ARMY LINEAGE SERIES

INFANTRY

Part I:

Regular Army

by
John K. Mahon
and
Romana Danysh

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Foreword

In all of the major wars of the United States from the American Revolution through the conflict in Southeast Asia the dominant combat arm of the United States Army has been the infantry. It was natural therefore in producing an Army Lineage Series to devote the first published volume to that arm. Appearing in 1953, the first infantry lineage book has long been out of print, and subsequent organizational developments have amply warranted a revised and enlarged edition and its publication in more durable form. As explained in the Preface, *Infantry* is now to appear in two parts, this one with Regular Army and the one to come with Army National Guard and Army Reserve lineages and heraldic data; the historical narrative on the branch is to be included in both. In addition to the second parts of this work and of the *Armor-Cavalry* volume, other volumes on artillery and on divisions and separate brigades are now being prepared.

The Army Lineage Series is designed to foster the *esprit de corps* of United States Army units, and within the Army it is intended for use at all levels of command, in service schools, and in training programs. The short history of the infantry that precedes the lineages in this volume is an illuminating and thoroughly researched survey that should appeal to everyone interested in military history.

Washington, D.C.
15 April 1971

JAMES L. COLLINS, JR.
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The Authors

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Preface

Infantry are those troops that fight on foot and that rely chiefly upon the small arms carried by individuals. This volume on infantry in the United States Army deals with the organization of foot units at the level of regiments and below. Infantry brigades and divisions will be covered in a subsequent volume in the Army Lineage Series.

Although the narrative portion discusses infantry in the reserve components as well as in the Regular Army, this volume (Part I) includes lineages only for Regular Army parent regiments organized under the Combat Arms Regimental System (CARS) and for those of their elements that have been active since the establishment of CARS. Army National Guard and Army Reserve infantry lineages will be published in the near future in a separate volume (Part II), because infantry units of all three components are far too numerous to be included in one book. Lineages for Army Reserve elements of Regular Army parent regiments which appear in this volume will be reprinted in the second part, so that a complete set of reserve infantry lineages will be available in that volume.

In the first edition of this book, published in 1953, the narrative ended with World War II and most of the lineages were carried only to the outbreak of the Korean War. Since that time several major reorganizations and the adoption of CARS have significantly changed infantry organization, while many infantry units have earned additional honors in Korea and Vietnam. In the present volume, the narrative has been brought up to date through 31 December 1969 and the lineages through 31 December 1970. Only those Vietnam campaign participation credits that have been confirmed in Department of the Army General Orders are listed, but all unit decorations reported up to the time the book went to the printer are included.

The 1953 edition was prepared by Dr. Mahon, and his narrative from the American Revolution through World War II is reprinted in this volume with only minor changes. Miss Danysh wrote the narrative from 1945 to the end and selected the illustra-

tions to accompany the text. The Organizational History Branch (OHB) of the Office of the Chief of Military History (OCMH) is responsible for the determination of official unit lineages and honors. The lineages which appear in this volume are the result of research done by many members of OHB, past and present. Miss Danysh brought all the lineages up to date and added the Vietnam honors.

Descriptions of coats of arms, historic badges, distinctive insignia, and other heraldic items approved for infantry regiments are included with the lineages. These descriptions as well as the color illustrations of the heraldic items were furnished by the Institute of Heraldry, U.S. Army. The authors are particularly grateful to Dr. Opal V. Landrum, Miss Ellen Bantz, and Mr. Charles A. Reynolds.

Miss Janice E. McKenney of OHB compiled the unit bibliographies with the assistance of Mr. Charles E. Dornbusch's comprehensive bibliography entitled *Histories, Personal Narratives, United States Army* (Cornwallville, New York: Hope Farm Press, 1967). Most of the unit histories cited are unofficial works that were prepared outside the Department of the Army. They are, nevertheless, valuable sources of additional information about the units.

The authors want to thank Brig. Gen. Hal C. Pattison, who as Chief of Military History took a personal interest in the publication of this volume and generously shared his broad professional knowledge and experience. All members of the OCMH review panel for the revised edition (Dr. Stetson Conn, then Chief Historian, chairman; Mr. Joseph R. Friedman, Editor in Chief; Col. Robert H. Fechtman, Chief, Historical Services Division; Mr. John W. Wike, Deputy Chief, Historical Services Division; Mrs. Mary Lee Stubbs, Chief, OHB; Mr. Stanley Russell Connor, Deputy Chief, OHB; and Dr. Ernest F. Fisher, Jr., General History Branch) were most helpful, and their constructive criticism of the draft improved the final product considerably.

Special thanks are given to Dr. Conn, who took time from a very busy schedule to make valuable oral and written comments, and to Mrs. Stubbs and Mr. Connor, coauthors of the *Armor-Cavalry* volume, published in 1969 in the Army Lineage Series. In addition to reviewing the narrative, Mrs. Stubbs provided guidance and inspiration for the entire revision project, while Mr. Connor carefully read draft after draft and made numerous excellent suggestions.

Helpful comments and suggestions were also made by Col.

Wolfred K. White, formerly Chief, Histories Division; Mr. Charles B. MacDonald, Chief, Current History Branch; Mr. John B. Wilson, OHB; Col. S. B. Sightler, Jr., USA, Retired; and the United States Army Infantry School. The manuscript was edited by Mr. David Jaffé, Chief of the Editorial Branch, assisted by Mr. Bernard F. Halloran and Miss Christine A. Otten. We owe our thanks, too, to Mrs. Corinna L. Swan and Miss Maxine L. Pressley for expertly typing and retyping countless pages without losing their sense of humor.

Many others contributed to the completion of this volume by their knowledge, advice, co-operation, and encouragement—and to all of them we are sincerely grateful. For any and all errors in the narrative and in the lineages the authors alone are responsible.

Washington, D.C.
15 April 1971

JOHN K. MAHON
ROMANA DANYSH

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All illustrations are from the files of the Department of Defense except the picture on page 46, which was furnished by the National Archives and Records Service.

INFANTRY

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History of the Organization of the Infantry

The Era of Revolution

When Congress, on 14 June 1775, moved to take over the New England Army then besieging Boston as a Continental establishment, it also authorized ten companies of riflemen to be raised in Pennsylvania, Maryland, and Virginia as part of the new Continental Army. The next day, Congress appointed George Washington its Commander in Chief. Before leaving their home state, the six rifle companies from Pennsylvania were combined to form William Thompson's Rifle Battalion. This battalion and the other new rifle units organized rapidly and marched quickly to Boston.

The New England Army around Boston was composed of citizen soldiers. From the earliest times that type of soldier (male members of the community aged 18–45) had been required to associate in military organizations called "militia," and to train to defend his own locality. The militia system amounted to universal military training for men of active ages, but it was for local defense almost entirely. What is more, its enforcement rested altogether with the colonies. At the outbreak of the Revolution, all the colonies had military organizations operating, but their effectiveness was, in many cases, slight. It was the general ineffectiveness of the militia system, coupled with the need for centralized control, that brought about the creation of the Continental Army. Even so, on account of the militia, the colonies were able to utilize the experience of many veterans of England's colonial wars, familiar with the British Army and with the Indian modes of fighting it. These veterans were a very valuable asset.

In addition to the rifle units and the besieging army, Congress later authorized the raising and maintaining of Continental infantry battalions in the southern states. By December 1775 there were forty-nine infantry battalions (or regiments, for the two terms were virtually synonymous) and several unattached companies in the establishment.

The Continental Congress took the bulk of the army besieging Boston

in 1775 as it found it. Since most of the units were enlisted only for the calendar year, General Washington had either to attempt to re-enlist the soldiers already in service or to assemble a new army. During the fall of 1775, he strove to retain the Continental troops for the duration of the war, but was only successful in keeping part of them, and those for just one more year. A canvass of the officers of thirty-nine regiments in November showed that 751 officers were willing to continue their service for one year while 406 were not.

The legislators set the size of the army around Boston at 20,372 officers and men, to be organized into twenty-seven regiments and some separate companies. In this scheme New England, which had supplied forty-two in 1775, provided twenty-six Continental regiments in 1776. These twenty-six were numbered from the 2d through the 27th. They were designated Continental infantry in an attempt to transfer the men's loyalty from the states to the Congress.

The 1st Continental did not come from New England, but was built around the nine companies of riflemen then in William Thompson's Pennsylvania Rifle Battalion. Six of those companies were among the original units of the Continental Army, while the other three joined up later. All lost their specialization as rifle companies and the "regiment" became a standard element of the line.

Diverse units entered the Continental service, until by December 1776 there were eighty-two battalions of foot soldiers in all. During the year 1776 the following new units of battalion size were added to the establishment:

John Haslet's Delaware Regiment
James Livingston's Regiment, known as the 1st Canadian.
Moses Hazen's Regiment, known as the 2d Canadian, also as Congress' Own. (The two Canadian regiments contained about equal numbers of Canadians and New Englanders, but in January 1781 all foreigners in the service were transferred to Hazen's.)
Seth Warner's Regiment, officered by men who had participated in the invasion of Canada in 1775 and filled in part by Green Mountain Boys.
Samuel Miles' Pennsylvania Rifle Regiment
2d–12th Pennsylvania
1st–3d Georgia
1st–3d New Jersey
1st–9th Virginia
William Smallwood's Maryland Regiment

Charles Burrall's Connecticut Regiment
Samuel Elmore's Connecticut Regiment
Andrew Ward's Connecticut Regiment
The German Battalion

Their officers were appointed by Congress upon the recommendation of the Commander in Chief.

Late in 1776 it was once again necessary to cope with the dissolution of the army, but this time Congress took a new tack. It attempted to create a force to serve "during the present war." The legislators, observing the size of the army in being, set the new establishment at eighty-eight battalions, and apportioned these among all the states, so that Massachusetts had to provide the greatest number, fifteen, and Delaware and Georgia the smallest, one apiece. The eighty-eight battalions thus authorized were raised, equipped, and officered by the states. They were no longer known by Continental numbers, but carried instead numbers in the several state organizations. These state organizations were called "lines," the term used then for the regular infantry or "foot" that made up the line of battle of an army. The state lines together comprised the Continental Line. These should not be confused with the occasional state regiments which were raised on a permanent basis for local service only.

Although the regiments of the several states, arranged in the Continental Line, replaced the numbered regiments of 1776 (for example, the 9th Continental of 1776 became the 1st Regiment of the Rhode Island Line in 1777), the change was mostly one of name. The relationship of regiments to states remained about as it had been, and the appointment of officers continued to be in practice a collaboration between Congress, the Commander in Chief, and the states. Some of the Continental regiments became units in the state lines, while the men and officers of others transferred to the new regiments of 1777 without carrying the lineages of their 1776 outfits with them. The reorganization of the winter of 1776 did not radically alter the way men came into the Continental service or the manner in which regiments were organized, but it did place responsibility for procurement, replacement, and supply more squarely upon the states. This stimulated an increased effort in some states: for example, Massachusetts and Connecticut (although later overruled by Congress) voted to supplement the Continental pay of their lines.

In December 1776, while the reorganization of the American Army was taking place, the British advanced into New Jersey. Faced with this threat, Congress authorized Washington to add sixteen purely Continental battalions to the foot establishment. This action resulted in part from the fact that the states had been unutterably slow in supplying their

quotas for the eighty-eight line battalions. The term of service of the new sixteen was the same as that of the state lines, for three years or for the duration, but the similarity ended there. Washington raised them wherever he could, and appointed all their officers himself. The new Continental regiments were usually recruited within one state and, like all other units, had a hard struggle to reach full strength.

The organization established late in 1776 and early in 1777—containing as it did the state lines coupled with the sixteen additional Continental battalions—was a compromise between two needs. The first need was to utilize the powerful authority of the states, without which the conflict could not be prosecuted; the second was to have at least some regiments subject only to the will of the Commander in Chief.

All regiments sent out their own recruiting parties to prescribed areas, but to keep the fighting army up to strength was almost an impossible job. In consequence, during 1780, when the theater of war had moved south, Washington had not enough troops to act against the enemy with the part of the army that he commanded in person. Indeed, Congress found it necessary to consolidate the sixteen additional Continentals with the state lines, and, at the same time, to fuse the separate corps and the German Battalion into them too. More important, the infantry of the entire Continental establishment was reduced to fifty battalions by 1 January 1781. Such a reduction of the infantry was not dictated by strategy. On the contrary, it was the result of a grave failure, the failure to be able to maintain a larger number of regiments.

As in previous years, new units appeared in the roster of the Continental Army during the four years beginning with 1777. They were often the result of the reorganization of earlier outfits. From various sources came the following units:

1st–15th Massachusetts
5th New York
1st–6th Maryland
4th New Jersey
7th–10th North Carolina
10th–15th Virginia
The Corps of Invalids

These regiments and those in the preceding list made up the spine of the Army after 1776. They were not static; indeed some of the early ones provided elements of the others. Moreover, they supplied companies to special corps such as the legions of Henry Lee and Casimir Pulaski and the Corps of Light Infantry.

An understanding of the internal organization of the Continental

MAJ. GEN. FRIEDRICH WILHELM VON STEUBEN *training American soldiers at Valley Forge.*

infantry regiments and their components requires a short explanation of infantry tactics in the eighteenth century. To begin with, the heart of a battle as fought in western Europe was the line of infantry. It was this line which had to be broken if victory were to be won; hence the heavy fire of the artillery and the maneuvers of the cavalry were chiefly directed against it. It was common in Europe for the battle line to be formed on an open plain just outside of effective artillery range of the enemy. This meant that the two lines took their positions within 500 yards of each other, a distance at which, with modern firearms, few men would be left standing. This is the fact which makes it hardest for moderns to visualize early warfare. The effective range of the musket of the period was not over 100 yards and was often nearer 50. Fighting at such ranges, infantry organization was founded upon the need to form the line, control it in battle, renew it when decimated, and maneuver it so as to place the enemy at a disadvantage. But this was not the beginning and the end of infantry tactics, particularly in the rough, wooded terrain of North America.

In the colonial wars of the eighteenth century, the need had grown for infantrymen to precede the battle line. Their purpose was to screen the advance or retreat of their own main body, to break up the power of the volley from the enemy's line, and otherwise to soften that line for an assault with bayonets. Such an assault commonly began at a distance of fifty yards or less from the foe. As a result, one of two things took

place: either a savage hand-to-hand encounter, or a collapse and retreat by one of the lines. In any case, the infantrymen who moved out ahead of the line were trained to aim at individuals, to protect themselves by using cover, and to operate with an interval of several yards between them. They came to be called "light infantry." In contrast to their action, the line fired by volley without taking individual aim, remained standing unless ordered to do otherwise, and advanced with the men in it actually elbow to elbow up to the moment of the assault.

In the American service, as in the British, battalions and regiments were usually one and the same. An English regiment had ten companies in it, eight of them (the "battalion companies") for the line, the other two for special uses. These were the elite or "flank companies." One called the "grenadier company" was composed of men picked for their strength and courage. As often as not (for instance, at Bunker Hill) the grenadier companies were detached from their regiments and used together in provisional grenadier battalions. These were given the most difficult assignments, and the posts of honor (that is, of greatest danger) if used in the battle line.

The tenth company in a British battalion was called the "light company." Light companies were also detached and consolidated into provisional battalions, but as often they were assigned a truly light mission, that is, to advance ahead of the line, screen it, and demoralize the enemy. This mission of light infantry in the American service was usually performed by rifle units, which fanned out in front of the army and, with their accurate fire, galled the enemy severely.

At first there was no counterpart to flank companies in the Continental infantry. Beginning in August 1777, however, General Washington directed that 108 men and 9 officers be drawn from each brigade and formed into a temporary Corps of Light Infantry. When winter came this corps was disbanded, but it had proved so useful that Washington urged Congress to authorize one light company for each battalion to be formed into a separate corps during every campaign thereafter. It was with the Light Corps, which resulted, that Anthony Wayne stormed Stony Point on 16 July 1779 in the most celebrated night attack made by Americans during the Revolution.

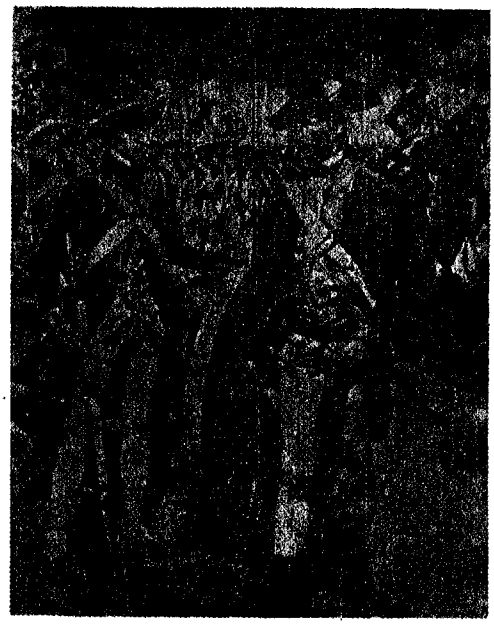
Like the British Grenadiers, the American Corps of Light Infantry became the elite body of the Army. Command was eagerly sought in it by the most enterprising officers and places in the ranks by the men. Although the Corps as a whole continued to be disbanded each winter and raised afresh for every campaign, one light company became permanent in each Continental battalion after mid-1780. Prior to that time American battalions had contained only eight companies, those of the

line, so that the addition brought the total up to nine, still one short of the British. The Corps of Light Infantry received special training in the use of the bayonet. During July 1780 it was put under the command of Lafayette, and made the chief American assaults the following year upon the enemy's works at Yorktown.

One of the distinctive features about the Revolutionary War was the use of rifles and rifle units in it. The rifle was virtually unknown in the New England Army that opened the war. Indeed, throughout the conflict, muskets were the armament of the troops of the line. At 100 yards, the best musketeers could hit a man-sized target only four shots out of every ten. In contrast, expert riflemen could kill a man with every shot at 100 yards and do good execution at twice that range. The chief limitations on the use of riflemen were the scarcity of expert shots and the fact that the rifle could not carry a bayonet. Although the latter deficiency was somewhat overcome through the use of tomahawks and knives, riflemen remained vulnerable to a determined bayonet attack. Accordingly, riflemen were not useful in the line, but both sides made extensive use of them as sharpshooters ahead of and around the main fighting force.

As already mentioned, the rifle companies from Pennsylvania in William Thompson's Battalion soon lost their specialization and became an element of the line, armed with muskets. Nearly as short-lived as a rifle unit was the Maryland and Virginia Rifle Regiment, composed of the original Continental rifle companies from Maryland and Virginia plus some later ones from the same states. This unit was captured at Fort Washington on 16 November 1776 and was never re-formed. Just at the time of its capture, Daniel Morgan received a commission as Colonel of the 11th Virginia. He recruited 118 riflemen and joined the Continental Army with them at Morristown, New Jersey, early in April 1777. Very soon Washington drew 500 picked riflemen from the regiments of his Army and put them under Morgan's command. Thus began the most famous of the rifle corps which persisted intermittently throughout the Revolution.

Sometimes Washington referred to Morgan's unit as a rifle corps, sometimes as "rangers." The latter term requires a little elaboration. Rangers were a species of infantry that the British had developed to cope with the methods of the French and Indians in North America. They were scouts who ranged the forests spying upon the enemy, gathering intelligence on his strength and intentions, and harassing him when they could. Units of rangers had to be made up of men who understood woodcraft and who could match the Indians in stealth. Also, they had to be trained shots. Actually, corps like Daniel Morgan's were rangers a



INFANTRY OFFICER *(right)* AND ARTILLERY SERGEANT *with state infantry lines in background, 1781.*

good deal of the time. In addition, there were certain units, such as Thomas Knowlton's Connecticut Rangers, which regularly bore the title.

From time to time the size of Continental units was fixed by resolve of the Congress. Thus during the reorganization which took place at the end of 1775, regiments were authorized to contain 728 officers and men, companies 78 enlisted men. These strengths were much larger than the British counterparts which were 477 and 38, respectively. Although Continental units always exceeded equivalent British units in strength, they varied widely from authorized size. For example, nine months after the first directive appeared, some companies had 67 men in them, others 83. This was, of course, the result of the unequal fall of casualties upon different outfits and the variation in the effectiveness of the recruiting systems of the several states. The Delaware Regiment illustrates a typical case of shrinkage. It was so decimated after the battle of Camden in 1780 that it had to be combined with Maryland companies to form a regiment. Later still, with the Maryland remnants, it was reorganized as a light company, commanded by Robert Kirkwood.

In closing this section on the organization of Continental infantry during the Revolutionary War, nothing should be stressed more heavily than the confusion which chronically prevailed in it. At all times Washington and his staff were obliged to improvise new organizations from the remnants of those that had been cut up in battle or had served out their short terms and gone home. Moreover, at all times it was also necessary to assimilate thousands of citizen soldiers for brief periods into some sort of working team with the Continentals. This had to be repeated over and over again with new increments because militia terms of service were very short. The attempt to utilize the militia, and put it into good

enough order to be effective for at least one campaign, was perhaps the hardest of the Commander in Chief's almost insupportable duties.

In spite of its burdensomeness the effort was well placed. Indeed, John W. Fortescue, historian of the British Army, declared that the militia was the decisive factor. Be that as it may, the militia formed around the Continental Army as a nucleus, and would not have turned out had that often ragtag force not been in the field. Most of the estimated 164,000 militiamen who took up arms for terms from a day up to three months were infantry. In addition to them were other infantrymen, raised and maintained on a relatively permanent basis by the several states, who, with the militia, rallied on the Continentals and abetted the cause.

When the British surrendered at Yorktown on 19 October 1781, there were sixty battalions of infantry in the Continental establishment. Afterwards, as time passed and it appeared that the British intended no new attack, that number was steadily reduced. Finally, in November 1783, after a peace had been formally ratified, only one foot regiment remained, commanded by Henry Jackson. Then, on 2 June 1784, the end came even for that unit, leaving as the only authorized vestige of the Continental Army still in service fewer than a hundred men to guard military stores at West Point and at Fort Pitt.

Through the Second War With England

Congress nevertheless realized the need for at least enough infantry to replace Jackson's regiment. Accordingly, the day after the latter was directed to be discharged, the legislators established a regiment which was to be raised and officered by obtaining volunteers from the militia of four of the states. This non-Regular unit, called the First American Regiment and commanded until 1 January 1792 by Josiah Harmar of Pennsylvania, gradually turned into a Regular outfit. It became known as the 1st Infantry in 1791, and in 1815 was redesignated as the 3d Infantry. From 1784 to 1787 Harmar's regiment was a hybrid, containing eight companies of infantry and two of artillery.

Although England was a constant threat to the new nation after the War for Independence, the Indians presented the most immediate menace. Accordingly, the First American Regiment was stationed on the frontier. In October 1790, the Miami Indians and their allies defeated the first field army, commanded by Harmar, to be organized by the

government of the United States acting under the Constitution. This defeat caused the raising of another regiment of infantry in 1791, and the numbering of the old one as the 1st and the new one as the 2d. As a result of the radical reorganization after the War of 1812, the latter became the 1st Infantry.

Serious trouble with the Indians of the Northwest continued; indeed, in the very year the 2d Infantry was organized, the Miamis defeated the second force sent by the Federal government against them. The army defeated in 1791, led by Arthur St. Clair, consisted of the Regular establishment augmented by militia and a new species of foot troops known as levies. Goaded by defeats, Congress gradually increased the military establishment from 700 men in 1784 to 5,104 in 1793. As the size of the entire Army increased, so did the strength of the infantry elements. Regiments rose from 560 to 1,140 enlisted men, companies from 70 to 95. Regiment and battalion remained one and the same.

Two beatings inflicted by the Northwest Indians brought about an experiment in organization which had precedents in certain European corps and in some of the Continental Army. The entire military establishment was converted in 1792 into a legion, that is, into a field army in which the three combat branches, infantry, cavalry, and artillery, were combined in the same organization. The legion consisted of four sub-legions. Each sub-legion contained infantry, riflemen, cavalry, and artillery; indeed it was the forerunner of the twentieth century regimental combat team.

Although Congress had authorized a total of five regiments on 5 March 1792, when the Legion of the United States came into being, none but the 1st and 2d Infantry were actually organized. Hence it was necessary to go out and recruit infantry for the 3d and 4th Sub-Legions. Likewise it was necessary to recruit the rifle units for all the sub-legions.

Command of the new Legion fell to Anthony Wayne, who had been a successful leader of light troops during the Revolution. Wayne did not employ the sub-legions as such to any important extent; on the contrary, he combined the infantry from all of them, likewise the artillery, and so forth. However, he instituted so stern a system of discipline that he forged an army which, in 1794, finally beat the Indians of the Northwest and defied the power of England which had fostered Indian unrest.

Once the threat in that quarter was reduced, the need to hold a field army together seemed to diminish. What was needed instead, statesmen believed, was an organization which could easily be split up and parcelled out to guard the frontiers and the seacoast. As long as Henry Knox remained Secretary of War, the legionary form had a stout champion, but he left office at the end of 1794. The Legion persisted for another year

and a half, then went out of existence by act of Congress effective 31 October 1796. In the new establishment the infantry of the four sub-legions became the 1st, 2d, 3d, and 4th Infantry.

Peace promised to prevail, so that during 1796 and 1797 the entire Army was reduced, and the size of regiments and companies as well. For scattered use, a large complement of officers and small companies filled the bill.

All too soon the sense of security evaporated as war loomed with France. In consequence, the establishment swelled precipitately, and the strength of units with it. By 1799 a total of forty infantry regiments was authorized, although none but the 1st through the 4th ever attained the required strength. Only 3,400 men were raised for the 5th through the 16th, and none at all for any others. Fortunately, the war with France never took shape; by 1800 the crisis was over and the immediate need for more infantry gone. In addition, a new administration took office in 1801, an administration that almost pathologically feared a standing army. Accordingly, under Thomas Jefferson the infantry was cut back in 1802 to two regiments, the 1st and 2d.

Jefferson's administration had only a brief chance to test its convictions regarding a strong militia and a small standing army, for war clouds were gathering once more. The United States almost began the second war with England when the British warship *Leopard* attacked the American *Chesapeake* in 1807. This aggression caused Congress to add five Regular infantry regiments in 1808, the 3d through the 7th, and also to constitute the Regiment of Riflemen. The latter was a product of the Revolutionary experience and the first rifle unit since the end of the Legion in 1796. Rifle elements re-entered the service through the agency of Brig. Gen. James Wilkinson, commanding the army, and Henry Dearborn, Secretary of War, both of whom had had firsthand experience with them in the last war.

Aside from the augmentation of April 1808 there was no further preparation for a fight until just six months before the second war with England. At that time, that is, in January 1812, Congress constituted ten new regiments of Regular infantry. The act of 11 January 1812 which created them was remarkable in at least two ways: first, it provided for the largest regiments and battalions authorized in the United States before the Civil War and, second, it established an organization that was at variance with the seven existing regiments. As a result, in the first six months of 1812 there were three different-sized infantry regiments, besides one of riflemen. The 1st and 2d regiments made up the infantry of the "military peace establishment," and they had ten companies in them of seventy-six enlisted men. The 3d through the 7th regiments,

authorized in 1808, were called the infantry of the "additional force," and comprised ten companies with two more officers and two more enlisted men each than the 1st and 2d had. The 8th through the 17th in no way resembled the others, for they had eighteen companies of 110 enlisted men, arranged in two battalions.

Although some of the bulky eighteen-company regiments were raised, several never acquired their second battalions. Recruiting was so difficult that they lacked the time to raise many men before Congress voted a fresh reorganization. Late in June 1812, the legislators changed the law. According to the new arrangement there were to be twenty-five regiments of infantry, exclusive of the rifle regiment, each containing ten companies of 102 men. Thus all the infantry regiments were made uniform on paper, and a standard of organization was established that persisted throughout the conflict. This standard was more often than not honored in the breach. Once constituted, all the twenty-five regiments organized and recruited actively, but during the first two years of the struggle their efforts brought in less than half of the total number of infantrymen authorized.

Regulars at first could only enlist for five years, but late in 1812 newcomers were given a chance to enroll "during the war." All the while the states competed with the Federal government for soldiers, and the shorter "hitches" they offered drew men into their service. To combat this Congress directed the creation, in January 1813, of twenty new infantry regiments enlisted for just one year. Nineteen of them were raised and designated as the 26th through the 44th Infantry. Later, they were converted into long-term outfits (five years or the duration), but all the units constituted after 1811 had men in them enlisted for different terms. For example, there were in a single regiment one-year regulars, eighteen-month men, three- and five-year men, and some in for "during the war."

