

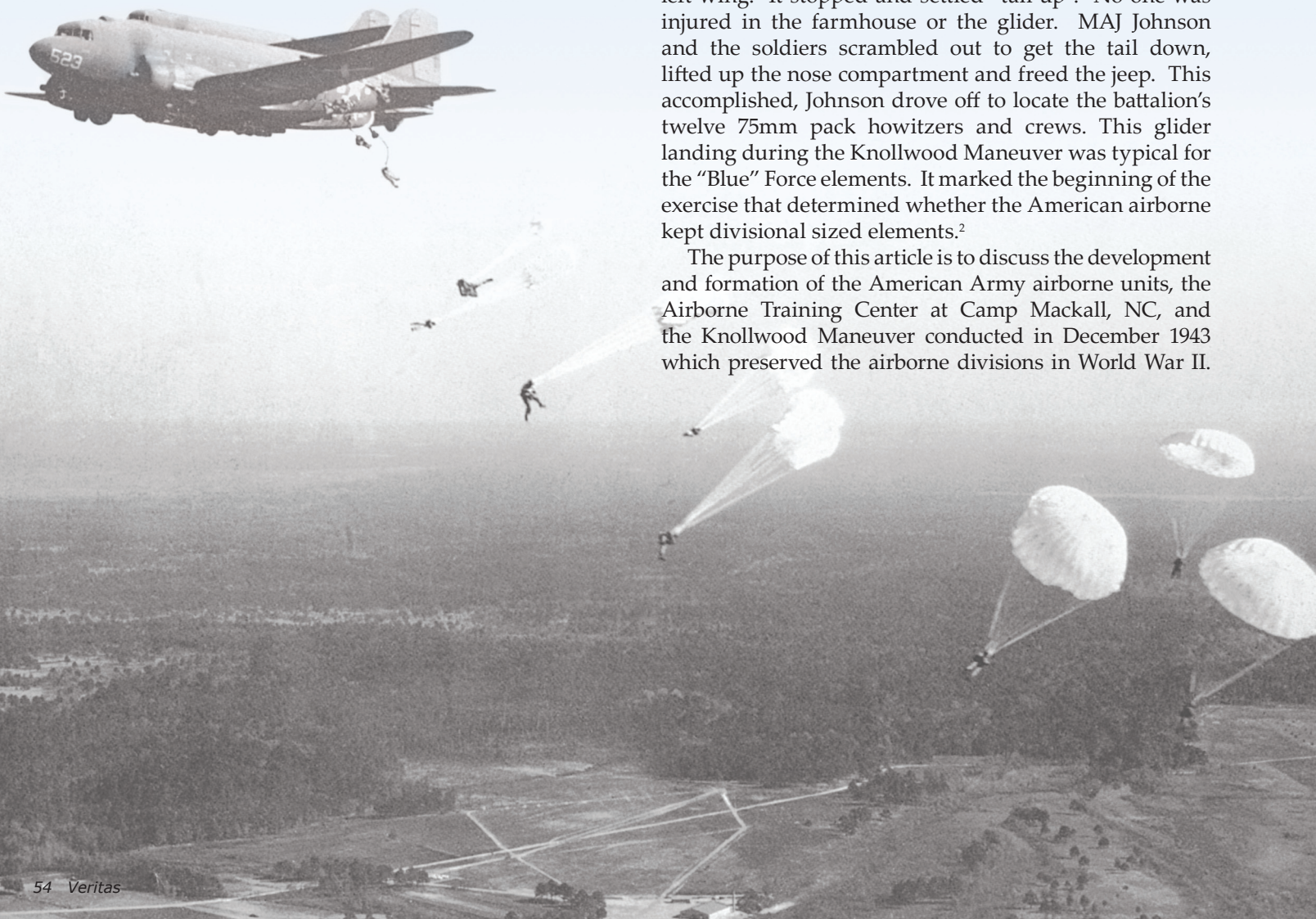
The Knollwood Maneuver: The Ultimate Airborne Test

By Eugene G. Piasecki

The night of 6 December 1943 in southeastern North Carolina was cold with a nearly-full moon. Towns in Moore, Hoke, Scotland and Richmond counties were blacked out by Army request. Road networks from Cameron to Rockingham, Eastwood to Laurinburg, West End to Raeford and Hamlet to Hoffman had been closed to all civilian traffic from 7 p.m. to 2 a.m. Approaching from the east, a large armada of C-47 aircraft carrying paratroopers or towing gliders was nearing the Knollwood Army Auxiliary Airfield near Pinehurst, NC. Aboard one glider was Major (MAJ) Robert L. Johnson, six enlisted glider artillerymen and a jeep from the 675th Glider Field Artillery (GFA) Battalion of the 11th Airborne Division. They were part of the airborne invasion force launched to capture Knollwood Airfield. In the early morning hours of 7 December 1943, MAJ Johnson's glider pilot released the tow line and began the descent toward his landing zone along N.C. Route 5 between Aberdeen and Pinehurst, NC.¹

After hitting the landing zone, the glider skimmed across a field hitting a farmhouse that sheared off its left wing. It stopped and settled "tail-up". No one was injured in the farmhouse or the glider. MAJ Johnson and the soldiers scrambled out to get the tail down, lifted up the nose compartment and freed the jeep. This accomplished, Johnson drove off to locate the battalion's twelve 75mm pack howitzers and crews. This glider landing during the Knollwood Maneuver was typical for the "Blue" Force elements. It marked the beginning of the exercise that determined whether the American airborne kept divisional sized elements.²

The purpose of this article is to discuss the development and formation of the American Army airborne units, the Airborne Training Center at Camp Mackall, NC, and the Knollwood Maneuver conducted in December 1943 which preserved the airborne divisions in World War II.



