A ‘stick’ of 82nd Airborne Division paratroopers on their way to a drop zone in Holland, 1944. Army Signal Corps Photo. 111-SC-199482. Courtesy National Archives.
“Five thousand balloons, capable of raising two men each, could not cost more than five ships of the line; and where is the prince who can afford so to cover his country with troops for its defense as that 10,000 men descending from the clouds might not in many places do an infinite deal of mischief before a force could be brought together to repel them?”

- Benjamin Franklin
What is National History Day?

National History Day is a non-profit organization which promotes history education for secondary and elementary education students. The program has grown into a national program since its humble beginnings in Cleveland, Ohio in 1974. Today over half a million students participate in National History Day each year, encouraged by thousands of dedicated teachers. Students select a historical topic related to a theme chosen each year. They conduct primary and secondary research on their chosen topic through libraries, archives, museums, historic sites, and interviews. Students analyze and interpret their sources before presenting their work in original papers, exhibits, documentaries, websites, or performances. Students enter their projects in contests held each spring at the local, state, and national level where they are evaluated by professional historians and educators. The program culminates in the Kenneth E. Behring National Contest, held on the campus of the University of Maryland at College Park each June.

In addition to discovering the wonderful world of the past, students learn valuable skills which are critical to future success, regardless of a student’s future field:

- Critical thinking and problem solving skills
- Research and reading skills
- Oral and written communication and presentation skills
- Self-esteem and confidence
- A sense of responsibility for and involvement in the democratic process

Participation in the National History Day contest leads to success in school and success after graduation. More than five million NHD students have gone on to successful careers in many fields, including business, law, and medicine. NHD helps students become more analytical thinkers and better communicators, even if they do not choose to pursue a career in history.
What is the Normandy Scholars Institute?

Established in 2011, the Normandy Scholars Institute is a program which teaches high school students and teachers about D-Day and the fighting in Normandy during World War II. The program is a partnership between National History Day and The George Washington University made possible by the generosity of Albert H. Small. Mr. Small is a veteran of the U.S. Navy who served in Normandy during World War II. He is passionate about history education and wants to ensure that the sacrifices of World War II veterans are honored and remembered by America’s youth.

Each winter National History Day selects a group of teachers from across the country to participate in the program. Each teacher selects a student to work with during the institute. The teacher and student work as a team, learning side-by-side, making the institute a unique educational experience. Starting in spring, the team reads books on World War II and on D-Day, giving them a better understanding of the history and historical context of the campaign. Each student selects a soldier from their community who was killed during the war and who is buried at the Normandy American Cemetery and Memorial. The team works with a research mentor to learn about the life of their soldier. In June, the teams travel to Washington, DC for several days of program events before flying to France to visit the historical sites where the teams’ soldiers fought and died. The trip culminates with a trip to the American cemetery where the student reads a eulogy in front of their soldier’s grave. After returning to the United States, the students and teachers share their experience with others by making a website about their soldier and giving presentations at their schools.

In addition to getting to experience Normandy firsthand, students and teachers will:

- Learn the true cost of war and the meaning of freedom and sacrifice
- Improve research and problem solving skills
- Attain a deeper understanding of America’s participation in World War II
- Establish relationships with peers and colleagues from across the country
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Introduction

This guide covers U.S. airborne forces in Normandy. It should be a helpful reference for
students who are researching a soldier from any of the types of units listed below. This guide
discusses the history, organization, tactics, and combat experiences of the men in these units. It is
worth reading all sections of this guide regardless of the type of unit your soldier served with,
because these units all worked together.

- Parachute Infantry Regiment
- Glider Infantry Regiment
- Parachute Field Artillery Battalion
- Glider Field Artillery Battalion
- Airborne Anti-Aircraft Battalion
- Troop Carrier Group

Liberation: An American paratrooper with French children, June 8, 1944.
Army Signal Corps Photo. 111-SC-189919-A. Courtesy National Archives.
Airborne Combat, 1918-1943

The parachute was invented during World War I, though it was not widely used. The first parachutes were not very reliable and were only used as a last-resort means of escape for the crews of doomed airplanes or observation balloons under attack. In 1919, American inventor Leslie Irvin created a much more reliable parachute, which he demonstrated by becoming the first person to jump out of a perfectly good airplane. The first night parachute jump was made by U.S. Army Captain John Macready in 1924, when he was forced to bail out of his airplane after a technical malfunction. Despite some experiments by U.S. Marines in the 1920s, use of the parachute or the glider as a means of delivering troops to the battlefield held little interest for the U.S. military until 1940.¹

The development of airborne forces shifted to Europe during the 1930s. Parachute jumping became a popular sport in the Soviet Union during the 1920s, with enthusiasts making parachute jumps across the country. Forward-thinking military commanders became interested in the idea of ‘vertical envelopment’ using airborne forces, particularly because it offered a way to avoid World War I-style trench warfare. By dropping soldiers by parachute, armies could render defensive trenches and bunkers useless. In 1931, the Soviet Union became the first nation to create a military paratrooper unit. Germany also became interested with the idea of airborne forces during the 1930s. With the forced destruction of the German air force after WWI, many young Germans took up gliding as a pastime. Soon Germany became the world’s leader in the development of gliders and had a pool of dedicated and expert glider pilots within the country. In the late 1930s, the Soviet Red Army went through a series of purges in which progressive military officers were killed or imprisoned. With Soviet airborne experimentation in parachute forces temporarily halted, Germany took the lead in developing paratrooper forces.²

Germany unveiled its airborne forces to the world during the spring of 1940. After modest successes in Norway in April, German airborne forces achieved several impressive successes during the May 1940 blitzkrieg into France and the Low Countries. German paratroopers captured several bridges by surprise assault, allowing German tank units to continue their lightning fast advance through Belgium and Holland. German glider forces achieved one of the most remarkable victories in military history, when eleven gliders carrying about eighty commandos landed on top of the Belgian fortress of Eben Emael. The fortress was reputed to be the strongest in the world, capable of withstanding any attack. Within a couple of hours, the


commandos had destroyed all of the gun emplacements on top of Eben Emael, rendering the fortress helpless and forcing the surrender of thousands of Belgian soldiers.³

The United States Army took note of the successes Germany was having with their airborne troops. Despite opposition from most of the Army’s top generals, Major General William C. Lee persuaded President Roosevelt that airborne troops had potential. An Airborne Test Platoon was created in July, 1940. In 1942, the 82nd and 101st Airborne Divisions were activated. Major General Lee assumed command of the 101st Airborne Division upon its creation and he explained his vision for the new airborne troops to his men:

“The 101st Airborne Division, which was activated on August 16, 1942, at Camp Claiborne, Louisiana, has no history, but it has a rendezvous with destiny. Like the early American pioneers, whose invincible courage was the foundation stone of this nation, we have broken with the past and its traditions in order to establish our claim to the future.

Due to the nature of our armament and the tactics in which we shall perfect ourselves, we shall be called upon to carry out operations of far-reaching military importance and we shall habitually go into action when the need is immediate and extreme. Let me call your attention to the fact that our badge is the great American eagle. This is a fitting emblem for a division that will crush its enemies by falling upon them like a thunderbolt from the skies.

The history we shall make, the record of high achievement we hope to write in the annals of the American Army and the American people, depends wholly and completely on the men of this division. Each individual, each officer, and each enlisted man, must therefore regard himself as a necessary part of a complex and powerful instrument for the overcoming of the enemies of the nation. Each, in his own job, must realize that he is not only a means, but an indispensible means for obtaining the goal of victory. It is, therefore, not too much to say that the future itself, in whose molding we expect to share, is in the hands of the soldiers of the 101st Airborne Division.”⁴

The first American combat parachute drop was made by the 509th Parachute Infantry Battalion, the first active American airborne unit. The 509th dropped onto Youks-les-Bains

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airfield in Morocco, which they captured without resistance. That was probably fortunate, because only 10 of 39 C-47 transport airplanes actually dropped their paratroopers over the airfield. The next drop, made in Sicily in July 1943, was possibly even less successful. Navy gunners, nervous about being discovered and attacked by the German air force, began shooting at the transport planes as they flew over the fleet, shooting many of them down. The men who reached Sicily were widely scattered, by as much as fifty miles from their planned landing zones. Brigadier General James Gavin of the 82nd Airborne managed to gather up some of his paratroopers and repel a German counterattack on the beachhead. Nevertheless, the airborne operation as a whole was only marginally successful, at best. Elements of the 82nd Airborne were also used as ground infantry after the Allies invaded Italy in September, 1943. When the airplanes carrying the paratroopers and glider infantry took off on that overcast Monday evening to head for their rendezvous with destiny in Normandy, what the airborne could be expected to accomplish was still an unknown quantity.5

Practice drop in England, 1944.
Army Signal Corps Photo. 111-SC-189883. Courtesy National Archives.