Early in 1814 four more infantry regiments and three more regiments of riflemen were constituted. Finally, therefore, forty-eight infantry regiments, numbered from the 1st to the 48th, came into being, plus four rifle regiments, the 1st through the 4th. This was the greatest number of infantry units included in the Regular Army until the world wars of the twentieth century. A mighty effort was made in 1814 to raise the Army to strength, and nearly 27,000 men came in, but in spite of this, four of the regiments had to be consolidated because they were too small. The 17th, 19th, 26th, and 27th were joined to form a new 17th and a new 19th, while the two highest numbered, the 47th and 48th, were redesignated the 27th and 26th, respectively.

No sooner was war over than Congress scrambled to rid itself of its more than 30,000 infantrymen. An act of 3 March 1815 set the peace

BATTLE OF NEW ORLEANS, WAR OF 1812.

establishment at 10,000 men, divided among infantry, rifle, and artillery regiments. Cavalry was eliminated, and eight infantry regiments and one rifle regiment arose from the ruins of the forty-six and four in existence. The rifles were consolidated and the infantry, after many rearrangements, settled as follows:

1st Infantry formed by consolidation of the 2d, 3d, 7th, and 44th
2d Infantry formed by consolidation of the 6th, 16th, 22d, 23d, and 32d
3d Infantry formed by consolidation of the 1st, 5th, 17th, 19th, and 28th
4th Infantry formed by consolidation of the 14th, 18th, 20th, 36th, and 38th
5th Infantry formed by consolidation of the 4th, 9th, 13th, 21st, 40th, and 46th
6th Infantry formed by consolidation of the 11th, 25th, 27th, 29th, and 37th
7th Infantry formed by consolidation of the 8th, 24th, and 39th
8th Infantry formed by consolidation of the 10th and 12th

The eight remaining infantry regiments were smaller than their war predecessors because, although the number of companies in each remained at ten, every company contained 78 men instead of 103. There was no effort to preserve the honors or traditional numbers of any of the prewar regiments. The 1st was merged with other regiments and redesignated the 3d, and the old 2d, 3d, 4th, 5th, 6th, and 7th were likewise lost in the remains of disbanded regiments. The new numbers were founded on the seniority of the colonels, the senior colonel commanding the 1st, and so forth. As a consequence of the reduction, 25,000 infantrymen were separated from the service. Another consequence was that the form of the infantry establishment was set roughly for the next thirty years. Not until the Mexican War, thirty-one years later, was it substantially expanded.

The Germinal Period, 1816–1860

After the reorganization of 1815, the Regular infantry fluctuated in size with the whole military establishment. Prospects of peace appeared to improve, and in 1821 Congress felt safe enough to cut expenses by disbanding the Rifle Regiment and the 8th Infantry. Having reduced the infantry establishment to seven foot regiments, which were thought adequate to meet all contingencies, the legislators next sliced the size of companies to fifty-one enlisted men, the smallest ever. This arrangement endured for fifteen years when, as usual, the Indians forced an enlargement.

At all times there was trouble with the Indians on the frontier, but two affairs assumed the magnitude of war. The first in 1831 and 1832 against the tribes of the Iowa, Illinois, and Wisconsin area, known as the Black Hawk War, was easily won by a force composed mostly of militia. The whole affair had no permanent impact on the Regular infantry. Not so the second of the several scraps against the Seminole Indians in Florida, which began in December 1835 and lasted until 1842. Volunteers and militia bore the brunt of the Florida War at first, but Regulars gradually replaced them. As a result, after more than two years of inconclusive fighting, Congress was obliged to augment the Regular infantry (in 1838) by adding thirty-eight privates and one sergeant to each company, and by raising a new 8th Infantry, the fourth unit to go by that number. At one time or another, every one of the eight regiments of infantry served in the Florida swamps.

As quickly as the war in Florida was over in 1842, although all were retained, regiments and companies were reduced to minimum size. However, by a fluke, the Regular infantry actually increased. This came about

because in the spring of 1843, to save money, the 2d Dragoons were converted into a rifle regiment. They thus became the first rifle corps included in the establishment for two decades, that is, since the Rifle Regiment had been disbanded in 1821. The erstwhile horsemen, who felt degraded on foot, clung hard to their dragoon organization, but they received rifles and, as far as is known, trained as riflemen. Agitation to remount them was continuous, and within a year they became the 2d Dragoons again. When they were reconverted, rifle corps disappeared once more from the Army, except that the President received authority from Congress to convert two or more infantry regiments into rifles if he thought it expedient. He never exercised this authority.

In May 1846 a new rifle unit, the Regiment of Mounted Riflemen, was constituted. This regiment had initially been designated for use on the Oregon Trail but was diverted at its origin into Mexican War service. Its animals were lost on the way, so only two companies, mounted on Mexican horses, acted as cavalry. The rest, armed with Model 1841 rifles, bayonets, and flintlock pistols, fought on foot.

At the start of the Mexican War, Congress tried to get along with just eight infantry regiments of Regulars, but in doing so gave the President power to expand their companies to one hundred enlisted men during the war. Ten months after hostilities commenced, it was necessary to change this policy and add nine new regiments—with the same organization as the old ones—to the Regular infantry. Eight of them, as was customary, bore numbers, the 9th through the 16th; but the other got a name. It was called the Regiment of Voltigeurs and Foot Riflemen. Half of this unit was to be mounted, the other half on foot, and each horseman was paired with a foot soldier who was to get up behind him for rapid movements. This arrangement was never executed, and the Voltigeurs became in fact a regiment of foot riflemen, armed with the same rifle (a muzzle-loader) as the Mounted Riflemen. Quite by chance, the regiment included a company of mountain howitzers and war rockets, but it was not linked with the riflemen tactically, nor were the rockets and howitzers ever used together.

Although raised as Regulars, the nine new infantry regiments created during the Mexican War were disbanded when the war was over. Their dissolution left a peace establishment of eight foot regiments. This structure seemed less adequate than it would have before 1846, for "Manifest Destiny" had entered the reckoning of the legislators. The inescapable need to protect, at least partially, the vast area taken from Mexico, and to help settlers across the great plains to California and Oregon, caused Congress to add the 9th and 10th Infantry in 1855, the fourth of both numbers in United States service. The ten regiments in existence after

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1855, the 1st through the 10th, made up the foot establishment until after the actual opening of hostilities in 1861. The Regiment of Mounted Riflemen remained active after the Mexican War, but in 1861 it was redesignated as the 3d Cavalry.

The new 9th and 10th Infantry organized in 1855 were the first infantry units to receive rifle muskets instead of smoothbores as their standard arm. The rifle issued to them was built to utilize a new type of ammunition, known as Minié bullets. Because these conoidal bullets expanded when fired, they could be made small enough to be rammed easily down the barrel of a rifle. When the propellant exploded, the ball expanded into the rifling which imparted to it the spin that made rifle fire superior to that of muskets. The principle implicit in the Minié bullet worked a true revolution in the use of small arms by enabling accurate rifles to replace inaccurate muskets as standard firearms for the infantry.

A regiment of ten companies—with regiment and battalion one and the same—was standard throughout the period. For training and for battle purposes, the eight battalion companies were placed in line by a complex arrangement according to the seniority of their captains, which seems to have had its origin in the protocol of medieval armies. It had no functional basis, since once lined up, the companies were renumbered from right to left. For official designation, however, a new system began in 1816. Under this system the companies were known by letters, instead of by numbers or by the names of their commanders. The two flank companies received the letters A and B, and the others C through K. There was no Company J, because *J* was too easily confused with *I* in writing.

At this point it is necessary to remember that there had been only one flank company per battalion during the Revolution. The addition of a second company had occurred in 1798 when war with France seemed certain. Its adoption brought the American battalion into conformity with those of England and France, the potential European foes. But whereas their flank companies received special weapons, those in the United States infantry did not. As a result, the latter had less chance to develop techniques apart from the line. They were simply composed of men picked for their strength and courage.

The truth is that conditions in America did not favor the specialization of particular companies. Indian wars had to be fought by whatever troops were available; there was no time to await the arrival of elite corps, whether called grenadiers or something else. Nor did fights with Indians give much opportunity for infantry to assume the formal line of battle with light units out front. Finally, the scattering of the companies

of Regular regiments made specialized training impossible.

Nevertheless, the drill manuals of the United States infantry after 1825 called the two flank units grenadier and light infantry companies. The latter term had some application, the former none at all. The acceptance of European designations resulted from the dominance of French military arrangements throughout the world in the decades after the wars of Napoleon. More specifically, it came from the fact that American drill manuals were in reality translations, only slightly modified, of French regulations.

It was during this epoch that Americans borrowed a verb from the French to describe the operations of light flank companies. That verb was "to skirmish." It grew in use and importance because the extended order of light or skirmishing infantry was very slowly challenging the tighter formations of the line. In the United States the challenge had not proceeded far at the time of the Mexican War. Rather, it was the introduction of the Minié ball, and other advances in firearms, which in the fifties forced infantry all over the world toward wider use of skirmish tactics. The trend was to give all infantrymen training as skirmishers. As a result, the *Tactics* adopted in 1855 discarded the distinction in name among the ten companies of a battalion. All ten took their places in line, and all were prepared, when called on, to move ahead of the line and skirmish with the foe.

In the Mexican War, light battalions of Regulars were often formed for specific missions by temporarily detaching companies—not necessarily the flank ones—from different regiments. Composite battalions of this sort usually did not do as well in battle as established ones, in which men and officers understood each other and regimental pride was an active stimulant. There was, however, more distinction between flank and line in volunteer regiments. Two companies out of ten were specifically organized as light and given a choice between rifles and muskets. The flank rifle companies which resulted were often detached from their regiments and used together for special sharpshooting assignments. This was the case in the fighting on the mountains to the left of the American position at Buena Vista.

Throughout this period there was a growing emphasis on the use of segments within a company. This emphasis resulted from the increase in the power of firearms which followed adoption of the Minié principle and the extensive experiments under way on repeating and breech-loading rifles. In order to offset the mounting vitality of firepower, professional soldiers began to stress dispersion in the official drill manuals. Dispersion, of course, strained the ability of officers to control large bodies of men, and consequently highlighted the need to organize smaller

STORMING OF CHAPULTEPEC DURING MEXICAN WAR. *(From a lithograph by Nathaniel Currier.)*

elements within units. Applied to a company, this meant an increased use of platoons (half companies), sections (half platoons), and the beginning of the fighting squad.

The earliest suggestion of the squad was a file of two men, the two being taught to stick together during a fight. Later, for purposes of training, squads gradually changed from being irregular knots of men, in the drill manual of 1815, to being specified fractions of a company in 1841. The latter were to be quartered and exercised together. There was no expansion of their use in combat until 1855 when the new manual prescribed "Comrades in Battle" (two files, totaling four men) who were to work together in battle.

There is another point about this period which deserves emphasis: the frequency with which the other two combat arms served as infantry.

In the Florida War, artillery fought on foot and dragoons did likewise more often than not. During the Mexican War, the bulk of the Regiment of Mounted Riflemen fought on foot and only ten artillery companies had cannon, while the other thirty-eight served as infantry. They carried musketoons instead of muskets, and swords instead of bayonets; but they were trained for infantry service, and made an impressive record fighting as such.

Under the provisions of the Constitution, the United States received complete control of the Regular Army—the descendant of the Continental Army—but not of the militia. Most of the power over the latter remained with the states, and the extent to which the Federal government could use state militias became a matter of endless controversy. Worse by far, from the standpoint of efficiency, was the fact that militiamen could only be held to serve for three months and that they were not liable to do duty very far from home. What is more, militia training differed widely from state to state, so that it was hard to fuse units from the several states into one army.

When obliged to wage war as a nation, the United States was caught between the fear of a standing army and the inadequacies of a militia controlled by the several states. Some sort of compromise was necessary, and that proved to be an old type, volunteer soldiers organized into provisional wartime regiments. There were also peacetime volunteers—quite distinct from those raised for a war—at hand in the militia.

In the large seaboard cities there were independent or chartered companies of citizen soldiers apart from the common or standing militia. They were composed of men who liked military exercise well enough to buy their own uniforms, drill regularly, and hold together in peace as well as war. These units usually received charters from the states, and they very soon constituted an elite corps. This corps became the parent of the National Guard of the twentieth century. The title "Volunteers" with a capital *V* was applied to them early in the nineteenth century, and it is used here to distinguish them from individuals or units who volunteered only for the duration of a given war.

Volunteer infantrymen, when associated with the compulsory militia, took the posts of honor and their units were consequently often referred to as flank or light companies. Sometimes they had special weapons and actually trained as light infantry. When war came they sometimes volunteered to go as units or they became a relatively trained cadre around which some provisional regiment was built. By the 1850's, the standing militia had deteriorated so far, and the Volunteers had become so stable, that many of the states abandoned the idea of compulsory service, and accepted the Volunteers as their constitutional militia. This done, they

began to organize the scattered companies into battalions and regiments, a grouping that was well advanced in some states in the decade of the 1850's.

Volunteers were supposed to be organized and to train according to the discipline of the Regular infantry, but this was rarely the case. The *Tactics* of the Army were not widely enough disseminated, and were too voluminous for general use by the state militias anyway. As a result, Volunteers and militia used whatever manuals they could come by, which ranged from Steuben's *Regulations* of 1779 to the latest translations of the French system.

In the Mexican War, most volunteers reached the seat of war with little or no training; but some of them, once arrived, were associated with Regular brigades and quickly introduced to the Army drill. Like the training, the organization of citizen soldiers of all types was required by law to conform to the United States' standards, but much latitude existed. The Maryland and District of Columbia Battalion of the Mexican War, for example, reached the combat area with only one field officer of the three required in the Regular service. Also, the size of regiments at that time varied from 923 on the under side of the Federal standard of 1,004 enlisted men, to 1,423, on the upper. In general, the Volunteers of the cities came closest to adhering to U.S. standards, both for training and for organization.

The wide use of militiamen and volunteers carried with it an inevitable flabbiness in discipline. Citizens temporarily turned soldiers had no sense of unquestioning obedience to anyone and were usually not in service long enough to acquire more than a shade of it. Moreover, they almost always elected their own officers, which did not make for stern authority.

Frequently, the lack of training and of discipline resulted in rout in battle, as happened on part of the field at Buena Vista. On the other hand, citizen soldiers often showed remarkable fighting ability, as was true, for example, of the Mississippi Rifles, commanded by Jefferson Davis, on another part of the same battlefield. In all instances, training and leadership were the ingredients that made the difference. Lack of training caused trouble less often in combat than in the intervals between, when life grew very dull. It must be remembered that a hitch in wartime was a lark for many a citizen, during which he left his inhibitions at home. Citizen soldiers made relations with the people of Mexico difficult because, as General Zachary Taylor said, ". . . it is impossible effectually to control these troops [for they lose] in bodies the restraining sense of individual responsibility."

Whatever the quality of U.S. Army foot troops, figures show quite well

THE MISSISSIPPI RIFLES AT BUENA VISTA.

the change that was taking place in their source during wars. Nine out of ten infantrymen in the War of 1812 were militiamen. Only one out of ten foot soldiers was a militiaman in the Mexican War; three were Regulars, and six were war volunteers. This trend continued until the adoption of conscription in the twentieth century. The point to stress is that infantry doctrine and standards were set by the Regulars, but the mass of American infantrymen in wartime were citizen soldiers.

The Civil War

The infantry, both North and South, was far from ready for war in 1861. There were but ten Union foot regiments, and they were largely in the West, scattered by companies over thousands of miles. Until assembled, which would take time, they could be counted on for very little. Many of the Regular officers, the core of any expansion, had served

in the Mexican War fifteen years before, but few had commanded any sizable body of troops. Moreover, although a small number had kept abreast of world military developments after their services in Mexico, they were not in a position to dictate policy in Washington.

To add to the problems of the infantry early in the war, virtually no preparations had been made, apparently because statesmen hoped until the last minute that conflict could be averted. They believed that military adjustments would damage the chances of peaceful compromise. Thus, when war began, the foundations of what was to become a huge infantry establishment had to be commenced hastily and without real planning.

Since Congress was not in session, President Lincoln began the war buildup in May 1861 with a proclamation of doubtful constitutionality. On the strength of his executive authority, he summoned thirty-nine regiments of volunteer infantry and one of cavalry to serve for three years. His next step was to authorize an addition of eight infantry regiments to the Regular Army. Somehow a ninth got included. Thereafter, the nineteen regiments in being—the 1st through the 19th—were the whole of the Regular infantry during the war. So neglected a part of the whole establishment were these nineteen that they were never able to attain their full authorized strength.

Prior to issuing his call, the President consulted the War Department as to the best organization for the new Regular units. The Secretary of War, being overburdened, turned the matter over to Salmon P. Chase, Secretary of the Treasury, and loaned him three officers as technical advisors. The result was a recommendation in favor of the French structure. This included regiments of three battalions instead of one. Two battalions were supposed to take the field, the third to maintain a regimental depot for collecting and training recruits. Battalions of 800 men in eight companies were adopted as the most efficient fighting units because they were thought to be small enough to maneuver and to be controlled by the voice of the commanding officer, yet large enough to withstand attack by cavalry.

A battalion in the French system was the fighting unit, a regiment the unit of administration. The French felt that a regimental headquarters could administer more than one battalion, an arrangement which appealed to Americans because it eliminated some field officers and thus saved money. The new three-battalion organization, however, was not extended to the ten old regiments, which continued to comprise ten companies each, with regiment and battalion one and the same. The men in authority felt that there was no time to bother with reorganizing outfits already extant, when so many remained to be organized from

scratch. Furthermore, the old, single-battalion regiment was hallowed by age and tradition. This meant that two different regimental organizations were tolerated in the Regular infantry, a dualism that might have caused much confusion had the Regular regiments loomed larger than they did in the whole infantry establishment.

The number of men in all Regular companies was raised at once to the maximum authorized by law, that is, 84 enlisted men in the first ten regiments and 97 in the other nine. Even so, the regiments never reached full strength because they could not compete with the volunteers for enlistments. By December 1861, some 30,000 Regular infantrymen were authorized, but barely 11,000 enlisted, while during the same period 640,000 volunteers entered the service. The third battalions of the 12th, 13th, 14th, 17th, and 19th Infantry were never organized, and not all the companies were raised for the third battalions of the other four new regiments. In fact, the 11th, 12th, and 13th only imperfectly organized their second battalions. Each battalion of the new regiments designated its companies by letters beginning with A, so that, if fully raised, there were three A companies, three B companies, and so on in each regiment.

Since replacements came more slowly than losses to the Regular regiments, all of them grew smaller as the war continued. By July 1864, as an illustration, the 2d Infantry had shrunk to 7 officers and 38 enlisted men, who were thereafter grouped into one company and assigned to guard duty. Moreover, by 1 November 1864 all the Regular outfits of the Army of the Potomac were so reduced that it was necessary to withdraw them from the field. Such shrinkage was, of course, not confined to the Regulars. The average strength of regiments—most of which ought to have contained 1,046 officers and men—was as follows in the battles named:

Shiloh (6–7 April 1862)	560
Fair Oaks (31 May–1 June 1862)	650
Chancellorsville (1–5 May 1863)	530
Gettysburg (1–3 July 1863)	375
Chickamauga (19–20 September 1863)	440
Wilderness (5–7 May 1864)	440

The comments so far have referred mainly to Regulars, but this should not obscure the fact that most infantrymen were volunteers. These volunteers were members of regiments raised and officered by the several states. Initially President Lincoln called for thirty-nine such outfits, but before the war was over more than 1,700 volunteer regiments served. This was not far from one hundred times as many as there were units of Regulars. The three-battalion organization was not extended to the volunteers because the states, which raised them, were thought to be too

much accustomed to the old system to change. As a result, the volunteer units, like the first ten Regular regiments, contained ten companies in one battalion.

These regiments were variously numbered and designated by the several states, but in practice came to be called merely the "8th Indiana" or the "45th New York." Although patterned after the old regiments in overall organization, the state regiments borrowed their company structure from the new, that is, they had ninety-seven enlisted men, instead of eighty-four, plus one wagoner whom the Regulars did not have. As matters were arranged, therefore, there were three different regimental organizations in the infantry. The volunteer regiments aggregated 1,046 officers and men; the 1st through the 10th Infantry, 878; and the 11th through the 19th, 2,367. Actually the battalions of the latter ought to be compared with the old regiments, since they were designed to act independently and approximated the size of the others. They contained a few more than 800 enlisted men.

Even though most of the volunteer infantrymen were raised and officered by the states, a few hundred units were not. Several types of volunteers were more directly linked to the United States than to any state, the earliest of these being two regiments of U.S. Sharpshooters (1st and 2d) organized in 1861. These two contained companies from several states, raised by the states. Their origin in more than one state was an uncommon attribute, but their real distinguishing feature was the manner in which they were officered. While the states appointed the company and field officers in ordinary volunteer units, the Federal government appointed them in the Sharpshooters and similar outfits.

The next type appeared when large-scale acceptance of Negro troops began in 1863. A number of battalions had started as state units, but with the exception of two Massachusetts regiments, all Negro outfits were finally mustered directly into Federal service, and were organized and officered under the authority of the United States and not of any particular state. Known at first as the Corps d'Afrique and by other names, these units came to be called U.S. Colored Troops by the spring of 1864. Indian regiments (1st–4th Indian Home Guards) were handled in the same way. In all, there were 138 regiments of Negro infantry and 4 of Indians. Except for these two races, diverse nationalities could and did intermingle in infantry units, although men of German, Irish, and Scandinavian extraction proudly associated together in exclusive regiments.

Yet another type of Federal volunteer emerged because casualties had reached such proportions that provision for the incapacitated, and replacements for them, had become critical problems. To solve these

RECRUITING FOR VOLUNTEERS DURING CIVIL WAR. *(From a drawing by Frank Leslie.)*

problems, the Invalid Corps was established in April 1863 and classed as infantry. It was composed of men who in the line of duty had become physically unfit for combat. Those who could handle a gun and make light marches were put in the 1st Battalion and were used for guard duty. The worse crippled formed the 2d Battalion and were used as nurses and cooks around hospitals. Six companies from the 1st Battalion and four from the 2d made up a regiment in the Corps after September 1863. In all, 24 regiments and 188 separate companies of invalids did duty, thus releasing able-bodied soldiers for combat service. In March 1864—because the Corps' abbreviation, "IC," was confused with "Inspected-Condemned"—the name was changed to Veteran Reserve Corps.

Finally, in 1864 six infantry regiments of U.S. Volunteers (1st–6th) were recruited for service on the frontiers (not against the Confederacy) from Confederate prisoners of war. Then in 1865, nine infantry regiments

PICKETT'S CHARGE AT GETTYSBURG.

of U.S. Veteran Volunteers (1st–9th) were raised directly by the United States. Although all types of United States volunteers made up only a small fraction of the foot troops who served for the Union, they merit attention because of the intimate relationship between them and the Federal government, and because of the lack of vital connection between them and any state. This relationship foreshadowed the National Army of the twentieth century.

The Confederate Army arranged infantry units pretty much as the Union did, except that all regiments contained ten companies. Authorized company strength was 64 privates minimum and 125 maximum. Around 642 infantry regiments served at some time or another, along with 9 legions, 163 separate battalions, and 62 unattached companies. Many of the Confederate units were the forbears of Army National Guard elements existing today.

In the heat of the conflict, no changes were made in regimental organization, despite the fact that it was soon recognized as unsuitable. Improved firearms forced regiments and their companies to disperse to such an extent that officers could not effectively exercise control over them. Once a regiment deployed, it was too big for one man and his staff to control. This fact helped to cause a high casualty rate among general officers, since the only way they could influence an assault, or rally a broken line, was to place themselves where everyone in the command could see them. At such times the enemy's sharpshooters saw them equally well.

Years after the Civil War, Maj. Gen. John M. Schofield, who had commanded the Army of the Ohio under Sherman, said that the cumbersome regimental organization had only worked in the course of the war because the replacement system was faulty. What he meant was that the unwieldy regiments at the beginning of the conflict dwindled through casualties until they reached a size which a colonel and his staff could handle. The same attrition, of course, applied to the control of companies.

Companies were also unwieldy yet were not reorganized. On the con-

trary, the promise of wide use of platoons, sections, and squads—a promise that may be detected in the infantry manuals of the 1850's—was not fulfilled during the war. As a result, notwithstanding the fact that the need was far greater, there were no more officers in an infantry company than there had been forty years before.

The reason why types of organization were retained that had been designed for use under different conditions stemmed from the great haste with which the armies were assembled in 1861. There was no time to make a wide canvass of professional soldiers, and those consulted were deceived by their belief that the conditions of the wars of Napoleon had not been radically modified. Few foresaw, and perhaps could not have foreseen, the full impact of the Minié ball upon warfare.

The keystone of the whole matter was the heightened firepower which the infantry had to face and which it could wield. The foot soldier's rifle musket, although a muzzle-loader, was vastly more effective than the weapons infantrymen had handled before 1855. It was accurate from 200 to 400 yards, and capable of killing at 800 to 1,000. Nor was it the only improved weapon. Scattered among the soldiers were many types of breech-loading repeating rifles which did great execution.

Except for being unwieldy, regiments and their components proved otherwise adaptable to wartime conditions. For example, heightened firepower more than ever before demanded skirmishers in front of the battle line. These the regimental organization was able to supply simply by assigning any of its companies to the duty. Likewise, regimental organization lent itself well to the attack formation which became characteristic of the Civil War. This was a succession of lines. Each line was composed of two ranks with a prescribed distance of thirty-two inches between them. Of course, the lines varied greatly in length and in the distance at which they followed each other. Some were as long as a whole brigade lined up in two ranks, others only as long as a company. If there was a usual length, it was that of a brigade, since attacks by divisions in column of brigades were most frequent. In any case, regiments as organized were easily utilized in that type of attack formation, as they were in others.

New means began to work during the Civil War to knit armies together and to speed their movements. For the first time, railroads were used extensively to move infantrymen to and from battle areas. This employment gave the foot soldier greater speed than he had in the past. In the field of communications, signal flags were first used. These enabled the parts of a force to keep contact with each other and to pass on information about the enemy. Newer still was the use of electricity, in the form of the telegraph, to link the components of a large force and to

UNION INFANTRY ADVANCING TOWARD APPOMATTOX.

connect field elements with the Commander in Chief at Washington. The new modes of communication did not much improve the connection between units of the same army on the battlefield, but their indirect influence on the use of infantry was very great. The Signal Corps was constituted during the conflict to handle the new media of communication. Its service was great, but its relation to the infantry was only a tiny fragment of what it was to become in the future.

In conclusion it must be said that the Civil War occurred in one of those periods, common in history, when weapons outdistanced organization and tactics. It is true that deadly fire brought about modifications in the use of infantry, one of which was the use of a succession of lines in the assault, another the regular employment of temporary field works. But even after taking these into account, it seems clear that the rifle musket was more modern than the organization of the infantry and the resultant formations used in the assault. Otherwise stated, organization and tactics were basically those of the beginning of the nineteenth century, while the weapons were fifty years more modern. This discrepancy between weapons and minor tactics accounts in part for the shocking destructiveness of the Civil War.

A Diverse Half Century, 1866–1915

Four years of war, and the large army built up during them, conditioned the nation in 1866 to the biggest increase in the Regular infantry since the War of 1812. The result was a postwar military peace establishment of twenty-six more Regular regiments of foot soldiers than had served for the Union. The total was forty-five. All regiments were formed on the prewar pattern with ten companies, and with regiment and battalion one and the same. The new companies were strong in noncommissioned officers and specialists, having a total of nineteen, and privates totaled between fifty and one hundred at the discretion of the President.

The expansion of the infantry worked out as follows. The 1st through 10th Infantry retained their numbers. The first battalions of the 11th through the 19th expanded into regiments of the same respective numbers, and the second battalions into the 20th through the 28th Infantry. The first ten regiments needed no expansion, but the converted first and second battalions, being composed of just eight companies, required two more companies apiece. The 29th through the 37th Infantry were supposed to come from the third battalions of the Civil War units, but, since these had never been raised for the 12th, 13th, 14th, 17th, and 19th regiments, and only imperfectly for the other four, the postwar units had to be recruited. The other eight regiments were new. Negro personnel, commanded by white officers, staffed the 38th through the 41st, while men from the Veteran Reserve Corps, wounded but still able to do active duty, filled up the 42d through the 45th.