Parachute forces for the U.S. Army were proposed as early as 1918. Despite the German Army's airborne demonstrations in the 1930's, the American Army did not form its first parachute "Test Platoon" until 1940. This marked the beginning of a series of experiments with the size and composition of airborne forces that continued throughout World War II. The one topic that generated the greatest controversy among senior officers was the value of forming airborne divisions.

An early American airborne visionary was Brigadier General William L. "Billy" Mitchell. In 1918, he planned and received approval from General John J. Pershing to drop elements of the 1st Infantry Division by parachute from airplanes into the German Army's rear area during the latter stages of WWI.³ The Great War ended before Mitchell could implement the plan. After the war all military force modernization efforts competed for a very limited War Department budget. The airborne concept did not get past the planning stages. Recovery from the Great Depression dominated the 1930s even as the Germans refined their *Blitzkrieg* strategy by integrating parachute and glider units into their offensive operations.

Germany air-landed soldiers at Aspern Airport in Vienna to begin the occupation in early 1938. After the Munich Peace Conference in September 1938 a German infantry regiment was air-landed to occupy the Silesian town of Freiwaldau. Realizing the significance of airborne forces in future operations, the U. S. Chief of Infantry got approval from the War Department Operations Section (G-3) to study the organization of a regiment of air infantry. Once the study became public, the chiefs of the Infantry, Army Air Force, and Engineer branches petitioned the War Department for the proponency of air infantry tactics. The Chief of Engineers envisioned employing paratroopers as saboteurs and demolition teams. The Army Air Force felt that these airborne soldiers should be "Marines of the Air Corps" and designated "Air Grenadiers."⁴ The Infantry saw the airplane as merely transportation; the paratroop's primary mission on the ground was to fight as infantrymen. On 6 August 1939, General George C. Marshall assigned the mission to raise, train, test and equip airborne forces to Major General (MG) George A. Lynch, the Chief of Infantry.⁵ Once again, the Germans provided the impetus for American action.

German parachute troops (*Fallschirmjaegers*) were used to capture key bridges over Belgium's Maas and Waal Rivers while parachute and glider forces neutralized and captured Fort Eben Emael, their key defensive position. This enabled the Germans to occupy Belgium in two days in May 1940.

On 25 June 1940, the War Department approved the organization of a test platoon of airborne infantry. Two officers and forty-eight enlisted soldiers were chosen from over two-hundred 29th Infantry Regiment volunteers at Fort Benning, Georgia. First Lieutenant (1LT) William T. Ryder commanded the platoon with Lieutenant James A. Bassett as his assistant. Lieutenant Colonel (LTC) William C. Lee, the airborne staff officer for the Chief of Infantry, took the platoon to the Safe Parachute Company in Hightstown, New Jersey. There they trained on the parachute drop towers used in the 1939 World's Fair in New York City. The Army bought four of the towers. They were reassembled at Fort Benning and are still used to train today's airborne students. From 16 to 30 August 1940, the platoon members progressed from individual to

The War Department

During WWII, American ground and air forces were the responsibility of the War Department. The War Department was led by a separate civilian secretary directly responsible to the President of the United States. The War Department was comprised of:

1. The Secretary of War
2. The Assistant Secretary of War
3. The War Department General Staff, further divided into military staff divisions of Personnel (G-1), Military Intelligence (G-2), Operations and Training (G-3), Supply (G-4) and War Plans Division (WPD).

(This staff was directed by the Chief of Staff of the Army who was the adviser to the Secretary of War and the head of the military establishment.)

4. Offices of the Chiefs of Services and Arms: Infantry, Field Artillery, Coast Artillery, Cavalry, Army Air Forces, Corps of Engineers and Signal Corps.



11th Airborne Division SSI

Blue Force



501st Parachute Infantry Regimental Insignia



17th Airborne Division SSI

Red Force



541st Parachute Infantry Regimental Insignia



The B-18A "Bolo", manufactured by Douglas Aviation, was originally selected as the Army's early, multi-engine bomber. Its limited range and speed made it better suited for cargo, transport, anti-submarine or pilot training roles than for combat. On 6 August 1940 1LT William T. Ryder jumped from a B-18A over Cactus Field at Fort Benning, GA earning the title of "America's first paratrooper."

mass parachute jumps using a Douglas B-18A "Bolo" bomber. The Test Platoon's success further fostered activation of the 501st Parachute Infantry Battalion on 26 September 1940. MAJ William M. Miley would command America's first airborne infantry battalion.

The Infantry and Air Corps continued to develop and to refine airborne force requirements from October 1940 until July 1941. The Air Corps began testing gliders and new cargo aircraft. The ultimate demonstration of German airborne capability happened on 20 May 1941. The *Luftwaffe* achieved complete air superiority over British and New Zealand forces on the island of Crete. Then glider and parachute troops landed and gained control of key installations including the island's Maleme Airdrome. The airdrome's importance became obvious when air-transported forces were landed *enmasse* to reinforce airborne forces. The German invasion and capture of Crete was the capstone that ultimately caused the United States War Department to develop its own airborne capability.