The Winged Gospel

Jumping out of an airplane or flying a combat transport airplane or glider was one of the most hazardous jobs a man could have in the Army during World War II. Many of the men in an airborne or troop carrier group had been drafted into the Army, yet almost all of them were volunteers for their unit. So, that brings up the question ‘why would anyone choose to join the airborne?’ The reasons why a man would have volunteered for the airborne or for aviation duty were numerous, including higher pay, wanting to be part of an elite unit, or perhaps they volunteered because their friends volunteered. But the men who joined the airborne in the 1940s grew up in an America obsessed with the airplane. No doubt some men volunteered out of a love of aviation and a desire to be around airplanes, even if that meant jumping out of them.6

In his landmark book The Winged Gospel: America’s Romance with Aviation, historian Joe Corn argued that aviation became the secular religion of America during the 1920s and 1930s. Boys and girls growing up in the United States during this time period were fed a constant diet of aviation culture and aviation news. They read about the exploits of Charles Lindbergh, Jimmy Doolittle, Amelia Earhart, and other aviation heroes. Children built model airplanes and joined aviation-related children’s organizations like the Junior Birdmen of America. They read Smilin’ Jack comic strips and listened to The Air Adventures of Jimmie Allen on the radio. Many young aspiring aviators read books about learning to fly, like Assen Jordanoff’s 1937 bestseller, Your Wings. Older Americans viewed the younger generation’s interest in aviation with pleasure.

6 Airborne troops and motivations, O’Donnell, xii-xvii.
They believed that the airplane would make the world a better place – war would become obsolete, and people would become stronger, smarter, and even more ethical. The airplane would even eliminate poverty and inequality – people would all own an airplane and would live in utopian skyscrapers in the sky. The younger generation of Americans became the standard bearers of this new sense of ‘air-mindedness.’

The military played a large role in developing this feeling of air-mindedness among the American people, old and young alike. From 1920-1930 Army and Navy pilots dueled with each other in air races held each year, many of which drew over a million viewers. In 1936, the Army Air Corps staged a highly-publicized air show at the National Air Races featuring Curtiss P-36 fighter planes painted in experimental camouflage patterns. In 1938, Americans listened live on radio as B-17 bombers intercepted the cruise liner SS *Rex* hundreds of miles off the coast of the United States in an exercise that demonstrated the power of the American heavy bomber force. Many American boys noticed these and other spectacles and decided that the life of a military aviator was the one for them.

The 101st Airborne Division’s section of the American cemetery in Sainte Laurent-sur-mer.

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The Airborne Division

In theory, the Airborne Division consisted of mainly glider troops, supported by parachute units. In reality, parachute units were more common than glider units, because there were not enough gliders to go around. Here is the actual organization of the 82nd and 101st Airborne Divisions in Normandy.9

- Division Headquarters
  - Airborne Signal Company
  - Airborne Quartermaster Battalion
  - Airborne Ordinance Company
  - Military Police Platoon
  - Reconnaissance Platoon
  - Airborne Engineer Battalion
  - Airborne Anti-Aircraft Battalion
  - Airborne Medical Company
  - Parachute Maintenance Battalion
  - 1x or 2x Parachute Field Artillery Battalions (Light)
  - 2x Glider Field Artillery Battalions (Light)
  - 2x Parachute Infantry Regiments
  - 1x Glider Infantry Regiment

- Attachments to the division:
  - Parachute Infantry Regiment
  - Glider Infantry Battalion
  - Tank Battalion

Both divisions had an extra parachute regiment attached from outside the division (501st PIR for the 101st and 507th PIR for the 82nd). In addition, the divisions both had small groups of troops which came ashore by ship, rather than by parachute or glider. These had an independent tank battalion attached to them. The 101st Airborne Division had a second glider regiment – the 401st Glider Infantry Regiment. The 401st was broken up and split between the two divisions, which each getting one battalion. So, each division’s glider regiment had three battalions instead of only two. The 101st kept the 401st's 1st Battalion and the 82nd got 2nd Battalion. The 101st Airborne Division only had one parachute field artillery battalion, while the 82nd had two

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parachute field artillery battalions. In 1944, the manpower strength of an airborne division was just 8,505 men, compared to 14,253 men in an infantry division.\textsuperscript{10}

The signals company operated radios and telephone equipment to communicate with the units within the division and to communicate with other divisions and with the corps headquarters. The Military Police platoon mostly directed traffic on the roads within the division’s section of the rear area (once one was established after D-Day); while the quartermaster battalion ensured that the division’s units received the supplies and equipment they needed to keep fighting. The ordinance company repaired the division’s vehicles. The parachute maintenance battalion kept and repaired the division’s parachutes and packed them in preparation for an airborne jump.\textsuperscript{11}

The other elements in the division were combat units. The main fighting strength of the division was the parachute and glider infantry regiments. The field artillery battalions provided artillery support, the anti-aircraft battalion protected the artillery from German bombers, and the engineer battalion built bridges, removed land mines from roads, and destroyed German bunkers when necessary. The reconnaissance platoon scouted for the division’s regiments and the medical company treated and evacuated wounded soldiers.\textsuperscript{12}


\textsuperscript{11} Divisional components, Kennedy, “Airborne Division.”

\textsuperscript{12} Fighting units, Kennedy, “Airborne Division.”
Parachute Infantry Regiment

The Parachute Infantry Regiment (PIR) was the primary combat unit of the airborne division, along with the glider infantry regiment. A parachute infantry regiment had a headquarters company, a service company, and three parachute infantry battalions:13

- Parachute Infantry Regiment
  - Headquarters Company
  - Service Company
  - 3x Parachute Infantry Battalions

The headquarters company had the regiment’s staff sections, bodyguards for the regimental commander, and administrative and communications sections. The service company was responsible for ensuring that the regiment had the supplies it needed for combat and evacuated wounded soldiers from the battlefield. The fighting part of the regiment was the three parachute infantry battalions:14

- Parachute Infantry Battalion (37 officers, 669 men)
  - Battalion Headquarters (6 officers)
  - Headquarters Company (7 officers, 165 men)
  - 3x Parachute Rifle Companies (each 8 officers, 168 men)
    - Company Headquarters (2 officers, 27 men)
    - 3x Rifle Platoons (each 2 officers, 47 men)
      - Platoon Headquarters (2 officers, 5 men)
      - Mortar Squad (6 men with 1x 60mm mortar)
      - 3x Rifle Squads (each 12 men)

The headquarters company provided the same services as the regimental headquarters company, but serving the battalion instead. The company was responsible for the supply, communications, and command functions of the battalion. In addition, the headquarters company had two heavy weapons Platoons. The light machinegun platoon had eight M1919A4 light machineguns, divided into two sections of four guns each. The mortar platoon had four 81mm mortars. The battalion commander would attach these weapons to companies to provide them with extra firepower for a mission. The battalions in a regiment were numbered, while

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13 Regimental organization, Kennedy, “Airborne Division.”

companies were lettered. So 1st Battalion had A, B, and C Companies, 2nd Battalion had D, E, and F Companies, and 3rd Battalion had G, H, and I Companies. Platoons and squads were numbered.\(^\text{15}\)

The rifle companies were the main fighting components of the battalion. Each company was commanded by a captain, with a 1st lieutenant as his executive officer (second-in-command). Unusually, the platoons each had two officers (infantry platoons only had one). The platoon leader was either a 1st lieutenant or a 2nd lieutenant. He was assisted by a 2nd lieutenant. The platoon had a mortar team with a 60mm mortar (to bombard enemy troops and make smoke screens when attacking) and three rifle squads.\(^\text{16}\)

The men were mostly armed with M1 Garand rifles, a revolutionary design which fired faster than the rifles carried by the soldiers of other nations. M1 Thompson submachine guns (the famous ‘Tommy Gun’ of gangster movie fame) were not uncommon either. The company headquarters and each rifle platoon had a bazooka for use against tanks. Each rifle squad had either a tripod-mounted M1919A4 light machinegun or a bipod-mounted M1919A6 light machinegun. The squad also had a Browning Automatic Rifle (BAR), which was less capable than the M1919’s but gave the squads more firepower. Paratrooper squads had a tendency to ‘acquire’ more BARs than they were supposed to have – sometimes as many as six BARs per squad!\(^\text{17}\)

The rifle squad was divided into three teams, labeled Able, Baker, and Charlie. Able team was a two man scout team, which stayed as far ahead of the squad as possible while also staying within eyesight. When Able team spotted the enemy, the other two teams found cover nearby and deployed to fight the enemy. Baker team was lead by the assistant squad leader (corporal) and included the M1919 gunner and two ammunition carriers. Baker team provided cover fire for the rest of the squad, pinning down the German troops so the others could advance. Charlie team was the assault team. The team was led by the squad leader, a sergeant, and included five other riflemen. Under the protection of Baker team’s covering fire, Charlie team moved in close to the Germans and eliminated them with hand grenades or close range shooting. The squad attacked using ‘fire and maneuver’ tactics – the squad fired at the Germans until the enemy’s shooting became inaccurate or ceased altogether, which was called ‘suppressing’ the enemy. If a soldier had time to aim and fire at a soldier moving in the open during WWII, the target was dead meat. By using these tactics, the squad could get close enough to the enemy to defeat them while not being mowed down while moving in the open. The 101st Airborne’s tactics book explained the process:

\(^\text{15}\) Battalion components, Kennedy, “Parachute Battalion.”