During 1866, twenty-six of the forty-five regiments remained in the area of the Confederacy, while twelve were sent west into Indian country. To the men who personally fought the Indians, there never seemed to be enough soldiers, but the level of forty-five regiments was altogether too high for the rest of the nation when the stimulus of the great conflict had worn off. In consequence, recruiting was stopped, and in 1867 the companies were directed not to replace their losses until only fifty privates per company remained. Two years later, on 3 March 1869, Congress reduced the infantry to twenty-five regiments. This set off a reorganization which, for disrupting the history and traditions of regiments, almost rivaled the upheaval of 1815. The following consolidations resulted:

43d consolidated with the 1st to form the new 1st
16th consolidated with the 2d to form the new 2d
Half of the 37th consolidated with the 3d to form the new 3d
30th consolidated with the 4th to form the new 4th
Half of the 37th consolidated with the 5th to form the new 5th
42d consolidated with the 6th to form the new 6th

36th consolidated with the 7th to form the new 7th
33d consolidated with the 8th to form the new 8th
27th consolidated with the 9th to form the new 9th
26th consolidated with the 10th to form the new 10th
24th consolidated with the 29th to form the new 11th
12th Infantry not affected
13th Infantry not affected
45th consolidated with the 14th to form the new 14th
35th consolidated with the 15th to form the new 15th
11th consolidated with the 34th to form the new 16th
44th consolidated with the 17th to form the new 17th
25th consolidated with the 18th to form the new 18th
28th consolidated with the 19th to form the new 19th
20th Infantry not affected
32d consolidated with the 21st to form the new 21st
31st consolidated with the 22d to form the new 22d
23d Infantry not affected
38th consolidated with the 41st to form the new 24th
39th consolidated with the 40th to form the new 25th

Twenty-one outfits emerged from the reorganization bearing the same numbers they had borne through the war, but the new 11th, 16th, 24th, and 25th Infantry were not so fortunate. They had no connection with the war units of the same numbers. However, the 24th and 25th—created by consolidation of the 38th through the 41st—carried on the tradition of the Negro regiments begun during the Civil War.

The Regular infantry stood unchanged at twenty-five regiments for thirty-two years, and was at last altered only because of the need to hold the territory outside the continental United States acquired from Spain in 1898. Within the regiments the size of companies fluctuated. In the trough of economic depression the number of men authorized per company dropped in 1876 as low as thirty-seven. Infantry officers pointed out that when sickness and desertion occurred, these little companies were much too small to do their duty in the Indian country where 180 out of 250 of them were stationed in the 1870's. The severe cut that reduced the companies to skeleton strength came about in the following manner. One month after the famous massacre of Custer's troops in June 1876, Congress reduced the enlisted strength of the Army from 30,000 to 25,000. Then in August the legislators allowed existing cavalry units to be augmented by 2,500 men, since cavalry was considered the chief reliance against the Plains Indians. As a result, the reduction of 5,000 fell almost entirely upon the infantry.

By 1890 the long fight against the red man was practically won. This

INFANTRYMEN GUARDING SUPPLY TRAIN AGAINST INDIANS. *(From a painting by Frederic Remington.)*

made it possible to abandon some of the small posts, held by one or two companies, and to concentrate the units under regimental control. The shift, however, was not made easily, and as late as 1912 the Secretary of War complained that dispersion made of the Army nothing but a scattered constabulary. In any case, in 1890 it seemed sensible to make the whole infantry establishment more compact without increasing it. In consequence, Companies I and K of each regiment were stripped of all personnel, and their men and officers used to fill out the remaining companies. Thus, fifty infantry companies existed only in name with their records and trophies preserved by the regiments. The two hundred companies that survived had one sergeant and four corporals fewer than formerly, and a total of forty-six privates each. Within a year, however, the War Department directed that Company I of nineteen of the regiments be filled out with fifty-five Indians, but because it was unsuccessful the project was soon dropped.

While these changes were taking place, observers were pointing out that the ten-company, one-battalion regiment was obsolete. The increased accuracy of firearms, they said, had forced dispersion so that no one man could control ten companies in battle. Accordingly, the Secretary of War

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in 1890 urged that a regiment of three battalions of four companies each be adopted. Such an arrangement was backed by statistics, for wars in Europe had demonstrated that one-third of a regiment now occupied the same front in battle as an entire regiment once had. This being so, a single leader could hardly be expected to direct more than four companies in action. In the next few years, the Secretary's successors repeated the request, but without success.

Throughout the period under consideration, there was ceaseless experimentation with infantry small arms; but, even so, changes came slowly. The reason for this was that the Army had to practice the strictest economy. Accordingly, Ordnance sought for the last refinement before standardizing any model, since once a rifle was adopted, it could not soon be discarded in favor of a new one costing large sums. As a result, the rifle musket of the Civil War remained in general use for a few years after the return of peace.

When at last the almost hallowed old piece made way for a new one in the early 1870's, the United States infantry took a forward stride as great as when it had adopted the Minié principle in the 1850's. The new gun, the celebrated Springfield Model 1873, embodied several indispensable improvements. It was the first official infantry rifle to load at the breech. Next, it operated without a touch-hole—an essential in all previous American foot soldiers' guns—because the primer was included as part of a brass cartridge which had replaced paper cartridges. Last but not least, it dropped .13 of an inch in caliber, being .45 instead of .58 across the bore.

The Springfield '73 remained the official shoulder arm of the infantry for nineteen years. Actually it served longer than that, for citizen soldiers used it in 1898 and 1899, and the Philippine Scouts even later. When finally it was superseded in 1892, its replacement embodied an advance that had been widely used for decades. Called the Krag-Jörgensen, it was the foot soldier's first standard repeating rifle. In addition, it continued the trend toward smaller bullets, being .30 caliber instead of .45. The Krag lasted nine years before yielding to the Springfield Model 1903. The latter remained standard for almost forty years, that is, to the outbreak of World War II. Although it was not a new departure as the '73 and the Krag had been, it utilized the latest improvements, and was as fine a rifle as infantry had anywhere in the world.

All of a sudden, in the spring of 1898, the United States jumped into a war with Spain. There were then 26,000 enlisted men, in round figures, in the Regular Army, of whom half were infantry. A three-battalion organization was put into effect at once by the following arrangement. The existing eight companies in each regiment were divided

into two battalions, while the two skeleton companies were filled out and combined with two new companies to make the third battalion. Also, the size of companies rose from around 50 to 106 enlisted men. The result was a substantial regiment of 1,309 enlisted men. However, it still contained 1,000 men fewer than the authorized strength of the 11th through 19th Infantry in the Civil War and 2,400 less than the 3,700-man units of World War I.

Conflict with Spain did not add even one to the total of twenty-five Regular infantry regiments, for, as in the Civil War, chief reliance was not placed upon Regulars. No sooner was war declared than Congress passed an act putting a second component beside the Regulars. This was called the Volunteer Army of the United States. The regiments of this force were raised and officered by the states, and in the main sprang from existing organized militia units. Officers of the Regular Army were at liberty, without losing Regular status, to accept commissions for field grades in state units, provided there was no more than one Regular in any volunteer regiment. Congress also ruled that state units had to conform to the organization of the Army, and that general and staff officers for corps, divisions, and brigades be appointed by the President.

Before the end of May, President William McKinley made two calls for troops, requesting a total of 141 regiments, 20 separate battalions, and 46 separate companies of infantry, all of which were raised quickly. Most of the regiments came into Federal service with around 950 enlisted men, but three or four contained as few as 650. Nearly all of them recruited up before the war was over, although none reached the 1,309 prescribed. This was not surprising when one considers that, except for the regiments that went to the Philippines, all the volunteer infantry units were released by 8 June 1899, having served in most cases less than a year.

It was decided, in the second month of the war (May 1898), to organize ten regiments of volunteers not related to any state, an action for which there was precedent in the United States volunteers of the Civil War. The latter had been raised from special groups such as sharpshooters or Confederate prisoners of war. The earliest regiments of United States Volunteer Infantry in the War with Spain were also made up from a special group, that is, from men who were immune to tropical disease: five regiments of Negroes and five of whites. They were authorized to contain only 992, instead of 1,309, enlisted men, and all had close to that number when they were mustered in.

As early as March 1899, the use of United States Volunteer Infantry was carried beyond the employment of the 10,000 immunes. By September 1899, twenty-four new regiments, not to remain in service beyond

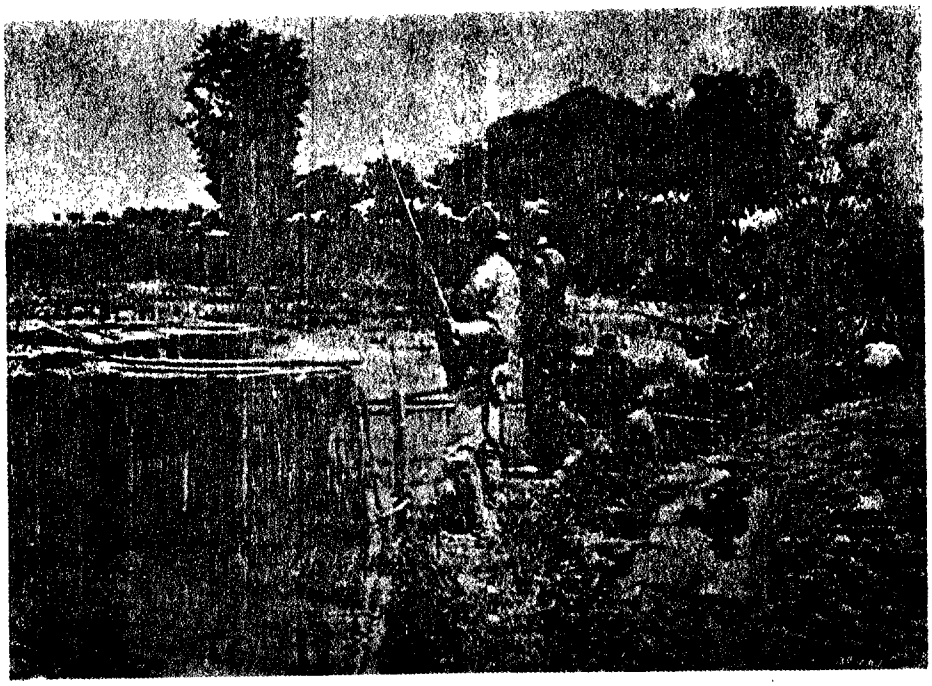
1 July 1901, had been authorized to be raised from the country at large. Their designating numbers started where the Regular infantry's left off (that is, at 26) and ran through 49. The 36th and 37th were recruited from men already on duty in the Philippines, the 48th and 49th from Negroes. Practically all the officers of field grade for the new outfits came from the Regular Army.

In March 1899, companies went up in size to 112 enlisted men and regiments to 1,378. Three months later, companies in active areas, such as the Philippines, increased to 128. Thus enlarged, twenty-four regiments of United States Volunteers and twenty-five of Regulars made up the infantry which garrisoned the Philippines, Cuba, and Puerto Rico, as well as the United States itself. Soon it was necessary to make new provisions, since after 1 July 1901 the authorization for Volunteers and for the increases in Regulars ran out. The new arrangement, dated 2 February 1901, gave the number of Regular infantry regiments its first boost since 1866. Five new ones were authorized, the 26th through the 30th. These were the fourth units with these numbers to have been in the Regular service, the first having existed during the French crisis in 1798–99, the second during the War of 1812, and the third from 1866 to 1869.

This and other legislation of 1901 set the upper limits of the military establishment, but allowed the President to increase the size of companies by 6 noncommissioned officers and to raise the privates up to a total of 127 if he thought it necessary. Under this discretion, the authorized size of the Army fluctuated by executive order until World War I. Also, two new nationalities joined the infantry establishment, for the law sanctioned up to 12,000 Philippine Scouts and a provisional regiment of Puerto Ricans.

Native Filipinos had been organized into companies as early as September 1899, but having no official sanction, had been paid as civilian employees of the Quartermaster. Their official organization, which took effect on 1 October 1901, provided for fifty companies. The officers were from the Regular Army except for the 1st and 2d lieutenants, who could be selected from qualified natives. A battalion organization was introduced in 1904, and in the following decade thirteen Philippine Scout battalions came into being. After World War I these battalions, most of which had been parts of provisional regiments during the war, were grouped into permanent regiments and given numbers. They became the 43d, 45th, 57th, and 62d Infantry (Philippine Scouts).

As with the Filipinos, there had been an earlier organization in Puerto Rico, a battalion which had begun to operate during March 1899. This was combined with a battalion of mounted infantry, or-



VOLUNTEER INFANTRYMEN DURING PHILIPPINE INSURRECTION.

ganized in 1900, to make a regiment. Its companies were smaller than those of the Regulars and of the Philippine Scouts, and it contained two instead of three battalions. The Puerto Rico Regiment was manned by natives of that island but commanded by officers from the continent. In 1908 this outfit was incorporated into the Regular Army, and in 1920 it was redesignated as the 65th Infantry.

The organization of infantry regiments into three battalions of four companies each—finally brought about by the War with Spain—persisted as a permanent alteration. It is interesting to note, that with this change the Army returned to the regimental organization used from 1790 to 1792. This 100-year reversion, however, did not arise from a study of the earlier period—rather it sprang from the experience of the Civil War, coupled with that of the later wars in Europe. Experience had demonstrated that the old regiments were far too big to be effectively controlled in battle. As long as the system in which battalion and regiment were one and the same was followed, the regiment was a fighting subdivision in the line of battle. On the other hand, in the shift to more modern

practice which the infantry was making, the battalion was a fighting subdivision while the regiment exercised administrative control over three battalions. The fault in the shift was that the American battalion was too small to perform its work. This may be illustrated by comparing the new organization with those in Europe. The French and Prussian infantries both used regiments of three battalions, but the battalions were far larger. The Prussians had 1,000 enlisted men in theirs, the French close to 700, while Americans had no more than 425.

One of the major trends in military organization during the second half of the nineteenth century had to do with the organization of infantry below company level. Within two years after the Civil War, a new United States manual on infantry tactics was issued. Prepared by Maj. Gen. Emory Upton, it based all troop evolutions on movement by fours. Since a front of four men in proper line had a rear rank, the basic subdivision of the new system was really a squad, although that term was not used.

Upton's *Infantry Tactics* remained official for twenty-four years. During these years organization within companies took form. Accordingly, the *Infantry Drill Regulations* (the first manual to bear that name), issued in 1891, defined a squad more sharply than before. A squad contained seven privates and one corporal, and was made the basis of drill in extended order. Since extended order was gradually displacing close order, the squad gained new importance. Likewise, as the duties and the organization of a squad became clearer, those of half companies (that is, platoons) also took firmer form. Indeed, the fire of an advancing infantry line was carried out, according to the manuals, by platoon.

Throughout the half century the movement was toward the refinement of organization further and further. This meant giving small knots of men, and combinations of such knots, cohesion and special leadership. The development that launched this movement was the gradual replacement of line tactics by skirmish tactics. Along with it came changes in training and techniques, such as a set of arm signals by which company officers and their subordinates could control their men. All the changes, whether in organization or techniques, stemmed from the growing deadliness of firearms.

A weapon that would change the character of warfare, the machine gun, was being developed during this period. The first important model, the Gatling gun patented in 1862, was purchased by the United States during the Civil War. Tests made in the 1870's showed the Gatling to be equal to seventy Springfield rifles well aimed at 150 to 200 yards. Interest in the weapon increased and the United States bought several lots of it in the years after the Civil War.

As a result of the intercession of 1st Lt. John H. Parker, an inde-

GATLING GUNS SUPPORTING INFANTRY ON SAN JUAN HILL.

pendent battery of four Gatling guns, directly under the corps commander, took an active part in the Santiago campaign. The guns were directed against entrenched Spanish infantry with telling effect, and even against artillery. Parker contended they could do anything necessary to support infantry, but believed they would be more effective if made lighter (they weighed two hundred pounds). He also recommended that some sort of mounting, other than the awkward cannon carriage, be devised for them. Not infected with Parker's enthusiasm, higher commanders were inclined to look at the Gatlings as artillery, and not very good artillery at that.

The machine gun made its greatest advance when Hiram Maxim, an American inventor, patented one in 1883 which eliminated the need for a hand crank by operating on the energy of its own recoil. The United States experimented with it as early as 1888 but did not adopt it officially until the first decade of the twentieth century. Tests made in 1910 showed that one machine gun was equal to sixteen riflemen at ranges up to 600

yards; to twenty-two men from 600 to 1,200; and to thirty-nine men beyond 1,200 yards. Comparing these figures with those given for tests in the 1870's, it is clear that the repeating rifle had reduced the discrepancy between shoulder arms and machine guns a good deal. In any case, on account of the unwieldiness of the weapon and for other reasons, official doctrine on the machine gun remained very conservative.

This did not, however, prevent experiments in organization to utilize it. In 1906, for example, a provisional machine gun platoon of twenty-one men and two Vickers-Maxim guns was added to each regiment. Although the Secretary of War reported three years later that this arrangement had not worked well, the salient fact is that infantry regiments were never again without machine guns. In February 1908, an experimental company was constituted, headed by John H. Parker, now a captain. This company, although it went through several changes in organization, was the forerunner of the machine gun companies of infantry regiments in World War I.

There were other experiments in organization besides those dealing with machine guns. A headquarters detachment of seventeen enlisted men and fifteen mounted scouts was added to each regiment in 1912 for trial. With the machine gun platoon, it made up a regimental detachment the parts of which were trained intensively in their specialized duties. By 1915 the headquarters detachment had grown into a headquarters company "provisionally provided" for each regiment of infantry. (There had never before been headquarters companies in them.) In the same way, the machine gun platoon became a machine gun company, while a third new company, a supply unit, was also under trial.

The size of infantry regiments varied, within the limits imposed by law on the President, according to the duty performed. Regiments in the United States in 1912 had 65 enlisted men per company and a total of 870; those in the Philippines, 150 and 1,836; those in Hawaii and the Canal Zone, 72 and 954; the Puerto Rico Regiment, 65 per company with 591 total. The beginning of World War I in Europe added to the variety, for the possibility of American involvement caused the preparation of alternate tables of organization, one for peace, the other for war. Thus in June 1915, the peace strength of an infantry regiment was set at 959 officers and enlisted men; the war strength at 1,945.

Once the nation had become a colonial power on account of the War with Spain, the study of war grew more important, and Americans turned to a review of what they had to fight with. It was clear that the Regular Army was too small to make up the whole defense and that stimulation of the militia was therefore necessary. As a result, one phase of the reform of 1903 was to replace the Federal militia law which had been on the

books since 1792. This reform was particularly significant for the infantry because it comprised the bulk of the militia force. When the revised law went into effect, there were 107,422 enlisted men in the organized militia and 93,314 of them, or 87 percent, were foot soldiers.

The Militia Act of 1903 attempted to draw the National Guard (as the organized militias of the several states were coming to be called) closer into the military force controlled by the Federal government. This implied better training in peace time. When the act was passed, the improved training began to operate, and this, plus the beginning of war in Europe, accelerated the drawing together. Initially, according to the act of 1903, the United States could retain National Guard forces in its service for just nine months, whereas by 1908 Federal power had so enlarged that the President could specify the length of their service. Also, National Guard units volunteering for Federal service in 1903 could keep the officers they had; but by 1914 the power to appoint all officers, when the Guard was on active duty, had fallen to the President with the advice and consent of the Senate.

The great reforms in the Army which took place in 1903 affected the Regular infantry only indirectly. Creation of a General Staff and Army War College brought about co-ordinated thinking which, of course, touched the infantry. Very early, it was seen that, because of the great preponderance of infantry in the National Guard, the forces of the United States were out of balance. The Secretary of War hoped to offset the imbalance by maintaining a high proportion of cavalry and artillery in the Regular Army. Also, some foot units of the National Guard in seaboard states were converted into coast artillery. This does not mean that there was an excess of Regular infantry. On the contrary, in 1909 the Secretary asked that both infantry and artillery be increased. He fixed the proper proportion of infantry at 50 percent of the whole; but in the decade from 1901 to 1911, the ratio actually dropped from 50 to 35 percent.

Finally, it is necessary to mention the growing role of the Signal Corps in support of infantry. During the Civil War, the Corps had provided strategic communication, but by the time of the War with Spain it gave some tactical communication as well. This was accomplished by means of signal flags and, to an ever increasing extent, by telephones. Telephone lines began to follow the infantry very close to the firing line. This was but a beginning, for telephones supplemented by radios were to be the medium which in the twentieth century would link units of the same force on the vast battlefields, and link them better than they had once been linked by close-order formations.

The First World War

A full ten months ahead of the formal entry of the United States into World War I, the National Defense Act of 3 June 1916 erected the framework on which to expand the military establishment if conflict should come. At the time, there were thirty-one regiments of Regular infantry, counting the Puerto Rico Regiment of two battalions, plus thirteen battalions of Philippine Scouts. In addition, the National Guard contained around 110 regiments of infantry.

The National Defense Act raised the authorized size of the Army from 100,000 to 175,000, and provided that the increase be made in five annual increments, beginning 1 July 1916. The first increment included seven new infantry regiments, the 31st through the 37th. The 31st was organized in the Philippines, the 32d in Hawaii, the 33d in the Canal Zone, and the other four were organized in the continental United States. All seven of them expanded from cadres supplied by specified existing regiments. As soon as the United States entered the war, twenty-seven new infantry regiments were constituted and organized by the transfer of cadres from the other thirty-seven. When this process was completed, the Regular infantry comprised sixty-five regiments, seventeen more than ever before in American history.

The National Defense Act recognized four elements in the land forces: the Regular Army, the National Guard, the Reserve Corps, and in wartime the Volunteer Army. Once the nation actually went to war, the character of the latter element changed, for volunteering was scrapped except in the Regular Army and in the National Guard. The Volunteer Army became the National Army, which was raised by conscription. All in all, the wartime Army contained 297 infantry regiments of one kind or another and 165 machine gun battalions classed as infantry.

Infantry regiments and machine gun battalions together totaled 462 in World War I, a figure which is dwarfed by the 1,700-plus infantry units that served in the Civil War. One of the reasons for the contrast was the fact that regiments had increased three times in size; but the chief reason was that the units of the later war remained to the end, while those of the earlier one came and went.

The War Department on 11 July 1917 set up a system by which infantry units were to be designated. The designating numbers for all segments of the Regular Army began with 1. Regiments ran from 1 through 100, but these slots were never all filled. Just sixty-five Regular infantry regiments, in twenty divisions, came into being, and the higher numbers allocated to the Regulars were finally used by National Army units. No 66th was raised, but during July, August, and September 1918,

INFANTRYMEN ADVANCING THROUGH BARBED WIRE IN FRANCE.

the 67th through the 90th were organized around cadres from the first sixty-four. None of them (67th–90th) reached the theater of war. The numbers reserved for infantry regiments of the National Guard began at 101 and ran to 300, those for the National Army began with 301. Actually, the Guard regiments never used the numbers beyond 168, nor the National Army those past 388. The 376th through 378th, 381st, 382d, 385th, and 386th never came into being.

Late in the conflict, on 7 August 1918, the distinction between National Guard, Reserve Corps, Regular Army, and National Army was legally abrogated and all four elements were fused into one organization, the United States Army. This was the first time in American history that career soldiers, citizen soldiers, and drafted men of the infantry found themselves on the same legal basis.

Three years of observation of the war in Europe had convinced the General Staff that American tables of organization were obsolete. Accordingly, a series of changes in them began. The first one altered the

existing triangular division, containing elements grouped by threes, to a square one. In this change, the three brigades of a division and the three regiments of a brigade gave way to two of each. The final result was a much larger division and brigade than any used by the nations of Europe. At the time of the armistice on 11 November 1918, an American division contained 28,105 men, nearly twice the number in European units. Firepower in both division and brigade was greatly augmented.

In the transition from triangular to square divisions, and in the consequent alteration of regiments and battalions, the elements of the National Guard were seriously dislocated. Since out of the 367,223 enlisted men of the Guard originally inducted, 242,000 (66 percent) were infantrymen, it was believed necessary to break up many infantry units. As a result, old regiments and other units were consolidated and broken up, thereby losing their identity and their proud state designations.

A typical example of the dislocation took place in the infantry elements of the state of Massachusetts. The old 2d Infantry was fortunate enough to remain intact under a new number as the 104th Infantry. The three other regiments, however, provided men for three infantry regiments (the 101st, 102d, and 103d) as well as for the 101st Engineer Train, the 101st Supply Train, the 101st Train Headquarters and Military Police, and the 3d, 4th, and 5th Pioneer Infantry.

Several of the newly constituted regiments of pioneer infantry drew their personnel from the breakup of National Guard units. Resembling standard infantry regiments only in size (3,551 men), they were in reality a labor force used primarily to repair roads and bridges. Thirty-seven regiments were organized in all, the 1st through the 6th, 51st through 65th, and 801st through 816th. National Guard personnel went into the 1st through the 59th regiments and drafted men into the 60th through the 65th. The outfits in the 800 series were formed of Negro personnel in 1918 to relieve the 1st through the 61st regiments, so that the latter could reorganize for service as combat infantry.

Regimental organization underwent some changes, but the National Defense Act forbade increasing the number of companies in a regiment beyond fifteen. Among the fifteen, a headquarters, a supply, and a machine gun company received permanent status for the first time. In any case, the changes reflected the requirements of trench warfare in Europe. Hence, an infantry regiment jumped from 2,002 to 3,720 enlisted men with an even larger increase in firepower.

The increase in size resulted from the need for deep formations in both attack and defense. In the attack, two battalions abreast might make up the first wave and the companies within them would be arranged also in depth. Behind the attack wave would come a support wave, per-

haps the third battalion, and behind it would be elements withdrawn from the three battalions operating as a reserve. Likewise, successive positions in depth were the standard formation in defense. Such formations to be adequate required large regiments. As had been the case since the War with Spain, infantry regiments contained three battalions of four companies each.

At the root of the organizational changes listed, and others that took place, were the demands of weapons. The machine gun led the list. The necessity to develop a proper organizational framework for the best use of that lethal arm raised a thorny problem, a problem which was heightened by the great increase in the number of guns. In May 1917 there was but one machine gun company for each infantry regiment, while by July the number had risen to one per battalion. The ideal arrangement, after July, was to include three machine gun companies in every infantry regiment. Unfortunately, this could not be done—because of the way the National Defense Act was worded—without cutting some rifle companies out of the regiment. Accordingly, it was necessary to create machine gun battalions that were elements of brigades and divisions, leaving just one company organic to infantry regiments. In numbering, the machine gun battalions followed the general rule. Battalions of Regular divisions and brigades were given numbers from 1 through 60; those of the National Guard from 101 through 151; and those of the National Army from 301 through 366. Since the 6th, 46th, 352d through 357th, 361st, 362d, 364th, and 365th were not organized, there was a total of 165 active infantry machine gun battalions during World War I. These units had to be put together from diverse segments of others that were broken up, hence their histories have not been passed down to modern outfits except in the National Guard.

The brigade battalions of machine guns contained three companies, while the division battalion was at first organized with four. This made a very awkward arrangement since machine gun companies had to be drawn from three sources—regiment, brigade, and division—in order to work with infantry battalions. Although the arrangement remained awkward throughout the war, and brigade and divisional battalions continued to exist, the division machine gun battalion was finally reduced to two companies. These were motorized and used as a highly mobile element of the divisional reserve.

It was easier to alter organization in order to include machine guns than it was to supply these weapons. Although machine guns had been included in American arms since 1862, World War I expanded their use so much that manufacturers in the United States could not at first supply enough of them. As a result, American doughboys employed Chauchat

2D LT. VAL A. BROWNING, SON OF THE INVENTOR, *instructing men of 315th Machine Gun Battalion in use of Browning machine gun.*

automatic rifles and Hotchkiss heavy machine guns made in France, as well as some British and American Vickers machine guns. The new American .30-caliber heavy machine guns and automatic rifles invented by John M. Browning were not used against the enemy at all until September 1918, only a few weeks before the armistice.

Of all the weapons an infantryman handled, his rifle changed the least. For supply reasons, the British Enfield became standard. It did not differ very much from the Springfield Model 1903, which the soldier knew. Likewise, the bayonet of the Enfield, a knife seventeen inches long, resembled the one it temporarily replaced. In short, the standard rifle required no changes in the organization of units, but its power, coupled with that of other weapons, enforced changes in fighting formations.