At Fort Kobbe, Panama Canal Zone, the U.S. Army formed its first air-landing unit, the 550th Infantry Airborne Battalion reinforced by Company C, 1st Battalion 501st Parachute Infantry. The airborne force was commanded by LTC Harris M. Melasky. In August 1941, the 550th conducted the first major army airborne exercise at the Rio Hato training area.⁶ Lessons were learned: the tactical employment of airborne forces required close staff coordination between air

corps and airborne forces; air to ground communications was a necessity; and aircraft specifically designed to transport ground troops and equipment were needed. As LTC Melasky continued to refine tactical airborne concepts, the Infantry Center was activating more airborne battalions and an airborne command headquarters.

Because the 501st was the only Army parachute battalion in 1941, it was conducting parachute training and providing trained cadre to activate new airborne units. These missions were draining the 501st Parachute Infantry Battalion. MAJ Miley recommended that the Chief of Infantry form a separate unit to train parachute volunteers who would fill new airborne units. The War Department agreed and on 10 March 1941 activated the Provisional Parachute Group headquarters at Fort Benning commanded by LTC William C. Lee.

Following the War Department and Army reorganization on 9 March 1942, the Provisional Parachute Group was designated the Airborne Command on 21 March 1942. Newly promoted Colonel (COL) Lee quickly discovered that individual and unit parachute training was repeatedly interrupted by requests for airborne demonstrations and parachute troop participation in Army Ground Force (AGF) maneuvers. After several complaints by the Chief of Infantry, LTG Leslie J. McNair, Commanding General AGF, decided to keep the parachute training center at Fort Benning, but he transferred the Airborne Command Headquarters to Fort Bragg, NC on 1 May 1942. This move cut down the visitors, but left undecided who would command and control airborne units.

The U.S. Army's rapid activation of parachute and glider regiments elevated the issue of commanding and controlling large-scale airborne operations. The British were already evaluating the type and mix of forces to conduct airborne operations. Now Brigadier General (BG) Lee was sent to England to observe their airborne training and talk with parachute veterans about airborne operations in North Africa, Italy, and France.⁷ This



The C-47 "Sky Train" was the workhorse of the USAAF in every theater of operations. It performed a variety of missions from transporting supplies and equipment to dropping paratroopers and towing gliders. Each paratrooper pictured is equipped with a lowering line for use in the event of a tree landing.

Parachute Units 1940-42: The units here are not intended to be a complete list of all World War II parachute units. They indicate only those active parachute units in the U.S. Army before official designation of airborne divisions on 15 August 1942. The source for this information is Appendix Number 11 of *The Airborne Command and Center Study Number 25*, the Army Ground Forces Historical Section, 1946, written by LTC John T. Ellis Jr.

UNIT	DATE ACTIVATED	COMMANDER
501st PIB	26 September 1940	MAJ William M. Miley
Provisional Parachute Group	10 March 1941	LTC William C. Lee
The Parachute School	15 May 1941	MAJ William M. Miley
502nd PIB	1 July 1941	MAJ George P. Howell, Jr.
503rd PIB ^b	21 August 1941	MAJ Robert F. Sink
504th PIB ^b	5 October 1941	MAJ Richard Chase
502nd PIR	2 March 1942	LTC George P. Howell, Jr.
503rd PIR	2 March 1942	LTC William M. Miley
Airborne Command	21 March 1942	COL William C. Lee
504th PIR	1 May 1942	COL Rueben H. Tucker
505th PIR	6 July 1942	COL James M. Gavin
506th PIR	20 July 1942	COL Robert F. Sink
507th PIR	20 July 1942	LTC George V. Millet
82nd Airborne Division	15 August 1942	MG Matthew B. Ridgway
101st Airborne Division	15 August 1942	MG William C. Lee
Airborne Command	16 August 1942	MG Elbridge G. Chapman

Note a: PIB is Parachute Infantry Battalion; PIR is Parachute Infantry Regiment.

Note b: The 503rd and 504th PIBs were later absorbed into the PIRs with the 503rd PIB becoming the 1st Battalion, 503rd PIR and the 504th PIB becoming the 2nd Battalion, 504th PIR. Both PIRs 3rd Battalions were formed from recent graduates of the Parachute School.



Key personnel in American airborne development (1942). From L to R. General Henry H. Arnold, Chief, USAAF; MG Matthew B. Ridgway, CG, 82nd Airborne Division (A/D); MG Joseph M. Swing, CG, 11th A/D; MG William C. Lee, CG, 101st A/D; MG William M. Miley, CG, 17th A/D; and MG Elbridge G. Chapman, CG, 13th A/D.



Flight route of the 509th PIB on 7 November 1942 in support of Operation TORCH. Source: Gerard M. Devlin, Paratrooper, p. 152.

was when Lee first learned that the British intended to consolidate its airborne units into divisions. After returning, BG Lee recommended to LTG McNair that the American Army follow the British example. Unwilling to make a hasty decision, LTG McNair told him that his staff would study the proposal. Two weeks later, McNair called Lee to tell him that two airborne divisions would be activated by mid-August 1942. No other air-landing units would be formed. Those in existence would be converted to glider infantry and assigned to the airborne divisions.⁸ The Army designated the 82nd and 101st Infantry Divisions as its first two airborne divisions on 15 August 1942. The next step was to get American airborne forces into combat.

