck wrecker (529)
16 Carbine, Cal..30
4 Gun, mach, Cal..50 HB Flex
2 Gun, sub mach, Cal..45
11 Rifle, Cal..30 M1903A1
16 Semi-trailer, 10 ton
1 Trailer, 1-ton, 2-wheel cargo
2 Truck, 1/4-ton
1 Truck, 3/4-ton, w/winch
8 Truck, 2 1/2-ton
16 Truck, tractor, 4-5 ton
1 Truck, 10 ton wrecker

SERVICE SECTION
0 - 0 - 16

1 S/Sgt Section Chief (813)
1 T/4 Carpenter (050)
1 T/4 Electrician (078)
x1 T/4 Carpenter (050)
x1 T/5 Painter sign (145)
1 Pvt/Pfc Lineman (238)
x1 Pvt/Pfc Carpenter (050)
9 Pvt/Pfc Basic (521)
16 Carbine, Cal..30
2 Launcher, rocket AT
1 Trailer, 1-ton, 2-wheel cargo
1 Unit, generating: M7

DEPOT HEADQUARTERS PLATOON
3 - 0 - 60

DEPOT OFFICE SECTION
1 - 0 - 20

y1 Capt Depot Supply Off
1 M/Sgt Chief Clerk (502)
1 T/Sgt Chief Stock Control (374)
1 S/Sgt Requisition Clerk (186)
1 Sgt Communication Chief (542)
1 T/4 Stock Control Clerk (374)
1 T/4 Requisition Clerk (186)
1 T/5 Clerk, file (355)
1 T/5 Clerk, stock control (374)
1 T/5 Clerk, requisition (186)
e1 T/5 Messenger (675)
1 T/5 Telephone Swb Operator (705)
1 T/5 Teletyprinter Operator (237)
2 T/5 Clerk typist (405)
1 Pvt/Pfc Clerk file (355)
1 Pvt/Pfc Tel Swb operator (705)
1 Pvt/Pfc Teletyprinter Oper (237)
1 Pvt/Pfc Clerk typist (405)
2 Pvt/Pfc Basic (521)
20 Carbine, Cal..30
1 Gun, sub mach, Cal..45
f1 Trailer, 1-ton, 2-wheel cargo
1 Truck, 1/4-ton

MAJOR ITEMS SECTION
1 - 0 - 25

1 2nd Lt Major Items Off
1 M/Sgt Chief Storekeeper (769)
1 Sgt Tracmaster (682)
1 Sgt Asst Storekeeper (769)
1 Cpl Clerk Stock Rec (323)
1 T/4 Clerk Parts (368)
1 T/4 Mechanic (014)
2 T/4 Tracmaster (682)
1 T/4 Clerk typist (405)
1 T/5 Clerk Stock Rec (323)
e1 T/5 Driver Truck Light (345)
r5 Pvt/Pfc Driver truck (735)
r2 Pvt/Pfc Driver half-track (736)
5 Pvt/Pfc Warehousemen (252)
16 Carbine, Cal..30
1 Gun, sub mach, Cal..45
9 Rifle, Cal..30 M1903A1
2 Semi-trailer Boston
1 Truck, 1/4-ton

SHIPPING AND RECEIVING SECTION
1 - 0 - 15

1 2nd Lt Ship & Rec Off
1 T/Sgt Chief Ship & Rec Clerk (186)
1 S/Sgt Liaison Agent (503)
2 Sgt Ship & Rec Clerk (186)
2 T/4 Ship & Rec Clerk (186)
3 T/5 Ship & Rec Clerk (186)
1 T/5 Clerk, general (055)
3 Pvt/Pfc Ship & Rec Clerk (186)
2 Pvt/Pfc Driver, truck, light (345)
16 Carbine, Cal..30
1 Launcher, rocket, AT
2 Truck, 3/4-ton w/winch

SUPPLY PLATOON
1 - 0 - 62

HEADQUARTERS SECTION
1 - 0 - 4

1 1st Lt Storehouse Supply Off
1 M/Sgt Chief Storekeeper (769)
1 Cpl Clerk General (405)
3 Carbine, Cal..30

WAREHOUSE SECTION
4 - 0 - 46

2 T Sgt Asst Storekeeper (769)
2 S/Sgt Chief Parts Clerk (348)
2 T/4 Clerk Parts (368)
2 T/4 Clerk Parts Asst (848)
14 T/5 Clerk, stock record (323)
14 Pvt/Pfc Warehousemen (252)
16 Carbine, Cal..30
14 Semi Trailer Boston

HEAVY UNIT SECTION
0 - 0 - 14

1 S/Sgt Rigger (189)
1 T/4 Operator Crane (063)
1 T/5 Clerk stock record (323)
1 T/5 Driver truck heavy (245)
4 Pvt/Pfc Rigger (189)
6 Pvt/Pfc Warehouseman (252)
14 Carbine, Cal..30
1 Crane, truck mounted, M2

NOTES:
a. Administrative, Mess, Motor, and Unit Supply Officer
b. Section Chief to coordinate Motor and Service Sections
c. Armed with Carbine, Cal..30 M1 unless otherwise indicated.
d. Works in supply section.
f. To be used for Communication Section
r. Armed with Rifle, Cal..30 M1903A3
s. Armed with Sub Machine Gun, Cal..45 (1 per driver 1/4-ton)
x. Driver 4-5 ton Tractor on moves of depot
y. CO Depot Officer and Chief of Depot Hq Platoon

HEADQUARTERS THE GENERAL BOARD
OFFICE OF THE ORDNANCE OFFICER
APO 408
20 DEC 1945

[illegible] PUBLICATIONS SECTION
(ARMY TROOPS)
O - O - 4

REQUISITION SUB-SECTION
O - O - 4

c1 Sgt Clerk, Requisition (186)
i1 T/5 Clerk typist (405)
hl T/5 Clerk, stock re ord (323)
jl Pvt/Pfc Clerk [illegible] (355)

SHIPPING AND RECEIVING
SUB-SECTION
O - O - 8

al T/Sgt Chief Clerk (052)
bl S/Sgt Requisition Clerk (186)
dl T/4 Publications Liaison NCO
el T/4 Clerk, stock control (374)
fl T/5 Driver, heavy (245)
gl T/5 Requisition clerk (186)
kl Pvt/Pfc Clerk, general (055)
(l)l Pvt/Pfc Requisition clerk (186)

Equipment

12 Carbine, Cal..30 M2
1 Trailer, 1/4-ton 2 wheel cargo
2 Semi-trailer, 6-ton van
1 Truck, 1/4-ton 4x4
1 Truck, 4-ton 4x4 tractor

NOTE: a. Supervises and coordinates the efforts of all personnel employed in the publication section
b. Supervises breakdown and distribution of initial distribution
c. Maintains incoming and outgoing requisition register. Responsible for issue and storage of Ordnance publications. Responsible for an adequate stock of Ordnance publications.
d. Inspects and educates in use of Ordnance publications. Assists unit in determining shortages in publications and eliminates obsolete material from their files. Also drives truck, 1/4-ton 4x4.
e. Maintains requirements card
f. Driver truck 4-5 ton tractor; also assists in wrapping and shipping.
g. In charge of wrapping and shipping of all Ordnance publications.
h. Maintains stock record card of all items in stock; also assists in filling requisitions.
i. Performs all typing for Publication Section and operates mimeograph machine.
j. Maintains Publication Library and performs filing duties
k. Assists in breakdown of distribution
l. Wrapping and shipping clerk.

HEADQUARTERS THE GENERAL BOARD
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ORDNANCE SERVICE SECTION
(ARMY DEPOT)
1 - 0 - 42

SECTION HEADQUARTERS
1 - 0 - 2

al 1st Lt
bl T/Sgt Section Chief (813)
cl S/Sgt Rigger (189)
3 Carbine, Cal..30 M2

HEAVY EQUIPMENT SUB-SECTION
0 - 0 - 27

e6 T/4 Crane operator (064)
i2 T/5 Crane operator (064)
j6 T/5 Crane crewman (064)
k2 T/5 Driver truck light (245)
o2 Pvt/Pfc Crane crewman (064)
p2 Pvt/Pfc Rigger (189)
gl T/4 Mechanic, auto (044)
p6 Pvt/Pfc Rigger (189)
s6 Crane, Veh Mtd (Hvy)
s2 Truck crane swinging boom w/winch Medium
1 Truck, 2-1/2-ton, 6x6, cargo
1 Truck, 1/4-ton 4x4
1 Trailer, 1/4-ton, 2-wheel cargo
1 Trailer, 1-ton, 2-wheel cargo
27 Carbine, Cal..30 M2

COATING AND BOXING SECTION
0 - 0 - 10

dl Sgt Carpenter (050)
fl T/4 Carpenter (050)
(1)3 T/5 Carpenter (050)
ml T/5 Painter (144)
(1)4 Pvt/Pfc Carpenter helper (050)
10 Carbine, Cal..30 M2

SMALL ARMS INSPECTION
SUB-SECTION 0 - 0 - 3

hl T/4 Repairman, small arms (903)
nrl T/5 Repairman, small arms (903)
nl Pvt/Pfc Repairman, small arms (903)
1 Truck, small arms repair, M7A2
3 Carbine, Cal..30 M2

NOTE: a. Officer in charge of Service Section (Army Depot) supervises and controls all functions of section.
b. Responsible directly to officer in charge. Supervises operation of all functions of section.
c. Supervises activities of Crane Operators and Riggers, also responsible for section supply.
d. NCO in charge of crating and boxing. Supervises work of all carpenters and assigns work to various carpenters.
e. Operates crane, Veh Mtd (Heavy)
f. Performs as a carpenter, crating and boxing items of Depot Stock.
g. Performs second echelon maintenance on T/E Equipment
h. In charge of Small Arms and performs and supervises inspection and repair of small arms.
i. Operates truck, crane, swinging boom W/winch Medium
j. Assistant operator of Crane, Veh Mtd (Heavy)
k. Drives truck, 1/4-ton 4x4 and truck 2-1/2-ton 6x6
l. Assists in crating and boxing of depot stocks
m. Performs duties of painter with the coating and boxing section.
n. Assists in inspection and repair of small arms.
o. Assists Crane operator of truck, crane swinging boom w/winch Medium
p. Assists Crane Operator of truck, crane in rigging operations.
r. Also drives Shop Truck.
s. Capable of handling material normally found in a main army depot.