“19. FIRE AND MOVEMENT. During the fight, fire and movement is used to move the squad forward. This means that the squad moves, whether individually, by groups or by squad rushes in close coordination with its own fire and that of adjacent squads. The squad intensifies its fire when any part of it or adjacent squads are moving forward. If fire superiority is maintained during the entire firefight, a quick and successful conclusion may be anticipated when the enemy lines are reached.

20. THE ASSAULT. The assault may start on order of platoon or squad leader or by two men walking or rushing forward. Prior to the assault, the squad leader orders bayonets fixed. Rifles are carried in the assault fire position and fire is conducted individually while moving. If the enemy is entrenched, the squad leader orders grenades ready and the final assault is preceded by a grenade volley and completed in one final rush. During the assault fire, the assistant squad leader remains in rear to maintain order.”

In addition to the equipment carried on their person, each troop carrier airplane dropped six ‘parapacks’ of equipment too. These parapacks were basically large cloth bags (like duffel bags) filled with different types of gear – ammunition, weapons, medical supplies, food. Paratroopers could identify what was in the parapack by the color-coded parachute attached to it. Because paratroopers were equipped with only the equipment which they could carry or which could fit in a parachute parapack, parachute units were lightly armed. They were excellent at missions requiring them to make a surprise drop on an objective and hold it for several hours until help arrived, but they did not have the firepower to slug-it-out with the Germans day-after-day. This became a problem later in the war, when paratrooper units were misused by higher commanders in desperate need of soldiers who were tempted to use the elite paratroopers for any and all missions possible.19

What was my soldier’s job?

This is a list of the different ranks of soldiers in the regiment, along with their most likely job. Doing further research should help determine exactly what job your soldier had in his unit.20

Colonel: Commanded the regiment
Lt. Colonel: Commanded a battalion or was executive officer of the regiment
Major: Was a staff officer or executive officer of a battalion
Captain: Commanded a company or was a staff officer
1st Lieutenant: Commanded a platoon or executive officer of a company
2nd Lieutenant: Commanded a platoon or was assistant platoon leader
Master Sergeant: Senior NCO in the regiment and a role model for the men
1st Sergeant: Senior NCO in a company and served as a role model for the men
Tech Sergeant: More senior executive officer of a platoon, aka the ‘platoon sergeant’
Staff Sergeant: Executive officer of a platoon, aka the ‘platoon sergeant’
Technician 3rd Class: Medic or radio operator
Sergeant: Squad leader
Technician 4th Class: Medic or radio operator
Corporal: Assistant squad leader or weapon team leader
Technician 5th Class: Medic or radio operator
PFC/ Private: Rifleman or messenger


20 Jobs, Kennedy, “Parachute Battalion.”
Glider Infantry Regiment

The Glider Infantry Regiment (GIR) was a primary combat unit of the division, along with the parachute infantry regiments. Unlike the paratroopers, the glider infantry were not volunteers – after early disasters and high casualties in Sicily, the Army could not get enough volunteers for the glider regiments. So it is likely that your soldier was assigned to a glider regiment, rather than volunteering. The paratroopers viewed themselves as the elite of the airborne and looked down on the glider troops since they were not volunteers. Glider troops were not entitled to wear airborne wings, did not get extra pay like the paratroopers, and were not allowed to wear paratrooper jump boots. Eventually this attitude changed and the paratroopers came to respect the glider soldiers as their equals. Even though glider soldiers were not volunteers, they were still highly motivated soldiers, with high levels of training and skill. They helped their more glamorous paratrooper comrades out of a bind several times during the Normandy campaign. Several glider infantry battalions landed by ship on D-Day rather than by glider (because of glider shortages).21

Glider units had several advantages and disadvantages when compared to the paratroopers. Because glider troops could carry heavier equipment in their gliders than paratroopers could carry, the glider infantrymen had more firepower than their paratrooper comrades, though they still had less firepower than regular infantry regiments. They were stealthier than paratrooper units – gliders did not make a sound as they came in for a landing. Since all men in the glider landed together, they did not have to spend time linking up with fellow soldiers and reorganizing after a drop – they could move straight to their objective and attack it. On the other hand, getting to a battlefield in a glider was even more dangerous than getting there by parachute. If a glider hit a tree or a wooden post planted in a field by the Germans (‘Rommel’s Asparagus’) on landing, or if a glider carrying a vehicle had a strap holding that vehicle in place snapped – very bad things happened.22

Airborne units in Normandy used two different types of gliders. The more common was the American-made Waco (pronounced WAH-co) CG-4A Hadrian glider, which could carry thirteen men (in addition to its crew) or a jeep or cannon and a few soldiers instead of a rifle squad. Some units were equipped with British Airspeed Horsa gliders instead. These were larger than CG-4A’s and could thirty-one men.23

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21 Glider troops, O’Donnell, xii-xvii; and late war airborne operations, O’Donnell, 233-334.

22 Advantages and disadvantages of glider troops, O’Donnell, xii-xvii.

The glider infantry regiment was organized in a similar way to a parachute infantry regiment, but only had two battalions of troops. Both the 82nd Airborne and 101st Airborne Divisions glider regiments were reinforced with an extra battalion of glider troops taken from the 401st Glider Infantry Regiment, giving them each three battalions of glider troops.\textsuperscript{24}

- **Glider Infantry Regiment**
  - Headquarters Company
  - Service Company
  - Anti-tank Company
  - 2x Glider Infantry Battalions (+1 battalion attached)

The headquarters company and service company performed the same roles in the glider regiment that they performed in the parachute infantry regiment. The anti-tank company had nine 57mm anti-tank guns. These cannons were towed by jeeps, which were also landed in gliders. The company had three platoons, each with three guns. The main fighting element of the regiment was its infantry battalions:

\textsuperscript{24} Regiment organization, Kennedy, “Airborne Division.”
- **Glider Infantry Battalion (27 officers, 619 men)**
  - Battalion Headquarters (6 officers)
  - Headquarters Company (7 officers, 189 men)
  - 3x Rifle Companies (each 5 officers, 143 men)
    - Company Headquarters (2 officers, 22 men)
    - Weapons Platoon (1 officer, 43 men)
      - Platoon Headquarters (1 officer, 5 men)
      - Mortar Section (25 men with 2x 60mm mortars)
      - Machinegun Section (13 men with 2x light machineguns)
    - 2x Rifle Platoons (each 1 officer, 34 men)
      - Platoon Headquarters (1 officer, 3 men)
      - Mortar Squad (7 men with 1x 60mm mortar)
      - 2x Rifle Squads (each 12 men)\(^2^5\)

The battalion had a mortar platoon with six 81mm mortars and a machinegun platoon of four M1917A1 medium machineguns. The glider rifle company was the main fighting unit of the battalion. The company was smaller than its paratrooper equivalent – it had only two platoons of soldiers, each with two rifle squads. Unlike the paratroopers, the company had a weapons platoon with two 60mm mortars, giving them a little more firepower. The rifle platoon was structured just like its paratrooper cousin, only with two rifle squads instead of three. Like the parachute infantry regiment, the glider regiment’s battalions were numbered and companies were lettered. Platoons and squads were numbered.\(^2^6\)

The rifle squad’s men were armed with M1 Garand rifles. One man in the squad carried a Browning Automatic Rifle (BAR), the squad’s main firepower. The squad was organized into three teams, just like the paratroopers. Able team had two scouts, Baker team had the assistant squad leader, the BAR gunner, and two ammunition bearers. Charlie team had the other five riflemen, led by the squad leader. Glider infantrymen used the same fire and maneuver tactics that the paratroopers used, which were standard all over the world.\(^2^7\)


\(^2^7\) Glider squad weapons and tactics, Headquarters, 101st Airborne. “Glider Squad.”
What was my soldier’s job?