The U.S. Army airborne received its “baptism of fire” in North Africa during Operation TORCH. The 509th Parachute Infantry Battalion (PIB) (formerly 2nd Battalion, 503rd Parachute Infantry) commanded by LTC Edson D. Raff was selected for the operation. The 509th PIB had been training in England since June 1942. Its mission was to jump at dawn on 8 November 1942 and seize two Pro-Axis French-controlled airfields south of Oran, Algeria prior to the Allied sea-borne invasion. Thirty-nine C-47 aircraft would carry the PIB 1500 miles non-stop from England during the night of 7-8 November 1942. Nine C-47 loads of paratroopers, led by MAJ William P. Yarborough, (Raff was injured during the jump) conducted a thirty-five mile foot march to the airfield at Tafaraoui, Algeria to discover it already secured by sea-landed ground forces. Poor navigation, strong headwinds, an inoperative Eureka homing device, incorrect radio frequencies supplied to the navigational beacon ship, and the absence of coordination between sea-landing and airborne forces caused the majority of the C-47’s to exhaust their fuel and land wherever they could. After TORCH, the 509th established its headquarters at Oujda, French Morocco.

While the 509th recovered from its first combat operation and prepared for the next, the 82nd Airborne Division arrived in French Morocco on 10 May 1943 to prepare for the invasion of Sicily (Operation HUSKY). The Division Commander, MG Matthew B. Ridgway, and BG Maxwell D. Taylor, the Division Artillery (DIVARTY) commander, established the division headquarters with the two Parachute Infantry Regiments (504th and 505th) at Oujda near the 509th PIB. BG Charles L. Keerans, the Assistant Division Commander, set up his headquarters with the glider infantry regiment (325th) at Marina, twelve miles east of Oujda. Operation HUSKY included four separate airborne operations in Sicily. American and British airborne forces would each conduct two. HUSKY I, assigned to COL James M. Gavin’s reinforced 505th Parachute Regimental Combat Team (PRCT) assault would take place on 10 July 1943 with the British 1st Air Landing Brigade and COL Reuben H. Tucker’s 504th PRCT would conduct HUSKY II on 11 July 1943 with the British 1st Parachute Brigade.

The U.S. Army Air Forces (USAAF) 52nd Troop Carrier Wing would transport the Allied airborne forces from Kairouan, Tunisia to their glider landings and parachute drop zones on Sicily during the night of 10-11 July 1943. The flight route for the 505th (HUSKY I) was a 415 mile course. It was supposed to be flown in close formation, 200 feet above the water and under black-out conditions. Thirty-five knot ground winds caused the C-47s to drift off course and paratroopers were scattered far from their primary drop zones. The 504th’s infiltration route (HUSKY II) flew over a sea full of Allied troop ships. Prior coordination was in vain. When the HUSKY II aircraft flew over them, the ships opened fire. The Navy gunners had standing orders to shoot at any aircraft. Twenty-three of one hundred and forty-four troop-carrier aircraft were shot down and thirty-seven aircraft were heavily damaged by friendly fire; 318 paratroopers and airmen were killed or wounded. Among the dead was BG Keerans, who was observing in an orbiting C-47 when his aircraft was shot down. The friendly fire broke up the USAAF formation and the paratroopers were widely dispersed.

When Sicily operations officially ended, LTG Eisenhower, the HUSKY invasion force commander, reviewed all American parachute and glider operations. In his after action report to General Marshall, Eisenhower recommended against division-sized airborne units in the United States Army since they were too difficult to control in combat.⁹ The Chief of Staff of the Army considered this, but rather than immediately inactivate the 11th, 13th, 17th, 82nd and 101st Airborne Divisions, he ordered a special board of officers to examine airborne doctrine, organization and training.

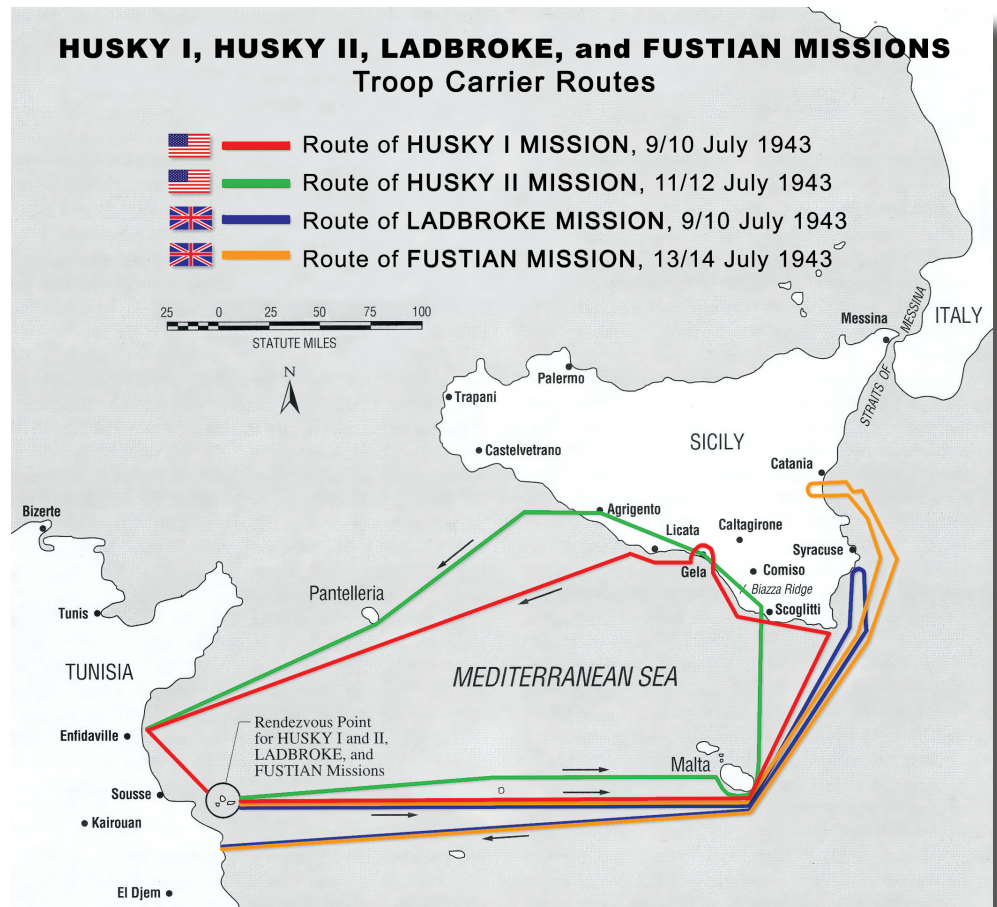
In mid-September 1943, LTG Leslie J. McNair convened a board at Camp Mackall, NC. MG Joseph M. Swing, the 11th Airborne Division commander, chaired what was referred to as the “Swing Board.” The board was charged with developing procedures for planning and executing airborne missions in conjunction