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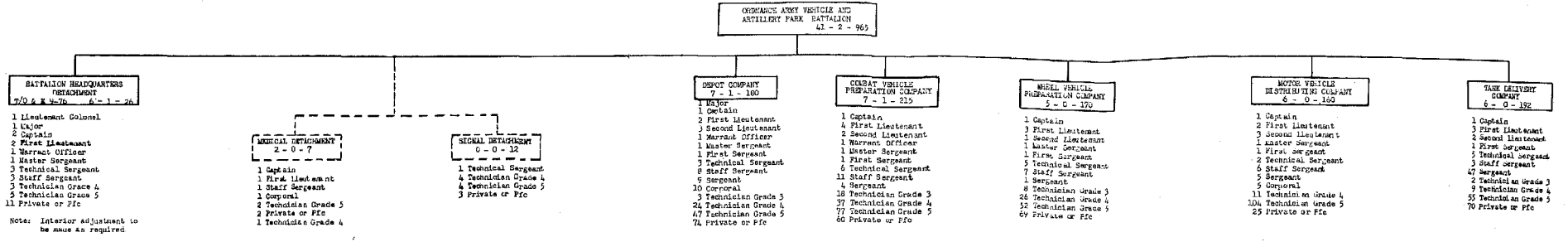
Appendix No. 26

ORDNANCE LOCAL PROCUREMENT SECTION
(ARMY WHOLESALE DEPOT BATTALION)
2 - 0 - 4

1 Capt
1 1st Lt
a1 T/Sgt Foreman, machine shop (086)
b1 S/Sgt Legal clerk (279)
c1 T/5 Clerk typist (405)
1 Pvt/Pfc Driver, light truck
2 Truck 1/4-ton 4x4
1 Truck 3/4-ton 4x4 Wpns Carr
2 Trailer, 1/4-ton 2-wheel cargo
2 Pistol, automatic, Cal. .45
4 Carbine, Cal. .30 M2

NOTE: a. Must be thoroughly familiar with all phases of machine tool work and be skilled in operation of machine tools and precision gauges in order to ascertain the production capabilities of civilian industries contacted.
b. Draws up legal documents and contracts.
c. Also drives truck 1/4-ton 4x4



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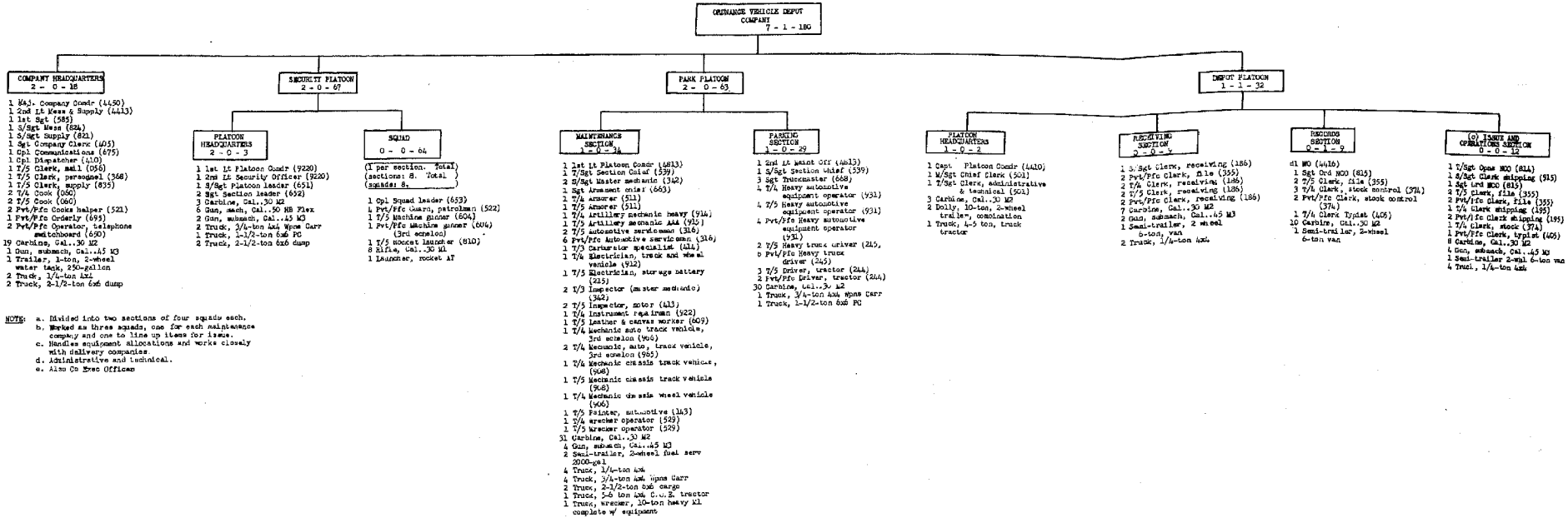

NOTE:
a. Divided into two sections of four squads each.
b. Worked as three squads; one for each maintenance company and one to line up items for issue.
c. Handles equipment allocations and works closely with delivery companies.
d. Administrative and technical.
e. Also Co Exec Officer

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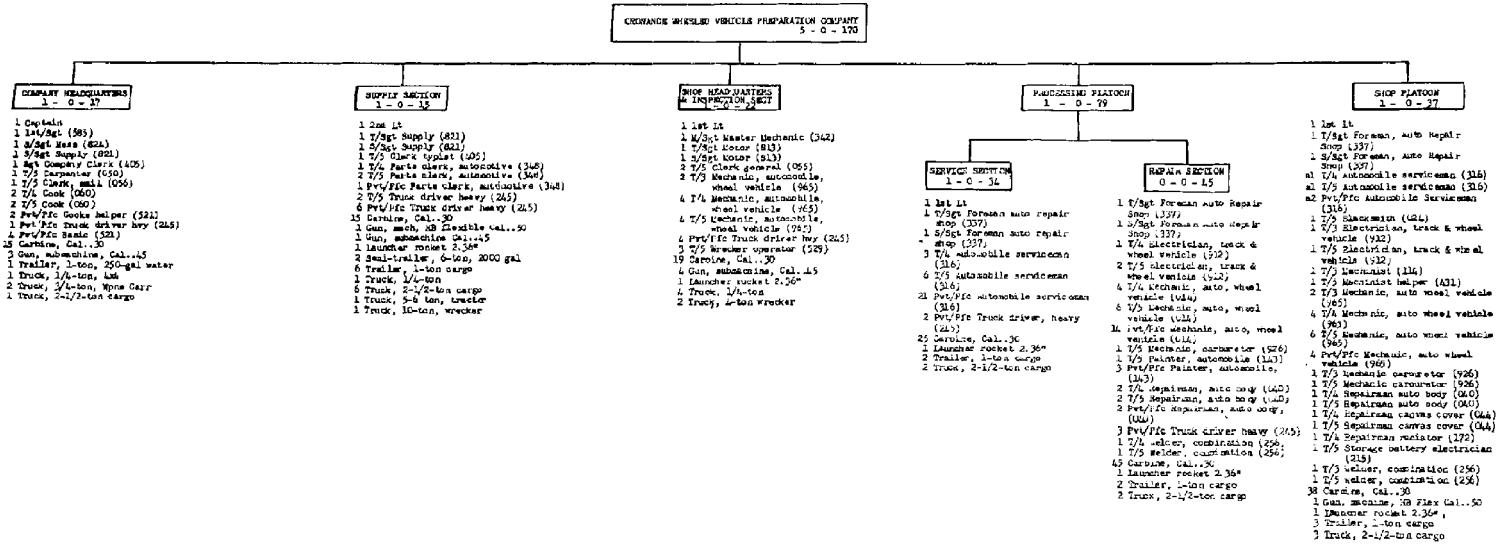

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ORDNANCE COMBAT VEHICLE PREPARATION COMPANY
7 - 1 - 215

COMPANY HEADQUARTERS
1 - 1 - 23

1 Capt
a1 WO
1 M/Sgt Master Mechanic (342)
1 1st/Sgt (585)
1 S/Sgt Mess (824)
1 S/Sgt Motor (813)
1 S/Sgt Unit Supply (821)
1 Sgt Clerk or Typ (405)
del T/5 Clerk mail (056)
del T/5 Clerk msp (457)
1 T/4 Clerk typist (405)
2 T/4 Cook (060)
2 T/5 Cook (060)
2 Pvt/Pfc Cooks Helper (521)
g1 T/5 Driver truck 1½-ton (345)
(a2,f1) 3 Pvt/1fc Driver, truck 1½-ton (345)
6 Pvt/1fc Basic (521)
25 Carbine, Cal..30
2 Gun, submachine, Cal..45
1 Launcher rocket AT
1 Armalier, water 250-gal
2 Truck, 1/4-ton
2 Truck, 3/4-ton Ambulance
1 Truck, 1-1/2-ton PC
1 Truck, 2-1/2-ton cargo