Trench warfare brought with it a pressing need for weapons that were decisive in close combat. Out of this need came hand grenades, rifle grenades, and more extensive use of pistols and revolvers. Such short-range fireweapons tended to supersede cold steel and rifle butts as the tools of shock action, but American doctrine considered proficiency with the bayonet as still indispensable because it gave confidence and aggressiveness to foot soldiers.

In addition to the weapons that infantrymen handled as individuals, there were two served by crews. One, also a creature of trench warfare, was the Stokes mortar, which could lob projectiles into enemy trenches and shell holes. Another was the one-pounder cannon, an antitank and antimachine gun piece. These two weapons were placed together in a platoon of the headquarters company of every infantry regiment.

The weapons mentioned above, coupled with artillery, gas, tanks, and aircraft, dictated the minor tactics of infantry and slaughtered the troops of commanders who failed to heed their dictates. Indeed, machine guns are credited with having created the war of position and the accompanying stalemates which prevailed during 1915, 1916, and 1917. General

23D INFANTRY ADVANCING NEAR BOURESCHES, FRANCE. *(One-pounder cannon in foreground.)*

John J. Pershing carried this interpretation farther. He said that trench warfare had caused the belligerents in Europe to embrace a faulty doctrine. They placed too great a reliance on artillery and on mechanical aids. Pershing insisted, in contrast, that the basis of a sound army remained, as it had always been, a sturdy infantry. Accordingly, he required that American foot soldiers be trained primarily for open warfare, and only incidentally for duty in the trenches.

As already noted, depth was necessary to infantry formations. In the attack this meant successive waves of men; in defense, numerous positions, staggered irregularly one behind the other. Thus, all units from division down to platoon were organized to give the required depth within their respective sectors. The war confirmed the trend toward refining the organization of infantry units. Squads and platoons proved to be indispensable in twentieth century combat. Frequently the outcome of a

fight depended on the integrity of those elements since they, and they alone, could be controlled personally by their leaders when under very heavy fire.

In addition to being organized to give depth, units at all levels were formed to give effect to the new weapons and to avoid losses from them in the hands of the enemy. It has been noted that the expanding use of machine guns required reorganizations which reached from divisions down to companies. The other weapons exacted changes, but they were not quite as widely disseminated. For example, infantry mortars and one-pounder guns found a place in the headquarters companies of regiments. Hand grenades, rifle grenades, and automatic rifles caused many changes in the organization of companies and their components. The question as to their best arrangement was never definitely settled during the war. All were included in a rifle company, but sometimes the automatic riflemen were formed together, as were the grenadiers and rifle grenadiers, other times they were scattered among the squads. As late as November 1918, in the Meuse-Argonne campaign, the specialists stayed together in combat groups, but the trend was toward dispersion so that every squad contained at least one automatic rifleman, one good grenade thrower, and one rifle grenadier.

Whatever the organization, extended order became necessary in combat. Men could not bunch up and live. Therefore, close formations had to break up when they came within artillery range. Approach to the enemy resulted in a progressive extension, and this in turn threw a greater burden on the commanders of platoons and squads. Small units of men inched themselves forward, taking advantage of shell holes and other cover.

It remains to mention briefly two allies of infantrymen that virtually revolutionized their combat methods. The first was the motor truck, which gave foot soldiers greater mobility than they had ever before had. The second was a miscellany of signal equipment. This helped the infantry to operate with some degree of co-ordination on huge battlefields where arm signals could no longer be seen and noise drowned out the human voice. It aided in making foot troops an effective instrument of the will of the commander, and served to rectify, at least a little, the disorganization that resulted from the necessity for soldiers to disperse widely in order to survive.

Between World Wars, 1919–1941

During the two decades between world wars, the infantry underwent startling changes that exceeded any in its previous history. The greatest of

these was in speed. In 1919 a prime object had been to secure trucks to replace horses, so that foot soldiers could move toward the battlefield at fifteen to twenty-five miles an hour. In contrast, twenty years later the equivalent object was to use aircraft so that doughboys could hurtle toward fields of battle ten times as fast.

These twenty years were as contradictory as they were revolutionary. In them, the foot establishment declined steadily for the first seventeen years, and then soared to great heights in the last two.

During the first of the two decades, the impact of World War I was naturally dominant. Civilian Americans were determined to retrench from the unheard of costs of world war and, while they were at it, to forget warfare altogether. As a result, the authorized strength of the Regular infantry slid from 110,000 in 1920 to 40,331 in 1932. The proportion of foot soldiers to the whole establishment likewise dropped from near 50 percent to slightly less than 25.

So great a cut in the infantry—it amounted to 63 percent—of course played havoc with the regiments. Of the sixty-five in the Regular service, eighteen were inactivated in 1921 and eight during 1922. None of these were revived until 1940 and after. This heavy pruning left the block of regiments from the 1st through the 31st intact, with scattered numbers thereafter. The 33d, 34th, 35th, 38th, 42d, 45th (Philippine Scouts), 57th (Philippine Scouts), and 65th (Puerto Rico) Infantry survived, but the 42d was inactivated in 1927.

Even after twenty-seven infantry regiments had been inactivated, it was necessary to lop some battalions from those that survived. In consequence, by 1938 there were fourteen regiments out of the thirty-eight with but two battalions apiece. Nor was the whole reduction yet complete. Next, it was necessary to modify the tables of organization so that in peacetime all but two regiments had headquarters detachments instead of companies, while only one had a howitzer company, the rest having howitzer platoons. Also, rifle and machine gun companies contained two instead of three platoons. Thus reduced, they were hard pressed to turn out one war-strength platoon for purposes of training.

It is apparent from the figures just given that the thinking of Congress and of the people was more isolationist than before World War I. This fact, reflected in the emaciation of the Army, enforced a defensive psychology on the officers in the service. Accordingly, during the 1920's strategic planning was based on the assumption that if a major war came, it would be waged against the United States by some first-class power fighting in the Western Hemisphere.

The squeeze was aggravated by the expansion of the Air Corps, whose growth could only proceed at the expense of the other arms. By mid-1931

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the infantry had already given 2,656 enlisted men to the growing air arm, and was soon to be drawn on for more. It was necessary to inactivate five battalions in 1930 to meet the quota.

A sharp pinch persisted until 1935, when the government's policy of spending to combat the Great Depression finally reached the Army and resulted, among other things, in an increased appropriation for personnel. This policy was abetted by the troubled state of Europe. At first the growth was slow, so that by 1939 the infantry had risen 17,000 from its 1932 low. That year the overall policy changed. Whereas before 1939 the Army had been recognized as no more than a cadre, afterwards there was official recognition that an army-in-being was needed, and $1,000,000,000 appropriated to implement its creation.

Beginning in 1940, some of the Regular infantry regiments, inactive for eighteen or nineteen years, were reactivated. That same year, forty regiments of National Guard infantry were inducted into Federal service, and the next year, thirty-six more. Hence, by mid-1941, there were 379,845 infantrymen of all types in service, organized in 136 regiments (including 18 armored), 32 battalions (15 of them tank), and 34 separate companies.

Even this number did not seem adequate to the Chief of Infantry, whose office was created in 1920. He pointed out that combat infantrymen made up less than 25 percent of the whole Army under the expansion plans, as contrasted with 50 percent in the German establishment. Such a proportion, he said, was not justified. It resulted from the fact that certain elements had been brought into the Army which tended to squeeze the infantry out. One of these was the heavy siege elements introduced during World War I for reducing trenches; the other was the armored element brought in afterward for use in distant maneuver. If the high command shared this view, it did not show the fact by altering the ratio of infantry to the whole Army. However, basic doctrine as late as 1939 restated the old principle that infantry was the prime element in combat, and that rifle and bayonet were still the chief weapons.

The experience of World War I was distilled into one document that cut across every phase of military life. This was the National Defense Act of 1920. It touched the infantry in many ways, but the principal way was in the creation of a Chief of Infantry. For some years agitation to provide the combat arms with chiefs had been growing. As a result of the National Defense Act, the doughboys after 1 July 1920, for the first time in United States history, had a chief who was the peer of the chiefs of the cavalry, coast artillery, field artillery, and of the technical services.

Another consequence of that comprehensive act was the assignment of tank units to the infantry. Thereafter for twenty years, development

of tank materiel and doctrine was a responsibility of the Chief of Infantry. Tank units were known as "infantry (tanks)." A Tank Board and a Tank School were transferred in 1920 from the abolished Tank Corps of World War I, along with a number of tank companies. In 1929 some of these companies were formed into two newly constituted regiments, designated the 1st and 2d Tank Regiments. In 1932 they were redesignated as the 66th Infantry (Light Tanks) and 67th Infantry (Medium Tanks), respectively. The next year saw the constitution of two additional light tank regiments, the 68th and 69th, which were kept inactive. In 1940 the 69th was disbanded and the other three regiments, together with the former divisional tank companies, were assigned to the new Armored Force.

Lean as the infantry establishment was between world wars—even with the tanks in it—it nonetheless benefited from more careful planning and study than ever before. A few months prior to the appointment of a Chief, an Infantry Board designed to guide and plan developments in weapons and organization came into being at Fort Benning, Georgia. This body reported to The Adjutant General through the Infantry School. Attached to it was a Department of Experiment whose mission was to subject weapons and equipment to extensive tests. Naturally, when the Chief took office these units became responsible to him.

The Chief of Infantry, the Infantry School, the Infantry Board, the Department of Experiment, the Tank Board, and the Tank School engaged vigorously in the development of infantry. Their earliest contribution was a complete revision of the tables of organization. In this alteration, made during the twenties, the square division survived, but some of its infantry components were considerably modified. The most extreme change took place in infantry battalions, where one rifle company was eliminated and replaced by a machine gun company. This corrected the confusion of World War I in the use of machine guns by placing heavy machine guns under the control of infantry battalion commanders. Almost as extreme was the reduction of the number of platoons in a rifle company from four to three. Both these changes were in the direction of what was later called "triangularization," although it was not yet accepted as a broad principle.

Such changes, of course, reduced the firepower actually carried forward by infantrymen in an assault. No one claimed that the heavy machine guns, now organic to a battalion, could keep pace with the attacking doughboy. The reduction stemmed in part from the experience of the recent war which had shown that the number of rifles in a regiment was close to impossible to control. Also, it stemmed from the shrinking quantity of manpower available to the Army. In any case, two

types of tables of organization were prepared, one for war, the other for peace. This dualism persisted to the very eve of the next war.

By the early thirties, improvements in weapons had made it possible for fewer men to deliver the same volume of fire. As an example, experts tinkered with the Browning Automatic Rifle (BAR) in an effort to correct its known weaknesses. By adding a butt plate, a small bipod, and a cyclic rate regulator, they greatly augmented the value of the weapon. The improvements, unfortunately, added five pounds to its weight.

The automatic rifle remained located within the rifle squad where it had come to rest at the close of the war. In 1930, one more was added provisionally to build up infantry firepower, making two to every squad. This arrangement did not last long but gave place to the older order in which one BAR was in every squad. Not until 1 February 1940 was this organization disturbed. Then, at the express request of the Chief of Infantry, who thought the added weight of the gun had put it out of the class of arms to be carried forward by riflemen, the BAR was removed from the rifle squad and put into a separate squad within the rifle platoon.

The BAR was not regarded as the decisive element in infantry firepower. American emphasis remained on the individual doughboy's shoulder arm. Accordingly, in the effort to substitute firepower for manpower there was a continuous search for an efficient self-loading rifle. Experiments by the Infantry Board soon made it clear that a semi-automatic rifle could increase the infantryman's rate of fire from ten or fifteen aimed shots to twenty or thirty per minute. What is more, the rounds could be better aimed because the marksman did not have to unsettle his aim to operate a bolt.

The Garand rifle, designated M1, was selected for development. By 1934 there were eighty M1's on hand, and by the fall of 1938 they were replacing the 1903 Springfield at the rate of 150 per week. Even so, the new rifle did not replace the old until after war had begun. Since the new rifle could deliver twice the fire of its predecessor, it made possible reductions in other weapons. For example, the total of automatic rifles in a regiment dropped from 189 to 81 in 1943. Although the figure subsequently rose, it never again, not even in war, attained the earlier level.

Likewise, the M1 influenced fire tactics. Notwithstanding that arms like it were known and used in Europe, they did not affect doctrine the same way as in this country. On the continent, firepower was increased principally by augmenting the number of light machine guns, while in the United States the increase came principally from the faster shooting shoulder arm of the individual rifleman. Thus in Europe, fire superiority depended on a gun served by a crew; in the United States it depended on the individual doughboy and his weapon.

It is not implied that the American Army slighted light machine guns. On the contrary, the World War I weaknesses of the BAR, together with its limitations, provoked much research to develop a suitable light machine gun. During the twenties and part of the thirties, the BAR was included in infantry armament only as a substitute for a hypothetical light machine gun which experts expected to be developed. Finally, in February 1940, at the suggestion of the Chief of Infantry, a true light machine gun appeared for the first time in the table of equipment. As this weapon was in very short supply, the improved BAR was made the official substitute. As a result, for the time being, BAR's were found in two different portions of an infantry company. They were standard armament in each rifle squad, and in addition, they were substitute armament in what was called the weapons platoon.

This weapons platoon (new in 1939) was part of a trend to integrate all necessary weapons except artillery and tanks into the basic tactical unit, the battalion. That trend made every element of an infantry battalion, even the squad, a more complex organization than before, and at the same time vastly increased its firepower. The heightened complexity, of course, brought with it the need for better communications, better training, and above all better leadership.

The improvements in portable weapons were important, but by no means as sharp a break with the past as the development of the arms that have come to be known as heavy weapons. These were first used during World War I; hence there was much to be done toward improving them and adjusting organization to use them most efficiently.

The first change to accommodate organization to the heavy weapons was the creation in 1920 of a howitzer company in each regiment to utilize the Stokes mortars and one-pounder cannon. Since the Regular infantry had not enough men to maintain the new howitzer companies, they were reduced to platoons. The National Guard, however, continued to support full companies. Into the howitzer unit, whether platoon or company, from time to time went various heavy infantry weapons devised between the wars. Among these were 81-mm. mortars, which were first used in very limited quantities in 1932; the various types of 37-mm. cannon, which replaced the one-pounder cannon; and .50-caliber machine guns.

The howitzer company was always more of an aspiration than a reality. Its name gave no clue to the weapons in it. Rather the name indicated the desire for a howitzer to accompany the infantry, a need which combat in World War I had seemed to reveal. In the years between wars no adequate accompanying cannon was developed. Finally, in the sweeping revision of 1939, the howitzer company was eliminated and its

DISPLAY OF THE VARIETY OF INFANTRY WEAPONS, 1927.

37-mm. cannon put into a new antitank company in each regiment.

In the same broad revision, the old machine gun companies of infantry battalions were reorganized to become heavy weapons companies. They absorbed the .30-caliber heavy machine guns of the older company and, in addition, acquired two 81-mm. mortars and two .50-caliber machine guns. The creation of the battalion heavy weapons company was part of the trend to include all weapons within a battalion that it would need to use whether attacking or defending. The process added greatly to the firepower of a battalion.

All the changes in organization and all the vigorous experiment with arms did not actually produce the weapons that were needed for training. Everything was in very short supply. In consequence, as late as 1941 mortar crews went through maneuvers with stove pipes and the crews of light machine guns set up and aimed broomsticks. These harsh facts caused the Chief of Infantry to state on the eve of war that a conscious-

ness of obsolescence in all their arms had seriously damaged the morale of American infantrymen.

After 1939, battalion heavy weapons companies, regimental antitank companies, and weapons platoons within rifle companies were largely manned by soldiers who required some side arm other than the heavy Garand rifle. The ideal weapon for the crews of mortars, machine guns, and antitank guns had to be light, have a rapid rate of fire, and yet have greater range and accuracy than a pistol. As a result, the number of pistols authorized declined steadily, while new light side arms multiplied. One of the latter was the carbine, which came into general use in 1942. Another was the submachine gun, which had been used experimentally since 1922.

World War I had displayed two very pressing needs in warfare. One was for protection from devastating fires, the other for greater mobility. When applied to infantry, the two were contradictory, for the more protection the infantryman had, the heavier and slower he tended to become. After the war, tanks were made part of the infantry. They offered foot soldiers some added mobility and some protection. Accordingly, infantry doctrine took tanks into account, and the American infantry division included a company of light tanks in its organic structure. Indeed, in the basic theory expressed in the Field Service Regulations of 1939, armor was given the primary mission of helping the infantry advance. This being so, one can understand why the Chief of Infantry strongly protested when in July 1940 armor was removed from infantry control. As of 1939, tanks dropped out of infantry divisions, and never re-entered organically until after World War II.

Mobility was slowly increased in the infantry by the use of trucks. Hardly anyone doubted the value of motor vehicles to speed the movement of foot troops, but lack of funds restricted their use. Beginning in 1922 trucks replaced animals in the field and combat trains of four regiments. Later, other regiments received vehicles for the same purpose. By 1932, twelve were partly motorized. The trucks, however, were mostly worn-out leftovers from World War I.

It was the priming of the economic pump that finally secured some new vehicles for the infantry. In 1936 Congress authorized the purchase of 1,000 trucks and cars. With these, division and regimental headquarters could have autos, and six regiments could motorize their machine gun companies and howitzer and communications platoons.

Experiments with organization, motorization, weapons, and equipment were continuous in the decades between the wars, but the culminating experiments took place in 1937, 1938, and 1939. These were brought about by a growing belief among military leaders that the square di-

visional organization of World War I was too large and too unwieldy. Experts did not expect the static warfare of 1915–17 to recur; hence they no longer saw the need for the great power of penetration possessed by the square division. On the contrary, mobility was rising in importance, and it was hampered by large numbers. Regimental organization was in such confusion that there were five different types in the United States, while no two regiments serving overseas were alike. This was another consideration which prompted attempts to reorganize.

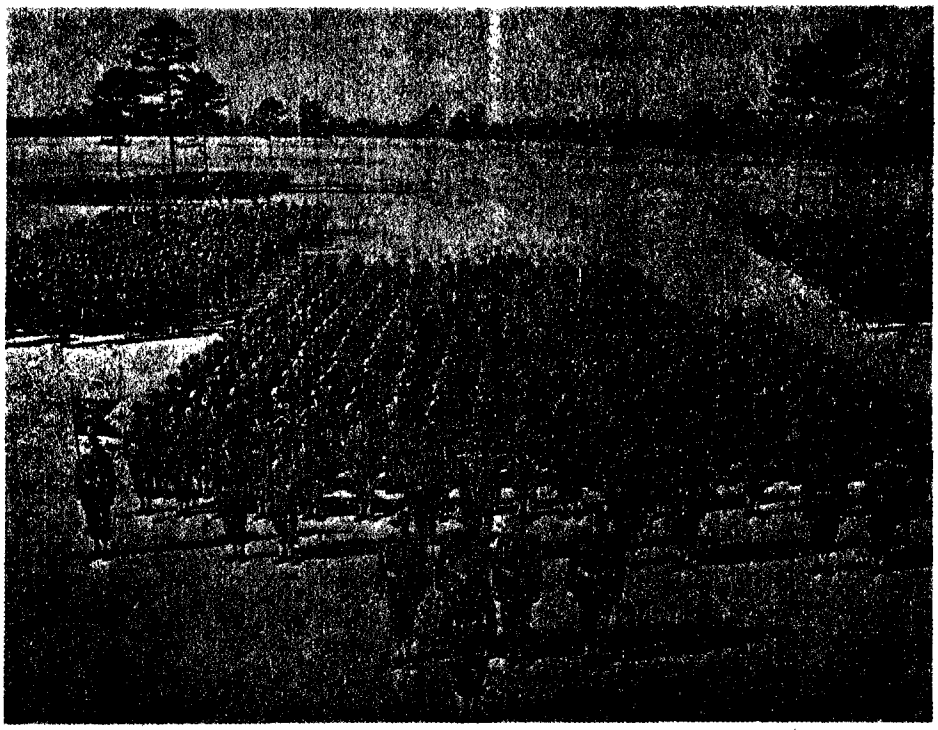
The object sought was an infantry division that was smaller and faster than the old one but with as much firepower. To obtain it the infantry establishment, from squad up to division, was given the most thorough examination it had ever received. Not everyone engaged in the examination agreed as to the means to the end. Most accepted three infantry regiments to a division, but differed as to their composition. The Chief of Infantry, for example, proposed four instead of three platoons to a rifle company, and a fourth rifle company in each battalion.

In any case, in 1937 the 2d Division was formed into a provisional unit to test the various proposals. For several months it tried out the suggested arrangements in the field. The trials were remarkably thorough, although they were handicapped by shortages of weapons and vehicles. For example, no light mortars were available, while only one regiment could be completely equipped with the M1 rifle. There were not enough .50-caliber machine guns and, of course, no light machine guns at all.

What emerged from the tests was a full new set of tables of organization which became effective during 1939. The new tables were built upon a triangular basis in which elements within an infantry division, from squads up to regiments, were associated by three's. Two levels of organization in the infantry were eliminated altogether, one large and the other small. These were brigades and sections. Triangularization made possible a simple and effective tactical doctrine, but some experts belittled this aspect. They said that the real reform in 1939 did not come from embracing a triangular organization but from the modernization of weapons that accompanied it.

The cornerstone of all infantry organization, the squad, was enlarged for wartime from eight men to twelve. This was done in spite of the evidence produced in the field tests that seven or eight men were all one corporal could hope to control in battle. The Chief of Infantry strongly urged the increase. The command weakness of so large a squad was corrected late in 1940 when the leader was made a sergeant and his assistant a corporal. With two noncoms in charge of it, the infantry squad would remain at twelve throughout the coming war.

One fact that made smaller divisions feasible was the fixed principle



2D BATTALION, 140TH INFANTRY, MISSOURI NATIONAL GUARD, *at Camp Joseph T. Robinson, Arkansas, 1941. (Remainder of regiment in background.)*

that divisions would usually operate as parts of larger units, that is, corps and armies. As parts, they could draw upon pools established in the big elements whenever they needed more men or more equipment than was normal. In other words, they would retain as organic only the units they needed for normal operations. The War Department called this arrangement "pooling," and put it into effect wherever practicable. The new grouping of heavy and crew-served weapons into battalion heavy weapons companies was a practical application of pooling. Also, the antitank weapons of regiments were pooled in antitank companies, and light machine guns and mortars in the weapons platoons of rifle companies.

The regiment adopted in 1939 was much smaller than before, containing but 2,542 men. According to the Chief of Infantry, such a regiment was too small by several hundred for effective combat action,

and he vehemently protested. His protests resulted in new tables of organization the next year which raised the strength of a regiment by 907 men, and battalion and company proportionately.

The new triangular organization was put into effect in the Regular Army during 1939. Within the National Guard, however, the square organization, somewhat modified, persisted even after many units had entered Federal service in 1940.

All in all, the Chief of Infantry contended, and rightly, that in the years from 1937 to 1941 American infantry had undergone a real revolution. The foot establishment had been arranged along lines that were more carefully tested than ever before in peacetime. As for weapons, they were turned over completely, except for the .30-caliber heavy machine gun. The 60-mm. mortar (first adopted as standard in 1937, but remaining scarce) had replaced the old Stokes and its successors, while the heavier 81-mm. mortar had been introduced. A light machine gun had actually been adopted, and the BAR was so much improved as to be virtually made over. Finally, the 1903 Springfield shoulder rifle had yielded its place to the semi-automatic M1. In addition, new small arms such as carbines and submachine guns had entered infantry armament, together with a larger machine gun, the .50-caliber.

As a result of the revolution, the Chief of Infantry believed his branch to be organized on sound principles. The battalion, he said, was now a complete combat unit which contained within itself all elements, save armor and artillery, necessary to attack or to defend. Its weapons could be employed in direct or indirect fire and for high angle missions, or, if needed, for those requiring flat trajectories and high muzzle velocity. It was no longer dependent on attachments from regimental units for its firepower, needing to draw on pools only under unusual conditions.

Moreover, the elements of infantry were arranged according to mobility. A squad had the standard mobility of a rifleman; a platoon that of a BAR man. Platoons contained no crew-served weapons, and none requiring continuous resupply of ammunition. No weapon in the platoon served as a focus for hostile fire. At company level, the heaviest weapons (light machine guns and 60-mm. mortars) could be carried by hand; even a battalion contained no guns which could not be manhandled for several hundred yards. All weapons needing prime movers were placed in regimental units.

The Second World War

The coming of war resulted in the largest expansion of the infantry ever undertaken. During the three years, 1941–43, it increased 600 per-

cent. Although this was 100 percent more than the field artillery, it fell far short of some of the newer arms, for example the antiaircraft artillery, which expanded 1,150 percent and later had to be cut back. In any case, before the conflict ended sixty-seven infantry divisions saw overseas service, plus one mountain and five airborne divisions, as well as a cavalry division which fought as infantry. Even the creation of armored divisions expanded the infantry, since they contained substantial foot components.

There were in all, at some time during the war, 317 regiments of infantry of various kinds. Among these were types unknown before the war, such as three mountain, twelve glider, and sixteen parachute infantry regiments. In addition there were 99 separate battalions, some of which were also very highly specialized.

Among the remarkable separate battalions were the 1st–6th Rangers. These were light infantry trained to slash deep into enemy-held territory in order to demoralize the foe in every way they could. Although the ranger battalions were not created by redesignating existing infantry outfits, and so not given any official history before the time of their constitution in 1942, they were nevertheless heirs to a very old and proud tradition. That tradition went further back than the American Revolution; indeed the rules drawn up by Robert Rogers in 1757 for his famous ranger companies that served for England in North America were reprinted for use in training the rangers of World War II.

The rangers were not the only infantry constituted to perform commando missions. A comparable unit was the 1st Special Service Force, established in July 1942. This force was designed to operate behind enemy lines when snow covered Europe. Accordingly, all its men were volunteers whose civilian aptitudes seemed to prepare them for swift operations in snow. Among them were lumberjacks, game wardens, forest rangers, and professional skiers. The 1st Special Service Force was remarkable also in another way; its personnel were drawn about equally from Canada and from the United States. It was an early experiment in international co-operation, and it worked well. After vigorous campaigning—but not much of it in snow—the unit was disbanded in January 1945 and most of its American personnel transferred to a new regiment, the 474th Infantry.

Still another commando-type outfit was the 5307th Composite Unit (Provisional), which was organized in October 1943. Its specialization was operation in Burma along the Ledo Road, and its personnel were drawn from men who knew jungle fighting. This unit was commanded by Brig. Gen. Frank D. Merrill and became very famous under the nickname of "Merrill's Marauders." Like the men of the ranger battalions and of the 1st Special Service Force, the Marauders were volunteers. At

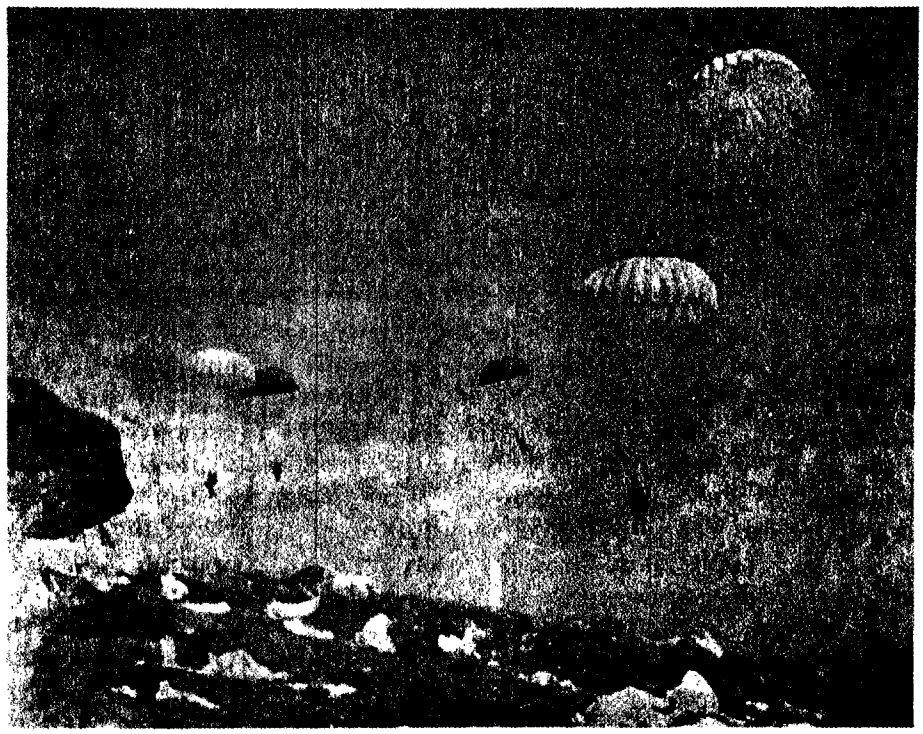
length, on 10 August 1944 the unit was reorganized and called the 475th Infantry.