This is a list of the different ranks of soldiers in the regiment, along with their most likely job. Doing further research should help determine exactly what job your soldier had in his unit.²⁸

Colonel: Commanded the regiment
Lt. Colonel: Commanded a battalion or was executive officer of the regiment
Major: Was a staff officer or executive officer of a battalion
Captain: Commanded a company or was a staff officer
1st Lieutenant: Executive officer of a company, or was a more senior platoon leader
2nd Lieutenant: Commanded a platoon
Master Sergeant: Senior NCO in the regiment and a role model for the men
1st Sergeant: Senior NCO in a company and served as a role model for the men
Tech Sergeant: More senior executive officer of a platoon, aka the ‘platoon sergeant’
Staff Sergeant: Executive officer of a platoon, aka the ‘platoon sergeant’
Technician 3rd Class: Medic or radio operator
Sergeant: Squad leader
Technician 4th Class: Medic or radio operator
Corporal: Assistant squad leader or weapon team leader
Technician 5th Class: Medic or radio operator
PFC/Private: Rifleman or messenger

²⁸ Jobs, Kennedy, “Glider Battalion.”

Glider infantry board a CG-4A glider for a practice drop in Africa, 1943
Army Signal Corps Photo. 111-SC-184047. Courtesy National Archives
Airborne Field and Anti-Aircraft Artillery Battalions

These units had a vital role to play in the airborne division. Their job was to support the paratroopers and glider troops by providing the heavy firepower needed to defeat German forces. Because airborne forces dropped behind enemy lines and had to travel light, the artillery battalions were the only heavy support weapons available to airborne infantrymen until ground reinforcements arrived. Unfortunately, the airborne artillerymen seemed to have the worst luck of all the airborne units which landed on D-Day.29

The Airborne Anti-Aircraft Artillery Battalion

The Airborne Anti-Aircraft Artillery Battalion (AAA) performed anti-aircraft, anti-tank, and ground support missions, making it possibly the most versatile unit in the entire Army. Each airborne division had one of these battalions, with about 35 officers and 600 men. The battalion was divided into six batteries, each with about eighty men, landed by glider. Three were anti-tank batteries with eight 57mm anti-tank guns each, towed by jeep. The others were anti-aircraft batteries equipped with twelve .50 caliber heavy machineguns each. After D-Day, these machineguns were frequently used to support ground attacks made by paratroopers or glider infantry. The anti-tank batteries were the division’s main defense against tanks. Their 57mm guns were not powerful enough to be effective against most types of German tanks. So the men used cunning to try to lure German tanks into traps where camouflaged anti-tank guns could ambush them from the side, where the tank’s armor was weaker. The battalion was usually split up once in combat, with batteries being assigned to infantry regiments as needed:30

- Airborne Anti-Aircraft Battalion
  - 3x Anti-tank Batteries (each 8x 57mm guns)
  - 3x Anti-Aircraft Batteries (each 12x .50 caliber heavy machineguns)

The Parachute Field Artillery Battalion and Glider Field Artillery Battalion

The Parachute Field Artillery Battalion (PFAB) was equipped with 75mm pack howitzers, which were disassembled into several pieces, all of which were parachute dropped by airplane. The gun crew was supposed to assemble upon landing and set out in search of the pieces of their guns. Assuming that they found all of the pieces of their gun, and assuming that they also found ammunition for the gun (also parachute dropped), the gun crew could get to


work supporting their comrades. A battalion had about 450 officers and men, organized into four batteries, each with four 75mm howitzers. These were labeled A, B, C, and D Batteries:\(^{31}\)

- Parachute Field Artillery Battalion (Light)
  - Headquarters and Headquarters Battery
  - Service Battery
  - 4x Field Artillery Batteries (4x 75mm guns)

A 57mm anti-tank gun is towed through Carentan by jeep.
Army Signal Corps Photo. 111-SC-320865. Courtesy National Archives.

Unlike the parachute field artillery battalions and the airborne anti-aircraft battalions, the size and armament of a Glider Field Artillery Battalion varied according to whim. The glider battalions were all supposed to be equipped with 105mm guns for D-Day. Only one battalion was equipped with 105mm guns before D-Day – the others still had their 75mm pack howitzers. The battalions all had twelve guns, organized into three batteries of four guns each. The battalion was carried by forty CG-4A gliders.\(^{32}\)

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• Glider Field Artillery Battalion (Light)
  o Headquarters and Headquarters Battery
  o Service Battery
  o 3x Field Artillery Batteries (4x 75mm pack howitzers)

The exception to the organization above was the 320th Glider Field Artillery Battalion, part of the 82nd Airborne Division. This battalion had 105mm guns and was organized into two batteries, each with six guns.33

• 320th Glider Field Artillery Battalion (Light)
  o Headquarters and Headquarters Battery
  o Service Battery
  o 2x Field Artillery Batteries (6x 105mm howitzers)

Field Artillery Tactics and Operations

The parachute or glider field artillery battalion provided artillery barrages in support of infantry attacks. The division’s artillery battalions were overseen by the division artillery officer and a company of helpers. The division artillery company also had ten L-4 artillery spotting airplanes. The L-4 was a tiny airplane with no weapons, but was the airplane most feared by German soldiers because it could call on the wrath of an entire field artillery battalion. During a battle, the field artillery battalion responded to requests for barrages from infantry commanders. The battalion performed ‘counter battery’ fire to knock out German artillery batteries firing at American troops. They also attacked German reinforcements and command posts to make it more difficult for German officers to coordinate their activities and get troops to the right place on the battlefield.34

Some of the field artillery gun battery’s officers and NCOs were attached to the parachute or glider infantry regiment that the battalion supported, to help adjust the fire of their battery. The service battery was responsible for the maintenance of the guns and the battalion’s vehicles (for glider and airborne anti-aircraft battalions). The headquarters battery provided the staff elements needed to plan fire missions, keep track of supplies, and oversee the operations of the gun batteries.35


34 Division artillery and aviation assets, Kennedy, “Airborne Division;” and mission types, War Department, Field Artillery Tactical Employment, FM 6-20, 5 February 1944, 8-10.

Troops load a 75mm pack howitzer into a CG-4A glider during a practice drop in Africa. Army Signal Corps Photo. 111-SC-184042. Courtesy National Archives.

During combat operations, a battery could be in ‘direct’ or ‘general’ support of a military unit. Batteries in direct support of a unit in effect were attached to that unit. The battery was assigned to support that particular unit with whatever artillery support they needed. Batteries in general support were not attached to a particular unit. Instead they provided support on an as needed basis for any unit that needed artillery fire. Artillery was not kept in reserve – since artillery fire could be quickly switched from target to target the division’s artillery batteries were kept firing as much as possible, as circumstances and ammunition supply allowed.\(^{36}\)

Batteries providing direct support for an infantry unit provided a team of forward observers (FOs) that went up to the front line with the infantry. The forward observer team consisted of several men, lead by an officer or NCO from the battery in direct support. The forward observers had a radio with which they could contact their battery to request fire missions. All men in the FO team were trained to adjust and coordinate artillery missions. In addition to ground-based FO teams, the battalion could use airplanes for Forward Observation missions. Infantrymen were also trained in forward artillery observation, in case an FO team was

\(^{36}\) Support options, War Department, *Field Artillery*, 8-10.
not available or had been incapacitated. Infantrymen down to the rank of staff sergeant knew how to call for artillery missions.\textsuperscript{37}

Because guns had a range of several miles, it was very rare for the gunners to be able to see their target. Almost without exception, artillery missions were ‘indirect;’ that is, the gunners received instructions by radio from an FO who could see the target. The FO radioed a description of the target (“enemy infantry,” or “enemy tanks,” etc.) and map coordinates of the target’s location to the battery’s Fire Direction Center (FDC). Each battery had a fire direction center, and the battalion and division also had FDCs. The FDC decided what priority the request should receive, in relation to the other requests being sent by other units. The FDC then performed mathematical calculations based on the target’s range, elevation, and other factors. FDC staff then took the number received from that calculation and looked up the relevant aiming instructions for that data in a binder full of artillery aiming data. The FDC could then send the aiming instructions to the gun crews who would perform the fire mission. If a battery FDC felt that a mission was particularly important, they could coordinate with the battalion FDC or the division FDC to get the entire battalion or even multiple battalions to fire at the target. The U.S. Army was the only army in the world to use this system, which allowed artillerymen to provide maximum support on a moment’s notice to any unit in need of assistance.\textsuperscript{38}

The Fire Direction Center concept also allowed Americans to use an advanced technique called a ‘time-on-target’ barrage. Most casualties from artillery fire occurred in the first few seconds of an attack, when troops might be caught outside of trenches or buildings by the unexpected barrage. American artillery batteries learned how to calculate the firing of their guns so that multiple batteries could hit an area at the same time, providing maximum damage to the target.\textsuperscript{39}

Before a planned infantry or tank attack, the FO team worked with their battery’s FDC to ‘register’ targets for the planned bombardment. Registering targets required preparing information on the range and elevation of the targets to be bombarded so that the FDC could calculate aiming instructions for the bombardment. At the pre-planned time, the battery or battalion bombarded the target with shells, helping the infantry attack by ‘suppressing’ the German defenders (i.e. making them keep their heads down and not shoot). Once the infantry moved within 100-200 yards of the barrage, the FO team ordered the battery to stop firing so that


\textsuperscript{38} Fire Direction Centers, Balkoski, 112-115.