SERVICE PLATOON
3 - 0 - 76

SUPPLY SECTION
1 - 0 - 18

1 1st Lt
1 T/Sgt Chief Supply (821)
1 S/Sgt Asst Supply (821)
1 T/4 Clerk stock control (374)
1 T/5 Clerk typist (405)
d3 T/5 Driver, truck heavy (345)
(a2,f1) 3 T/5 Driver, light truck (345)
(a1,g5) 8 Pvt/Pfc Driver truck light (345)
1 T/5 Gas & Oil man (357)
2 T/5 Gas & Oil checker (186)
16 Carbine, Cal..30 M2
2 Gun, sub-mach, Cal..50 HB Flex
3 Gun, Submach, Cal..45
1 Launcher rocket AT
1 Semi-trailer, combination animal & cargo
3 Semi-trailer 6-ton van
2 Semi-trailer 6-ton 2 wheel fuel tank 2400-gal
1 Truck, 3/4-ton Ambulance w/winch
4 Truck 2-1/2-ton cargo
3 Truck 2-1/2-ton cargo w/winch
2 Truck, tractor 4-5 ton
2 Truck, tractor 5-6 ton

SERVICE SECTION
1 - 0 - 20

1 1st Lt
1 T/Sgt Machinist (114)
1 S/Sgt Machinist (114)
1 T/5 Blacksmith (024)
1 T/5 Carpenter, construction (054)
1 Pvt/Pfc Carpenter, construction (054)
1 T/5 Electrician (076)
h2 T/4 Machinist (114)
h1 T/5 Machinist (114)
h1 Pvt/Pfc Machinist (114)
1 T/5 Painter general (144)
1 T/5 Welder, armor plate (923)
h1 T/4 Welder, armor plate (923)
h1 T/4 Welder, combination (256)
2 T/5 Welder, combination (256)
1 Pvt/Pfc Welder, combination (256)
3 T/5 Wrecker operator (529)
21 Carbine, Cal..30 M2
3 Gun, mach, Cal..50 HB Flex
2 Trailer 1-ton 2-wheel cargo
1 Truck, machine shop Load "A"
2 Truck, machine shop Load "B"
1 Truck, machine shop Load "C"
2 Truck, welding
3 Truck, heavy wrecker

TOOL SECTION
0 - 0 - 12

1 S/Sgt Chief Shipping Clerk (195)
1 Sgt Asst Shipping Clerk (195)
2 Pvt/Pfc Laborer (590)
1 T/4 Receiving & shipping checker (186)
4 T/5 Receiving & shipping checker (186)
3 Pvt/Pfc Receiving & shipping checker (186)
12 Carbine, Cal..30 M2
3 Cart, hand, M34A
1 Trailer, 1-ton 2-wheel cargo

RECEIVING SECTION
0 - 0 - 13

1 S/Sgt Foreman Laser (356)
1 Sgt Receiving and shipping checker (186)
f1 T/5 Driver truck light (345)
2 T/5 Laborer (590)
7 Pvt/Pfc Laborer (590)
del T/4 Receiving and shipping checker (186)
12 Carbine, Cal..30 M2
1 Gun, submach, Cal..45
1 Truck, 1/4-ton
1 Truck, 1-1/2-ton PC

AMMUNITION SECTION
1 - 0 - 13

1 2nd Lt
1 S/Sgt Chief Ammunition (5..
1 Sgt Asst Ammunition (505)
5 T/5 Ammunition Handler (5..
6 Pvt/Pfc Ammunition handler (504)
14 Carbine, Cal..30 M2
1 Launcher rocket AT

AUTOMOTIVE PLATOON
2 - 0 - 65

1 1st Lt Shop Officer
1 2nd Lt
1 T/Sgt Foreman, auto repair shop (337)
2 S/Sgt Asst motor inspector (413)
1 T/5 Automobile radiator repairman (172)
1 T/5 Electrician truck & wheel vehicle (192)
1 T/4 Electrician truck & wheel vehicle (192)
h1 T/5 Electrician truck & wheel vehicle (192)
1 Pvt/Pfc Electrician truck & wheel vehicle (192)
2 T/5 Mechanic auto wheel vehicle (965)
6 T/4 Mechanic auto wheel vehicle (965)
(a1)6 T/5 Mechanic auto wheel vehicle (965)
(da1)5 Pvt/Pfc Mechanic auto wheel vehicle (965)
1 T/4 Mechanic chassis track vehicle (908)
6 T/5 Mechanic chassis track vehicle (908)
4 Pvt/Pfc Mechanic chassis track vehicle (908)
1 T/3 Mechanic chassis wheel vehicle (906)
1 T/5 Mechanic chassis wheel vehicle (906)
1 T/3 Mechanic engine track vehicle diesel (910)
1 T/4 Mechanic engine track vehicle diesel (910)
2 T/5 Mechanic engine track vehicle diesel (910)
1 Pvt/Pfc Mechanic engine track vehicle diesel (910)
1 T/3 Mechanic engine track vehicle gasoline (909)
1 T/4 Mechanic engine track vehicle gasoline (909)
2 T/5 Mechanic engine track vehicle gasoline (909)
1 Pvt/Pfc Mechanic engine track vehicle gasoline (909)
1 T/5 Mechanic engine wheel vehicle (905)
h1 T/4 Mechanic engine wheel vehicle (905)
1 T/3 Mechanic engine wheel vehicle (905)
1 T/4 Mechanic fuel injection (926)
1 T/5 Mechanic fuel injection (926)
1 Pvt/Pfc Mechanic fuel injection (926)
1 T/3 Mechanic tractor (319)
2 T/4 Mechanic tractor (319)
3 T/5 Mechanic tractor (319)
1 T/3 Mechanic turret (907)
1 T/4 Mechanic turret (907)
1 T/5 Mechanic turret (907)
1 Pvt/Pfc Mechanic turret (907)
h1 T/4 Welder, combination (256)
66 Carbine, Cal..30 M2
1 Gun, submachine, Cal..45
1 Launcher rocket AT
3 Trailer, 1-ton 2-wheel cargo
1 Truck 1/4-ton
1 Truck, 3/4-ton Amb Carr w/winch
1 Truck, Automotive Repair Load "A"
1 Truck, Automotive Repair Load "B"
1 Truck, Electrical Repair

ARMAMENT PLATOON
1 - 0 - 19

ARTILLERY SECTION
1 - 0 - 27

1 1st Lt
1 T/Sgt Chief Mechanic Arty (915)
1 S/Sgt Asst Chief Mechanic Arty (915)
2 T/3 Artillery mechanic AA (935)
2 T/4 Artillery mechanic AA (935)
2 T/3 Artillery mechanic heavy (914)
2 T/4 Artillery mechanic heavy (914)
(a1,)5 T/5 Artillery mechanic heavy (914)
2 T/3 Artillery mechanic light (913)
2 T/4 Artillery mechanic light (913)
(da1)5 T/5 Artillery mechanic light (913)
3 Pvt/Pfc Laborer (590)

SMALL ARMS SECTION
0 - 0 - 12

1 T/Sgt Chief Armorer (513)
1 T/3 Armorer (511)
2 T/4 Armorer (511)
(h1)2 T/5 Armorer (511)
2 Pvt/Pfc Armorer (511)
3 Pvt/Pfc Laborer (590)
12 Carbine, Cal..30 M2
3 Cart, hand, M34A
1 Trailer, 1-ton 2-wheel cargo
1 Truck, small arms

INSTRUMENT REPAIR SECTION
0 - 0 - 10

1 T/Sgt Chief Instrument Repairman (922)
1 T/3 Instrument repairman fire-control (922)
3 T/4 Instrument repairman fire-control (922)
(h1)3 T/5 Instrument repairman fire-control (922)
2 Pvt/Pfc Laborer (590)
10 Carbine, Cal..30 M2
3 Cart, hand M34A

NOTE: a. Technical specialist, tank; acts as chief of final inspection section which consists of mechanics robbed from other sections.
d. Drives 1/4-ton truck
e. Driver 3/4-ton truck
f. Driver 1-1/2-ton truck
g. Driver 2-1/2-ton truck
h. Driver Ordnance Technical Vehicle
s. Armed with submachine gun.

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ORDNANCE MOTOR VEHICLE DISTRIBUTING COMPANY
T/O & E 9-337 6 - 0 - 160

COMPANY HEADQUARTERS
2 - 0 - 20

1 Capt Company Comdr (0650)
1 2nd Lt Motor Officer (4805)
1 1st Sgt (585)
1 M/Sgt Truckmaster (345)
1 S/Sgt Mess (824)
1 S/Sgt Supply (821)
1 Sgt Company Clerk (405)
1 Cpl Dispatcher (055)
2 T/4 Cook (060)
2 T/5 Cook (060)
2 Pvt/Pfc Cooks Helper (521)
1 T/4 Mechanic automotive wheel vehicle (965)
2 T/5 Wrecker operator (520)
1 Pvt/Pfc Truck driver light (245)
4 Pvt/Pfc Basic (521)
3 Carbine, Cal..30 M2
1 Gun, Mach, Cal..50 HB Flex
1 Gun, submach, Cal..45 M3
1 Trailer, water, 250-gal
1 Truck, 1/4-ton
1 Truck, 4-ton wrecker, complete w/equipment
1 Truck 10-ton wrecker, M1, complete w/equipment

FIRST PLATOON (VEHICLE DISTRIBUTING)
2 - 0 - 70

PLATOON HEADQUARTERS
2 - 0 - 2

1 1st Lt Platoon Comdr (0650)
1 2nd Lt Asst Platoon Comdr (0650)
1 T/Sgt Platoon Chief (931)
1 Pvt/Pfc Clerk, general (055)
3 Carbine, Cal..30 M2
1 Gun Mach, Cal..50 HB Flex
1 Gun submach Cal..45 M3
1 Truck, 1/4-ton
1 Truck, 3/4-ton, Wons Carr
1 Truck, 1½-ton PC
1 Truck, 2½-ton cargo, w/wn
1 Truck, 2½-ton gasoline tanker 750-gallon