Another type of specialized infantry was that intended to provide the foot elements of the new armored divisions. It was called "armored infantry." The first unit of this type in the United States Army came into being when the old 6th Infantry was reorganized as armored on 15 July 1940. In addition to the 6th, certain regiments which had been on the inactive list since just after World War I were reactivated to become armored infantry. These were the 36th, 41st, 46th, 48th–52d, 54th–56th, 59th, and 62d Infantry. Most of the armored infantry regiments were broken up during World War II to form separate armored infantry battalions, but the 41st and 36th Armored Infantry—assigned to the 2d and 3d Armored Division, respectively—retained the regimental structure throughout the war.

Armored infantry differed very little from standard infantry, and Lt. Gen. Lesley J. McNair, Chief of Staff, General Headquarters, objected to its differing at all. The chief variance was that armored troops had enough organic vehicles to move all of their men at once. They shared this characteristic with motorized infantry (an element of motorized divisions), which came into existence in August 1940 and lasted only until July 1943. Unlike motorized, armored infantry had vehicles that could operate cross-country and that were lightly armored to repel small arms fire.

Several types of light infantry were also extensively tested. One was specialized for jungle action. This type, embodied in the regiments of the 71st Light Division, never had a chance to prove itself in combat. It had not shown to very good advantage in training; hence it was converted to standard infantry in the early summer of 1944. In consequence, it was the ordinary doughboy who, beginning in the fall of 1942, did the jungle fighting in the Southwest Pacific. Another specialized type was organized for use in mountains. It was embodied in the regiments of the 10th Mountain Division, which, unlike the jungle division, enjoyed a brief opportunity to practice its specialty. The 10th Division reached Italy late in 1944 and took part in the fight. Its arrival, however, did not preclude many other infantry outfits from having to fight in the mountains the best way they could.

The last of the nonstandard types of infantry units to be considered here was the most specialized. It included the foot soldiers who were trained and equipped to reach the combat zone by air and to assault from the air. Their primary mission was to land behind the enemy's main line of resistance and there employ commando tactics. This type, new in the United States, like armored infantry, was first organized in 1940. As with



PARATROOPERS OF 503D PARACHUTE INFANTRY *dropping on Corregidor.*

armored, General McNair objected in the beginning to so high a degree of specialization, but by 1942 acknowledged the need for airborne troops.

Some foot troops that assaulted from the air were dropped behind the enemy's line by parachute. Numbers above 500 were reserved for the designation of paratroops. Thus the lowest numbered paratroop infantry regiment was the 501st Parachute Infantry. In addition, there was a second type of airborne foot troops, called "glider infantry." According to the doctrine, these landed by glider in the airheads cleared by the paratroops to reinforce the latter and to widen the assault upon the rear of the foe. The numerical designations for glider units were drawn from the whole range of numbers below 500. This was the result of an effort to perpetuate earlier history, as in the case of the 88th Glider Infantry, which descended from the 88th Infantry of World War I. Likewise, the 325th–328th Glider Infantry were redesignated from the infantry regiments of the same numbers which had made up the 82d Division in World War I. The same was true of the 401st Glider Infantry of the

101st Division. Both the 82d and the 101st Divisions became airborne on 15 August 1942.

The World War II infantry also included a few units that were made up of Americans of different racial or ethnic extraction. There was ample precedent for such outfits. Indian and Negro infantry regiments were the oldest, but Puerto Rican and Filipino units came close behind. Added to these during the war were several separate battalions, the most conspicuous of which was the 100th Infantry Battalion because it contained soldiers of an enemy race. Its men were American-born Japanese. The 100th Battalion was organized in June 1942, and two years later was absorbed as one of the battalions of a Japanese-American regiment designated the 442d Infantry.

Another unit of this type was the 99th Infantry Battalion, which was made up of Norwegian-Americans and marked for use in Scandinavia. Although the 99th did not get to the Scandinavian Peninsula until the Germans there had surrendered, it did distinguish itself in the fighting in Europe. Finally, early in 1945, when its use as a separate battalion seemed to be over, it was made one of the battalions of a newly organized regiment designated the 474th. The latter was a remarkable hybrid. It contained many men from the disbanded 1st Special Service Force, some from the 1st, 3d, and 4th Ranger Battalions, as well as the entire 99th Battalion. Another hybrid was the 473d Infantry. Also created early in 1945, it absorbed no groups of nationals but rather the veterans of four antiaircraft battalions coupled with the headquarters of an armored group.

Early in the war, the organization of scores of new units proceeded along the lines laid down in the reorganization of 1939. The National Guard, however, entered Federal service in square combinations and retained them until directed to triangularize during the first four months of 1942. As in World War I, the reorganization of the National Guard for Federal service wrecked many old outfits and associations. For example, in each of the square divisions one whole regiment of infantry had to be cut away and broken up or associated elsewhere.

In spite of the wrench it gave the National Guard, triangularization brought with it important benefits. Not the least of these was a very simple tactical doctrine which had the advantage of being applicable to the use of units of any size from squad up to division. This doctrine was developed and well established by the time the National Guard was triangularized. Its essence was that one of the three elements of every level, say one regiment, should, in the assault, fix the enemy in position; a second was to maneuver around him, once fixed, in order to strike a

decisive blow; while the third element acted as a reserve. This doctrine gave great flexibility to American infantry.

During the five years before Pearl Harbor, the position of the doughboy's champion, the Chief of Infantry, weakened. The Chief himself felt that his office was being bypassed in important matters, while the Chief of Staff inclined more and more to the opinion that all of the heads of combat arms fostered schisms within the Army. In any case, during the grand revision of the late thirties, the General Staff, more often than not, overruled the recommendations of the Chief of Infantry. Moreover, the latter had less control over his branch than he thought necessary. For example, in the revamping of the infantry division, his responsibility was held to the preparation of tables of organization and equipment for brigades and below. The end came in the spring of 1942 when the top command was completely reorganized. In that great realigning the Chief of Infantry, together with the other chiefs of combat arms, was eliminated. Thereafter, the problems of the infantry were considered by special branches of the newly created Army Ground Forces.

General McNair became Commanding General of the new organization. He had been chief of staff of the provisional division that had tested triangularization in 1937, and he believed in the basic principles of the revision that had resulted. Foremost among these was pooling. Its natural corollary was to keep all units lean, because, when extraordinary needs arose, those units could draw from the pools maintained at the next higher level. Another of the important principles embraced by McNair was that which gave the best of men and equipment to the offensive portions of units, and cut the other segments to a minimum. The application of these austere principles was sharpened by the urgent need to conserve shipping space; McNair, therefore, caused infantry organization to be finely combed for excess personnel and equipment.

A general revision of the tables of organization and equipment (TOE's) took place in the spring of 1942. For the most part, McNair's principles prevailed, but he was unable to prevent two significant changes in a contrary direction. The first of these was the substitution of headquarters companies for detachments in all battalions. In spite of this alteration the total strength of a battalion dropped by sixteen, the cut occurring in the rifle companies and in heavy weapons. The second change brought a new company, the cannon company, into the regiment. In it were at last to be found the accompanying cannon that officers had been seeking since World War I. As first equipped, the new cannon company contained six self-propelled 75-mm. howitzers and two self-propelled 105's. It added 123 men to each regiment, but since the other regimental companies were cut at the same time, a regiment was actually

enlarged by only 23 men. The TOE's of 1 April 1942 moved automatic rifles for the last time. These weapons, which were proving themselves more and more valuable, went back to the rifle squad where they had been placed prior to February 1940. They had gone into a separate squad at the insistence of the Chief of Infantry, and they returned to the rifle squad when that office was eliminated.

The pinch for shipping space continued so great that the War Department requested cuts in the April tables. Accordingly, a Reduction Board was established in November 1942. Before its recommendations were approved, General McNair strove to reduce the infantry regiment by 400 men, a slice which he believed could be made without diminishing the number of front-line riflemen to any great extent. His proposal was made into a new TOE published on 1 March 1943. The chief casualty was the cannon company, which was eliminated altogether; its howitzers were put into headquarters company. This arrangement was shortlived, since the final work of the board resulted in a cut of only 216 which, when finally approved, was embodied in tables dated 15 July 1943. Most of the 216 came from administrative elements and from heavy weapons. The cannon company was back, but this time with towed howitzers. The sharpest reduction in arms that accompanied the drop in personnel fell upon BAR's. These were eliminated from every echelon except the rifle squad, where there was one per squad. This change removed very little automatic rifle fire from the firing line, but it did reduce the number of BAR's in a regiment from 189 to 81 (there being 81 rifle squads in a regiment).

If a regiment lost any firepower by the cut in automatic rifles, it made it up by the addition of twenty-five .50-caliber machine guns plus one hundred and twelve new 2.36-inch rocket launchers, nicknamed "bazookas." The bazookas, which had splendid attributes for antitank and antipillbox use, were extra weapons; that is, no specific men were designated to operate them. In consequence, each regiment made its own organizational modification to use the new arm. Later the orphan situation of rocket launchers was officially corrected.

Bazookas and .50-caliber machine guns fitted into General McNair's theory of antitank and antiaircraft defense for infantry regiments. He held that such defense should center on weapons which individual infantrymen, not crews, could operate. Once again, he did not win out 100 percent, for he failed to eliminate either the towed antitank guns from the armament of regiments or the mine platoon from antitank companies. There were, however, changes in the antitank guns: their caliber was increased from 37-mm. to 57-mm., while the number of guns in the regiment dropped from twenty-four to eighteen. Half of the re-

maining guns were in the regimental antitank company, the other half divided evenly (three each) among the battalions. Considering the mine platoon as strictly defensive, General McNair strove to eliminate it altogether. Accordingly, it did not find a place in the TOE of 26 May 1943; but was back on 15 July, thirty-one strong.

Removal of tanks from the infantry and the creation of an armored force in 1940 had left unsolved problems in the relationship of foot soldiers to tanks. The principle of pooling took care of the association of tanks with infantry units, for tank elements were simply attached in the quantities needed. This, however, did not help to determine how much infantry ought to be organic to armored divisions. Since these divisions, as first set up, did not include enough foot soldiers, General McNair created pools of separate armored infantry battalions (AIB's) from which the divisions could draw. Later his solution was scrapped, and in the TOE of 15 September 1943 the proportion of organic infantry to armor doubled. In consequence, all but one of the separate AIB's were inactivated.

Each of the studies of infantry organization, made in the first three years of the war, had to take vehicles into account. The number of motors allowed to units was closely related to the shipping space then available. Shortage of shipping was one of the factors which caused the elimination of motorized infantry in the summer of 1943, since the planners felt that more economical means of moving standard infantry by motor were at hand. The first such means was to attach truck outfits to the infantry for specific movements. This method remained standard until divisions developed the field expedient of piling their doughboys onto their tanks, tank destroyers, and howitzers.

All these complications were faced by Army Ground Forces during the year from October 1942 to October 1943, and the organization developed for infantry in that year persisted for the duration of the war in Europe with only minor changes. However, when redeployment to the Pacific area became necessary, Ground Forces once more examined the tables of organization and equipment. This time three factors were decisive in the appraisal. The first one was the wealth of combat experience accumulated in Europe; the second, that the scarcity of shipping space had eased; and the third, the death of General McNair. These new factors resulted in a general enlargement of infantry units.

The new tables were dated 1 June 1945. They carried the implication that the earlier arrangements had been too lean for greatest efficiency. For example, they increased the total strength of an infantry regiment from 3,256 to 3,697, and added weapons and vehicles. Most of the increase took place in rifle companies, which jumped from 193 to 242 men. Indeed,

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ADVANCING INFANTRYMEN FROM 29TH INFANTRY DIVISION *enter St. Lô, France.*

two new sections were added to them, both in the weapons platoons. The first one, called an assault section, was based on the 2.36-inch bazooka (the number of which increased to six per rifle company). With this change, rocket launchers ceased to be orphans. They became the principal weapons of the men in the new section. The other, a special weapons section, employed a revolutionary type of new arm, the 57-mm. recoilless rifle.

Further use of the recoilless technique occurred at battalion level. Here a 75-mm. rifle was added to the armament, and a gun platoon was created in the heavy weapons company to operate it. The two new types of recoilless guns, which combined the effect of artillery with the mobility of soldier-carried arms, gave an unheard of weight of fire to the infantry.

Yet another remarkable change related to the infantry regiment's artillery. All towed guns were at last eliminated from the regiment. The 57's of the regimental antitank company gave place to tanks which mounted 90-mm. guns, while those in battalions went out with the anti-

INFANTRYMAN USING WALKIE-TALKIE.

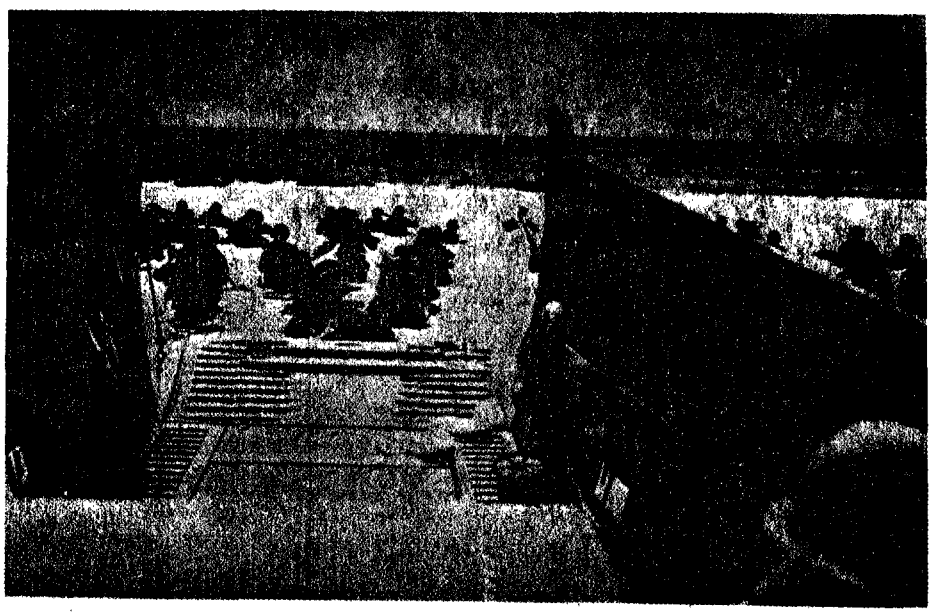
tank platoons. The cannon company became in effect a tank unit equipped with heavy tanks mounting 105-mm. howitzers. The pieces of the antitank and the cannon companies, mounted as they were on tanks, were much more mobile than their predecessors, and they threw much more metal.

The organization established in June 1945, slightly modified from time to time, was the one that governed to the end of the conflict. There was, however, one development which went forward apart from the tables of organization. This was an ever widening use of regimental combat teams (RCT's). An RCT was a grouping of combat units around an infantry regiment in order to accomplish a special mission. A typical combat team contained a regiment of infantry, a battalion of 105-mm. artillery, a company of combat engineers, a medical collecting company, and a signal detachment. But, because its very essence was flexibility, any element needed to accomplish the special mission might be attached. RCT's proved of great value in adapting organization to all types of terrain and conditions of combat. They remained, however, temporary arrangements without official history or lineage, and were discontinued when their special mission had been accomplished.

Before concluding the discussion of infantry organization during World War II, it remains to record a few generalizations relating to the use of infantry in that war. First, it is clear that no earlier conflict had sent American infantrymen into so many different parts of the world. Although specialized units were at first created to fight in extreme zones, mountain, jungle, and arctic foot soldiers carried, in fact, a very small part of the fighting in extreme climates and terrain. As a result, the standard doughboy took over the job.

The doctrine of fixing the enemy, maneuvering to strike him in flank or rear, all the while holding an element in reserve to exploit an ad-

ASSAULT LANDING BY 163D INFANTRY ON WAKDE ISLAND, *18 May 1944.*



INFANTRYMEN LANDING ON OMAHA BEACH ON D-DAY.

vantage or cover a retreat, applied in all terrains. Naturally the details of using it varied with geography. Thus in Normandy the hedgerows obliged the infantry to work out a team play with tanks and engineers. Likewise, in the jungles of the Southwest Pacific, the coral atolls of the Central Pacific, the desert of North Africa, and the mountains of Italy, it was necessary to develop the exact means by which the doctrine was applied. But in all cases it required closer-than-ever co-operation with the other arms.

Furthermore, never before had the doughboys been required to use so bewildering a complex of weapons. Perhaps the most confusing of the latter to adjust to was the greatly enlarged class of defensive weapons, which included land mines and boobytraps. These insidious manglers complicated an infantryman's task and introduced a new type of terror into his campaigning. He dared no longer even trust the ground, which had always been his close ally. As a result, it was necessary to learn not only to detect and disarm the enemy's mines and traps, but to lay some effectively for his own protection. Also, he had to learn to use demolition charges and often to improvise them out of materials at hand.

To add to the confusion, types of grenades (hand and rifle) were multiplied. What is more, their use vastly increased. Whether the enemy lurked in rocks or in dense vegetation, grenades helped to root him out. To supplement them in the business of dislodging the foe from strong positions, new weapons developed. The most notable of these, not already mentioned, was a flame thrower which, carried by foot soldiers or mounted on tanks, did terrible execution.

Tank and air enthusiasts, observing the Nazi *blitzkrieg,* had jumped to the conclusion that infantry could be used only to hold ground taken by armor or by air bombardment. This did not prove to be the case. Although foot soldiers, more than ever before, had to learn to co-operate with tanks and with planes, this did not spare them from having to be in the forefront of almost all important assaults. In short, while they could not advance against the enemy without the aid of tanks, artillery, and air, neither could those arms gain ground or destroy the enemy's will to fight without the aid of the infantry. What was required was not a reshuffling of the importance of the several branches, but the development of better techniques by means of which they could work together. Such techniques were far from perfect when the conflict came to an end.

Battlefield communication continued its trend—which stretched back to the Civil War—toward improvement. For the first time there was radio communication between the elements of a company. By the end of World War II eight radios were included in the rifle company's equipment. Radios and telephones knit companies tighter together, but by no

means made them act as one man. Dispersion to avoid the deadly effects of enemy fire threw squads, or fractions of squads, on their own in combat, particularly in dense foliage, in the mountains, and in night operations. This put a heavier-than-ever burden on the ingenuity of squad and platoon leaders, and even on the individual doughboy.

Probably the most important technique to come out of the war had to do with landing an attacking force on hostile shores. The doctrine for such operations had been in the process of development by the U.S. Marine Corps since the 1920's. Marine theory worked well, but it required the assistance of special amphibious equipment which was not developed until war had commenced. Indeed, in the early landings in 1942, landing forces were obliged to use the vessels that were ready at hand. Gradually, however, landing craft were developed, such as LCI's, LST's, LCT's, amphibious tanks, and DUKW's. In the greatest amphibious operations of World War II, these craft were as essential to success as the weapons of the infantry.

Whether in landing actions, in airborne assaults, or in advances of a traditional type, infantry was better prepared than in the past to fight on a circular perimeter. This was true because of the many supporting mortars, machine guns, and rocket launchers, made organic to infantry units, which enabled them to throw fire quickly in all directions. Thus, the tendency was to be less sensitive about the flanks than in earlier wars, and to push forward with slighter concern for the progress of the units to the right and to the left.

During World War II new terrains, new climates, strange weapons, and unfamiliar peoples acted upon American infantrymen. These destroyed thousands of men, put a lifelong mark on others, and changed somewhat the techniques of fighting on foot; nevertheless, in spite of everything, the basic characteristics of the infantry hardly shifted. Foot soldiers continued to be the only carriers of weapons who, in theory, were never exhausted, could always go another mile, and who could be counted upon to move across any terrain in every quarter of the globe.

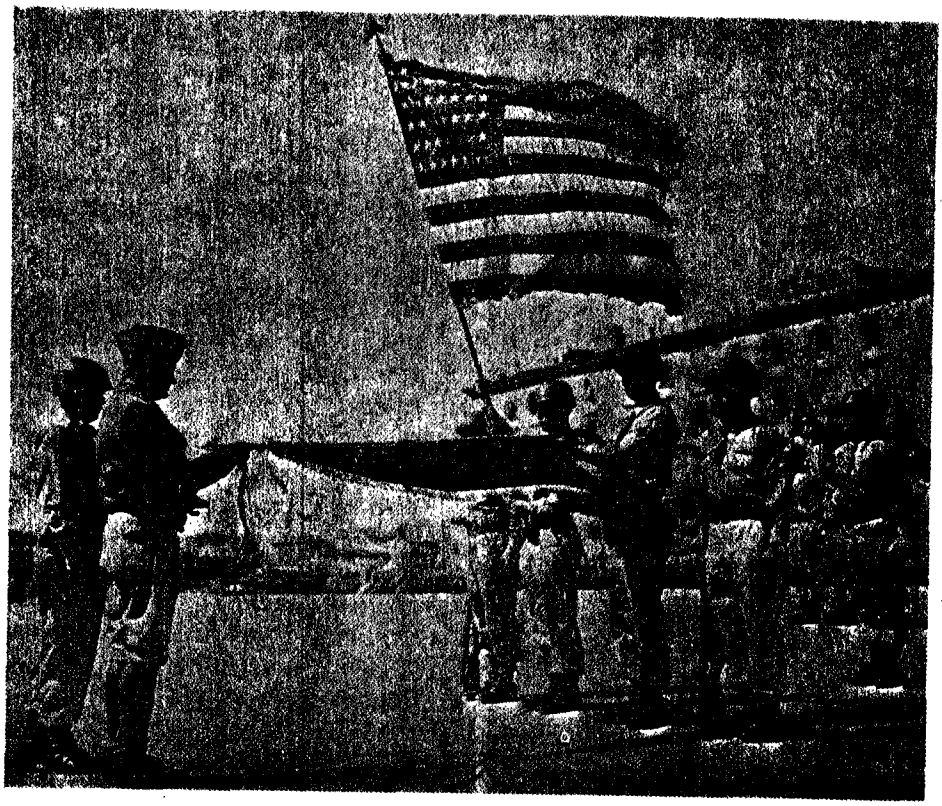
World War II to Korea

With the end of World War II came the difficult task of demobilizing the huge wartime military establishment and of reorganizing the infantry for its peacetime role. The demobilization was extremely hasty and, as General of the Army George C. Marshall stated before a joint session of Congress, ". . . [it had] no relationship whatsoever to the size of the Army in the future." Furthermore, it was carried out on the basis of an individual point system, not by units. The point system was designed to be

fair to the individual soldier and satisfied the insistent demands of Congress, the public, and the press to "bring the boys back home" as soon as possible, but its effects on unit integrity, efficiency, and combat capability were disastrous. There were too few units left to meet all the worldwide responsibilities the United States had acquired with victory, while infantry organizations remaining active were so understrength and suffered such constant personnel turnover that they seemed more like replacement centers than combat units.

By 30 June 1947 demobilization was officially completed. From a peak strength of 8,291,336 on 31 May 1945 the Army had been reduced to 989,664 in only twenty-five months. During the same period the infantry totals dropped at an even faster rate from 1,782,832 to 126,121. The number of infantry regiments decreased from 288 to 41, and only seven separate infantry battalions remained active. More than three-fourths of the active infantry units were assigned to divisions: 8 infantry, 2 airborne, 1 armored, and 1 cavalry. With the exception of the 88th, which was in the process of being inactivated in Italy, each infantry division had three organic infantry regiments. The airborne divisions had one glider and two parachute infantry regiments each, and the armored division had three armored infantry battalions. Only the 1st Cavalry Division still retained the square structure with four organic regiments which, although reorganized in 1945 as infantry, kept their cavalry designations. As of 1 July 1947, all separate infantry battalions and eleven regiments were stationed in the United States. The rest of the infantry regiments were overseas with nineteen in Japan and Korea and the other eleven in Germany, Italy, the Philippines, the Canal Zone, Puerto Rico, and Trinidad.

Although the first problem of the postwar infantry was demobilization, even while that was going on plans were being made for the reorganization of infantry units in the light of the experience gained and the lessons learned during World War II. Since the war had been won and infantry organization, weapons, and tactics had proved to be effective in different theaters of operations and against different enemy forces, there was no motivation for radical innovations. The explosion of the atomic bomb was still too recent to influence infantry organization at this time. Nevertheless, it did have an indirect effect on infantry units, since in the general enthusiasm over this ultimate modern weapon the infantry was sometimes forgotten or, at any rate, overshadowed. Attempts to re-establish the office of the Chief of Infantry failed, because Army leaders believed that chiefs of the combat arms would tend to encourage undesirable branch consciousness and interbranch rivalry. To the infantry this meant that it had no official spokesman, nobody to look out for



PRESENTATION OF PRESIDENTIAL UNIT CITATION (ARMY) STREAMER TO 442D INFANTRY *by Lt. Gen. John C. H. Lee.*

its interests, and no one to take care of its problems.

Responsibility for the development and preparation of infantry tables of organization and equipment, formerly the function of the Chief of Infantry, had been passed in 1942 to Headquarters, Army Ground Forces, which became the Office, Chief of Army Field Forces, in March 1948. The postwar TOE's for standard and armored infantry units were published between late 1947 and mid-1948 after months of careful study, evaluation, and review. They reflected various recommendations and suggestions, particularly those of the General Board, United States Forces, European Theater, and of the Infantry Conference which was sponsored by the Infantry School at Fort Benning, Georgia, in June 1946. Although they did not introduce any significant new organizational concepts, the 1947–48 tables brought some changes to all infantry units from the squad to the division.

One of the most important changes was made in the rifle squad. The consensus was that the 12-man squad of World War II was too large and unwieldy. As a result, the ammunition bearer and the two scouts were eliminated, and the new unit had only nine men: a squad leader, an assistant squad leader, a BAR team of two men, and five riflemen, one of whom was armed with the sniper version of the M1 rifle. The M1, which had been highly effective and very popular during the war, was retained as the basic individual weapon of the infantryman, and a bayonet was issued with each rifle.

With the reduction of the squad by three men, the rifle platoon lost nine rifles, but its firepower did not decrease. On the contrary, the postwar organization gave the platoon leader greater firepower under his immediate control by adding a new 9-man weapons squad to support the three rifle squads. The final World War II TOE had placed the infantry company's 2.36-inch rocket launchers and .30-caliber light machine guns in one weapons platoon. The postwar table moved both of these weapons to the new squad in the rifle platoon, leaving only 60-mm. mortars and 57-mm. recoilless rifles in the weapons platoon.

The heavy weapons company, organic to each infantry battalion, was also streamlined under the 1947 TOE. One of the machine gun platoons was dropped and the 81-mm. mortars and 75-mm. recoilless rifles authorized in June 1945 were both reduced from six to four per company. Of its nine rocket launchers only six remained, but the new ones were the more powerful 3.5-inch bazookas, whereas the old ones had been 2.36-inch launchers.

Even more changes were made on the regimental level. During World War II, the artillery provided such responsive and effective fire support that the infantry regiment no longer needed its own cannon company. Chemical mortar companies, on the other hand, had been frequently and very successfully attached to infantry units. Combat experience had also shown that the best antitank weapon was the tank itself and that the infantry-tank team was an extremely effective fighting unit. Accordingly, both the cannon and the antitank company were eliminated, while a heavy mortar company (armed with twelve 4.2-inch mortars) and a tank company of 148 men and twenty-two tanks became organic to the postwar infantry regiment. Additional tank support for divisional infantry units was available from a tank battalion, which was made part of the infantry division for the first time in the 1947–48 tables.

There was no special unit for air defense in the infantry regiment, but the number of .50-caliber Browning machine guns, employed primarily as antiaircraft weapons, increased from thirty-three to forty-seven, and a newly created automatic weapons battalion in the division artillery

further improved antiaircraft protection. The 1948 regiment also had a larger headquarters and headquarters company, a larger service company, and an organic medical company instead of an attached medical detachment. All of these changes, which made the postwar infantry regiment a much more powerful and sophisticated unit than its World War II predecessor, were accomplished with only a slight gain in overall regimental strength from 3,697 to 3,774.