\textsuperscript{39} Time-on-target, Doubler, 19, 67.
Americans were not hit by accident. Then the infantry used their firepower to keep the Germans pinned down and move in for the kill.  

The FO team could also request impromptu artillery missions against targets which had not been registered. This occurred frequently, either when the Germans attacked an American unit or when an American attack stalled and needed extra help. Artillery fire needed to be ‘adjusted’ to perform an impromptu fire mission, because there was not enough time to gather the precise ranging and elevation measurements needed for the FDC to calculate aiming. The Forward Observer sent map coordinates to the battery as usual. Then one gun from the battery fired a ‘ranging’ shot. The Forward Observer noted where the ranging shot landed and gave the battery instructions on how to move the fire so that it hit the target (“up 200, left 50 yards,” etc.). The battery continued to fire ranging shots until the shells landed where the FO wanted them to land. Once the ranging shot was on target, the FO called for ‘fire for effect’ and the entire battery or battalion bombarded the target until the FO ordered them to cease firing.

What was my soldier’s job?

This is a list of the different ranks of soldiers in the battalion, along with their most likely job. Further research should help determine exactly what role your soldier played in his unit.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Role Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lt. Colonel</td>
<td>Commanded the battalion</td>
</tr>
<tr>
<td>Major</td>
<td>Was a staff officer or executive officer of the battalion</td>
</tr>
<tr>
<td>Captain</td>
<td>Commanded a battery or was a staff officer</td>
</tr>
<tr>
<td>1st Lieutenant</td>
<td>Executive officer of a battery or forward observer</td>
</tr>
<tr>
<td>2nd Lieutenant</td>
<td>Assistant executive officer of a battery or forward observer</td>
</tr>
<tr>
<td>Master Sergeant</td>
<td>Senior NCO in the battalion and a role model for the men</td>
</tr>
<tr>
<td>1st Sergeant</td>
<td>Senior NCO in a battery and served as a role model for the men</td>
</tr>
<tr>
<td>Tech Sergeant</td>
<td>Commanded a gun squad or forward observer</td>
</tr>
<tr>
<td>Staff Sergeant</td>
<td>Commanded a gun squad or forward observer</td>
</tr>
<tr>
<td>Technician 3rd Class</td>
<td>Radio operator, vehicle driver, or mechanic</td>
</tr>
<tr>
<td>Technician 4th Class</td>
<td>Commanded gun squad or maintenance team leader or forward observer</td>
</tr>
<tr>
<td>Technician 5th Class</td>
<td>Radio operator, vehicle driver, or mechanic</td>
</tr>
<tr>
<td>Corporal</td>
<td>Gunner, vehicle driver, or assistant maintenance team leader</td>
</tr>
<tr>
<td>PFC/Private</td>
<td>Carried and loaded ammunition for a gun</td>
</tr>
</tbody>
</table>

40 Bombardments, Doubler, 19.

41 Impromptu fire missions, Balkoski, 114-115.

Troop Carrier Group

The Troop Carrier Group (TCG) brought airborne troops to the battlefield. These units were Army Air Forces units assigned to carry the troops on a particular mission – they were not organic to the 82nd or 101st Airborne Divisions. The Troop Carrier Groups which supported the airborne on D-Day belonged to the IX Troop Carrier Command, part of the Ninth Air Force. Troop Carrier Groups flew Douglas C-47 Skytrain and C-53 Skytrooper cargo planes, along with Waco CG-4A Hadrian and British Airspeed Horsa gliders. Nicknamed the ‘Gooney Bird,’ the venerable C-47 was a militarized version of the Douglas DC-3 airliner, one of the world’s first ‘modern’ airplanes. The C-47 hauled supplies and gasoline, transported passengers from place-to-place, and brought tens of thousands of paratroopers and glider infantry to battlefields in Europe, Africa, and Asia. Over 13,000 C-47’s were built during the war. General Eisenhower said that “four things won the Second World War – the bazooka, the Jeep, the atom bomb, and the C-47 Gooney Bird.”

Troop Carrier Groups flew both transport airplanes and gliders, making the group capable of dropping paratroopers or landing glider infantry. The group had four Troop Carrier Squadrons (TCSs), each with twenty airplanes and twenty gliders:

- Troop Carrier Group
  - Group Headquarters
  - 4x Troop Carrier Squadrons (each about 60 officers, 360 men)

The twenty transport airplanes were usually C-47’s, with the odd C-53 or two thrown in for good measure. The two airplanes were almost identical, with the C-53 being a C-47 specifically modified for carrying paratroopers and towing gliders. The twenty gliders were a mix of CG-4A and Horsa gliders. CG-4A’s were more common than Horsas – the 434th TCG, for example, had twelve CG-4As and eight Horsas in each squadron. Each C-47 carried a ‘stick’ (planeload) of 18-20 paratroopers. Each glider CG-4A glider carried 13 men or a gun or a jeep. Horsa gliders carried 31 men each. Each glider was towed by a C-47 or a C-53. Airborne troopers and troop carrier crews had a sense of camaraderie with each other – they were all part

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43 Troop Carrier Command history and aircraft, *The United States Army Air Forces in World War II.* “Airlift and Airborne Operations in World War II.” Accessed October 19, 2011. http://www.usaf.net/ww2/airlift/index.htm; several independent aviation technologies combine to create a modern airplane, including enclosed passenger and crew compartments, streamlined design, all-metal construction, low-drag engine cowlings, and other features. The DC-3 was one of the first to have all of these features, with the Boeing 247 being the first modern airplane in the world, several months before the DC-2; and “four things won,” General Eisenhower quoted in *The United States Army Air Forces in World War II.* “DC-3/C-47,” http://www.usaf.net/ww2/airlift/airliftpg3a.htm.

of the airborne team, and the airborne troops depended on the TCG men to get them to their drop zone safely.45

The airplanes had a crew of five men. The pilot, co-pilot, and navigator were all officers. The flight engineer and radio operator were both NCOs. The flight engineer monitored the engines, propellers, and other critical parts of the aircraft while in the air, so that the pilots could focus on flying. Each glider had a crew of two men – a pilot and a co-pilot. These men were enlisted men rather than commissioned officers – either flight officers (a rank of warrant officer created for glider pilots), various ranks of sergeants, corporals, or even PFC’s. The glider pilots did not have the same training or prestige that the airplane pilots had – in fact, they were not even allowed to wear pilot’s wings. Instead, they wore glider pilot’s wings, with a big ‘G’ on them. The glider men didn’t mind. They told everyone who would listen that the ‘g’ stood for ‘guts.’46

Crewmen push parapacks out of a C-47 during a resupply drop, June 1944.
Army Signal Corps Photo. 111-SC-189903-S. Courtesy National Archives.


Groups were commanded by colonels, with a lt. colonel as his executive officer. The squadron was commanded by a major, with a captain as executive officer. When flying a mission, Troop Carrier Groups always flew in groups of planes called ‘serials.’ These serials could range from three to forty-five or more airplanes. Squadron airplanes were assigned to serials as needed. A serial might have gliders from one TCG towed by airplanes from another TCG.\(^{47}\)

The airplane pilots were all trained in an advanced flying technique called ‘blind flying,’ though how much training the pilots received depended on the group’s commander. Blind flying was a technique for flying safely to a destination without being able to see anything. It was invented by Jimmy Doolittle in 1929 (in addition to being a racing pilot, Doolittle had a doctorate in aeronautical engineering from MIT). Airline pilots began practicing the technique during the early 1930s and it was soon taken up by military pilots as well. Blind flying was used at night and in poor weather, when the pilot could not see outside his window. The pilot flew using only his airplane’s instruments. To navigate, the navigator tuned his radio receiver to a radio signal. The navigator could tell which direction the airplane was flying by the direction of the radio signal. Pilots called this technique ‘flying the beam.’ It allowed TCG pilots to get their paratroopers or gliders to their targets safely on D-Day, even though they could not see where they were going.\(^{48}\)

At each drop zone, a small serial of 3-5 airplanes dropped sticks of ‘pathfinders’ – paratrooper volunteers who marked the drop zone so that the main serial of 36-45 planes could find it. The pathfinders had thirty minutes to find where they were supposed to be and set up equipment to help guide their unit’s serial to its target. The pathfinders had ‘Eureka Beacon’ sets which sent out a radio signal which could be used by the serial’s pilots for blind flying to the drop zone. The pathfinders also set out lights on the drop zone in the shape of a ‘T’ (for target). The lights blinked the letter of the drop zone in Morse code (i.e. drop zone ‘A’s’ lights blinked the letter ‘A’ in Morse code). The serial’s lead pilot navigated to the drop zone using blind flying techniques by tuning the airplane’s ‘Rebecca’ radio receiver to the Eureka Beacon’s signal.\(^{49}\)

The parachute drop was made from an altitude of 700 feet at 110 miles per hour. When the airplane was five minutes from its target, the pilot turned on a red light inside the airplane. This was the signal to the paratrooper’s jump master (the senior officer or NCO) to prepare his men for the jump. The jump master ordered the men to stand up (facing the open door at the rear of the airplane) and to hook their parachute’s static line to a rail running down the center of the

\(^{47}\) Ranks, 6 Juin 1944. “IX Troop Carrier Command;” and flew in serials, Wolfe, 187.