SECOND PLATOON (VEHICLE DISTRIBUTING)
2 - 0 - 70

FIRST SECTION
0 - 0 - 34

1 S/Sgt Section Chief (931)
1 Sgt Asst Section Chief (931)
1 Cpl Ordnance MCO (851)
8 T/5 Heavy auto equipment operator (931)
2 T/4 Mechanic automotive wheel vehicle (965)
2 T/5 Mechanic automotive wheel vehicle (965)
5 T/5 Driver, tank (736)
10 T/5 Driver, truck, heavy (245)
4 Pvt/Pfc Driver, truck, light (345)
33 Carbine, Cal..30 M2
1 Gun, submach, Cal..45 M3
1 Truck, 1/4-ton
2 Truck, 2½-ton cargo w/wn

SECOND SECTION
0- 0 - 34

1 S/Sgt Section Chief (931)
1 Sgt Asst Section Chief (931)
1 Cpl Ordnance MCO (851)
8 T/5 Heavy auto equipment operator (931)
2 T/4 Mechanic automotive wheel vehicle (965)
2 T/5 Mechanic automotive wheel vehicle (965)
5 T/5 Driver, tank (736)
10 T/5 Driver, truck, heavy (245)
4 Pvt/Pfc Driver, truck, light (345)
33 Carbine, Cal..30 M2
1 Gun, Submach, Cal..45 M3
1 Truck, 1/4-ton
2 Truck, 2½-ton cargo w/wn

ORDNANCE TANK TRANSPORTER COMPANY
o - C - 192

COMPANY HEADQUARTERS
1 - C - 19

1 Capt
1 1st/Sgt (585)
1 S/Sgt Mess (824)
1 S/Sgt Unit Supply (821)
1 Sgt Company Clerk (405)
dsl T/5 Clerk, mail (456)
2 T/4 Cook (060)
2 T/5 Cook (060)
3 Pvt/Pfc Cooks helper (521)
fl T/5 Driver light truck (245)
es2 Pvt/Pfc Driver light truck (245)
4 Pvt/Pfc Basic (521)
17 Carbine, Cal..30 M2
3 Gun, submach, Cal..45
2 Launcher rocket AT
1 Trailer, water, 250 gal
1 Truck, 1/4-ton
2 Truck 3/4-ton Wpns Carr
1 Truck 2-1/2-ton cargo

OPERATIONS PLATOON
1 - C - 24

1 1st Lt
1 T/Sgt Chief Operations (814)
1 Sgt Operations NCO (814)
9 Sgt Reconnaissance NCO (744)
1 T/5 Dispatcher motor vehicle (410)
2 T/5 Driver, truck, heavy (245)
ds9 Pvt/Pfc Driver, light truck (345)
dsl Pvt/Pfc Messenger (675)
15 Carbine, Cal..30 M2
10 Gun, submachine, Cal..45
1 Launcher rocket AT
2 Semitrailer 6-ton, 2-wheel, fuel tank, 2000 gal
10 Truck, 1/4-ton
1 Truck, tractor, 5-6 ton

MAINTENANCE PLATOON
1 - C - 35

1 1st Lt
1 T/Sgt Motor (813)
1 S/Sgt Foreman, auto repair shop (337)
1 T/4 Driver, tank (736)
1 T/5 Driver, tank (736)
2 T/3 Mechanic, auto, wheel vehicle (014)
4 T/4 Mechanic, auto, wheel vehicle (014)
8 T/5 Mechanic, auto, wheel vehicle (014)
8 Pvt/Pfc Mechanic, auto, wheel vehicle (014)
1 Pvt/Pfc Painter, auto, (143)
1 T/4 Parts clerk, auto (348)
1 Pvt/Pfc Parts clerk, auto (348)
(cl)
2 T/5 Rigger (189)
1 T/4 Welder, combination (256)
1 T/5 Welder, combination (256)
2 T/5 Wrecker operator (529)
35 Carbine, Cal..30 M2
1 Gun, submachine Cal..45
2 Launcher rocket AT
2 Trailer, 1-ton, 2-wheel cargo
1 Truck, 3/4-ton Wpns Carr
2 Truck, 2-1/2-ton cargo
2 Truck, heavy wrecker
1 Vehicle, tank recovery, Heavy

FIRST TRANSPORTER PLATOON
1 - C - 38

1 1st Lt
1 T/Sgt Hvy Auto Equipment Operator (931)
12 Sgt Hvy Auto Equipment Operator (931)
dsl Pvt/Pfc Driver, truck light (345)
12 T/5 Heavy Auto Equipment Operator (931)
12 Pvt/Pfc Heavy Auto Equipment Operator (931)
38 Carbine, Cal..30 M2
1 Gun, submach, Cal..45
1 Truck, 1/4-ton
12 Truck, trailer, comb, tank transporter, Heavy

SECOND TRANSPORTER PLATOON
1 - C - 38

1 1st Lt
1 T/Sgt Hvy Auto Equipment Operator (931)
12 Sgt Hvy Auto Equipment Operator (931)
dsl Pvt/Pfc Driver truck light (345)
12 T/5 Heavy Auto Equipment Operator (931)
12 Pvt/Pfc Heavy Auto Equipment Operator (931)
38 Carbine, Cal..30 M2
1 Gun, submach, Cal..45
1 Truck, 1/4-ton
12 Truck, trailer, comb, tank transporter, Heavy

THIRD TRANSPORTER PLATOON
1 - C - 38

1 1st Lt
1 T/Sgt Hvy Auto Equipment Operator (931)
12 Sgt Hvy Auto Equipment Operator (931)
dsl Pvt/Pfc Driver, truck light (345)
12 T/5 Heavy Auto Equipment Operator (931)
12 Pvt/Pfc Heavy Auto Equipment Operator (931)
38 Carbine, Cal..30 M2
1 Gun, submach, Cal..45
1 Truck, 1/4-ton
12 Truck, trailer, comb, tank transporter, Heavy

NOTE: c. Wire cable splicer
d. Driver, 1/4-ton truck
e. Driver, 3/4-ton truck
f. Driver, 2-1/2-ton truck
s. Armed with submachine gun

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ORDNANCE AMMUNITION MAINTENANCE COMPANY ARMAMENT
O - 1 - 168

HEADQUARTERS SECTION
O - 0 - 17

pl Capt Company Commander (1801)
pl 2nd Lt Personnel (2200)
pl 1st/Sgt (369)
1 S/Sgt Clerk, Administrative and Technical (501)
1 S/Sgt Mess (854)
1 S/Sgt Motor (813)
1 S/Sgt Supply (821)
1 Sgt Company Clerk (405)
1 Pvt/Pfc Barmer (022)
esl T/5 Bugler, Mail Clerk & Messenger
dsl T/5 Clerk, Supply (835)
2 T/4 Cook (060)
2 T/5 Cook (060)
(bsl,drl)2 Pvt/Pfc Cook's Helper (521)
1 T/5 Dispatcher, motor vehicle (310)
1 Pvt/Pfc Operator, telephone switchboard (650)
12 Carbine, Cal..30
2 Gun, submachine Cal..45
1 Launcher, Rocket 2.36"
3 Pistol, Automatic, Cal..45
6 Rifle, Cal..30 M1
1 Trailer, 1/4-ton cargo
1 Trailer, 1-ton cargo
1 Trailer, 4-ton communications
1 Trailer, water tank, 250-gal 1-ton
1 Truck, 1/4-ton
1 Truck, 3/4-ton
2 Truck, 2-1/2-ton cargo

SHOP & SERVICE SECTION
1 - 0 - 36

pl 1st Lt Maintenance (4813)
pl W/Sgt Master Mechanic (542)
1 S/Sgt Foreman, machine shop (686)
1 S/Sgt Machinist (114)
1 Sgt Welder, shop (457)
drl T/5 Blacksmith (604)
1 T/5 Carpenter (450)
1 T/5 Clerk typist (445)
esl T/5 Driver, truck light (345)
1 T/5 Machinist (114)
2 T/5 Mechanic (114)
dr2 T/5 Mechanic (114)
1 T/5 Painter, general (113)
1 T/5 Welder (456)
11 Carbine, Cal..30
1 Gun, submachine, Cal..45
2 Pistol, automatic, Cal..45
3 Rifle, Cal..30 M1
1 Trailer, 1/4-ton, cargo
3 Trailer, 1-ton cargo
1 Truck, 1/4-ton
2 Truck, 2-1/2-ton machine shop
1 Truck, 2-1/2-ton welding

SUPPLY SECTION
O - 2 - 19

pl W. Supply Off Administrative (4008)
1 T/Sgt Supply (821)
1 S/Sgt Supply (821)
1 T/4 Clerk, parts armament (848)
2 T/5 Clerk, parts armament (848)
2 T/4 Clerk, parts automotive (348)
(arc)3 T/5 Clerk, parts automotive (348)
1 T/4 Clerk, stock (324) (sal,crl)2
esl T/5 Clerk, stock (324)
1 T/5 Clerk, stock record (335)
2 T/5 Clerk typist (405)
(drl,bsl)
5 Pvt/Pfc Driver, truck, light (345) (esl,drl)2
11 Carbine, Cal..30
2 Gun, machine, MG Cal..50 Flex
2 Gun, submachine, Cal..45
1 Launcher, rocket, 2.36"
1 Pistol, automatic, Cal..45
6 Rifle, Cal..30 M1
1 Trailer, 1/4 ton, cargo
2 Trailer, 1-ton cargo
2 Trailer, 1-ton, commodities
1 Trailer, fuel-servicing, 600-gal tank 4-3
2 Semi-trailer, 6-ton gross, van mod lo
1 Truck, 1/4-ton
1 Truck, 3/4-ton
2 Truck, 1-1/2-ton 4x4 tractor
4 Truck, 2-1/2-ton cargo