with combined conventional operations.¹⁰ MG Swing was personally chosen to be President of the Board by General Marshall. Swing, who had been Eisenhower's airborne advisor in North Africa, knew the problems, but he still believed in the airborne division concept. The other board members were experienced paratroop and glider unit commanders and staff officers as well as First Troop Carrier Command (I TCC) veterans and glider pilots.¹¹ For two weeks, the board worked around the clock reviewing Axis and Allied airborne operations, studying the airborne division organization, and analyzing the problems encountered by the USAAF troop carrier units during the North African and Sicilian operations. Navigational problems, interservice communications, and airborne command and control were closely evaluated.¹²

At the end of September 1943, the review was completed and the recommendations were sent to the War Department staff. The most important recommendation was the need for closer coordination between airborne units and troop carrier commands. After the War Department had reviewed and discussed the Swing Board's findings, Marshall approved the publication as *War Department Training Circular No. 113; Employment of Airborne and Troop Carrier Forces* dated 9 October 1943. This formalized the responsibilities and relationships between the airborne and troop carrier commands.¹³

Despite the recommendations of the Swing Board, General Marshall and LTG McNair were not convinced that the airborne division would be effective. They wanted proof of the effectiveness of the concept. LTG McNair ordered MG Swing to plan an 11th Airborne maneuver for December 1943 to demonstrate the validity of the airborne division. It was very obvious that the future of the airborne division depended entirely upon a successful maneuver.

Secretary of War Henry L. Stimson, who also had reservations about the utility of the airborne division, visited Camp Mackall on 23-24 November 1943. There he watched a division (-) infantry-artillery, parachute-glider demonstration called the "Pea Patch Show," so called because it took place on a piece of land once used to grow peas.¹⁴ Stimson was favorably impressed by the exercise,



Flight routes for British and American airborne forces during the invasion of Sicily in July 1943. Source: Charles H. Young, Into the Valley, p. 18.

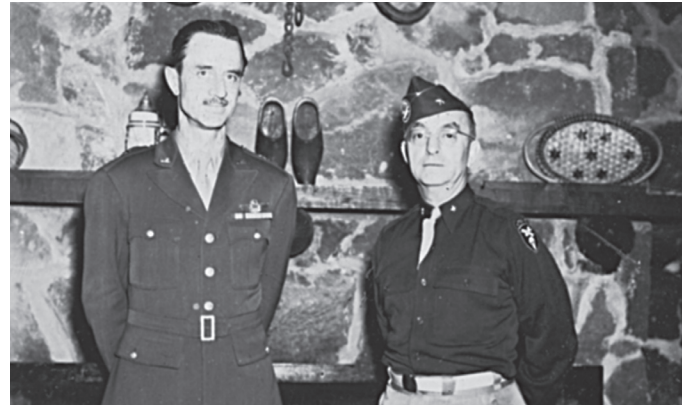
and on 27 November 1943 wrote General Swing: "The Airborne Division will play a great part in our future successes, and I know that the 11th Airborne Division will render outstanding service to our country on some not too far distant D Day."¹⁵ However, the small-scale of the exercise was not sufficient to convince Marshall and McNair. They would delay their decision on the airborne division's future until after the Knollwood Maneuver.

U.S. Army airborne operations in North Africa and Sicily had identified certain issues that continued to raise doubts among Army leaders about the usefulness of airborne divisions. The upcoming exercise in December 1943 would confirm or dispel these reservations. Camp Mackall, NC was the logical site for the airborne division maneuver. It was the only U.S. Army installation established solely for training, testing and evaluating equipment, tactics, techniques and procedures for paratroopers, glidermen and troop transport pilots and crews. The Airborne Command had the responsibility to validate airborne doctrine and equipment. The retention of the airborne division in the Army's force structure was at stake. Preparation for the Knollwood Maneuver began in earnest in November 1943.

Between General Marshall's decision to test the airborne division concept and the Pea Patch Show for Secretary of War Stimson, the airborne-troop carrier headquarters was moved to Camp Mackall on 12 November 1943.



23-24 November 1943. Secretary of War Henry L. Stimson accompanied by BG Frederick W. Evans, CG I TCC and MAJ Michael C. Murphy, Director of Flying Training for I TCC headed to the "Pea Patch Show."



From L to R. BG Frederick W. Evans, CG, I TCC and BG Leo Donovan, CG Airborne Command in front of the fireplace in the VIP briefing cabin at Camp Mackall. This same cabin today houses Camp Mackall's Range Control office.