While three infantry regiments remained the basic combat elements of the infantry division, as they had been throughout the war, the postwar armored division had more organic infantry units than either the "heavy" or "light" armored division of World War II. The General Board, United States Forces, European Theater, had concluded that there were not enough infantrymen in the armored divisions, especially in those organized under the "heavy" 1942 TOE's. The board recommended that three composite tank-infantry regiments, each comprised of one tank battalion and two armored rifle battalions, be assigned to the division. Although this suggestion was not adopted in the postwar organization, the ratio of infantry to tank units was improved by authorizing four armored infantry battalions for each division and four rifle companies for each battalion, thus raising the total number of armored infantry companies in the armored division from nine to sixteen.

The structure of the armored infantry battalion (AIB) differed somewhat from that of the standard infantry battalion. The 917-man infantry battalion consisted of a headquarters and headquarters company, a heavy weapons company, and three rifle companies of 211 men each. The AIB was larger by 152 men and had a headquarters, headquarters and service company, a medical detachment, and four armored infantry companies of 208 men each. The infantry company's weapons platoon and three rifle platoons of three rifle squads and a weapons squad paralleled the armored infantry company's mortar platoon and three rifle platoons of three rifle squads and a light machine gun squad. There were ten men in the 1948 armored infantry rifle squad—one more than in its regular infantry counterpart. The tenth man drove the squad's newly issued full-tracked armored utility vehicle, M44, which replaced the half-track personnel carrier used during World War II.

The basic weapons of the standard infantry and the armored infantry were the same, although the quantity of the weapons varied. Armored infantry units, however, were not authorized any recoilless rifles. On the other hand, they had many more rocket launchers and machine guns. In an armored rifle company, for example, there were ten bazookas and nineteen machine guns, as opposed to only three and four, respectively, in a regular rifle company. As a result, the armored infantry was capable

of providing greater automatic fire support than other infantry units.

The first postwar airborne infantry TOE's did not appear until 1 April 1950, but airborne units had been organized earlier under draft tables similar to the final published tables. Perhaps the main reason for this delay was the fact that there were more changes made in airborne organization than in other types of infantry. Despite their unique and highly specialized primary mission of seizing and holding important objectives by attack from the air, airborne units in World War II were frequently called upon to perform normal infantry missions. Both combat experience and tests conducted after the war at Fort Bragg, North Carolina, showed that they needed to be organized more like standard infantry units in order to be self-sustaining in ground operations over extended periods. The new TOE's, therefore, gave the airborne infantry more staying power and organized it along the same lines as the regular infantry, while retaining its special air assault capability.

During World War II there had been two types of airborne regiments—parachute and glider. After the war both of these units were eliminated, and the 1 April 1950 TOE's introduced an airborne infantry regiment, which was capable of landing by parachute, glider, or aircraft. Three of these new units were organic to the postwar airborne division, and provisions were also made for nondivisional regiments. The airborne infantry regiment had a strength of 3,376 men and contained a headquarters and headquarters company, a service company, a support company, a medical company, and three airborne infantry battalions. Its structure was similar to that of the regular infantry regiment, except that instead of a tank company and a heavy mortar company, the airborne unit had a support company. The disadvantages of not having a regimental tank company were somewhat offset in divisional units by the fact that the airborne division was authorized two organic tank battalions, while the infantry division had only one.

The support company consisted of a company headquarters, two heavy mortar platoons armed with four 4.2-inch mortars each, and an antitank platoon with six 3.5-inch rocket launchers, three heavy .50-caliber machine guns, and six 90-mm. antitank guns on airborne carriages. It was a very powerful unit, completely motorized, capable of landing by parachute or aircraft, with its own fire direction center and its own communications system. The organization of the airborne infantry battalion, company, platoon, and squad was almost identical to that of the corresponding standard infantry units. Likewise, the weapons used by both types of infantry were also the same, except for the airborne antitank gun.

There was a considerable time lag between the publication of the postwar TOE's and the actual reorganization of infantry units under

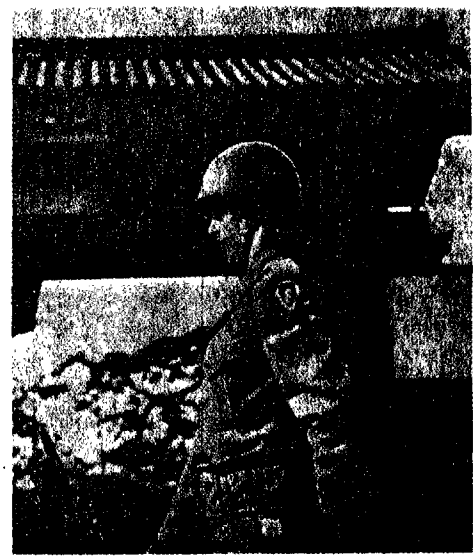
the new tables. Even after the reorganization had officially taken place, there were still differences between the paper organizations and the actual units, since most units were understrength and not fully equipped. A separate reduced strength column, to be effective in peacetime, was added to all TOE's in November 1950, but until then special cut sheets or reduction tables were prepared for infantry units by the Office, Chief of Army Field Forces.

On the eve of the Korean War, only one of ten active combat divisions was being maintained at full strength. The others averaged about 70 percent of their authorized strength and had major shortages in equipment. For example, infantry units generally did not have the organic armor provided by the new TOE's or were equipped with lighter and older tank models than those authorized. Nor did they have their full allowances of 57-mm. and 75-mm. recoilless rifles and 4.2-inch mortars, while the 3.5-inch rocket launchers were still in the process of being tested. Many infantry battalions were short one rifle company, and in most infantry regiments only two out of the three battalions were active. Since current infantry tactics were based on triangular organization, such reductions were very serious handicaps.

Shortcomings in infantry personnel and equipment were caused by budget cuts, strength ceilings, and other limitations placed upon the postwar Army by an economy-minded Congress and administration. These actions were supported by a war-weary public traditionally opposed to a large peacetime military establishment and overly dependent on the atomic bomb as a deterrent to future wars. Even after demobilization had been completed and the Air Force had become a separate service, the strength of the Army still continued to decline. The crisis produced by the Soviet blockade of Berlin and the Allied airlift of supplies to the isolated city brought about a temporary increase in Regular Army personnel. By 30 June 1950, however, the actual strength had dropped again to 591,487 out of an authorized total of 630,000. The active infantry at that time numbered 130,554 officers and enlisted men.

In mid-1950 the infantry in the Regular Army consisted of forty-six regiments and thirteen separate battalions. There were seven infantry combat divisions with three organic infantry regiments each, including the 1st Cavalry Division, which had finally been triangularized in 1949. The 2d Armored Division was organized under the 1947–48 TOE's that authorized four armored infantry battalions (AIB's) per division. The 82d Airborne Division had three airborne infantry regiments, while in the 11th Airborne Division only two of the three organic regiments were active. In addition to the ten combat divisions, there were four training divisions (three infantry and one armored), which had nine infantry

regiments and four AIB's assigned to them. The eleven separate regiments were all organized as standard infantry; two of the five nondivisional battalions were AIB's and the other three were regular infantry battalions. There were no separate airborne regiments or battalions, neither of the old parachute and glider infantry nor of the new airborne infantry.



INFANTRYMAN ON OCCUPATION DUTY IN JAPAN.

Besides having major shortages in both personnel and equipment, the active infantry units were also inadequately trained. At first the disintegration caused by rapid demobilization had made effective unit training virtually impossible, and the numerous administrative chores of occupation duty also interfered with training programs. Occupation of the countries defeated in World War II remained by far the single greatest responsibility of the infantry throughout the 1945–50 period and was a heavy drain on the Army's overall effort. Although the duties were gradually reduced everywhere and troops were completely removed from some areas as peace treaties were signed, on the eve of the Korean War about one-third of the infantry was still on occupation duty.

Not until late in the postwar era was more emphasis placed on training and readiness. In January 1950, General Mark W. Clark, Chief of Army Field Forces, announced that the most extensive and diversified peacetime maneuver training program in Army history was then under way. In this program infantry units participated in various joint and combined maneuvers with other Army units and with the U.S. Navy and Air Force. Exercises were also held with the armed forces of Canada, France, and other countries allied with the United States in 1949 under the provisions of the North Atlantic Treaty Organization (NATO).

Infantrymen from the reserve components as well as Regular Army infantry units took part in some of these maneuvers. The National Guard and the Organized Reserve Corps, as reorganized in the 1945–50 period, were considerably larger and somewhat better trained than the reserve components of the 1930's. With many men having World War II combat experience and with better participation in paid drills, the Organized

Reserve Corps' infantry was significantly less of a paper organization than it had been in the prewar period. In the National Guard, all of the twenty-five infantry divisions and twenty regimental combat teams had been Federally recognized by 30 June 1950. Also, the entire National Guard infantry had been reorganized under the postwar TOE's, as modified by special reduction tables. Although all units participated in some form of training, it took place under major handicaps because funds were limited, armory facilities were inadequate, and equipment shortages were estimated at over 50 percent. Even in mobilization planning, the reserve structure was not expected to become effective until one or two years after a general mobilization.

By June 1950 the infantry of all components was better organized and trained than it had been at any time since the hasty post-World War II demobilization had reduced it to near impotence. Nevertheless, infantry units were far from combat ready for the war which broke out suddenly in Korea.

The Korean War

When the North Koreans crossed the 38th parallel and invaded South Korea on 25 June 1950, the only U.S. Army personnel in the country were members of the United States Military Advisory Group to the Republic of Korea. The last of the American occupation forces had been withdrawn almost exactly a year earlier, when on 29 June 1949 the final increment of the 5th Infantry Regimental Combat Team moved from Korea to Hawaii. Thus as the war began, the closest U.S. infantry units were the twelve regiments of the 7th, 24th, and 25th Infantry Divisions and the 1st Cavalry Division (organized as infantry), all of which were still on occupation duty in Japan. The first American ground troops to arrive in Korea were the 406 infantrymen of Task Force Smith from the 1st Battalion, 21st Infantry, organic to the 24th Infantry Division, who were flown in from Japan on 1 July 1950. After being reinforced by 134 artillerymen, they met the enemy four days later at Osan in the first American engagement of the Korean War.

During July nine of the twelve infantry regiments from Japan arrived in Korea, and the other three arrived in September. The 2d and 3d Infantry Divisions, stationed in the continental United States, were also ordered to Korea. Since the 3d was greatly understrength, one of its organic regiments was replaced by the 65th Infantry from Puerto Rico. In addition to the divisional infantry units, the 29th RCT from Okinawa, the 5th RCT from Hawaii, and the 187th Airborne RCT from Fort Campbell, Kentucky, came to Korea in the first few months of the war.

By the end of September 1950, four National Guard infantry di-

visions had been federalized. The 40th Infantry Division from California, the 45th from Oklahoma, the 28th from Pennsylvania, and the 43d from Connecticut, Rhode Island, and Vermont brought twelve more infantry regiments into the active Army. The 45th and 40th Infantry Divisions later served in Korea, entering combat in December 1951 and January 1952, respectively. The other two divisions were sent to Europe to strengthen NATO forces. Later in the war, four more National Guard infantry divisions with three organic infantry regiments each were called into Federal service. These units were not sent overseas but remained in the United States. Although three separate RCT's were also federalized during the Korean War, none of the nondivisional infantry regiments from the National Guard served in Korea.

As for the Organized Reserve Corps, which was redesignated as the Army Reserve in 1952, its contributions to the Korean War consisted mostly of individuals, not units. An important contribution came from the Reserve Officers' Training Corps (ROTC) program; many of the junior officers who led infantry units in Korea were ROTC graduates. Some small support units were called in, but no Army Reserve infantry regiments were ordered to active duty. They were kept intact and retained as a final reserve in case of an emergency developing elsewhere.

By the time the Korean armistice was signed in July 1953, there were ninety infantry regiments in the active Army, almost double the prewar total of forty-six regiments. Meanwhile, separate infantry battalions had increased from thirteen to thirty-one. The number of infantrymen in the active Army grew during the Korean War from 130,554 in June 1950 to a peak of 344,143 in May 1951. In July 1953 the infantry total was 251,685 officers and enlisted men, of whom 146,052 were overseas. They were assigned to units stationed in Germany, Japan, Alaska, Okinawa, Austria, Trieste, Iceland, Puerto Rico, and the Canal Zone, as well as to twenty-three infantry regiments and two infantry battalions serving in Korea.

In some ways Korea was a new kind of war for the infantry. The limited nature of the conflict contrasted sharply with the total warfare of World Wars I and II. The United States did not use the atomic bomb and settled for a bitterly negotiated armistice instead of complete military victory. The war was fought in a new geographic area, against new enemies, and for the first time the American infantryman acted as a representative not only of his own country but of the United Nations as well.

In spite of these differences, infantry organization during the Korean War was basically the organization adopted after World War II, and infantry weapons used in Korea were by and large World War II weapons.

Several organizational changes were made during the war, but there were no striking innovations. As the war progressed, authorized strengths of infantry units were lowered. The 15 November 1950 TOE strength of the infantry regiment was 3,781, on 15 May 1952 it was 3,662, and by 13 April 1953 it had dropped to 3,531. During that same time period the infantry battalion decreased from 919 to 859 and the rifle company from 211 to 197. These reductions streamlined units by eliminating nonessential personnel in administrative and service positions but kept combat strength high.

The internal organization of the infantry regiment, battalion, and company remained almost entirely the same throughout the war. The only major change took place in the heavy weapons company of the battalion and was the result of a new weapon, the 105-mm. recoilless rifle. Although 57-mm. and 75-mm. recoilless rifles had been first used in combat during the last months of World War II and were authorized for all infantry units by the 1 June 1945 TOE's, it was too late to permit wide use of the new rifles before the end of the war. Korea, therefore, became the first real testing ground for recoilless weapons. "The infantry's personal hand artillery," as the recoilless rifles were often called, proved to be hard-hitting, accurate, and reliable, and the more powerful 105-mm. recoilless rifle, which had been developed since the end of World War II, was adopted as a standard infantry weapon. In September 1952 the organization of the heavy weapons company was modified to include four of the new 105's, thereby significantly augmenting the company's firepower.

Basically, the two new companies added to the infantry regiment in the postwar reorganization remained unchanged during the Korean War. However, several different tank models were used by the tank company, and in the heavy mortar company a new model of the 4.2-inch mortar increased the maximum range from 4,400 to 6,000 yards. The mountainous Korean terrain made employment of tank units difficult, but it was natural mortar country, and infantry mortars of all types (4.2-inch, 81-mm., and 60-mm.) were used extensively. Since the U.N. forces retained control of the air over Korea, there was no special need for improving the infantry's antiaircraft capability. Even the artillery's multiple-fire antiaircraft weapons, the twin-40 and the quad-50, were frequently and successfully employed in ground support of infantry.

The organic firepower of the infantry rifle company also increased during the Korean War; both the automatic rifles and the light machine guns in the company doubled in number and its 2.36-inch bazookas were replaced by 3.5-inch rocket launchers. The small bazooka was simply not powerful enough to stop the Soviet-built T34 tanks used by the North

GUN CREW FROM 31ST RCT FIRING 75-MM. RECOILLESS RIFLE IN KOREA.

Koreans and the Chinese Communists. The 3.5-inch launcher, on the other hand, which was rushed into production when the Korean War began and quickly flown to Korea, was credited with knocking out eight T34's on the first day it was used in combat. Described by one infantry officer as "the answer to a rifleman's prayer for a tank killer," the 3.5 was so effective that it was decided not to limit its use to battalion level but to extend it to the rifle company as well. A new TOE dated 15 May 1952 authorized three of these "superbazookas" and placed them in the rifle platoon headquarters. The same table assigned two machine guns to each weapons squad.

The nine additional BAR's did not become organic to the rifle company until 13 April 1953, but many infantry units fighting in Korea had used two automatic rifles per rifle squad long before the official TOE change. Although the Chief of Army Field Forces recommended that concurrently with the doubling of the BAR's the rifle squad be increased to eleven men, the strength of the squad remained at nine—at least for the time being. However, the suggestion of an 11-man rifle squad was not

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MACHINE GUN POSITION IN KOREA.

completely dropped. It was eventually adopted in the Pentomic reorganization subsequent to the Korean War.

The rifle, carbine, submachine gun, and pistol carried by the infantryman in Korea were exact copies of the ones with which he had fought in World War II. Only the carbine was criticized by a majority of the men who used it, since it frequently misfired or jammed both in the extreme cold of the Korean winters and in the dust of the summers. The M1 rifle, on the other hand, was consistently dependable. It remained the basic weapon of the infantry during the Korean War, and contemporary surveys showed that the M1 was regarded by the troops "with a liking amounting to affection."

The bayonet became more important in Korea than it had been during World War II. It was valued as a morale builder and as a last resort weapon, although most infantry units never fought with it. In general, infantrymen preferred the M4 knife bayonet, issued to men armed with carbines and other weapons, to the M1 bayonet, which had been au-

thorized for the M1 rifle by every TOE since 30 January 1945. A knife bayonet, however, was not officially adopted for the rifle until 1 February 1955.

Infantry units in Korea had more firepower than World War II units, and their communication and transportation equipment was also much better. Between 1 June 1945 and 13 April 1953 the number of radios in the rifle company increased from 8 to 14 and telephone wire from 2½ to 4 miles, while the various trucks and trailers organic to the infantry regiment grew from 243 and 159 to 330 and 223, respectively.

A new item of equipment added to the infantry regiment during the Korean War was organic aircraft. Although a November 1945 change to the World War II TOE had given one airplane to the headquarters company of the infantry regiment, it was not included in the April 1948 table. In December 1948 a light aviation section augmentation of five men and two fixed-wing aircraft was provided for nondivisional regiments. Then, in May 1952, a 6-man light aviation section became organic to all infantry regiments and a helicopter, as well as a fixed-wing airplane, was authorized for the first time. In Korea, however, the infantry regiments' aircraft were usually combined with aircraft organic to other elements of the division for centralized operations. Often provisional division aviation companies were organized, although no such units were included in the TOE's. Organic aviation was of great value to the infantry, since it was effectively used for observation, surveillance, and reconnaissance, for quick resupply of weapons and equipment, for transporting commanders, outposts, and patrols over difficult terrain, and—most frequently—for rapid evacuation of the wounded. Successful tactical employment of helicopters was also a big step toward completely airmobile infantry units, which would be capable of moving soldiers quickly into a battle zone and flying them out again after their mission was accomplished.

It has been said that no new infantry lessons were learned in Korea, but many old lessons were relearned. The soundness of U.S. tactical doctrine was once again confirmed and no basic changes in infantry tactics were introduced, although the growth of Army aviation foreshadowed the development of the airmobile concept. The Korean War, however, did highlight certain weaknesses in infantry techniques, particularly in such areas as terrain analysis, night operations, patrols, and defensive warfare over an extended front. As soon as these deficiencies became apparent, the Infantry School adjusted its training to include the neglected subjects. The school's activities in general increased a great deal during the war. In the 1949–50 academic year, only 16 classes received tactical instruction at Fort Benning; in 1951–52 there were 118 classes.

MEN OF COMPANY K, 35TH INFANTRY, PLAN A NIGHT PATROL NEAR KUMHWA, KOREA.

Since Korean combat experience showed that many infantrymen did not fully understand the triangular concept of organization and its relationship to infantry tactics, General J. Lawton Collins, Army Chief of Staff, directed the Infantry School to place more emphasis on these fundamentals in its instruction and publications. In changes dated 2 and 3 December 1952, a paragraph on triangular organization was added to each infantry unit field manual. During the Korean War there was also a renewed emphasis throughout the Army on the basic combat principles of offensive combat, often referred to as "the Four F's of Fighting"—FIND 'EM, FIX 'EM, FIGHT 'EM, and FINISH 'EM!

Not only the regular infantry, but also some of the specialized infantry units that had been organized during World War II fought in Korea. The airborne infantry was represented by the 187th RCT. It participated in two combat jumps, one at Sukch'on and Sunch'on on 20 October 1950 and the other at Munsan-ni on 23 March 1951. Additional combat forces were almost always attached to the RCT for ground operations, and additional transportation had to be attached for any movement re-

quired. Artillery support, service units, and particularly antitank defenses were found to be inadequate in airborne operations. Various changes in the composition of the RCT and the organization of the airborne regiment were therefore recommended to correct these shortcomings. In the TOE changes actually adopted during the Korean War, the airborne infantry company's machine guns were doubled, four 105-mm. recoilless rifles were authorized for the battalion's heavy weapons company, and all 2.36-inch bazookas in the regiment were replaced by 3.5-inch rocket launchers. An organic tank company and a larger service company, however, were not added to the airborne infantry regiment until 1954, at which time the number of BAR's was also increased from one to two per rifle squad and from nine to eighteen in each airborne rifle company. Since gliders were not used in Korea and the development of the helicopter made their employment highly unlikely in the future, beginning on 1 January 1953 glider landings were deleted from the capabilities of the airborne infantry.

No armored infantry units served in Korea, because the terrain was unsuitable for their employment and there was an absence of heavy enemy armor after the early stages of the war. Several armored infantry battalions were nevertheless activated during the Korean War; some went to Europe, others remained in the United States. No major changes were made in armored infantry organization during this period, but there were some changes in weapons. For example, the .30-caliber heavy water-cooled machine guns were replaced by lighter air-cooled models, the 2.36-inch rocket launchers by 3.5-inch bazookas, and the 60-mm. mortars by 81-mm. mortars. A new armored personnel carrier was also authorized as the basic vehicle for armored infantry.

Ranger units, which had fought in World War II and had been dropped from the postwar organization, reappeared during the Korean War. Whereas the World War II rangers had been organized in battalions, the Korean War rangers were organized into separate companies that were normally attached to infantry divisions. All rangers were volunteers, airborne qualified, and specially trained for their mission of infiltrating enemy lines and attacking command posts, artillery positions, tank parks, communications centers, and other key facilities. Since their highly specialized capabilities were not utilized in Korea to the extent anticipated, the ranger companies were inactivated by the end of 1951. Ranger techniques were perpetuated by individual training. In the fall of 1951 a Ranger Department was established at the Infantry School with the goal of providing one ranger-qualified officer per rifle company and one noncommissioned officer per platoon. Starting in July 1954, every newly commissioned Regular Army officer assigned to the infantry was required to take either ranger or airborne training.

The elimination of separate Negro units, some of which dated back as far as 1866, was still another change undergone by the infantry during the Korean War. Although both the executive order and the Department of the Army directives on integration had been issued in the late 1940's, the first real application of the new policy came in Korea. On 1 August 1951 the 24th Infantry, the largest Negro unit in Korea, was replaced by the 14th Infantry in the 25th Infantry Division. Personnel of the 24th were transferred to other units, and the regiment was inactivated on 1 October 1951. Other Negro units, including the 3d Battalion, 9th Infantry, from the 2d Infantry Division and the 3d Battalion, 15th Infantry, from the 3d Infantry Division, were integrated by transfer of personnel and subsequent assignment of replacements without regard to race. By the end of 1951, all units stationed in Korea had been integrated. Originally spurred on by serious personnel shortages and an acute need to increase the combat effectiveness of units in Korea, integration eventually spread throughout the military establishment. As of 30 June 1954, no separate Negro units were left on the rolls of the Army, and all schools and training programs were open without racial restrictions.

In addition to Negro units, there had been other infantry organizations in the post-World War II Army made up of different racial and ethnic groups. Several Philippine Scout infantry regiments were among them, but all were inactivated after the Philippines achieved independence and before the Korean War began. There was also the 442d Infantry, the famous Nisei of World War II, composed of Japanese-Americans; this unit remained in Hawaii on reserve status throughout the war and was not called to active duty. As for Puerto Rican units, Army policy at the outbreak of the Korean War authorized their use only in the Caribbean Command. In September 1950, however, the 65th Infantry (organized with Puerto Rican enlisted personnel) was assigned to the 3d Infantry Division and sent to Korea to alleviate the major replacement problem. Starting in October 1951, English-speaking Puerto Ricans were made available for assignment on an Army-wide basis and were no longer limited to separate Puerto Rican units or to service in only one geographic area. The 65th Infantry returned to its home island in November 1954 and in 1959 was allotted to the Puerto Rico Army National Guard.

Another innovation, caused by the drastic personnel shortages and heavy casualties in the early days of the Korean War, was the integration of 100 South Koreans into each U.S. infantry company. This Korean Augmentation to the United States Army (KATUSA) took several different forms. Some units integrated the Koreans according to the "buddy system" with one U.S. soldier for each Korean, others organized separate Korean squads and platoons commanded by Americans, still others com-

bined both of these methods. Instituted as an emergency measure, KATUSA presented major difficulties to infantry units because of the language barrier, cultural differences, the Koreans' lack of training, and their nonfamiliarity with U.S. Army organization, weapons, and tactics. As American replacements became available, the number of KATUSA soldiers declined and the South Koreans were used to rebuild the Republic of Korea Army, but later in the war when U.S. strength was reduced, an increase in KATUSA personnel was again authorized. The longer the Koreans remained with American units, the more effective they became, and many of the original difficulties were overcome. As a rule, however, they were more successfully integrated into service units than into the U.S. infantry.

Although South Koreans and Americans carried the greatest part of the burden, twenty-one other nations also contributed to the U.N. war effort in Korea. Most infantry units from these countries were relatively small, and in combat they were frequently attached to U.S. organizations. As the war progressed, a technique was developed whereby a U.N. battalion was habitually attached to the same American infantry regiment and, in fact, operated as an organic fourth battalion of the U.S. unit.

In spite of all of these special infantry organizations, it was the standard infantry that constituted the great majority of infantry units in Korea. Infantry in general played a most significant role in the Korean War. The first American ground troops to arrive in Korea were infantrymen, and all eight U.S. divisions sent to Korea were organized as infantry. As always, the combined effort of all arms and services was necessary for success in Korea, and the infantry depended heavily on their co-operation, particularly on artillery support in the last two years of comparatively static warfare. But, even then, it was the infantry that had the difficult mission of actually capturing the numerous enemy-held hills and outposts. As Lt. Gen. Maxwell D. Taylor, Commanding General of Eighth Army, put it, "the last 200 yards still had to be taken by a determined man on the ground with his rifle and hand grenade." By far the heaviest casualties were suffered by the infantry (out of an Army total of 109,958 casualties, 92,185 were infantrymen), while among the Army's seventy-eight Korean War Medal of Honor winners, seventy came from infantry units.

The Pentomic Concept and the Combat Arms Regimental System

The armistice in Korea did not bring about the rapid demobilization of infantry units that traditionally followed the cessation of hostilities in American military history. President Dwight D. Eisenhower gave the reason for this departure from the usual pattern when he said: "We have

won an armistice on a single battleground—not peace in the world. We may not now relax our guard nor cease our quest." There was, nevertheless, a gradual reduction of both personnel and units throughout the mid-1950's. When the Korean armistice was signed, the active Army had ninety infantry regiments, a year later the total was seventy-four, and by the end of 1956 only fifty-four regiments were active. The number of separate infantry battalions decreased from thirty-one to twenty-six during the same period, while the infantry's personnel strength dropped from 251,685 to 133,931.

By December 1954, all National Guard infantry units that had been federalized during the Korean War reverted to state control and were reorganized at their home stations. Several Regular Army infantry regiments were activated to replace them in the active Army. The number of these organizations, however, never equaled the total of National Guard units released, and some of the Regular regiments were inactivated as the authorized strength of the Army declined. Although the number of units decreased, the responsibilities of the infantry remained worldwide. In December 1956, in addition to those in the continental United States, infantry units were stationed in the Canal Zone, Alaska, Hawaii, Iceland, Italy, Berlin, West Germany, Japan, and Korea. In Korea, two infantry divisions with three organic infantry regiments each were still on duty.