ARTILLERY SECTION
1 - 0 - 17

pl 1st Lt Artillery Maint & Ammun (4808)
1 T/Sgt Mechanic Arty (972)
1 S/Sgt Mechanic Arty (972)
2 T/4 Mech AAA (915)
2 T/4 Mech AAA (915)
2 T/5 Mech AAA (915)
1 T/5 Mech Arty Hvy (914)
1 T/4 Mech Arty Hvy (914)
1 T/5 Mech Art; Lt (913)
2 T/4 Mech Arty Lt (913)
2 T/5 Mech Arty Lt (913)
1 T/4 Mech turret (927)
1 T/5 Mech turret (927)
13 Carbine, Cal..30
2 Gun, Sub, Cal..45
1 Launcher rocket 2.36"
1 Pistol automatic Cal..45
3 Rifle, Cal..30 M1
1 Trailer, 1/4-ton cargo
2 Trailer, 1-ton cargo
1 Truck, 1/4-ton
1 Truck, 3/4-ton
2 Truck, 2-1/2-ton cargo

INSTRUMENT SECTION
O - 0 - 18

1 T/Sgt Repairman instrument (922)
1 S/Sgt Repairman instrument (922)
1 T/4 Repairman control system, light, AAA (922)
(drl,)2 T/5 Repairman, control system, light, AAA (922)
1 T/5 Repairman, director, heavy, AAA (917)
1 T/4 Repairman, director, heavy, AAA (917)
1 T/5 Repairman, director, light, AAA (918)
1 T/4 Repairman, director, light, AAA (918)
2 T/5 Repairman, director, light AAA (918)
drl T/5 Repairman, height finder (921)
1 T/5 Repairman instrument (922)
2 T/4 Repairman Watch (301)
1 T/5 repairman control system, heavy, AAA (919)
1 T/4 Repairman control system, heavy, AAA (919)
1 T/5 repairman control system, light (920)
16 Carbine, Cal..30
2 Rifle, Cal..30 M1
2 Trailer, 1-ton cargo
1 Truck, 2-1/2-ton instrument bench
1 Truck, 2-1/2-ton instrument repair

SMALL ARMS SECTION
O - 0 - 11

1 T/Sgt Repairman small arms (963,964)
1 S/Sgt Repairman small arms (963,964)
1 T/4 Repairman small arms (963,964)
ds2 T/5 Repairmen small arms (963,964)
8 Carbine, Cal..30
1 Gun, submachine, Cal..45
2 Rifle, Cal..30 M1
2 Trailer, 1-ton cargo
1 Truck, 3/4-ton
2 Truck, 2-1/2-ton, small arms repair

AUTOMOTIVE SECTION
1 - 0 - 76

1 1st Lt Automotive Maint & Repair (4805)
1 W/Sgt Foreman auto repair shop (337)
1 S/Sgt Asst Foreman auto repair shop (337)
2 S/Sgt Mechanician automotive & tank (912)
1 T/5 Electrician automotive & tank (912)
1 T/5 Electrician automotive & tank (912)
(drl)2 T/5 Electrician automotive & tank (912)
2 T/5 Inspector motor (413)
2 T/5 Leather & Canvas Worker (869)
2 T/5 Mechanic automotive & half-track (965)
8 T/5 Mechanic automotive & half-track (965)
8 T/4 Mechanic
(sal,sal,crl)2
16 T/5 Mechanic automotive & half-track (965)
1 T/4 Mechanic carburetor (926)
1 T/5 Mechanic carburetor (926)
drl T/5 Mechanic chassis track vehicle (908)
1 T/5 Mechanic chassis track vehicle (908)
1 T/5 Mechanic engine track vehicle gas (909)
1 T/5 Mechanic engine track vehicle gas (909)
1 T/5 Mechanic engine track vehicle diesel (910)
1 T/5 Mechanic engine track vehicle diesel (910)
1 T/5 Mechanic tank (966)
2 T/4 Mechanic tank (966)
2 T/5 Mechanic tank (966)
(drl)4 T/5 Mechanic tractor (319)
1 T/4 Mechanic tractor (319)
2 T/5 Mechanic tractor (319)
1 T/5 Painter automotive (113)
1 T/4 Repairman, auto body (301)
1 T/5 Repairman, auto body (301)
1 T/4 Repairman, radiator (172)
drl T/5 Repairman, radiator (172)
1 T/5 Tire Inspector & repairman (240)
1 T/5 Welder (256)
1 T/4 Welder (256)
esl T/5 Welder (256)
rl2 Pvt/Pfc basic (521)
27 Carbine, Cal..30
1 Gun, mach, HB Cal..50 Flex
3 Gun, submachine, Cal..45
1 Launcher rocket 2.36"
1 Pistol, auto, Cal..45
16 Rifle, Cal..30 M1
3 Trailer, 1/4-ton cargo
6 Trailer, 1-ton cargo
2 Truck, 1/4-ton
1 Truck, 3/4-ton
5 Truck, 2-1/2-ton cargo
1 Truck, 2-1/2-ton electrical repair

EVACUATION SECTION
1 - 0 - 24

pl 2nd Lt Evacuation (4620)
1 T/Sgt Rigger (189)
1 S/Sgt Rigger (189)
esl Pvt/Pfc Driver, truck, Mint (345)
4 T/4 Mechanic automotive & half-track (965)
(wr3,wrl,wr4)
5 T/5 Operator, wrecker (529)
r2 Pvt/Pfc Basic (521)
6 Carbine, Cal..30
4 Gun, machine HB Cal..50 flex
1 Gun, submachine, Cal..45
5 Launcher, rocket, 2.36"
1 Pistol, auto, Cal..45
7 Rifle, Cal..30 M1
1 Trailer, 1/4-ton cargo

1 Truck, 1/4-ton
3 Truck, heavy wrecker
1 Truck, trailer, combination tank transporter, heavy
1 Vehicle, tank recovery, heavy

NOTE: a. Driver, truck, 1-1/2-ton 4x4, Tractor
b. Driver, truck, 3/4-ton
c. Armed with carbine, cal..30 unless otherwise indicated
d. Driver, truck, 2-1/2-ton
e. Driver, truck, 1/4-ton
p. Armed with Pistol, Cal..45
r. Armed with Rifle, cal..30 M1903
s. Armed with Gun, submachine, Cal..45
v. Drives Vehicle, recovery, heavy
w. Driver truck, heavy wrecker
x. Driver truck and Trailer, tank transporter, heavy

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ORDNANCE MEDIUM AUTOMOTIVE MAINTENANCE COMPANY
T/O & E 9-127
5 - 0 - 128

HEADQUARTERS SECTION
2 - 0 - 20

1 Capt Comdg Officer (4805)
1 2d Lt Mess Supply & Auto (4113)
1 M/Sgt Master Mechanic (342)
1 1st/Sgt (585)
1 S/Sgt Mess (824)
1 S/Sgt Motor (813)
1 S/Sgt Supply (821)
a1 Sgt Company Clerk (405)
1 T/5 Bugler Messenger (803)
b1 T/4 Shop Clerk (405)
1 T/5 Carpenter (050)
2 T/4 Cook (060)
2 T/5 Cook (060)
2 Pvt/Pfc Cooks Helper (521)
c1 T/5 Driver Truck Light (345)
4 Pvt/Pfc Basic (521)
7 Pistol Auto Cal..45 M1911A1
9 Carbine Cal..30
1 Gun mach Cal..50 HB Flex
3 Gun submach Cal..45
1 Launcher Rocket
3 Rifle Cal..30 M1903
2 Trailer 1-ton 2 wheel cargo
1 Trailer 250 Gal Water
2 Truck 1/4-ton 4x4
1 Truck 3/4-ton 4x4 Wpns Carr
2 Truck 2 1/2-ton 6x6 Cargo

SMALL ARMS SECTION
0 - 0 - 7

1 T/Sgt Repairman Small Arms (903)
3 T/4 Repairman Small Arms (903)
3 T/5 Repairman Small Arms (903)
1 Pistol Auto Cal..45 M1911A1
4 Carbine Cal..30
2 Rifle Cal..30 M1903
1 Trailer 1-ton 2 wheel cargo
1 Truck 2 1/2-ton 6x6, Small Arms Repair

SUPPLY SECTION
1 - 0 - 15

1 1st Lt Supply Automotive (4440)
1 T/Sgt Supply (821)
1 S/Sgt Supply (821)
2 T/4 Clerk Parts Chief (348)
5 T/5 Clerk Parts (348)
2 Pvt/Pfc Clerk Parts (348)
b1 T/5 Typist (405)
1 Pvt/Pfc Driver Truck Light (345)
2 Pvt/Pfc Basic (521)
3 Pistol Auto Cal..45 M1911A1
5 Carbine Cal..30
2 Gun Mach Cal..50 HB Flex
2 Gun Submach Cal..45
6 Rifle Cal..30 M1903
7 Trailer 1-ton 2 wheel cargo
1 Truck 1/4-ton 4x4
1 Truck 3/4-ton 4x4 Wpns Carr w/winch
7 Truck 2 1/2-ton 6x6 Cargo

SHOP PLATOON
1 - 0 - 43

(Personnel divided into 2 Platoons)

2 1st Lt Platoon Commander (4805)
2 T/Sgt Foreman Auto Repair Shop (337)
2 S/Sgt Asst Foreman Auto Repair Shop (337)
1 T/4 Blacksmith (024)
1 T/5 Blacksmith (024)
2 Pvt/Pfc Driver Truck Light (345)
5 T/5 Driver Heavy Wrecker (965)
d1 T/3 Mechanic Carburetor & Ignition (926)
d2 T/4 Mechanic Carburetor & Ignition (926)
d1 T/5 Mechanic Carburetor & Ignition (926)
2 T/3 Inspector Motor (413)
1 T/5 Leather and Canvas Worker (609)
13 T/3 Mechanic Wheel Vehicle Auto (965)
15 T/4 Mechanic Wheel Vehicle Auto (965)
26 T/5 Mechanic Wheel Vehicle Auto (965)
1 T/5 Painter Automobile (144)
1 Pvt/Pfc Painter Automobile (144)
1 T/4 Repairman Auto Body (202)
1 T/5 Repairman Auto Body (202)
1 T/4 Repairman Radiator (172)
1 T/5 Repairman Radiator (172)
1 T/3 Welder General (256)
2 T/4 Welder General (256)
1 T/5 Welder General (256)
1 T/3 Machinist (134)
e1 T/4 Machinist's Helper (431)
6 Pistol Automatic Cal..45 M1911A1
64 Carbine, Cal..30
2 Gun, mach, Cal..50 HB Flex
4 Gun, submach, Cal..45
2 Launcher Rocket
14 Rifle, Cal..30 M1903
6 Trailer 1-ton 2 wheel cargo
2 Truck, 1/4-ton 4x4
2 Truck 3/4-ton 4x4 Wpns Carr w/winch
6 Truck, 2 1/2-ton 6x6 cargo
4 Truck, 4-ton Wrecker 6x6 Diamond-T
1 Truck 10-ton Wrecker 6x6 Al W. Laf.