BG Frederick W. Evans, CG I TCC at Laurinburg-Maxton Army Air Base (L-MAAB), was named the Maneuver Director and BG Leo Donovan, CG of the Airborne Command at Camp Mackall, was his deputy. The combined maneuver would be conducted from 6 to 10 December 1943.¹⁶ The concept of the operation, based entirely on Training Circular No. 113, *Employment of Airborne and Troop Carrier Forces, October 9, 1943*, involved staging airborne and glider elements of the 11th Airborne Division from Pope Army Airfield, Mackall Army Airfield, Florence, SC, Lumberton and Laurinburg-Maxton airfields. These separate echelons would take-off and rendezvous in-flight near the Atlantic coast. Then, the armada would fly a circuitous route of approximately two-hundred miles, a portion of which would be over open-ocean at night before turning inland toward the drop and landing zones. At least one-half of the airborne force would land at night. All reinforcement, resupply, evacuation, and other support requirements would be done by air.¹⁷

There were four critical questions to be answered:

1. Could a large airborne force, of division size, travel over a three- to four-hour instrument course across a large body of water and arrive at precisely selected drop zones?
2. Could such a force land in gliders and by parachute without excessive casualties?
3. Could a division so landed wage sustained combat?
4. Could a division so landed be supplied by air and air landings alone?¹⁸

All that remained was to write the operations order.

On 15 November 1943, the 11th Airborne Division received its mission from the Headquarters, Airborne Command at Camp Mackall. The 11th Airborne Division, reinforced by the 501st Parachute Infantry Regiment (PIR) was to assault on D-Day, 7 December 1943, capture Aberdeen, NC and Knollwood Airport (now known as the Moore County Regional Airport), establish an airhead around Knollwood Airport, and prevent reinforcement of the Red Army at Raeford, NC (17th Airborne and 541st PIR) from the north and northwest.¹⁹ Defending Knollwood and selected critical points was a regiment combat team (minus). An infantry battalion, an antitank company, a field artillery battery and a medical detachment from the 17th Airborne Division were combined with a battalion from COL Ducat M. McEntee's independent 541st Parachute Infantry Regiment. These elements were training at Camp Mackall.²⁰

On 4 December 1943, units of the 11th Airborne Division began leaving Camp Mackall for their respective departure airfields. The original plan called for all units to take off on the night of 5 December, but inclement weather postponed the attack for twenty-four hours. LTG McNair was the maneuver's chief umpire and evaluator. Undersecretary of War Robert Patterson, MG Matthew B. Ridgway, and BG Leo Donovan were observers. About midnight, 6 December 1943, 200 C-47s began taking off from the airfields in North and South Carolina for the mass airborne assault. Numerous C-47s carried a full load of eighteen combat-equipped paratroopers and



1st Troop Carrier Command
Insignia



Airborne Command
SSI



675th Glider Field Artillery
Battalion DUI



Knollwood Army Auxiliary Airfield now Moore County Regional Airport as it appears today. The visible open areas became drop and landing zones for parachute and glider forces during the airborne assault on Knollwood on 7 December 1943.

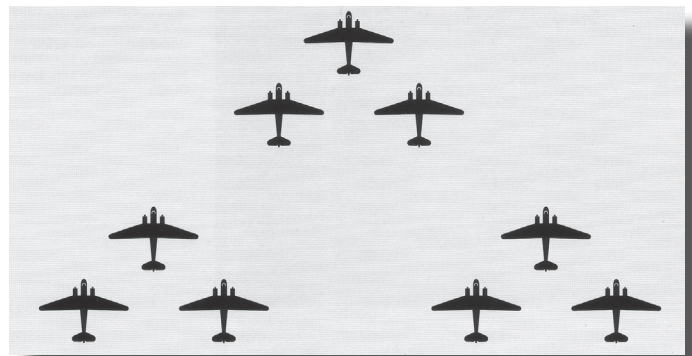


LTG Leslie J. McNair, CG, Army Ground Forces (AGF), confers with BG Donovan during the Knollwood Maneuver.

towed either one or two gliders full of soldiers and equipment. As the C-47's took off, the planes and gliders began forming into "Vee of Vee" formations, nine aircraft wide. The air armada flew east out over the Atlantic Ocean, then turned north and finally turned back west heading towards the drop zones and landing zones around Southern Pines and Pinehurst. Golf courses and open fields between five and ten miles west and north of Knollwood Airport had been designated as drop zones and landing zones.²¹ The assault began at 2:30 a.m. on 7 December 1943 with the gliders and paratroopers landing almost simultaneously.

Having survived his glider's collision with the farmhouse, MAJ Robert L. Johnson continued locating the 675th howitzers, getting fire support for the division established and assembling the unit. The Battalion Executive Officer (XO) had not been "drafted" into becoming a "glider rider." He had been "recruited" by COL Francis W. Farrell, the 11th Airborne Division Chief of Staff. COL Farrell supervised Johnson as an artillery instructor in the Gunnery Department at Fort Sill, Oklahoma. When Johnson reported to Camp Mackall in December 1942, he was assigned to the 675th Glider Field Artillery Battalion. Glider artillery battalions at that time had two batteries with six 75mm Pack Howitzers each and one battery of eight .50 caliber anti-aircraft machine guns and four 37mm anti-tank guns.²² Although glidermen and paratroopers shared the same hazards on the battlefield, there was a distinct line between the two groups. The majority of glidermen were assigned to fill requirements while all paratroopers were volunteers.