\(^{49}\) Pathfinder operations, Headquarters, 82nd Airborne Division. “Report of Pathfinder Employment for Operation ‘NEPTUNE.’” 11 June 1944.
airplane’s ceiling. The paratroopers checked their parachutes, and checked the parachutes of the men directly in front and behind them. Then the jump master ordered the first man in the stick to stand in the door. The other paratroopers bunched up close together, to get out of the plane as quickly as possible (the faster they were out of the plane, the closer they would be on the ground once they landed). When the serial’s lead pilot believed that he was over the drop zone, he turned on a green light inside his plane, and another light visible to the other airplanes. The other serial pilots turned on green lights inside their own airplanes. Once the green light went on, the paratroopers jumped, as quickly as possible. Once the paratrooper cleared the plane, his static line pulled his parachute out of its pack before breaking. Upon landing, the paratrooper lay down on the ground. He freed himself from his parachute, assembled his rifle (which was in a padded cloth container on his chest in two pieces) and started linking up with other paratroopers. Paratroopers found each other using a metal children’s toy called a ‘cricket,’ which made a clicking sound when pressed. When a trooper found a man in the darkness, he challenged him with the password ‘Flash.’ If the other man responded with ‘Thunder’ the troopers knew that they were each Americans, and set out in search of their other comrades.\(^{50}\)

What was my soldier’s job?

This is a list of the different ranks of soldiers in the group, along with their most likely job. Doing further research should help determine exactly what job your soldier had in his unit.\(^{51}\)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Job Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonel</td>
<td>Commanded the Troop Carrier Group and airplane pilot</td>
</tr>
<tr>
<td>Lt. Colonel</td>
<td>Executive officer of the group and airplane pilot</td>
</tr>
<tr>
<td>Major</td>
<td>Squadron leader and airplane pilot</td>
</tr>
<tr>
<td>Captain</td>
<td>Executive officer of a squadron and airplane pilot</td>
</tr>
<tr>
<td>1st Lieutenant</td>
<td>Pilot or navigator of an airplane</td>
</tr>
<tr>
<td>2nd Lieutenant</td>
<td>Pilot, co-pilot, or navigator of an airplane, or glider pilot</td>
</tr>
<tr>
<td>Master Sergeant</td>
<td>Senior NCO in the group. Glider pilot, engineer, or radio operator</td>
</tr>
<tr>
<td>1st Sergeant</td>
<td>Senior NCO in the squadron. Glider pilot, engineer, or radio operator</td>
</tr>
<tr>
<td>Tech Sergeant</td>
<td>Glider pilot, flight engineer, or radio operator</td>
</tr>
<tr>
<td>Staff Sergeant</td>
<td>Glider pilot, flight engineer, or radio operator</td>
</tr>
<tr>
<td>Corporal</td>
<td>Glider pilot or co-pilot, flight engineer, or radio operator</td>
</tr>
<tr>
<td>PFC/Private</td>
<td>Glider pilot or co-pilot</td>
</tr>
</tbody>
</table>


Airborne Combat in Normandy

The airborne gave the Army the ability to seize and hold an objective by lightning-fast surprise assault, regardless of its location. Only 5 of the Army’s 89 combat divisions were airborne divisions. Despite continued problems with the accuracy of their drops, the airborne proved themselves in Normandy. They made a significant contribution to the success of the landings at Utah Beach on D-Day: capturing key bridges and towns to prevent German reinforcements from reaching the beach, and knocking out artillery batteries before they could bombard the troops coming ashore. The 82<sup>nd</sup> Airborne Division’s After Action Report summed up their experience in Normandy: “33 days of action without relief, without replacement. Every mission accomplished. No ground gained ever relinquished.”

The success of the air drops varied widely. The troop carrier pilots ran into heavy clouds and anti-aircraft fire over Normandy, scattering some serials. Overall, between 35-40% of paratroopers were dropped within one mile of their drop zone. About 80% were landed within five miles of their drop zone. The performance of troop carrier crews was erratic. Some groups did an excellent job – 95% of the 505<sup>th</sup> Parachute Infantry Regiment’s men landed on the drop zone. On the other hand, the 377<sup>th</sup> Parachute Field Artillery Battalion was widely scattered by the drops on D-Day, making them unable to support their comrades with artillery fire. Some pilots sped up and flew lower than planned to avoid German anti-aircraft fire, making for a rough or even fatal landing for the troops being carried. In the 82<sup>nd</sup> Airborne Division, about 4% of paratroopers and 16% of glider-carried troops were killed or injured in the drop.

The Army saw the rifleman as the key to victory in infantry combat. Before the war, American inventor John Garand invented the M1 rifle, a revolutionary design for its time. Other armies equipped their infantrymen with bolt action rifles. After firing a bolt action rifle, the soldier had to pull back a metal bolt and push it back forward again to load the next bullet into the chamber before he could fire the next shot. The M1 Garand was semi-automatic – the soldier could fire bullets as fast as he could pull the trigger, giving the American rifleman more firepower than his counterpart in other armies. The U.S. Army considered the M1 a battle-winning weapon. In fact, General George S. Patton stated that the M1 was “the greatest battle implement ever devised.” The Army decided that infantry would be able to overwhelm an enemy


with rifle fire, so the squad did not need a true light machinegun. Unfortunately, they were wrong. While the M1 was an excellent weapon, German squads armed with the excellent MG-42 (‘Hitler’s Buzz saw’) had far more firepower than American soldiers did with their M1s and BAR. To make matters worse, German troops hidden in the bocage were more likely spot the Americans and open fire first. Consequently, American soldiers tended to become pinned down by German fire and unable to move forward without help from supporting weapons.\footnote{American and German weapons, Balkoski, 82-90; “the greatest battle implement,” George S. Patton quoted in Balkoski, 82; and Germans likely to see Americans first, Balkoski, 148-163.}

American tanks did not have an easier time than the infantrymen. When airborne troops were supported by American Sherman tanks, they found them vulnerable to German anti-tank weapons. The Sherman’s armor simply was not thick enough to protect it from German shells and anti-tank rockets and it had a high-profile, making it easy to spot and to hit. When the Sherman did get hit it often burned, because of poorly designed ammunition storage compartments. American soldiers called the Sherman ‘the Ronson,’ after a brand of cigarette lighter. Ronson’s advertisements boasted that “Ronson always lights the first time.” German units bristled with anti-tank weapons, each one capable of destroying a Sherman. The Germans even developed a portable, disposable one shot anti-tank rocket launcher called the \textit{panzerfaust}. German squads tended to have two or three of these weapons. In July 1944 an American tank commander named Sergeant Curtis G. Culin found a way for tanks to cut through the bocage. Culin mounted metal shears to the front of his tank, which allowed the tank to break through the bocage embankment instead of having to drive over it. The ‘Culin device’ quickly spread throughout the Army’s tank battalions and armored regiments; tanks with the Culin device fitted to their hull were called ‘rhinos.’\footnote{Sherman design characteristics, Belton Y. Cooper. \textit{Death Traps: The Survival of an American Armored Division in World War II}. New York: Ballantine Books, 1998, 335-342; Ronson, \textit{Funding Universe}. “Ronson PLC.” Accessed October 12, 2011. http://www.fundinguniverse.com/company-histories/Ronson-PLC-company-History.html; German anti-tank weapons, Gary Kennedy. “The German Grenadier Battalion, 1943-1945.” \textit{Battalion Organization during World War II}. Accessed October 12, 2011. http://www.bayonetstrength.150m.com/German/Infanterie/german_grenadier_battalion%201943%20to%201945.html; Culin device, Doubler, 45-46.}