SHOP PLATOON
1 - 0 - 43

NOTE: a. Also "classification specialist" (275).
b. Also "clerk general" (055).
c. Also "mail clerk" (056).
d. Also "Electrician, truck & wheeled vehicle" (912).
e. Also "Mechanic, wheeled vehicle automotive" (965).
Officers and first three grade NCO's armed w/ pistol auto Cal..45 M1911A1
Messenger and drivers truck light to be armed w/ submachine gun Cal..45; also driver 1/4-ton.
Rifle M1903 to be issued as indicated -- to those who qualify as "sharpshooters or Expert" only
Carbine Cal..30 to be issued as indicated.

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ORDNANCE HEAVY AUTOMOTIVE MAINTENANCE COMPANY
T/O & E 9-197 6 - C - 195

HEADQUARTERS SECTION
3 - 0 - 46

pl Maj Company Commander (4805)
ypl Capt. Shop (4805)
pl 2nd Lt Mess Motor Personnel (4113)
pl M/Sgt Master Mechanic (342)
pl 1st/Sgt (585)
pl T/Sgt Inspector, motor (413)
1 S/Sgt Mess (824)
1 S/Sgt Motor (813)
1 S/Sgt Supply (821)
al Sgt Company Clerk (502)
4 Sgt Rigger (189)
al Cpl Clerk typist (405)
1 Prt/Pfc Barber (022)
1 T/4 Clerk, shop headquarters (501)
2 T/5 Clerk typist (405)
2 T/4 Cook (060)
2 T/5 Cook (060)
2 Prt/Pfc Cook's helper (521)
3 T/5 Driver truck heavy (245)
s3 T/5 Driver truck light (345)
pl T/3 Inspector motor (113)
1 T/5 Mail Orderly (056)
4 T/5 Operator wrecker (529)
10 Prt/Pfc Basic (521)
45 Carbine, Cal..30
1 Gun, mach, hvy Cal...50 flex
4 Gun, submach, Cal..45
2 Launcher rocket 2.36"
9 Pistol, Cal..45
1 Trailer, 1/4-ton
1 Trailer, 1-ton
1 Trailer, Water tank 250 gal 1 ton
1 Truck 3/4-ton Wpns Carr w/winch
5 Truck 2 1/2-ton cargo
2 Truck 4-ton wrecker
2 Truck, Wrecking heavy
3 Truck, 1/4-ton

AUTOMOTIVE SECTION
1 - 0 - 91

pl 1st Lt Maint & Repair Auto (4805)
pl T/Sgt Foreman Auto Repair Shop (337)
2 S/Sgt Asst Foreman Auto Repair Shop (337)
1 T/4 Clerk parts (348)
1 T/3 Electrician track & whl veh (912)
3 T/4 Electrician track & whl veh (912)
2 T/5 Electrician track & whl veh (912)
18 T/3 Mechanic Auto Wheel Veh (965)
20 T/4 Mechanic Auto Wheel Veh (965)
36 T/5 Mechanic Auto Wheel Veh (965)
2 T/5 Mechanic motorcycle (138)
2 T/4 Mechanic carburetor (926)
2 T/5 Mechanic carburetor (926
1 T/4 Keeper toolroom (242)
92 Carbine, Cal..30
2 Gun mach HB Cal..50 flex
1 Launcher, rocket 2.36"
2 Pistol, Cal..45
8 Trailer, 1-ton
xl Truck 3/4-ton Wpns Carr w/winch
2 Truck 2 1/2-ton cargo

SERVICE SECTION
1 - 0 - 43

pl 1st Lt Maint & Repair Auto (4805)
pl T/Sgt Machinist (114)
1 S/Sgt Repairman Small Arms (903)
1 S/Sgt Mechanic Engine Whl Veh (905)
2 T/5 Blacksmith (021)
1 T/4 Carpenter general (050)
1 T/5 Carpenter general (050)
1 T/5 Clerk parts armament (648)
1 T/5 Electrician general (078)
1 T/3 Machinist (114)
2 T/4 Machinist (114)
1 T/5 Machinist (114)
1 T/3 Mech engine track veh (Diesel) (910)
1 T/3 Mech engine truck veh (Gasoline, (905)
1 T/3 Mech engine wheel veh (905)
2 T/4 Mech engine wheel veh (905)
3 T/5 Mech engine wheel veh (905)
1 T/4 Mech storage battery (912)
2 T/5 Painter automobile (114)
2 T/4 Repairman auto body (201)
2 T/5 Repairman auto body (201)
1 T/4 Repairman canvas cover (044)
1 T/5 Repairman canvas cover (044)
2 Prt/Pfc Repairman canvas cover (044)
1 T/4 Repairman radiator (172)
2 T/4 Repairman small arms (903)
2 T/5 Repairman small arms (903)
1 T/5 Repairman tire (240)
1 T/3 Welder general (256)
2 T/4 Welder general (256)
2 T/5 Welder general (256)
44 Carbine, Cal..30
1 Gun mach HB Cal..50 flex
1 Launcher rocket 2.36"
2 Pistol, Cal..45
1 Semitrailer van 6-10 ton gross
3 Trailer, 1-ton
3 Truck, 2 1/2-ton cargo
1 Truck, 2 1/2-ton machine shop
1 Truck, 2 1/2 ton small arms repair

SUPPLY SERVICE
1 - 0 - 15

pal 1st Lt Supply General (4000)
pl T/Sgt Supply (821)
1 S/Sgt Supply (821)
1 Sgt Clerk, parts (348)
5 T/5 Clerk parts (348)
1 T/4 Clerk stock record (835)
2 T/5 Clerk stock record (835)
2 T/5 Clerk typist (405)
2 Pvt/Pfc Basic (521)
16 Carbine, Cal..30
1 Launcher rocket 2.36"
2 Pistol, Cal..45
5 Semitrailer van 6-10 ton gross
3 Truck, tractor 4-5 ton

NOTE: All personnel armed with carbines Cal..30 unless otherwise indicated
a. - Also classification specialist (275)
p. - Armed with pistol Cal..45
s. - Armed with gun submachine Cal...45
x. - Equipped with A-frame
z. - Also company supply officer
y. - Also Company Exec Officer

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ORDNANCE HEAVY MAINTENANCE COMPANY
6 - 1 - 211

COMPANY HEADQUARTERS
2 - 0 - 35

1 Major
a1 Capt.-
1 1st Sgt (585)
1 M/Sgt (342)
1 S/Sgt Mess (824)
1 S/Sgt Motor (813)
1 S/Sgt Unit Supply (821)
1 Sgt Company Clerk (405)
sal T/5 Clerk, mail (056)
1 T/5 Clerk typist (405)
2 T/5 Cook (060)
2 T/5 Cook (060)
2 Pvt/Pfc Cooks helper (521)
1 T/5 Dispatcher (210)
sal Pvt/Pfc Driver light truck (345)
del Pvt/Pfc Driver light truck (345)
r6 Pvt/Pfc Driver light truck (345)
1 T/4 Mechanic auto (014)
1 T/5 Mechanic auto (014)
sal T/5 Messenger (075)
9 Pvt/Pfc Basic (521)
27 Carbine, Cal..30
1 Gun, machine, Cal..50 HB Flex
5 Gun, submach, Cal..45
5 Rifle, Cal..30 M1903
2 Trailer, 1-ton 2-wheel cargo
1 Trailer, 250-gallon, water
1 Trailer, 1/4-ton, 2-wheel cargo
3 Truck, 1/4-ton 4x4
2 Truck, 3/4-ton 4x4
1 Truck, 1-1/2-ton
4 Truck, 2-1/2-ton cargo

SERVICE AND SUPPLY PLATOON
0 - 1 - 18

SERVICE SECTION
1 - 0 - 21

a1 1st Lt
1 T/Sgt Section Chief, Service (134)
1 S/Sgt Asst Chief, Service (256)
1 Cpl Clerk stop (437)
1 T/5 Blacksmith (026)
1 T/5 Carpenter (050)
1 T/5 Electrician, general (078)
1 T/5 Leather & canvas worker (609)
2 T/4 Machinist (114)
br2 T/5 Machinist (114)
(br1)2 Pvt/Pfc Machinist (114)
1 T/5 Painter (114)
1 Pvt/Pfc Painter (114)
1 T/4 Welder, general (256)
br2 T/5 Welder, general (256)
1 T/4 Welder, armor plate (923)
1 T/5 Welder, armor plate (923)
16 Carbine, Cal..30
1 Generator, 10 kw
6 Rifle, Cal..30 M1903
2 Trailer, 1-ton 2-wheel cargo
1 Truck, Machine Shop Load "A"
1 Truck, Machine Shop Load "B"
1 Truck, Machine Shop Load "C"
1 Truck, Machine Shop Load "D"
2 Truck, welding