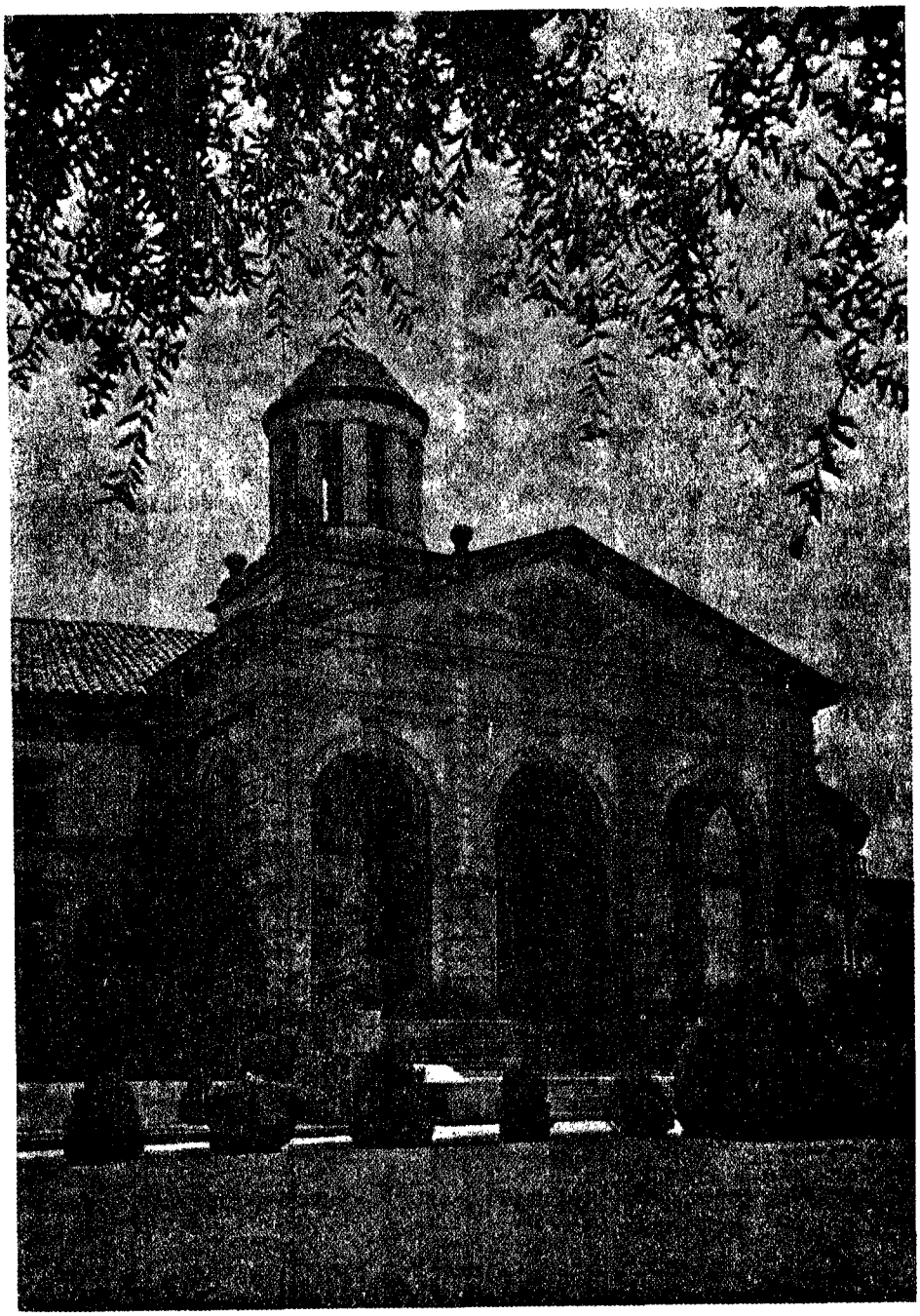
The period immediately following the Korean War was a difficult time for the infantry. The new administration re-evaluated the national military policy, and with this "New Look" the United States entered the so-called "Era of Massive Retaliation." The doctrine of massive retaliation rested on the assumption that the threat of instant and large-scale nuclear reprisals would serve as an effective deterrent to future wars and, therefore, make large conventional forces unnecessary. It emphasized the role of the Air Force in national defense and relegated the Army with its infantry to an inferior position.

Unable to convince the administration of the likelihood of small limited wars in the future and of the need for what he called "a strategy of flexible response," General Maxwell D. Taylor (then Army Chief of Staff) decided that it was necessary to reorganize and modernize the Army to make it readily adaptable to the requirements of the atomic battlefield. As a result, starting in late 1956 Army units were reorganized under the Pentomic system. Two of the most salient characteristics of this concept were reflected in its name—pentagonal structure and atomic capability. Low-yield tactical nuclear weapons became a mainstay of the Army, and an organization based on five major subordinate units replaced the traditional three basic elements of the triangular system.

Many features of the Pentomic organization were dictated by the nature of atomic warfare as well as by a desire to take full advantage of the tremendous technological advances of recent years. For example, the absolute requirement for wide dispersion on the nuclear battlefield to avoid offering the enemy any single lucrative target was an important consideration in adopting an organization with five small basic combat units, while new developments in the field of communications made a broader span of control possible. Since the Soviet Union had acquired an atomic capability in 1949 and from all indications its nuclear arsenal had kept on growing steadily, an enemy with atomic combat power was not entirely theoretical. In order to be successful in a nuclear war, U.S. infantry units had to be small and lean, more powerful and harder hitting, self-sufficient, and geared for long periods of independent action on a wide and fluid battlefield. They had to be capable of rapid and effective concentration in the attack as well as equally rapid dispersal for defense. The Pentomic system attempted to give the infantry all of these capabilities.

The reorganization went through several stages. The Continental Army Command (CONARC), which replaced the Office, Chief of Army Field Forces, on 1 February 1955, began studies of the new concept in the fall of 1955. Test TOE's entitled "Reorganization of the Airborne Division (ROTAD)," "Reorganization of the Current Armored Division (ROCAD)," and "Reorganization of the Current Infantry Division (ROCID)" were published on 10 August, 1 December, and 20 December 1956, respectively. By June 1958, all fifteen active Regular Army divisions and their subordinate units had been reorganized under these tables, and by mid-1959 all but one of the thirty-seven divisions in the reserve components had adopted the new structure. Meanwhile the system was being field tested and evaluated by CONARC, and the Infantry School was revising infantry manuals to cover Pentomic organization and warfare on the nuclear battlefield. In December 1958, a major Infantry Conference, the first such gathering since 1946, met at Fort Benning, Georgia, to discuss the radical changes that were taking place in infantry organization, materiel, and tactics. The ROTAD tables were superseded by the final TOE's for Pentomic airborne units on 31 June 1958, but the final D-series tables for elements of infantry and armored divisions were not published until 1 February and 1 May 1960.

Pentomic was basically a divisional reorganization and as such is beyond the scope of this narrative, but it did introduce major changes in all infantry units. The single most important innovation was the elimination of the regiment from the infantry structure. It was replaced by a new organization called the "battle group." Smaller than a regiment and



U.S. Army Infantry School, Fort Benning, Georgia.

larger than a battalion, the new unit was commanded by a full colonel. Five battle groups were organic to the Pentomic infantry division.

The strength of the ROCID battle group was 1,427, but this was reduced to 1,356 by the D-series TOE. Initially it consisted of a headquarters, headquarters and service company; an artillery battery, equipped with 4.2-inch mortars; and four rifle companies, each having four rifle platoons and a weapons platoon. After reorganization under the D-tables, the battle group had a headquarters and headquarters company, a combat support company, and five rifle companies composed of three rifle platoons and a weapons platoon. All of the tactical support elements (including a radar section and reconnaissance, heavy mortar, and assault weapons platoons) were located in the combat support company. The radar section's two medium-range and five short-range radar sets greatly increased the battle group's ground surveillance capability, while the heavy mortar platoon brought the 4.2-inch mortar back to the infantry. The assault weapons platoon introduced the first operational infantry guided missile, the French-manufactured SS10, a lightweight, long-range, and accurate weapon, employed primarily against tanks.

The weapons platoon in the Pentomic rifle company became a much more powerful unit since it no longer used 60-mm. mortars and 57-mm. recoilless rifles. It now had 81-mm. mortars and 106-mm. recoilless rifles, which prior to ROCID were classified as battalion-level equipment. The 106-mm. rifle had been adopted in October 1954 as a replacement for the 75-mm. and 105-mm. recoilless rifles in the infantry battalion's heavy weapons company. This was the only significant change in infantry weapons between the Korean armistice and the Pentomic reorganization. The ROCID and D-series TOE's made the 106-mm. recoilless rifle a standard rifle company weapon, giving the unit highly effective antitank protection.

The tank company organic to the pre-ROCID infantry regiment was not continued in the Pentomic structure. The divisional tank battalion, however, was reorganized to consist of five tank companies, so that a company of seventeen tanks was available to support each of the five battle groups. Other divisional elements, normally providing direct support for battle groups, were also organized pentagonally.

The Pentomic infantry rifle squad had eleven men, two more than the squad of the Korean War era. This increase represented more than just a gain of two additional rifles. It introduced the concept of two fire teams within a squad and gave the unit not only increased firepower, but also greater maneuverability, the ability to withstand more attrition, a greater capacity for sustained combat, and more effective control over individual riflemen. Under the 1960 TOE, a portable radio set was issued to each

of the three rifle squads and to the weapons squad. These radios were part of a newly established platoon net linking together, for the first time, all subordinate elements of the rifle platoon and making them immediately responsive to the platoon leader's orders. Communications were improved on other organizational levels as well, because a rapid and efficient communications system was an essential ingredient of the Pentomic concept.

Since a high degree of mobility was another requirement of Pentomic units, transportation equipment was also improved. In addition to employing its own organic transport, the battle group could depend on the divisional transportation battalion, which was added to the structure under ROCID. This unit's two armored personnel carrier companies were capable of moving an entire infantry battle group. By also using its light truck company, the transportation battalion could move two battle groups simultaneously. As for organic aviation, the battle group did not inherit the regiment's 6-man aviation section. All of the aircraft, both rotary and fixed-wing, authorized for the Pentomic infantry division were centralized in one combat aviation company. The company was organized to give direct support to battle groups when needed as well as to furnish general support for the entire division.

When organized for combat, the infantry battle group often had other units attached. These were usually a tank company, an engineer company, and a field artillery battalion. A battle group, reinforced in this manner, was a balanced combined arms force and, although considerably smaller, greatly resembled the regimental combat teams of World War II and the Korean War. Most infantry battle groups were divisional units. There were, however, some nondivisional groups which were assigned to higher commands or served as school troops. Others were organic to a new organization, the separate infantry brigade. Two such brigades, the 1st and 2d, were activated in the Regular Army in 1958. In the Army National Guard, the 29th, 92d, and 258th Infantry Brigades were organized in 1959 with their respective headquarters in Hawaii, Puerto Rico, and Arizona.

The airborne infantry was also reorganized under the Pentomic system. The units organic to the 101st Airborne Division were the first in the Army to be evaluated and tested under the new concept. In September 1956, the 101st was reorganized in accordance with the ROTAD TOE's, and the following month tests of the new structure began at Fort Campbell, Kentucky, and Fort Bragg, North Carolina, in a series of exercises called JUMP LIGHT. The name given to the exercises reflected one of the most important characteristics of ROTAD units—their relative lightness. The entire division, with the personnel and equipment of all of

its elements, including five airborne battle groups, was completely transportable by Air Force medium transport aircraft (the C-119, C-123, and C-130). Some of the equipment provided by the TOE's was not yet available and interim items authorized did not meet all of the airlift criteria, but it was understood that these items were only temporary issue and would be replaced as soon as possible.

The airborne battle group was similar to the corresponding unit in the regular infantry. Under ROTAD it contained 1,584 men, organized into a headquarters, headquarters and service company, a heavy mortar battery, and five airborne infantry companies. With the adoption of the D-series TOE, total group strength increased by only one man and its basic structure remained the same. Each of the five rifle companies had four rifle platoons and a weapons platoon, which was equipped with 81-mm. mortars and 106-mm. recoilless rifles. The rifle platoon consisted of a weapons squad and three rifle squads, composed of eleven men and organized into two fire teams. The group's organic fire support was provided by an artillery battery, armed with eight 4.2-inch mortars, while its assault gun platoon was equipped with six 90-mm., self-propelled, full-tracked antitank guns, which could be transported and landed by C-119 or C-123 aircraft or dropped by parachute from the C-119.

In recognition of the importance of communications on the modern battlefield, the signal equipment of the airborne battle group was made greatly superior to that of the former airborne infantry regiment. Although the total strength of the battle group was less than half that of the regiment, the group was authorized the same number of radios and even more telephones than had been organic to the regiment. In addition to its 100 percent air transportability, the Pentomic airborne battle group also had increased ground mobility. The most significant development in this field was the adoption of the infantry light weapons carrier, M274, better known as the mule or mechanical mule. By taking some of the load off the paratrooper's back, the mechanical mule improved the mobility of airborne infantry units in ground operations.

In comparison with the almost complete transformation of standard and airborne infantry units during the Pentomic era, changes in armored infantry structure during the same period were minor. With the battalion as its basic element, the armored infantry was already organized into small, powerful, flexible, and highly mobile units, capable of the rapid concentration and wide dispersion which would be essential in nuclear warfare. The armored division's combat command organization was also well suited to the atomic battlefield. Therefore, although the armored division gained an atomic capability under the ROCAD and D-series TOE's, it did not adopt the pentagonal structure. The division retained

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both its three combat commands and its four organic armored infantry battalions. Each battalion continued to have four rifle companies consisting of three rifle platoons and an 81-mm. mortar platoon. The total strength of the battalion, however, increased somewhat from 978 to 1,027, and the unit was designated an armored rifle battalion.

Two BAR's had been authorized for each rifle squad in the regular and airborne infantry during 1953 and 1954, but the second automatic rifle was not included in the armored infantry rifle squad until the ROCAD TOE of December 1956. At the same time the squad increased from ten to twelve men and, like its 11-man standard and airborne infantry counterparts, was subdivided into two fire teams. The extra man drove the squad's organic M59 armored personnel carrier (APC), a full-tracked amphibious vehicle with ground mobility equal that of a tank and having great agility in water. Meanwhile, a lighter and less expensive amphibious armored personnel carrier, M113, was being developed. Although designed primarily to give the armored infantry mobility, the M113 could also be employed as a self-propelled heavy weapons carrier, an ambulance, a command vehicle, a cargo carrier, or a fire direction center. Under the 1960 TOE's, there were seventeen APC's in each armored infantry company and a total of seventy-seven in the armored rifle battalion. The battalion had enough organic transportation to make it 100 percent mobile, and its communications system was more extensive and more efficient than ever before.

One very important item, authorized by the D-series TOE's for all types of infantry units, was the new M14 rifle. The result of more than ten years of experimentation and testing, the M14 was almost a pound lighter than its predecessor, the M1 rifle, and held a 20-round magazine instead of the M1's 8-round clip. Since it fired the 7.62-mm. cartridge adopted by the other NATO countries, standard U.S. rifle ammunition became interchangeable with that of major allies. A selector for automatic or semi-automatic fire increased the M14's versatility and enabled it to serve as a replacement not only for the M1, but also for the carbine, the submachine gun and, when used with a bipod, for the much heavier BAR. Because any rifleman could now become an automatic rifleman with little additional training, the rifle squad and other small infantry units acquired greater tactical flexibility. Although the M1 and the BAR had served the infantry well for many years and most soldiers were sorry to see these "old reliables" go, the M14 was adopted as the new standard weapon of the rifleman and began to be issued to infantry units in 1960. Shortly thereafter, TRAINFIRE, the official rifle marksmanship course since 1957, designed to simulate actual combat conditions and featuring a pop-up silhouette target known as "Punchy Pete," was modified for use with the M-14.

PARATROOPERS FROM 101ST AIRBORNE DIVISION TESTING M14 RIFLES.

At about the same time, a new general purpose machine gun, the M60, was adopted as a replacement for both the heavy water-cooled and the light air-cooled Browning .30-caliber machine guns. The M60 fired 7.62-mm. NATO ammunition at a rate of 600 rounds per minute, weighed only twenty-three pounds, and could be fired from the shoulder or hip, from an attached bipod, or from a newly developed aluminum tripod. Other infantry weapons and equipment were meanwhile being developed and tested by the Infantry School and by CONARC's Infantry Board. Among them were a lightweight rifle, a shoulder-fired air defense guided missile, an improved model of the 81-mm. mortar, a new grenade launcher, more powerful and lighter radar sets, the Claymore antipersonnel mine, and better radios, including an experimental combat helmet model. Thus, although the spectacular advances made during the Pentomic era were in the fields of nuclear weapons, giant guided missiles, and huge rockets, there was also solid progress in the development of conventional small arms and equipment for the individual rifleman.

been fifty-nine infantry regiments (with three battalions each) and twenty-three separate infantry battalions in the Regular Army. By June 1958 they had been replaced by seventy-six Pentomic battle groups and nineteen armored rifle battalions, all of which were elements of fifty-five infantry and five cavalry CARS parent regiments. CARS and Pentomic were not limited to the Regular Army; all Army National Guard and Army Reserve infantry units were also reorganized according to the new historical and tactical organizational systems. The only exceptions were the training regiments of the thirteen training divisions in the Army Reserve, which were organized under entirely different TOE's and were neither Pentomic nor CARS units.

ROAD and Flexible Response

The Pentomic battle group had a rather brief existence as the basic unit of the infantry. From its inception, the Pentomic system had been considered an interim measure by the Army Staff. It was intended as the first step, not the last, in the Army's adaptation to the nuclear battlefield and to the increasingly complicated military situations that might be expected to arise in the future. Planning for a new combat structure began even before all infantry units had been reorganized under the D-series TOE's. In December 1960, CONARC was directed to re-evaluate the current organization and to make recommendations for necessary changes. The result of this re-evaluation was not another modification of the existing Pentomic system but a major Army-wide reorganization under an entirely new concept called ROAD (Reorganization Objective Army Divisions). ROAD was approved by the Secretary of the Army in April 1961 and was publicly announced by President John F. Kennedy before a joint session of Congress on 25 May 1961. The first ROAD units were organized in February 1962 under draft TOE's. The final tables were published on 15 July and 15 August 1963, and by the end of June 1964 the reorganization was completed both in the Regular Army and in the reserve components.

The fundamental assumption behind the Pentomic organization had been that atomic war was the most likely form of future warfare and that tactical nuclear weapons would definitely be used. The new Kennedy administration questioned this assumption and was seriously concerned about limited conflicts and the ability to handle situations short of nuclear war. General Maxwell D. Taylor, long-time champion of what he called "flexible response," was appointed Military Representative of the President in the Office of the Secretary of Defense and later Chairman of the Joint Chiefs of Staff. Pentomic, a product of the era of massive retaliation,

did not fit into the strategy of flexible response, which now became official national policy. ROAD, on the other hand, was specifically designed to carry out such a policy.

The single most important characteristic of the new system was its flexibility. Under ROAD each division had a fixed base, common to all divisions, but the number and type of its infantry and armor elements varied according to its mission, geographic location, and strategic as well as tactical requirements. By different combinations of organic maneuver elements, divisions could be tailored to fit any environment or situation. Without reducing the Pentomic division's tactical nuclear weapons, ROAD increased conventional firepower and personnel strength. As a result, ROAD units had a genuine dual capability and greater staying power on the non-atomic battlefield. The new system had the additional advantage of introducing an organization that was more compatible with that of major NATO allies.

ROAD, like Pentomic, was primarily a divisional reorganization. It did, however, affect the infantry as a whole by changing the structure of infantry units of all sizes down to and including the squad. Among the most serious shortcomings of the Pentomic organization was the fact that the battle group, which had been planned as a lean, highly mobile, scaled-down regiment, was too small and not powerful enough to be an adequate substitute for the regiment; it was much more like an oversized and reinforced battalion. Nor was the combat capability of all five Pentomic battle groups equivalent to that of the three regiments of the triangular division. ROAD, therefore, dropped the battle group from the infantry structure, but it did not bring back the regiment. Instead, it made the battalion the basic tactical and administrative unit of the infantry.

Command and control also posed major problems in the Pentomic system. With the elimination of infantry regiments and battalions and the introduction of the pentagonal, as opposed to the triangular organization, only one echelon of command remained between the division commander (a major general) and the company commander (a captain). As a result, the commanding general was burdened by having five major independent combat elements under his immediate control. Experience showed that even with modern communications this span of control was too wide for efficient operations. Furthermore, infantry majors and lieutenant colonels had extremely limited command opportunities, since only about 5 percent of them could expect to acquire command experience in peacetime under the Pentomic system. ROAD improved both the command and control structure and infantry officer career opportunities by dropping the pentagonal organization and by establishing three brigades

in each division to serve as intermediary headquarters between the division commander and the combat battalions. Contrary to the fixed structure of the five Pentomic battle groups and of the old infantry regiments with three identical battalions, the new brigades could control a variable number and type of units. The brigades, which were made organic to all divisions, were similar to the combat commands that the armored division had since World War II, but they provided greater flexibility.

Battalions were attached to brigades according to what was appropriately described as the "building-block" concept. In order to facilitate interchangeability of maneuver elements between and within divisions and to simplify training, a certain degree of standardization of structure was introduced. Thus not only did different types of infantry battalions resemble each other more than ever before, but even tank battalions were organized along similar lines. This similarity was accompanied by a renewed emphasis on the employment of combined arms teams, and new techniques were developed for task force formation of infantry and armor elements on brigade, battalion, and company levels. Under ROAD, divisional brigades with their infantry and armor elements were capable of operating independently when reinforced by support and service units from the division base. In such cases, the brigades were comparable to the infantry RCT's that had been employed with great success during World War II and the Korean War.

The ROAD infantry battalion differed considerably from the Pentomic battle group, but it had several things in common with the infantry battalion of the pre-ROCID period. Like the earlier battalion, it was organized with three organic rifle companies. In both units each rifle company had three rifle platoons and a weapons platoon; the rifle platoon consisted of three rifle squads and a weapons squad, and the weapons platoon had a mortar and an antitank section. Unlike the pre-Pentomic battalion, the ROAD unit had no separate heavy weapons company; all the organic support elements were included in the headquarters company. This company also contained a mess section, which for the first time consolidated company mess teams on the battalion level. Furthermore, the ROAD infantry battalion was tactically self-sufficient and thus had a greater degree of independence than the battalions which had been organic to the infantry regiment.

The new rifle squad contained ten men. It was larger by one man than the squad of the post-World War II and Korean War period but smaller than the 11-man Pentomic squad. It consisted of a squad leader, two 4-man fire teams (team leader, automatic rifleman, rifleman, and grenadier), and an extra rifleman, who could be used to reinforce either fire

ENTAC ANTITANK GUIDED MISSILE.

M29 DAVY CROCKETT.

team or assist the squad leader. Organizationally, the squad reflected ROAD's characteristic flexibility down to the very last man.

The M14 rifle, introduced in the D-series TOE's, remained the infantryman's basic weapon; with a selector and bipod it also served as an automatic rifle. The ROAD tables provided a new knife-type bayonet for the M14 instead of the former carbine bayonet, which had been temporarily issued with the M14. The M79 grenade launcher was also authorized as a new individual weapon. Designed to close the gap between the maximum range of a hand grenade and the minimum range of a mortar, the lightweight M79 fired a 40-mm. high-explosive fragmentation projectile to a range of approximately 400 meters. With two launchers per rifle squad and a total of eighty-five in the battalion, the M79 helped to improve the capabilities of small infantry units.

Several new antitank weapons, both close-in and long-range, were introduced by the ROAD TOE's. The 90-mm. recoilless rifle, M67, replaced the 3.5-inch rocket launcher in the weapons squad of the rifle platoon, and the ENTAC *(ENgin-Téléguidé Anti-Char)* became the new weapon for the battalion's three antitank squads. A French-manufactured wire-guided missile with a range of 2,000 meters, the ENTAC was a considerable improvement over the SS10 antitank missile which was being phased out. Some 3.5-inch rocket launchers were still found in the ROAD infantry battalion, but the TOE clearly stated that they were to be issued only until the new 66-mm. high explosive antitank rocket, M72, became available. Commonly known as the LAW (Light Antitank Weapon), this weapon was designed to be carried and operated by one man. Although the rocket together with its launcher weighed only about 4.75

pounds and was only 25 inches long and 3 inches in diameter, the LAW had an effective range of 200 meters and was capable of penetrating armor of the heaviest known tank.

For the first time under ROAD, the portable flame thrower was made organic to the infantry battalion. Flame throwers had been used by infantry units before, but they had been considered special purpose weapons and as such had to be requested in advance from ammunition points. Nine of them were included in the ROAD battalion's TOE equipment. With three in each rifle company headquarters, flame throwers were immediately available whenever needed. The ROAD TOE's also returned the .50-caliber heavy machine gun to the infantry battalion. The number of these guns, used primarily as antiaircraft weapons, had been drastically reduced under ROCID, and they were completely eliminated from the battle group by the D-series tables. Under ROAD, thirteen .50-caliber machine guns were again authorized for each infantry battalion. All of the guns were located in the headquarters company, although they were not grouped in any one section within the company. Meanwhile, the new Redeye air defense missile was being developed and tested and its availability for distribution to infantry units was being projected for the near future.

All of these weapons gave ROAD units much more conventional firepower, and thus helped to correct one of the major weaknesses of the Pentomic organization. Although ROAD emphasized conventional capabilities, it did not neglect atomic power. On the contrary, even the infantry had its own nuclear weapons system, the Davy Crockett, which could be employed in either a direct or indirect fire support role against a wide variety of targets—primarily massed enemy personnel. While the weapon was being developed, CONARC had proposed and tested several different organizations for its employment, including separate TOE platoons and sections organic to the heavy mortar platoon in the battle group's combat support company. Selected personnel began special training at the Infantry School in October 1961. In the final ROAD TOE, there was a 12-man Davy Crockett section augmentation in the headquarters company of the infantry battalion. It could be organized only by special authorization from the Department of the Army, but should that authority be given, the battalion commander would have four low-yield nuclear weapons under his direct control and the capability of initiating a nuclear fire mission within minutes.

The ROAD infantry battalion was not only more powerful than the ROCID battle group; its firepower was also much greater than that of the pre-Pentomic infantry battalion. The battalion that had fought in Korea ten years earlier had no M14 rifles, M60 machine guns, M79

grenade launchers, 90-mm. or 106-mm. recoilless rifles, ENTAC's, or Davy Crocketts. Although it could depend on close support from the regimental heavy mortar company, the Korean War unit did not have organic 4.2-inch mortars, whereas the ROAD battalion had heavy mortars in its own headquarters company. The 3.5-inch rocket launcher, .50-caliber machine gun, and 81-mm. mortar used by the earlier infantry battalion were still authorized for the ROAD unit. However, the LAW was being tested as a substitute for the bazooka, the Redeye was being designed to replace the machine gun in the antiaircraft role, while the 81-mm. mortar being issued was a new and improved model.

Only the .45-caliber automatic pistol was the same in both the older and newer battalions. All other weapons organic to the Korean War unit had either been replaced or were scheduled to be replaced in the near future by more sophisticated and powerful weapons. As a result, the ROAD battalion's total firepower was significantly greater than that of its Korean War predecessor, in spite of the fact that its personnel strength was less by fifty-seven men. The communication and transportation equipment of the ROAD infantry battalion was also considerably better. The number of radios and telephones had increased from 66 and 29 to 176 and 149, respectively; trucks had more than doubled from 49 to 115. Neither helicopters nor fixed-wing airplanes were authorized for the infantry battalion, but there was an aviation battalion in the division base of each ROAD division with enough organic aircraft to airlift an entire infantry company at one time.

In keeping with the new trend toward standardization, the ROAD airborne infantry battalion was almost identical in structure to the regular infantry battalion. There was only one significant difference: the airborne unit had six instead of three antitank squads armed with ENTAC's in its headquarters company. ENTAC's were also authorized for the antitank squads of airborne infantry companies, while the standard infantry used the 106-mm. recoilless rifle at company level. More ENTAC's were authorized because the airborne ROAD division usually had only one tank battalion assigned to it and consequently needed a greater antitank capability in its infantry units. The airborne battalion TOE also provided for thirteen infantry light weapons carriers or mechanical mules, which were not included in the standard battalion's equipment. The regular infantry unit, on the other hand, had more heavy trucks and trailers. In general, the airborne battalion was a little lighter than the standard infantry battalion and was 100 percent transportable by medium aircraft. The capabilities of the ROAD airborne battalion were the same as those of the regular infantry battalion, with one important exception: the airborne unit was organized and trained for frequent airborne assault by parachute or assault aircraft.