The majority of glider training was conducted at Laurinburg-Maxton Army Air Base (L-MAAB). It consisted of equipment loading, weight distribution and

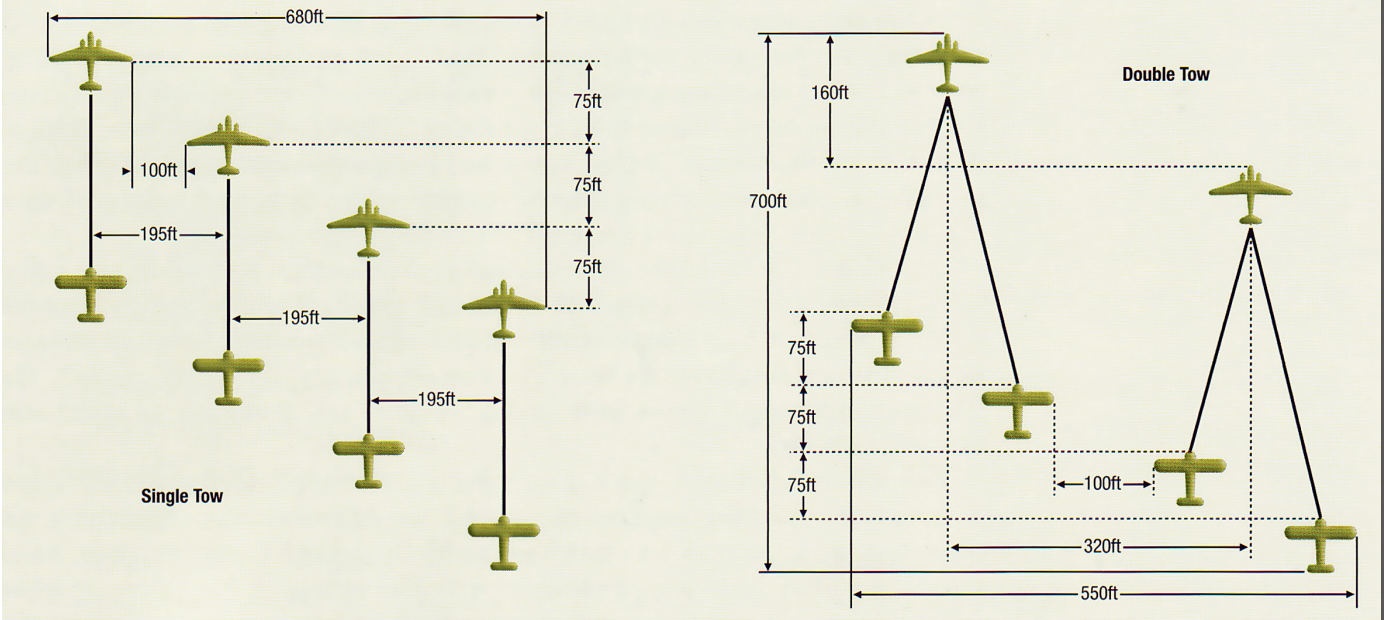


Standard squadron flight formation known as a "Vee of Vees" employed by troop carrier command aircraft during a parachute drop of men and equipment. Source: Steven J. Zaloga, US Airborne Divisions in the ETO 1944-45, p.50.

cross-loading of key personnel (spreading the leaders among the available aircraft). To become authorized to wear the glider qualification badge and overseas cap patch, each soldier made one glider flight. It took five parachute jumps to become a fully qualified parachutist who could wear the parachute badge, the distinctive overseas cap patch and Corcoran jump boots. As General Johnson later observed: "The differences between the qualification standards for glidermen and paratroopers created a strong competition between the two groups despite General Swing's intent to have as many men as possible dual-qualified in the 11th Airborne Division."²³ Despite their differences, the paratroopers and glidermen realized the future of the airborne division rested upon their united efforts during the Knollwood Maneuver.

The first division-sized night air assault had its share of problems. The missions of the 187th and 188th

Assault glider tow formations (single tow, double tow)



Assault Glider Tow Formation showing the preferred spacing for towing single and double loads of gliders by C-47s flying an echelon right formation. Source: Steven J. Zaloga, US Airborne Divisions in the ETO 1944-45, p. 49.

Glider Infantry Regiments (GIR) dictated that they land around Knollwood to secure the airhead. This would allow supplies and reinforcements to be air-landed on the airfield. The 11th Airborne DIVARTY, which included the 675th, was positioned west of Pinehurst to provide fire support for the parachute infantry. As expected, a number of the gliders carrying the howitzers missed their landing zones. Some ended up in the tops of tall pine trees or entangled in power lines (the electricity was turned off). As Johnson located his battalion's howitzers, he hooked them to his jeep and moved them into position to support the infantry. The Fire Direction Center was established in the open. Wire connected the units to DIVARTY and jeep-mounted radios were the link to division headquarters. Metal crickets like those later used on D-Day in Normandy identified the 11th Airborne personnel. The 675th GFAB had only one serious casualty. A trailer of medical supplies broke loose when its glider landed and broke the battalion supply officer's legs.²⁴

The 511th Parachute Infantry Regiment dropped on and around the Knollwood Airfield and by 0230 hours on 7 December 1943 had secured the objective. Some of the

paratroopers and gliders missed their drop and landing zones and road marched to rejoin their units. The glider carrying the 11th Airborne Chief of Staff, COL Farrell, landed on a road in the Fort Bragg Artillery Range. From the moment Knollwood was secured, a steady stream of aircraft, loaded with men and all classes of supply, began landing on the airfield to expand the airhead. Combat operations between the 11th (Blue Force) and the Red Army force (elements of the 17th Airborne Division) continued until the maneuver was ended on 12 December 1943 by LTG McNair.²⁵