When German tanks were encountered, the situation got even worse. American anti-tank guns were not particularly effective against German tanks. The other airborne anti-tank weapons – bazookas, hand-thrown Gammon bombs, and anti-tank mines – were short range weapons which were difficult to use effectively. Fortunately, the tanks the airborne encountered on D-Day were elderly ex-French models which were easily destroyed. Airborne troopers did not encounter tanks often in the weeks that followed.\footnote{American anti-tank weapons ineffective, Cooper, 335-339; and airborne tank fighting, S. L. A. Marshall, \textit{Night Drop}. New York: Bantam Books, 1962, 36-45 and 61-69.}
Faced with these difficulties, soldiers learned to use teamwork to defeat their enemies. The American tank crews helped the infantry suppress and assault German infantry and the infantrymen returned the favor by protecting the tanks from German anti-tank units. The soldiers could also call on assistance from Army Air Forces fighter planes armed with bombs or rockets to destroy German tanks and from artillery batteries to bombard German infantry.\textsuperscript{57}

American artillery quickly became the German soldier’s worst nightmare and the American soldier’s best friend. The artillermen worked tirelessly to provide support to infantry and tank units in need of extra firepower against enemy defenses. American artillery fire was decisive in many battles throughout the war, and certainly proved immensely helpful to American soldiers in Normandy. A British Army study conducted after the war showed that artillery was the main killer on the WWII battlefield:\textsuperscript{58}

<table>
<thead>
<tr>
<th>Weapon</th>
<th>Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artillery, mortars, aircraft bombs</td>
<td>75%</td>
</tr>
<tr>
<td>Machineguns, rifles, anti-tank shells</td>
<td>10%</td>
</tr>
<tr>
<td>Mines and booby traps</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
</tbody>
</table>

When American soldiers were not fighting, they were either marching somewhere, digging foxholes, or resting in them. Whenever an American soldier was going to be in one place for more than a few minutes, he took his shovel out of his pack and dug a six-foot deep hole for protection. Squads dug their holes in the same location, in the place that the platoon leader ordered them to dig. Two or three men shared a foxhole. Sometimes the unit was ordered to move again as soon as the men finished digging. Other times, a unit might be in one place for several days. If this occurred, the soldiers continued digging to connect the foxholes with each other to form a ‘slit trench.’ Soldiers tended to stay in their foxhole or slit trench unless they had a good reason to leave it – the foxhole meant safety and being outside meant being exposed to bullets and shells. One man in each foxhole was always on guard duty. The other man or men slept, read, wrote letters, ate, etc.\textsuperscript{59}

Men learned to eat, drink, and sleep whenever they got a chance, because they never knew when they would have the next opportunity. Soldiers only got about three hours of sleep a night. They were woken up constantly by the need to take their turn as a guard, or by false

\textsuperscript{57} Teamwork, War Department. “Tank-Infantry Teamwork,” \textit{Combat Lessons} No. 9, 1945; and air support, Doubler, 63-86.


alarms of enemy attacks by frightened comrades, or by the never-ending pounding of artillery. Soldiers used their helmet as their toilet and as their wash basin whenever the need arose. They went months at a time without bathing, except for a makeshift bath in a puddle of cold, muddy water. They went a week or more without shaving and they tended to have lice.60

Glider Infantrymen hitch a ride through Carentan on a captured German jeep. Army Signal Corps Photo. 111-SC-320864. Courtesy National Archives.

Soldiers had hot meals delivered to them by their company mess sergeant, who brought up pots of food in a jeep at night. Hot meals were not very common, however, and the combat soldier tended to survive on Army rations from his pack. They came in four different varieties. The most commonly consumed were K rations, which came in a small cardboard box marked B, L, or D (for Breakfast, Lunch, or Dinner). Denis Huston of the 99th Infantry Division described the contents of the D box K ration: “The D box included a can of hash or some other mixture of food not readily identifiable by sight, smell, or taste, a candy bar, four cigarettes, sugar, Nescafe, and crackers or hardtack.” C rations were similar, but packaged in two metal cans. One can held food which the soldier cooked over a small stove he took out of his pack, and the other held assorted powdered drinks, coffee, crackers, cigarettes, sugar, candy, and toilet paper. The most sought-after rations were the ’10 in 1’ rations, but airborne troops rarely got to eat those, because they were too heavy for foot soldiers to carry. The 10 in 1 ration came packaged in a large cardboard box and contained enough assorted foods for ten men to eat. The 10 in 1 ration was particularly prized because it provided soldiers with some variety, instead of the same lousy food day after day. The soldiers also were issued with D rations, which were very hard chocolate bars.

60 Sleep, McManus, 269; and hygiene, McManus, 76-78 and John Ellis. The Sharp End: The Fighting Man in World War II. New York: Charles Scribner’s Sons, 1980, 185.
They were intended for use in an emergency and a soldier could get a day’s calories from consuming only three or four of them. The D ration was bitter in taste and many soldiers became nauseous after eating an entire bar. Soldiers usually used their bayonets to shave a few scrapings off the bar (it was too hard to break with bare hands) into their canteens to make a chocolate drink.\textsuperscript{61}

Combat soldiers tended to be resentful of soldiers who served in support roles in the rear area, in more comfortable and less dangerous living conditions. Many combat soldiers felt that they had more in common with the Germans than they did with the ‘rear echelon commandos’ in the rear. They also tended to be distrustful of outsiders. The combat soldier’s world became very small – just the other guys in the squad, the hole he lived in, and the field and hedgerows surrounding his home. They lived on rumors and wild stories, hoped that everyday brought a letter from home, and – if they dared – dreamed of the day when the war would end and they could all go home. His comrades – whether he liked them or not – became his family. If a soldier got a package from home, he shared its contents with the rest of the group. Outsiders were treated with cold indifference until they proved themselves worthy of being admitted to the group.\textsuperscript{62}

\begin{center}
Paratroopers advance cautiously through a French town, June 1944. Army Signal Corps Photo. 111-SC-189929-S. Courtesy National Archives.
\end{center}

\textsuperscript{61} Rations, McManus, 16-30; and “the D box included,” Denis Huston quoted in McManus, 24.

\textsuperscript{62} Attitudes, McManus, 237-305.
Resources

Books

The best book about the American combat soldier in World War II is probably *The Deadly Brotherhood: The American Combat Soldier in WWII* by John C. McManus. McManus’s two books on Normandy – *The Americans at D-Day: American Combat Experience at the Normandy Invasion* and *The Americans at Normandy: The Summer of 1944, the American War from the Normandy Beaches to Falaise* – are also worth reading. They are both filled with personal stories and the words of the veterans themselves. *The Sharp End* by John Ellis is also excellent, but is more general, as it considers American, British, and Commonwealth soldiers. Army cartoonist Bill Mauldin’s memoir *Up Front!* is an excellent book and should be read by anyone wanting a better understanding of the daily life and attitudes of the American soldier during the war. The book is also graced with dozens of Mauldin’s cartoons, making it an enjoyable read. *Beyond Valor: World War II’s Ranger and Airborne Veterans Reveal the Heart of Combat* by Patrick K. O’Donnell offers both a short history of airborne campaigns during WWII and oral history interviews with many airborne veterans. It is excellent and highly recommended. *Currahee!: A Screaming Eagle at Normandy* by Donald Burgett is a great memoir of a paratrooper in A/506th PIR. The author also wrote several other books about his other battles during the war, all of which are fascinating. *Night Drop* by S.L.A. Marshall is an interesting and detailed look at the airborne’s D-Day battles. It is long out of print, but worth reading if a library nearby has a copy. *Closing with the Enemy: How GIs Fought the War in Europe, 1944-1945* by Michael D. Doubler is a detailed look at Army fighting methods during the war. The book can be a bit dense at times, but it is the best single volume on how the Army waged the war in Europe. It also includes a wonderful chapter on combat in Normandy. John Keegan provides an insightful and accessible look at infantry combat in his landmark book, *The Face of Battle*. Keegan’s book is also useful for the insights into the psychology of combat soldiers which he provides. More detailed study of this topic can be gained from *On Killing: The Psychological Cost of Learning to Kill in War and Society* and in *On Combat: The Psychology and Physiology of Deadly Conflict in War and in Peace*, both by Dave Grossman and Loren Christensen. S. L. A. Marshall’s discussion of the problems of combat leadership in *Men Against Fire: The Problem of Battle Command* are quite interesting. Marshall gained a notorious reputation because of the “Ratio of Fire” chapter in *Men Against Fire* and because of his poor research methods. Despite his flaws, Marshall saw combat firsthand during the war and interviewed hundreds of veterans days or even hours after coming out of combat. He offers a very insightful look at infantry combat and his ideas should not be dismissed wholesale because of his flaws.