The third type of infantry battalion under ROAD was called "mechanized infantry." It replaced the former armored infantry battalion (AIB) and armored rifle battalion. Mechanized infantry units were characterized by their high cross-country mobility with light armor protection and multiple communications. In addition to sharing the capabilities of the regular infantry, the mechanized infantry battalion could provide a highly mobile exploitation force when suitably reinforced, exploit the effects of mass destruction weapons, and complement and enhance the inherent capabilities of tank elements when employed in tank-infantry task forces. AIB's and armored rifle battalions had been organic only to armored divisions; mechanized battalions were assigned to armored divisions as well as infantry and mechanized infantry divisions. The mechanized division was a new organization created under ROAD which, although not as heavy in armor as the armored division, was particularly suitable for employment in such terrain as the plains of Europe or against an enemy with highly mechanized forces. All three types of ROAD infantry battalions were also assigned to separate brigades, which became more numerous during the 1960's.

The organization of the mechanized infantry battalion was very similar to that of standard and airborne infantry units. Having a strength of 901, compared to 830 for the regular and 828 for the airborne battalion, the mechanized battalion was the largest unit. Additional drivers and maintenance personnel were required for the extra organic vehicles that made the mechanized unit 100 percent mobile. Signal equipment was also more numerous and, because of the mobility factor, wireless communication was more essential. Although there were fewer telephones in the mechanized battalion, the number of radios was twice that of a regular infantry battalion. Each rifle squad, for example, was authorized a vehicular radio set in addition to its portable radio. In the draft TOE the mechanized infantry rifle squad had only ten men, like the standard and airborne squads; one of the riflemen was expected to double as the driver of the squad's M113 armored personnel carrier (APC). In the final table another rifleman was added, thus permitting the driver to remain with the APC at all times.

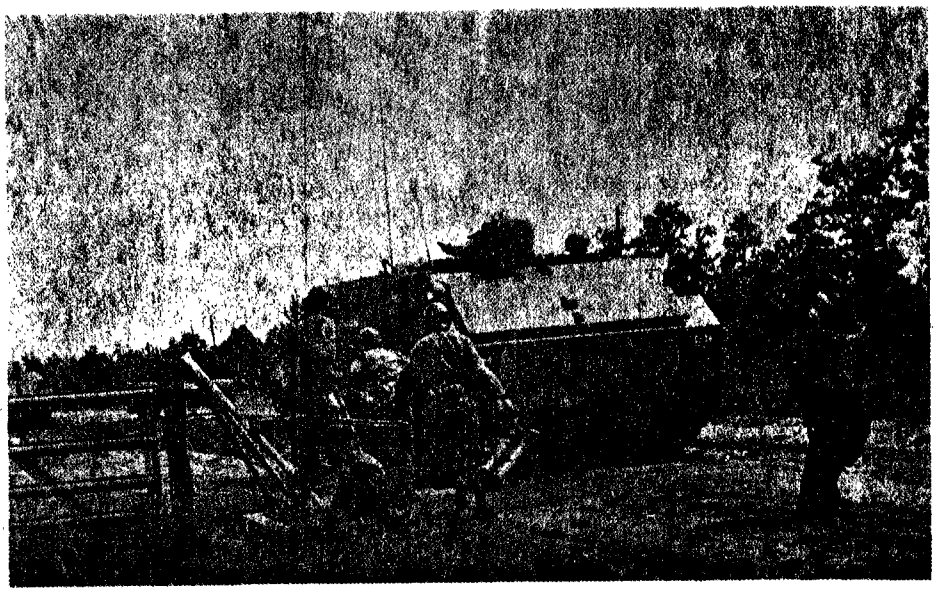
In the process of adopting an organization similar to that of the regular infantry, the mechanized infantry battalion lost the fourth rifle company that had been organic to the AIB and to the armored rifle battalion ever since the post-World War II reorganization. However, the battalion did gain an improved antitank capability. The only antitank weapon in the AIB and armored rifle battalion had been the 3.5-inch rocket launcher, while the ROAD mechanized battalion was also authorized 90-mm. and 106-mm. recoilless rifles, the ENTAC guided missile,

and finally the LAW. The number of machine guns was reduced by the ROAD TOE's, but in spite of this reduction there were still more 7.62-mm. and .50-caliber machine guns in mechanized infantry units than in other infantry organizations.

With the adoption of ROAD, the designations of different types of infantry units became standardized. The official designation for all infantry battalions consisted of the battalion and the parent regiment, and descriptive terms such as mechanized or airborne were now put in parentheses after the battalion. Also placed in parentheses, following the parent unit, was the traditional or distinctive designation of the regiment, shared by all of its elements. For example, the 1st Battalion (Airborne), 506th Infantry (Currahee), organic to the 101st Airborne Division, and the 3d Battalion (Mechanized), 118th Infantry (Palmetto Regiment), a unit of the South Carolina Army National Guard, were officially designated as the 1st Battalion, 506th Infantry, and the 3d Battalion, 118th Infantry. Thus while official designations were standardized and simplified for efficiency's sake, provisions were made for retention of descriptive terms and historical nicknames.

Although the number and types of infantry battalions assigned to any given division depended on its mission and geographic location, the particular units were selected on the basis of their historical association with the division. The parent regiments of most of the infantry battalions organic to a ROAD division had fought with that division in World War I or II or in the Korean War. Whereas under the Pentomic system each of the organic infantry elements came from a different parent unit, under ROAD two or more battalions from the same parent regiment were usually assigned to each division. This change involved some reassignments and reshuffling of units and was made concurrently with reorganization under the new TOE's.

CARS adapted very well to ROAD, proving its ability to provide a stable historical and traditional background for combat units in spite of major tactical reorganizations. Except for the addition of five more infantry parent regiments—the 61st, 188th, 508th, 509th, and 511th—no changes were made in the system. Separate parent units were not created for the new mechanized infantry battalions. Those that were organized from former armored rifle battalions had parent regiments with armored infantry backgrounds, but since there were far more mechanized units, many of them shared parent regiments with the standard infantry. The airborne parent regiments had only airborne elements. The only exception was the 509th Infantry, whose 1st and 2d Battalions were organized as airborne/mechanized, that is, as mechanized units with parachute-qualified personnel. Two airborne regiments, the 188th and 511th, were



MEN OF 1ST ARMORED RIFLE BATTALION, 144TH INFANTRY, TEXAS ARMY NATIONAL GUARD, *with armored personnel carrier on maneuvers, 1962.*

added to CARS in order to furnish organic elements for the 11th Air Assault Division, newly organized at Fort Benning, Georgia, with the special purpose of testing the airmobile concept.

The greater emphasis on limited war capabilities and flexible response, which had set the stage for the ROAD reorganization, also helped to bring about an increase in Army and infantry strength in the early 1960's. The number of infantrymen had been gradually reduced since the Korean armistice and kept on declining after the adoption of the Pentomic organization. Reaching its lowest point in August and September 1958, infantry strength had dropped to less than 100,000 and to approximately 11 percent of the overall Army strength, which also continued to decrease. At that time there were ninety-three infantry units of battle group or battalion size in the active Army. Three-fourths of them were organic elements of divisions and about half were stationed overseas. After this low point, infantry personnel strength began to grow gradually, but it was the Berlin crisis of mid-1961 that brought about a significant gain in both infantry personnel and units.

The increase was at first mainly the result of federalizing two Army

National Guard divisions. The 32d Infantry Division from Wisconsin with five organic infantry battle groups and the 49th Armored Division from Texas with its four armored rifle battalions were federalized on 15 October 1961. An Army Reserve training division, the 100th, was also ordered into active military service. Thus, the reserve components played an important role during the Berlin crisis. However, in order to be prepared for such crises in the future, a buildup in Regular Army strength was necessary. To satisfy this need, existing units were made more combat ready and two additional divisions were authorized. In February 1962 the 1st Armored Division and the 5th Infantry Division (Mechanized) were activated. These divisions and their organic elements became the first units to be organized under the new ROAD concept.

By the time the ROAD reorganization was officially completed in June 1964, active infantry strength had grown to 130,131, even though infantry units from the reserve components had reverted to reserve status. The Regular Army now had sixteen combat divisions: 5 infantry, 2 airborne, 4 armored, 4 mechanized infantry, and 1 cavalry (organized as infantry), with 107 organic infantry battalions among them. Sixteen infantry battalions were assigned to seven separate brigades: 3 infantry, 1 airborne, 1 armored, and 2 mechanized infantry. There were also three battalions assigned to the 11th Air Assault Division (Test), four separate battalions, and five separate companies. One unit was still designated a battle group; it was the 1st Battle Group, 1st Infantry, active at zero strength at West Point. From this total of 136 infantry units, 67 were stationed in the continental United States and 69 were overseas with 31 in West Germany, 19 in Korea, and the remainder in Okinawa, Hawaii, Alaska, Berlin, and the Canal Zone.

Infantry readiness in the Army Reserve and Army National Guard was also considerably improved during the 1960's, but it was accompanied by a reduction in the total number of organized units. Robert S. McNamara, Secretary of Defense during the Kennedy and Johnson administrations, was instrumental in bringing about several realignments of the reserve components. He recommended drastic cuts in the number of reserve units, which in turn would enable the remaining organizations to be more fully manned and equipped. One of McNamara's original suggestions was to eliminate all infantry and other combat units from the Army Reserve, leaving only service units, and to make the Army National Guard the combat reserve. Congress rejected this proposal and modified many of his other recommendations. Nevertheless, after the reorganization of 1967–68 both the Army Reserve and the Army National Guard were significantly different from the reserve components of a decade earlier.

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The twenty-seven Army National Guard divisions of the late 1950's, with sixty-three organic infantry regiments (of three battalions each) and twenty-four organic armored infantry battalions, had been reduced by 1968 to only eight divisions and eighteen separate brigades, having a total of 111 organic ROAD infantry battalions. There were also four separate infantry companies and twelve separate infantry battalions, including two scout battalions organized in Alaska with Eskimo personnel. All of the Army National Guard infantry units were elements of seventy-six CARS parent regiments.

In the 1968 Army Reserve there were no divisional combat infantry units left, since four of the ten combat divisions had been inactivated in 1963 and the other six by the end of 1965. Only three separate brigades, each having three organic infantry battalions, remained active together with one separate infantry battalion. In the course of these realignments twelve of the eighteen CARS infantry parent regiments with Army Reserve backgrounds had been eliminated. The 313th, 314th, 315th, 409th, 410th, and 442d Infantry were retained with one battalion each, while the other four active infantry battalions were elements of Regular Army parent units. The Army Reserve continued to have thirteen training divisions, but these too had undergone a major reorganization. The five training regiments previously organic to each division were replaced by thirteen battalions, with eight for Basic Combat Training (BCT), three for Advanced Individual Training (AIT), and two for Combat Support Training (CST), all of which were attached to four brigades within the division. Although a battalion and brigade structure was introduced, the training divisions were not organized under ROAD and the new battalions did not become elements of designated CARS parent regiments. The former training regiments, however, were reorganized under a modified CARS concept with a variable number of BCT, AIT, or CST battalions and with the regimental headquarters inactive.

One other type of infantry organization, the Special Forces, remained active in the Army Reserve and also had elements in the Regular Army and in the Army National Guard. Although part of CARS, the Special Forces were not like any other CARS units, but had a unique structure. Their basic operational unit was the 12-man "A" detachment, commanded by a captain. Forty-eight of these detachments were organic to a full strength Special Forces group. The parent regiment for all Special Forces units from all three components, designated the 1st Special Forces, was created on 15 April 1960 by consolidation of the six ranger infantry battalions and the 1st Special Service Force of World War II. Since the ranger companies of the Korean War period traced their lineages back to elements of the World War II ranger battalions, their histories were also perpetuated by the new parent unit.

TEAM FROM 5TH SPECIAL FORCES GROUP, 1ST SPECIAL FORCES, *firing 81-mm. mortar in Vietnam.*

The mission of the Special Forces was to fight both as guerrillas and against guerrillas and to organize, train, advise, direct, and assist indigenous forces anywhere in the world in the conduct of guerrilla warfare as well as in counterinsurgency and counterguerrilla operations. Special Forces personnel were therefore among the first Americans to be sent to Vietnam as advisors to the South Vietnamese in their struggle against Communist aggression. As the conflict in Vietnam developed into a major war, the U.S. involvement deepened. Regular infantry and other combat troops were committed, and the war in Vietnam became the first actual battle test of the strategy of flexible response and the ROAD organization.

The War in Vietnam

The first U.S. infantry combat units arrived in Vietnam in May 1965.

They were the 1st and 2d Battalions, 503d Infantry, elements of the 173d Airborne Brigade, previously stationed on Okinawa. These units were joined in July by three battalions from the 1st Infantry Division and three battalions from the 101st Airborne Division, and in September by eight battalions of the 1st Cavalry Division (Airmobile). The infantry battalions organic to the 173d Airborne Brigade and the 101st Airborne Division were airborne, those assigned to the 1st Infantry Division were standard infantry, while the elements of the 1st Cavalry Division were a new type of unit called "airmobile." Although the airmobile infantry battalions had no organic aircraft, the division was authorized 428 helicopters, enough to give all of its elements tactical mobility by air.

Military strategists had long dreamed of airmobile units that would introduce a true third dimension to the battlefield. The first practical application of the airmobile concept, the organization of the 11th Air Assault Division, was made possible by the great strides of recent years in the design, production, and doctrine of employment of the helicopter. Elements of this test division were activated at Fort Benning, Georgia, starting in February 1963 as a result of the recommendations of the U.S. Army Tactical Mobility Requirement Board, more commonly known as the Howze Board after its chairman, Lt. Gen. Hamilton H. Howze. Following more than two years of testing and evaluation, the Secretary of Defense approved the creation of a combat ready airmobile division. The 1st Cavalry Division was selected. It was transferred less personnel and equipment from Korea to Fort Benning and was reorganized as airmobile on 1 July 1965. With the formation of this division the Army acquired a new way of bringing the infantry and other ground troops in contact with the enemy. One of the major goals of the ROAD reorganization had been to furnish appropriate tactical mobility to combat units in different geographical areas. The development of airmobile units was another example of ROAD's continuing flexibility. Since in Vietnam the use of ground vehicles was severely limited by terrain, the new airmobile division was ideally suited for employment there.

Probably the most significant innovation of the war was the large-scale use of helicopters in general and of airmobile combat units in particular. All units in Vietnam depended heavily on the helicopter for aerial reconnaissance, medical evacuation, and resupply, as well as rapid transportation into and out of otherwise inaccessible areas. Helicopters used by the infantry were Army not Air Force aircraft and, as such, were more responsive to the needs of the units. The infantry in turn quickly adjusted to airmobile operations. Although all types of infantry units were regularly transported by helicopter, the airmobile division was the only infantry organization that could move all of its elements with its own organic aircraft.

MEN OF 1ST BATTALION, 2D INFANTRY, *just dropped from helicopter, rush into action near Phuoc Vinh.*

Airmobile units were capable of moving rapidly and directly to their objective regardless of terrain obstacles or enemy troop concentrations. Responding swiftly to changes in the tactical situation, they could break off action at one point and fly quickly in any direction to fight at another point or disperse to widely separated bases. Characterized by speed, surprise, maneuverability, and aggressiveness, the airmobile assault proved to be a highly successful offensive technique. In terrain such as that of Southeast Asia, it was a great improvement over airborne assault techniques developed in World War II. Except for one jump by elements of the 173d Airborne Brigade on 22 February 1967, no combat parachute drops were made by U.S. Army units in Vietnam, whereas literally thousands of helicopter missions took place. On 1 July 1968, therefore, the 101st Airborne Division was reorganized as airmobile. Although the division base was significantly changed in the process of airmobilization,

this was not a major reorganization for the ten airborne infantry battalions assigned to the division. By that time their structure had already been standardized under Modification Tables of Organization and Equipment (MTOE's) for light infantry battalions.

When the buildup of U.S. troops in Vietnam began in 1965, infantry units in general were organized under the ROAD tables of 15 July and 15 August 1963. Shortly thereafter a new series of infantry TOE's was published. These tables were prepared under the direction of the U.S. Army Combat Developments Command, which had been created during the 1962 reorganization of the Department of the Army. The new command took over the responsibility for development and processing of TOE's from the Continental Army Command (CONARC), but training of infantry units and supervision of the Infantry School remained CONARC functions. The standard and mechanized infantry tables were dated 31 March 1966, while the airborne infantry had two sets of tables, dated 30 June 1965 and 30 June 1966. These TOE's added an air defense section to the headquarters company of all three types of battalions, which was organized to use the new Redeye guided missile system (a man-portable, shoulder-fired, low altitude, antiaircraft weapon). The Davy Crockett section augmentation was eliminated from the battalions, but in February 1967 a tentative test TOE for a separate infantry Davy Crockett platoon was published. Its primary mission was to provide close-in nuclear fire support for the maneuver battalions of a division or brigade. Since this was a test TOE, units were to be organized under it only when specifically directed.

The number of personnel in airborne units was reduced by the 1965 and 1966 TOE's, and lighter equipment was authorized for them. The battalion's antitank weapon was changed from the ENTAC to the 106-mm. recoilless rifle, which in turn was to be replaced by the TOW (Tube-launched, Optically-tracked, Wire-guided) missile system as soon as it became available. A new individual rifle, the lightweight M16, was also authorized for airborne infantrymen. All three types of infantry battalions—standard, mechanized, and airborne—retained the ROAD structure of a headquarters and headquarters company and three rifle companies.

Meanwhile, test TOE's had been prepared by the Combat Developments Command for two new types of infantry units, the airmobile battalion organic to the airmobile division and a special infantry battalion which was to be assigned to light infantry divisions and separate light infantry brigades. With authorized strengths of 767 and 769, respectively, these units were smaller than the regular infantry battalion of 849 men. Both battalions had a headquarters and headquarters company, three

rifle companies, and a combat support company consisting of a mortar platoon equipped with 81-mm. mortars, a reconnaissance platoon, and an antitank platoon armed with 106-mm. recoilless rifles. The rifle companies in both battalions had three rifle platoons supported by an 81-mm. mortar platoon, and the rifle squads consisted of ten men. The basic individual weapon in the light infantry battalion was the M14 rifle, while the airmobile unit was authorized M16 rifles. The new battalions had fewer telephones and radios than other infantry units and the number of vehicles, particularly in the airmobile battalion, was considerably smaller than in the standard infantry battalion.

Regular infantry units serving in Vietnam did not use all of their authorized heavy weapons and equipment. As a rule, most of their vehicles and weapons like ENTAC's, 4.2-inch mortars, and 106-mm. recoilless rifles were left behind either in storage or in base camps while the units were in the field. Although 90-mm. recoilless rifles and 81-mm. mortars were employed much more frequently than their more powerful and heavier counterparts, a rifle company rarely carried its full TOE complement of these weapons on operations and often used the much lighter LAW instead of the 90-mm. recoilless rifle. The resulting loss in firepower was offset by a corresponding gain in mobility and a decrease in fatigue among the soldiers. Transporting heavy equipment in most parts of Vietnam was a very difficult procedure, while excellent air and artillery support was readily available. Infantrymen, therefore, were not reluctant to leave some of their own fire support weapons behind. Since the enemy did not employ heavy armored forces, certain heavy weapons (notably the big antitank missiles and 106-mm. recoilless rifles) were used rarely or not at all, simply because they were not needed.

Personnel who would normally man the heavier infantry weapons were frequently used to make up a small fourth rifle company within the battalion. This unit served as a command post security force and as an emergency reserve, thereby giving the battalion commander three maneuver companies and additional flexibility in the employment of the battalion. Since this provisional extra company was so common, and it increased the capabilities of the battalion significantly, official permission was given to all infantry battalions in Vietnam to organize such units on a permanent basis. Battalions stationed elsewhere were not authorized the additional company. This variation from the basic TOE structure was approved by MTOE's prepared under the direction of the Commander in Chief, United States Army, Pacific. Such tables were published from time to time by the major Army commands to make appropriate changes for particular units necessary to meet certain requirements without alter-

the ROAD principle of tailored brigades. Vietnam was the first test of the ROAD organization under actual combat conditions, and the system proved its flexibility by adapting quickly to a difficult terrain and an elusive enemy in a war with many unconventional aspects.

The most popular infantry weapons in Vietnam were the lightest ones. Among them were the M79 grenade launcher, the LAW, and the Claymore antipersonnel mine. The mine, which scattered hundreds of steel

ing the basic TOE for other units of the same type. Another change approved by MTOE's was the addition of a separate combat support company to standard and airborne infantry battalions. Only those battalions that were stationed in or scheduled to be deployed to Vietnam were permitted to have this extra company, which was similar to the one in airmobile and light infantry units.

Gradually all infantry battalions in Vietnam, with the exception of mechanized and riverine units, were reorganized under modifications of the light infantry battalion TOE with a headquarters and headquarters company, four rifle companies, a combat support company, and a total authorized strength of 980. Eventually the organizational modifications

INFANTRYMEN SWEEPING THROUGH RICE PADDIES IN VIETNAM. *(M16 rifle in foreground.)*

reconnaissance, intelligence, and patrolling became particularly important in Vietnam. Although all units took part in such operations, specialized infantry units were also organized to carry out certain types of missions. Among them were scout dog platoons and combat tracker teams—both of which used dogs to detect the presence of enemy troops—and long range reconnaissance patrols (LRRP's), also called long range patrols (LRP's). LRP's were small teams specially trained to penetrate deep into enemy-held territory. From there they reported detailed, accurate, and timely information concerning troop concentrations, installations, and activities needed for planning future operations, or they called in and adjusted artillery fire or air strikes.

Infantry long range patrol companies, having twenty-four patrols of five men each, were first assigned on the basis of one per corps or field force, while within divisions LRRP missions were performed by provisional detachments or platoons. Starting in late 1967, a LRP company was attached to each division in Vietnam and eventually to each separate brigade. The number of companies continued to increase and by the end of 1968 about half of all separate infantry companies in the active Army were long range patrol units. They were elements of various different regiments and had no common numerical designation or historical connection with each other until 1 January 1969. On that day the 75th Infantry, the famous "Merrill's Marauders" of World War II, was reorganized under CARS and became the parent regiment for LRP units. At the same time the parenthetical designation of the companies was changed from LRP to ranger, although their long range patrol mission remained unchanged.

The importance of small units in Vietnam was not limited to such specialized organizations as long range patrols, scout dog platoons, combat tracker teams, or Special Forces detachments. Regular infantry contacts with the enemy were frequently made at the squad and platoon level. Small unit actions were typical and often decisive. As a result, the war in Vietnam has often been called a platoon leader's war. Most major operations were conducted on the brigade level with varying numbers of maneuver elements attached for specific missions in accordance with the ROAD principle of tailored brigades. Vietnam was the first test of the ROAD organization under actual combat conditions, and the system proved its flexibility by adapting quickly to a difficult terrain and an elusive enemy in a war with many unconventional aspects.

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INFANTRYMAN WITH M60 MACHINE GUN.

fragments in a fan-shaped pattern, could be deliberately detonated by the operator or concealed and left to be activated by trip wire. As its official field manual stated, the number of ways in which the Claymore might be employed was limited only by the imagination of the user. Another widely used weapon was the M60 machine gun.

There was also the new M16 rifle. The rifle itself weighed 6.5 pounds and its firing weight, including a shoulder sling and a fully loaded 20-round magazine, was only 7.6 pounds. The M16 used 5.56-mm. (.223-caliber) ammunition. A clothespin-type bipod and a 6-inch bayonet were issued with the rifle. Having a muzzle velocity of approximately 3,150 feet per second and an average cyclic rate of fire of 750 rounds per minute, the M16 was particularly effective at short ranges. It was less accurate and less effective than the M14 at long ranges and, unlike the M14, did not fire standard NATO ammunition. However, its light weight and lethal close-in effectiveness made the M16 an ideal weapon in terrain such as Vietnam's. Although originally adopted for limited use by Special Forces and airborne troops, the M16 was soon authorized for all infantry units in Southeast Asia. In mid-1967 it was standardized for general Army distribution in addition to the M14 rifle, which continued to be used by most infantrymen stationed outside of Vietnam.

Meanwhile, the manufacturers of the M16 were developing an entire family of 5.56-mm. weapons to supplement the M16 rifle. These included a carbine, a submachine gun, a very light survival rifle, a heavy assault rifle, and several machine guns, as well as a 40-mm. grenade launcher attachment for the M16. By late 1968, the submachine gun was being authorized for selected infantry units, such as long range patrol companies and combat tracker platoons. A completely new kind of weapon called SPIW (Special Purpose Individual Weapon) was also in the process of development. The new SPIW may combine the capabilities of a rifle, a controlled pattern shotgun, and a light mortar. It could be designed to

fire a single medium-sized dart, a cluster of small darts, a microcaliber bullet, or a high explosive round. Many military experts predicted that the SPIW, or something like it, would become the basic infantry weapon of the future. By the end of 1969, however, the SPIW was still purely experimental, and no such weapon was available to the infantryman fighting in Vietnam.

Infantry strength in Vietnam had increased gradually as the war escalated. By mid-1969, when the eleventh official campaign was being fought and just before the first phase in the withdrawal of U.S. troops began, there were seven divisions and four brigades in Vietnam. To make this large scale deployment possible without moving units from Europe and Korea or reducing the strategic reserve to a dangerously low level, the overall strength of the Army and the infantry had been built up. Between June 1964 and June 1969 the number of divisions in the active Army grew from sixteen to eighteen, while brigades increased from seven to eleven.

Two of the brigades were federalized Army National Guard units, the 29th Infantry Brigade from Hawaii and the 69th Infantry Brigade from Kansas. They were ordered into active Federal service on 13 May 1968, as a result of the Pueblo crisis and the Tet offensive earlier that year. Only two of the three organic infantry battalions from the 69th were called up, but the 2d Battalion, 133d Infantry, from Iowa was also federalized and joined the brigade at Fort Carson, Colorado. At the same time the 100th Battalion, 442d Infantry, a Hawaiian Army Reserve unit, was called to active duty and attached to the 29th Infantry Brigade at Schofield Barracks, Hawaii. One other infantry unit was federalized—Company D, 151st Infantry, from Indiana. After training at Fort Benning, Georgia, this long range patrol company served in Vietnam for eleven months. It was the only infantry organization from the reserve components to participate in the war.

In the second half of 1969 the number of infantry units started to decline for the first time since the Vietnam buildup began. President Richard M. Nixon's decision to withdraw U.S. forces gradually from Southeast Asia was accompanied by a plan to reduce the strength of the Army. Among the first units to be redeployed were six infantry battalions organic to the 9th Infantry Division. They left Vietnam in July and August 1969, and were inactivated in August and September at Fort Riley, Kansas, and Schofield Barracks, Hawaii. By mid-December 1969, all infantry units from the reserve components had been released and reorganized at their home stations. Meanwhile, the second increment of organizations scheduled for redeployment was in the process of leaving Vietnam.

INFANTRYMEN SWEEPING THROUGH RICE PADDIES IN VIETNAM. *(M16 rifle in foreground.)*

Although airmobile and light infantry units were most common in Vietnam, other types of infantry were not neglected elsewhere during the late 1960's. Only a handful of mechanized units went to Vietnam, but numerous mechanized infantry battalions were assigned to mechanized and armored divisions in Europe and in the United States. Most airborne personnel in Vietnam lost their jump pay, because their units did not have the opportunity to utilize their unique capabilities, but the airborne battalions in the strategic reserve proved their constant readiness in various emergencies, such as the 1965 Dominican Republic crisis and several domestic civil disturbances. In spite of the heavy infantry commitment in Vietnam, as the decade of the 1960's ended there were still infantry units stationed all over the world—in West Germany, Berlin, Korea, the Canal Zone, Alaska, and Hawaii, as well as in the continental United States. The Regular Army infantry was backed up by Army Reserve and Army National Guard infantry units which, although fewer in number, were better trained and equipped than ever before.

The infantry organizational structure existing in 1969 was well suited to the strategy and tactics of flexible response, but regardless of the great variety of infantry units, many of them highly specialized, the basic mission of the infantry remained unchanged. The infantryman of the future may be armed with the SPIW, may wear a spacesuit-like uniform with a built-in two-way radio, and may be transported by his own individual jet propulsion system. Nevertheless, his job will continue to be essentially the same as it has been since 14 June 1775, the birthday of the United States infantry and of the United States Army—to close with and destroy the enemy.

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