SUPPLY SECTION
0 - 1 - 18

a1 Warrant Officer
1 T/Sgt Chief of Section, Supply (821)
1 S/Sgt Asst Chief supply (821)
1 T/5 Clerk typist (405)
3 T/5 Clerk parts (348)
3 Pvt/Pfc Clerk parts (348)
1 T/5 Clerk stock (324)
1 Pvt/Pfc Clerk stock (324)
2 T/4 Clerk, stock control (374)
r2 T/5 Driver heavy truck (245)
1 T/4 Receiving & shipping checker (186)
ryl T/5 Receiving & shipping checker (186)
1 Pvt/Pfc Receiving & shipping checker (186)
16 Carbine, Cal..30
2 Gun, machine, Cal..50 HB Flex
3 Rifle, Cal..30 M1903
2 Semi-trailer, combination animal and cargo
4 Semi-trailer, 6-ton van
3 Truck-tractor 6-9 ton

ARMAMENT PLATOON
1 - 0 - 64

ARTILLERY SECTION
1 - 0 - 34

1 1st Lt
1 T/Sgt Section Chief Arty (943)
1 S/Sgt Asst Section Chief Arty (914)
1 T/5 Mechanic Arty AA (915) (br2)5
2 T/4 Mechanic Arty AA (915)
2 T/5 Mechanic Arty AA (915)
1 Pvt/Pfc Mechanic Arty AA (915)
1 T/5 Mechanic Arty Hvy (914)
2 T/4 Mechanic Arty Hvy (914)
3 T/5 Mechanic Arty Hvy (914)
1 T/5 Mechanic Arty LA (913)
3 T/4 Mechanic Arty LA (913)
(brl)6 T/5 Mechanic Arty LA (913)
6 Pvt/Pfc Mechanic Arty Light (913)
1 T/5 Mechanic turret (907)
1 T/4 Mechanic turret (907)
1 Pvt/Pfc Mechanic turret (907)
rl T/5 Wrecker operator (529)
33 Carbine, Cal..30
1 Gun, machine, Cal..50 HB Flex
2 Rifle, Cal..30 M1903
1 Trailer, 1-ton 2-wheel cargo
1 Truck, Artillery Repair
1 Truck, h-avy wrecker
1 Crane, veh mtd, heavy

ARMOR SECTION
0 - 0 - 15

1 S/Sgt Chief of Section Armorer (903)
1 Sgt Asst Chief Armorer (903)
4 T/4 Repairman, small arms (903)
5 T/5 Repairman, small arms (903)
4 Pvt/Pfc Repairman, small arms (903)
13 Carbine, Cal..30
2 Rifle, Cal..30 M1903
2 Truck, Small Arms Repair

INSTRUMENT SECTION
0 - 0 - 15

1 T/Sgt Chief of Section (992)
br1 T/5 Machinist (114)
1 T/4 Repairman control system Heavy (920)
1 T/5 Repairman control system Light (919)
1 T/3 Repairman director heavy (917)
br1 T/5 Repairman director light (916)
2 T/4 Repairman fire control (922)
2 T/5 Repairman fire control (922)
2 Pvt/Pfc Repairman fire control (922)
1 T/5 Repairman height finder (921)
1 T/4 watchmaker (381)
1 T/5 watchmaker (381)
13 Carbine, Cal..30
2 Rifle, Cal..30 M1903
1 Truck, Instrument Repair Load "A"
1 Truck, Instrument Bench M25

TANK REPAIR PLATOON
2 - 0 - 73

REPAIR SECTION
1 - 0 - 59

1 1st Lt
1 T/Sgt Chief of Section Automotive (137)
2 S/Sgt Motor Inspector (413)
1 T/4 Electrician track and wheel vehicle (932)
(br1)2 T/5 Electrician track and wheel vehicle (932)
1 Pvt/Pfc Electrician track and wheel vehicle (932)
1 T/5 Mechanic carburetor (414)
2 T/5 Mechanic chassis track vehicle (908)
3 T/4 Mechanic chassis track vehicle (908)
3 T/5 Mechanic chassis track vehicle (908)
4 Pvt/Pfc Mechanic chassis track vehicle (908)
1 T/4 Mechanic chassis wheel vehicle (906)
1 T/5 Mechanic chassis wheel vehicle (906)
2 T/5 Mechanic engine track vehicle diesel (910)
1 Pvt/Pfc Mechanic engine track vehicle diesel (910)
2 T/5 Mechanic engine track vehicle (909)
3 T/4 Mechanic engine track vehicle (909)
2 T/5 Mechanic engine track vehicle (909)
3 Pvt/Pfc Mechanic engine track vehicle (909)
1 T/3 Mechanic engine wheeled vehicle (905)
brl T/5 Mechanic engine wheeled vehicle (905)
1 T/3 Mechanic half-track and automobile (965)
3 T/4 Mechanic half-track and automobile (965)
3 T/5 Mechanic half-track and automobile (965)
3 Pvt/Pfc Mechanic half-track and automobile (965)
1 T/3 Mechanic tractor (319)
1 T/4 Mechanic tractor (319)
1 T/5 Mechanic tractor (319)
1 Pvt/Pfc Mechanic tractor (319)
2 T/5 Repairman, radiator (174)
brl T/5 Toolroom Keeper (242)
1 T/5 Welder, general
1 T/4 Welder, armor plate (923)
brl T/5 Welder, armor plate (923)
rl T/5 Wrecker operator (529)
1 Pvt/Pfc Wrecker operator (529)
55 Carbine, Cal..30
4 Gun, mach, Cal..50 HB Flex
5 Rifle, Cal..30 M1903
1 Trailer, 2-1/2-ton cargo
1 Truck, Auto Repair Load "A"
1 Truck, Auto Repair Load "B"
1 Truck, Electrical Repair
1 Truck, Heavy Wrecker

EVACUATION SECTION
1 - 0 - 14

1 2nd Lt
1 S/Sgt Chief Rigger (189)
sal T/5 Mechanic chassis wheeled vehicle (906)
2 Pvt/Pfc Mechanic chassis wheeled vehicle (906)
1 T/4 Mechanic, engine wheeled vehicle (905)
1 Pvt/Pfc Mechanic, engine wheeled vehicle (905)
r2 T/5 Rigger (189)
2 Pvt/Pfc Rigger (189)
r2 T/5 Wrecker Operator (529)
2 Pvt/Pfc Wrecker o,erator (529)
16 Carbine, Cal..30
2 Gun, machine, Cal..50 HB Flex
1 Gun, submachine, Cal..45
4 Rifle, Cal..30 M1903
1 Truck, 1/4-ton 4x4
2 Truck, heavy wrecker
2 Truck, trailer, quadruple tank transporter, heavy

NOTE: a. Supply & Clerical
b. Drives Ordnance Tecnnical Vehicle
c. Armed with Carbine, Cal..30 unless otherwise indicated.
d. Drives Truck, 3/4-ton
e. Drives Truck, 1/4-ton
f. Drives Truck, 2-1/2-ton
r. Armed with Rifle, Cal..30 M1903
s. Armed with submachine gun, Cal..45
y. Driver, truck tractor, 4-5-ton
x. Shop officer
z. AJAG serves as Exec Officer

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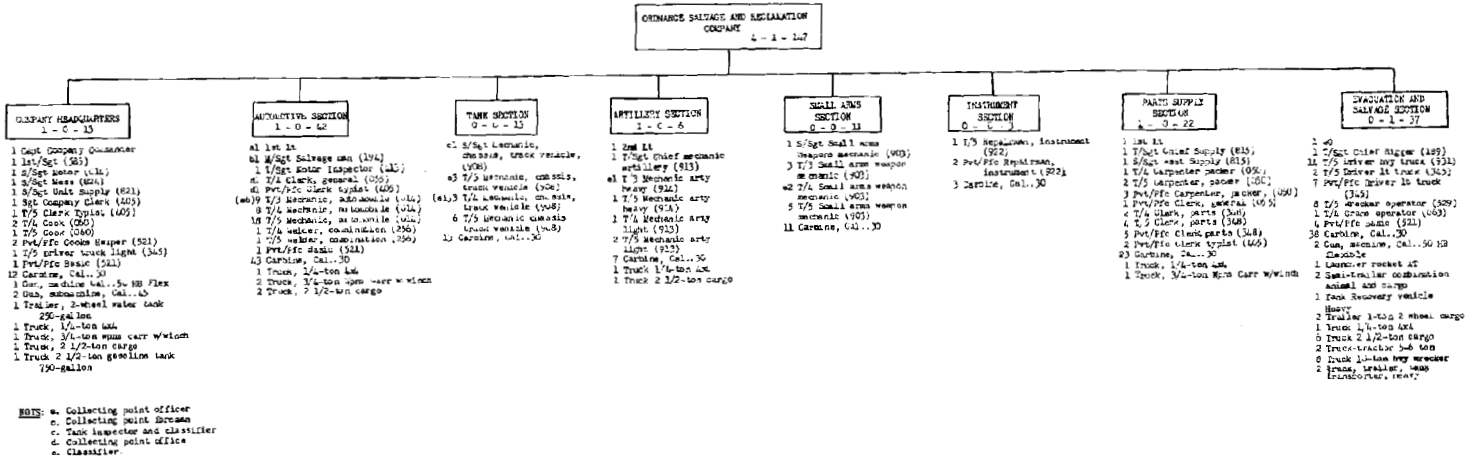