Deteriorating weather conditions made the results of the Knollwood Maneuver more impressive. Temperatures plummeted during the day on 7 December and rain turned to sleet. The 53rd Troop Carrier Wing First Troop Carrier Command (1 TCC) provided L-MAAB 200 C-47 transport aircraft and towed 234 CG-4A gliders; 100 gliders were double-towed. In thirty-nine hours, a total of 10,282 men were delivered by parachute, glider, or air landed. The tally of equipment and supplies was significant: 1,830 tons of supplies and equipment; 295 Jeeps; and 48 quarter ton trailers. The total maneuver casualties were two dead and 48 minor injuries.²⁶ Afterwards, the



511th Parachute Infantry Regimental Insignia



187th Glider Infantry Regimental Insignia



188th Glider Infantry Regimental Insignia

entire operation was reviewed from start to finish at Camp Mackall by commanders and the division staff. MG Joseph Swing submitted his final report on the Knollwood Maneuver to LTG Leslie McNair and impatiently waited for a War Department decision. On 16 December 1943, LTG McNair replied to MG Swing. McNair's message in part read: "...The successful performance of your division has convinced me that we were wrong, and I shall now recommend that we continue our present schedule of activating, training and committing airborne divisions."²⁷

The Knollwood Maneuver convinced General Marshall and LTG McNair to retain the airborne divisions. The successful execution of all missions by the 11th Airborne Division validated the concepts in *Training Circular No. 113* concerning employment and support of airborne forces. As a result, significant portions of TC 113 were included verbatim in *War Department Field Manual (FM) 71-30, Employment of Airborne Forces*, dated 3 July 1947 and *War Department Field Manual 1-30, Tactical Doctrine of Troop Carrier Aviation*, dated 12 August 1947. FM 1-30 became the "Bible" for troop carrier operations in support of airborne forces.²⁸ The Knollwood Maneuver had saved the 11th, 13th, 17th, 82nd and 101st Airborne Divisions. Camp Mackall and Laurinburg-Maxton Army Air Base would continue to be training centers for airborne forces throughout World War II. Today, Camp Mackall has a similar distinction as the Army's training center for Special Forces, Civil Affairs, and Psychological Operations soldiers.

Special thanks for assistance in preparing this article go to Brigadier General (Ret) Robert L. Johnson, Master Sergeant (Ret) Lowell W. Stevens, Mr. Tom MacCallum, Mr. Alejandro Lujan and Ms. Kathryn Beach who unselfishly provided their time and talents to ensure the accuracy of the information presented here.

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CG-4A "WACO" gliders ready for loading. Notice the pilot's compartment in the raised nose section and the wooden supports used to elevate the tail to keep the cargo compartment on the ground. This technique made it easier to load bulky supplies and equipment into the glider.

Endnotes:

1. Lane Toomey, "Where Airborne Proved Itself," *The Pilot.com*, 3 December 2003, 2.
2. Gerard M. Devlin, *Paratrooper* (New York: St. Martin's Press, 1979), 246.
3. Devlin, *Paratrooper*, 23.
4. LTC John T. Ellis, Jr., *The Airborne Command and Center Study No. 25* (Washington, D.C.: Historical Section-Army Ground Forces, 1946), 2.
5. Devlin, *Paratrooper*, 81.
6. LTC John T. Ellis, Jr., *The Airborne Command and Center Study No. 25* (Washington, D.C.: Historical Section-Army Ground Forces, 1946), 6.
7. Gerard M. Devlin, *Paratrooper*, 125.
8. Devlin, *Paratrooper*, 126.
9. Devlin, *Paratrooper*, 246.
10. LTC John T. Ellis, Jr., *The Airborne Command and Center Study No. 25*, 24.
11. Edward M. Flanagan, Jr., *Airborne. A Combat History of American Airborne Forces* (New York: Ballantine Books, 2002), 98.
12. Flanagan, *Airborne*, 98.
13. Devlin, *Paratrooper*, 247.
14. Gerard M. Devlin, *Silent Wings. The Story of The Glider Pilots of WW II* (New York: St. Martin's Press, 1985), 118.
15. Flanagan, *Airborne*, 99.
16. Ellis, *The Airborne Command and Center Study*, 25.
17. Ellis, *The Airborne Command and Center Study*, 26.
18. MAJ Edward M. Flanagan, Jr., *The Angels, A History of the 11th Airborne Division 1943-1946* (Nashville, TN: The Battery Press, Inc., 1946), 10.
19. Frank A. Blazich, Jr., *Part of Us: The Relationship between Hoffman, North Carolina and Camp Mackall, North Carolina from September 1942 to September 1945*, Honors Thesis Department of History University of North Carolina at Chapel Hill, May 2004, 61. **This 11th Airborne Division mission statement originated from Field Order Number 1, HQ AB Carrier Task Force, Camp Mackall, North Carolina dated 15 November 1943.**
20. Devlin, *Paratrooper*, 247.
21. Flanagan, *Airborne*, 102.
22. Brigadier General Robert L. Johnson, USA Retired, interview by Dr. Charles H. Briscoe and Eugene G. Piasecki, October 2007, Whispering Pines, NC, tape recording, USASOC History Office Classified Files, Fort Bragg, NC. **MAJ Johnson's relationship with COL Farrell was based upon the enjoyment of playing polo.**
23. Johnson interview.
24. Johnson interview.
25. Flanagan, *The Angels*, 11.
26. Ellis, *The Airborne Command and Center Study*, 26.
27. Flanagan, *Airborne*, 103.
28. James P. Lowe, "The Impact of Nadzab," *Nadzab, 1943: The First Successful Airborne Operation*, December 2004, http://corregidor.org/heritage_battalion/lowe/ch_6.html.