Both divisions which fought in Normandy have been the subject of book-length unit histories. The best place to find what books have been written about your unit is WorldCat, the
international library database. WorldCat also lists libraries in your area where the book is available, making it quite handy for research: [http://www.worldcat.org](http://www.worldcat.org)

**Online Resources**

For the Troop Carrier Groups, there are several books available for free on the Air Force Historical Studies Office’s website which are useful. *Green Light!: A Troop Carrier Squadron’s War from Normandy to the Rhine* provides a good look at the history and operations of the troop carrier units written by a TCG veteran: [http://www.afhso.af.mil/shared/media/document/AFD-100927-040.pdf](http://www.afhso.af.mil/shared/media/document/AFD-100927-040.pdf)


The U.S. Army’s Center of Military History has published a series of excellent books on World War II, including *From Utah Beach to Cherbourg, Omaha Beachhead, Cross Channel Attack*, and *Breakout and Pursuit*. Some of the archival resources on their website may also prove useful: [http://www.history.army.mil/html/bookshelves/resmat/ww2eamet.html](http://www.history.army.mil/html/bookshelves/resmat/ww2eamet.html)

*Lone Sentry: Photographs, Documents, and Research on World War II* is a true gem of a resource. Most useful are the ‘GI Series’ of booklets. These are short histories published by divisions just after the war. The “U.S. Divisions” section at the bottom of the home page has links to pages listing detailed information about each unit. The website also has numerous articles, training manuals and intelligence bulletins which provide interesting primary sources for various topics: [http://www.lonesentry.com/](http://www.lonesentry.com/)

*American D-Day* has a number of useful items: [http://www.americandday.org/](http://www.americandday.org/)

*6 Juin 1944* also has useful documents, oral histories, maps, and photographs for both the Utah and Omaha Beach assaults: [http://www.6juin1944.com/assaut/en_index.html](http://www.6juin1944.com/assaut/en_index.html)

*The Veterans History Project* at the Library of Congress’s website is a great place to find oral histories of veterans from your soldier’s unit. Check the relevant boxes and search for the regiment or battalion for which you are looking: [http://www.loc.gov/vets/](http://www.loc.gov/vets/)

*The United States Army Air Forces in World War II* has a section on airborne operations with short histories of the operations and details on the types of aircraft used: [http://www.usaaf.net/ww2/airlift/index.htm](http://www.usaaf.net/ww2/airlift/index.htm)

Patrick K. O’Donnell’s website, *The Drop Zone*, has some oral histories of airborne veterans online: [http://www.thedropzone.org/index_back.html](http://www.thedropzone.org/index_back.html)
WWII Airborne has detailed information and histories of airborne units:
http://www.ww2-airborne.us/

Historian Mark Bando’s Trigger Time: 101st Airborne WWII has some interesting information about the 101st Airborne, including stories, unit insignia, etc:
http://www.101airborneww2.com/

These are only a selection of the many websites with WWII information available. It is a good idea to type your soldier’s name or his unit into a search engine and see what you can find!

Images and artwork
http://www.history.army.mil/art/Posters/WWII/WW2.htm
http://www.history.navy.mil/ac/d-day/exdday/exdday.htm
http://www.stolly.org.uk/ETO/
http://www.theatlantic.com/infocus/ww2.html
http://www.archives.gov/research/military/ww2/photos/#aviation
http://www.archives.gov/research/african-americans/ww2-pictures/
http://www.archive.org/ (NOTE: Has many WWII-era newsreels and documentaries)

Archival Sources

The National Archives has a handy brochure on researching WWII soldiers:

The American Battle Monuments Commission’s (ABMC) website allows you to search for soldiers by name, by state, or by unit here: http://www.abmc.gov/search/wwii.php

If your soldier was an enlisted man or NCO, the first step in researching him is to find his enlistment record. The enlistment record lists some basic information about the soldier – marital status, age, race, height, year of birth, selectee or volunteer, etc. They are available online at the National Archives’s website. The best way to search is by using the soldier’s service number (S/N). ABMC’s listing for that soldier will give you his service number. If you do not have the soldier’s service number, try searching for his name instead. Most of the records are here:
If you don’t find the soldier, try here:


You may be able to get the soldier’s military personnel file from the National Personnel Records Center (NPRC) in St. Louis, Missouri by mailing in Standard Form 180. The form lists the place to mail the form on the last page. Most WWII U.S. Army records were destroyed in a fire in 1973, but it is worth a try:


The Army created an Individual Deceased Personnel File (IDPF) for each soldier killed during the war. The IDPF takes months to get, but gives valuable information and often contains correspondence with family members regarding the deceased. The ones I have seen do not contain any images or descriptions of the state of the body, but it is probably a good idea to have the file sent to your teacher, just in case. To get your soldier’s IDPF, fill out the Freedom of Information Act request on at the end of this section and mail it to:

The Human Resources Command, FOIA Office, 1600 Spearhead Division Avenue, Building 1, Third Floor, Ft. Knox, KY 40122.

The National Archives’s website has lists of military personnel killed during the war by state and by county. The forward to these books often has interesting information about your state’s participation in the war. The Army lists are here:

http://www.archives.gov/research/arc/ww2/army-casualties/

The best place to do research on your soldier’s family is http://www.ancestry.com. Ancestry offers a two week free trial, so you should be able to find your soldier’s census data using the information from ABMC’s website and his enlistment record (if applicable). Some libraries have Ancestry on a computer for free use. By now, you hopefully know where your soldier was from and have a year of birth. Using that information, you can think about where he may have gone to high school. What high schools were around in his town or city in the late 1930s? Contact the school’s librarian. They may be able to find a yearbook picture of the soldier. It is also a good idea to talk to the people at your local or state historical society. They may be able to find you find resources. Try finding a library or university with the soldier’s local newspaper archived. You may be able to find an article about him or an obituary. Remember that obituaries were sometimes not printed until months after the soldier died. It often took weeks for the Army to send information regarding the soldier to his family. A city or county directory may have been published for your soldier’s area by R. L. Polk & Company. These directories list each resident in alphabetical order and give a one-sentence listing of their place of work, job title, and
address. Check WorldCat or your local library for listings. Researching the soldier’s personal life is the most difficult part of fallen soldier research. You have to think like a detective and be creative to try to find sources. Sometimes a piece of evidence from one source and another scrap of information from another source can lead to wonderful results.

Your soldier’s military records are housed in two different archives. The records of your soldier’s military unit are at the National Archives at College Park, Maryland. These records contain all kinds of military documents. You can find after action reports discussing what happened during a battle, orders from your soldier’s commander, lists of medals or awards, and even minute-by-minute logs of messages coming in to the unit’s staff officers. Sometimes, these records have really interesting items, like cartoons, unit newspapers, and other items that give you an idea of what life in your soldier’s unit was like. NARA also has Missing Air Crew Reports (MACR) of TCG airplanes shot down in Normandy. A few other records are housed at the National Personnel Records Center. The NPRC has unit rosters of all of the men in a unit, but not for the years 1944 or 1945 (those were thrown out). They also have company morning reports – a short document filled out each morning by the company listing what happened that day, the number of men in the unit, and the names of men not present for duty that day for whatever reason.

Sometimes you find the information you want very quickly during your research and other times you have to work for it. Sometimes the information is just gone forever. But it is best to ‘leave no stone unturned’ and to try everything. Your hard work will usually be rewarded with good results. Take a lesson your soldier had to learn in Normandy – be flexible, be creative, and don’t give up.

Troops from the 101st Airborne move through Carentan, June 14, 1944
Army Signal Corps Photo. 111-SC-320862. Courtesy National Archives.
Freedom of Information Act Request

TO: Department of the Army  
    Human Resources Command of Excellence  
    ATTN: FOIA, Bldg 1, 3rd Floor, Suite 17  
    1600 Spearhead Division Avenue  
    Fort Knox, KY  40122

E-mail address:  
    Foia.hrc@conus.army.mil  
    Telephone: 502-613-4400

I request a copy of the Individual Deceased Personnel File (IDPF) pertaining to:

Soldier’s Rank and Name: ________________________________

Serial Number if known: ________________________________

Date of Death: ________________________________

Conflict: ________________________________

Next of Kin requesting documents: ________________________________

Next of Kin day time phone number: ________________________________

Mailing address where documents will be sent: ________________________________

____________________________________________________________________________

Signature of requestor and Date
Bibliography


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—. “Report of Pathfinder Employment for Operation ‘NEPTUNE.’” 11 June 1944.

Headquarters, 101<sup>st</sup> Airborne Division. “General Orders No. 5,” August 19, 1942. Record Group 407. National Archives, College Park, MD.


—. “The Parachute Rifle Squad.” Undated. Record Group 407, National Archives, College Park, MD.

Headquarters, 434<sup>th</sup> Troop Carrier Group. “FO No. 1, Neptune.” 2 June 1944.


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82nd Airborne Division uniform patch