NOTE: a. Collecting point officer
c. Collecting point foreman
c. Tank inspector and classifier
d. Collecting point office
e. Classifier

HEADQUARTERS THE GENERAL BOARD
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ORDNANCE BALLISTIC AND TECHNICAL SERVICE DETACHMENT
T/O & E 9-500 2 - 0 - 12

1 Maj. Detachment Commander (7539)
1 Capt. Asst Detachment Commander (7539)

Crew A

abl M/Sgt Radio Repairman (174)
cl T/3 Clerk Typist (405)
dl T/4 Ammunition NCO (505)
fl T/4 Sky-screen operator (170)
f2 T/5 Sky-screen operator (170)

Crew B

afl T/Sgt Sky-screen operator (170)
bl T/3 Radio Repairman (174)
fl T/4 Computer mathematician (170)
dl T/5 Artillery mechanic, heavy (914)
el T/4 Automobile Mechanic (914)
fl T/5 Sky-screen operator (170)

NOTE: a. Crew Chief
b. Chronograph Operator
c. Computer
d. Pit Man
e. Sky-screen Operator
f. Engineering Aid

Equipment

9 Carbine, Cal..30
1 Gun, sub machine Cal..45
4 Pistol, automatic Ca...45
2 Trailer, 1/4-ton
1 Trailer, 1-ton
2 Truck, 1/4-ton
1 Truck, 2-1/2-ton cargo w/Winch
1 Truck, 2-1/2-ton machine shop
1 Truck 2-1/2-ton (approx) spec build to provide 6 ft. head space as calibration truck
3 Chronograph
4 Sky-screens
4 Amplifiers
1 Set, Pull-over gage, complete

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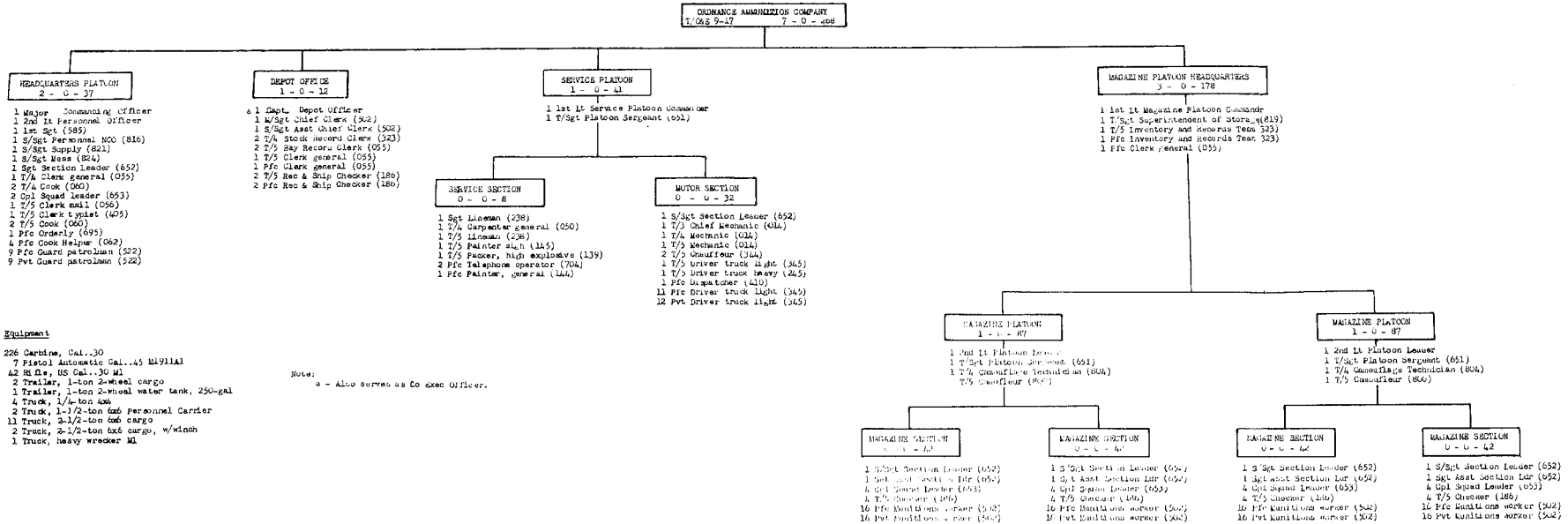
Appendix No. 39



Equipment

226 Carbine, Cal..30
7 Pistol Automatic Cal..45 M1911A1
42 Rifle, US Cal..30 M1
2 Trailer, 1-ton 2-wheel cargo
1 Trailer, 1-ton 2-wheel water tank, 250-gal
4 Truck, 1/4-ton 4x4
2 Truck, 1-1/2-ton 6x6 Personnel Carrier
11 Truck, 2-1/2-ton 6x6 cargo
2 Truck, 2-1/2-ton 6x6 cargo, w/winch
1 Truck, heavy wrecker M1

Note:
a - Also serves as Co exec Officer.

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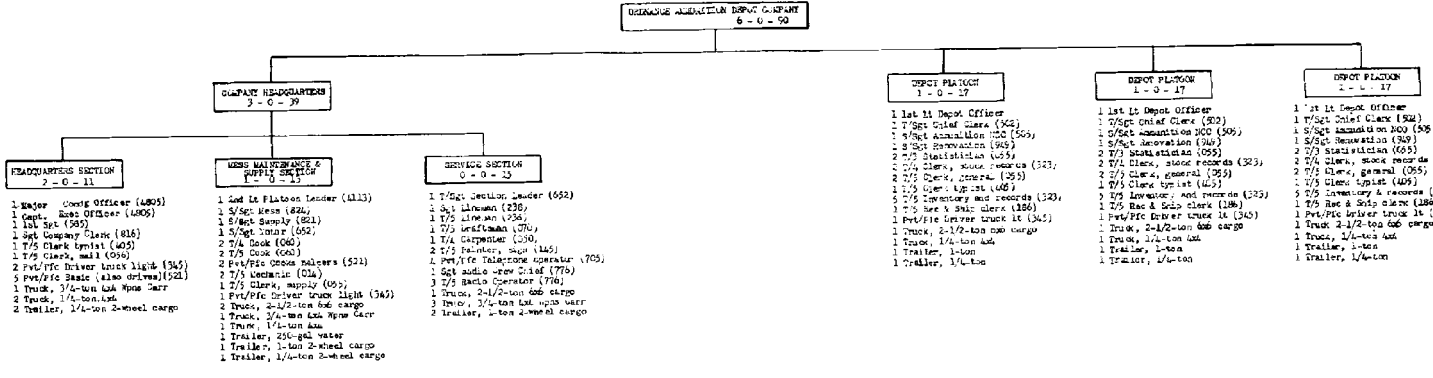

Appendix No. 44

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OFFICE OF THE ORDNANCE OFFICER
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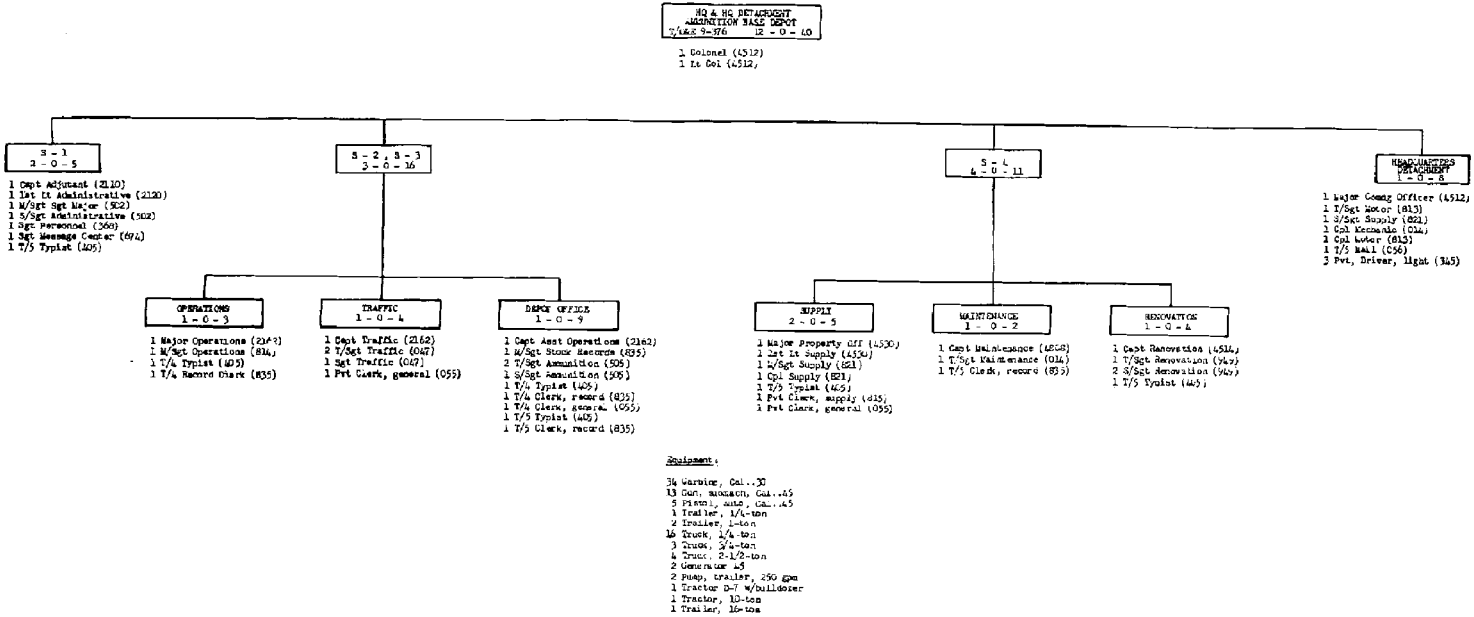
20 DEC 1945



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