THE AIRBORNE COMMAND AND CENTER

Study No. 25

Historical Section . Army Ground Forces

1946

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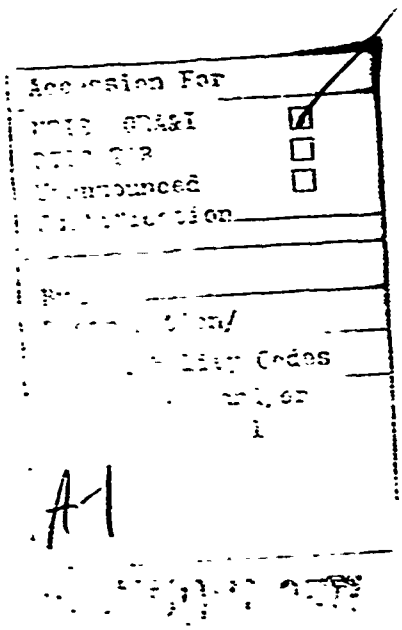
By

Lt. Col. John T. Ellis, Jr.



Historical Section - Army Ground Forces

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HEADQUARTERS ARMY GROUND FORCES

WASHINGTON 25, D. C.

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SUBJECT: Studies in the History of Army Ground Forces

TO: All Interested Agencies

1. The history of the Army Ground Forces as a command was prepared during the course of the war and completed immediately thereafter. The studies prepared in Headquarters Army Ground Forces, were written by professional historians, three of whom served as commissioned officers, and one as a civilian. The histories of the subordinate commands were prepared by historical officers, who except in Second Army, acted as such in addition to other duties.

2. From the first, the history was designed primarily for the Army. Its object is to give an account of what was done from the point of view of the command preparing the history, including a candid, and factual account of difficulties, mistakes recognized as such, the means by which, in the opinion of those concerned, they might have been avoided, the measures used to overcome them, and the effectiveness of such measures. The history is not intended to be laudatory.

3. The history of the Army Ground Forces is composed of monographs on the subjects selected, and of two volumes in which an overall history is presented. A separate volume is devoted to the activities of each of the major subordinate commands.

4. In order that the studies may be made available to interested agencies at the earliest possible date, they are being reproduced and distributed in manuscript form. As such they must be regarded as drafts subject to final editing and revision. Persons finding errors of fact or important omissions are encouraged to communicate with the Commanding General, Army Ground Forces, Attention: Historical Section, in order that corrections may be made prior to publication in printed form by the War Department.

BY COMMAND OF GENERAL DEVERS:

J. L. TARR
Colonel, AGD
Acting Ground Adj General

1 Incl:
Historical Study

PREFATORY NOTE

A history of the Airborne Command and Center was compiled by various hands during the course of the war. This was completely reworked by the author, Lt. Col. John T. Ellis, Jr., during the fall of 1945, with the vigorous support of the Chief of Training, Col. M.A. Quinto, and extended to reflect more adequately the development of airborne organization and tactics during the war, as viewed from the Center Headquarters.

A HISTORY OF THE AIRBORNE COMMAND
AND CENTER

APPENDICES

EARLY HISTORY TO ACTIVATION

A. General.

The early history of the "Airborne Effort" is, in effect, a compilation of facts and data relating the concepts, efforts, accomplishments and problems of a few individuals who envisioned (with the development and expansion of airpower) the unlimited possibilities presented for the utilization of air transportation, to project into combat an offensive striking force which might well be capable of determining the outcome of battles. It is extremely doubtful if these "Airborne Thinkers" initially realized the full significance of this newly conceived striking force, and certainly not even the most optimistic thought anticipated that ultimately five airborne divisions, six separate regiments, and four separate battalions would be activated, trained, and committed to combat; nor was it possible to visualize the mass employment of airborne troops eventually accomplished in Normandy, Southern France, Holland, or the crossing of the Rhine.

It is therefore of primary interest to know just how the "Airborne Effort" developed from the original concept of a limited number of "Airborne Thinkers" to the sizable airborne forces employed in World War II, both in the European and Pacific Theaters of Operations (Appendix No. 1), to visualize and understand the multitudinous problems confronting those individuals initially charged with the responsibility of experimenting with and developing the project; to know how they solved the problems of personnel, equipment, supply, air transportation, and training; to see how the doctrine of employment gradually developed from the initial thought of small combat groups landed within enemy territory under cover of darkness, for the purpose of sabotage and espionage, to mass landings in daylight of two or more reinforced divisions in the face of determined enemy resistance.

B. Background.

For over a decade there had been sporadic experiments in the airborne field. During the early '30's, airplanes were used extensively as carriers of cargo and personnel. The Russian and British armies had transported troops by air and also landed troops by parachute. In 1931, Major General Preston Brown, Commanding General of the Panama Canal Department, moved Battery "B" of the 2d Field Artillery from France Field across the Isthmus to Rio Hato, Canal Zone, a distance of ninety miles by air transport The following year, Captain (later Lieutenant General) George C. Kenney astounded his colleagues during maneuvers at Fort DuPont, Delaware, by air-landing an infantry detachment behind enemy lines.

In 1933, Batteries "A", "B", "C", and Headquarters, 2d Field Artillery were transported from Bejuca to Chorrera, Panama, a distance of thirty-five miles.[1]

On 12 March 1938, strong German forces were air-landed at the Aspern Airport, Vienna, during the occupation of Austria. On 7 October 1938, it was imperative for political reasons that occupation troops move into the Silesian town of Freiwaldau. To accomplish this movement, Von Rundstedt utilized 305 Junkers 52, in which he loaded a complete infantry regiment, approximately 2,800 men, with accompanying weapons. The landing was made on a very rough wheat field near Freiwaldau with complete success.[2]

From these operations, it was generally deduced that small combat groups could be landed within enemy territory and were capable of successfully performing specific missions such as demolitions, destruction of vital communication centers, bridges, and

other important structures. In addition, these small units, when operating in conjunction with mechanized forces, could reconnoiter in the area to obtain vital information, and seize and hold key positions at a considerable distance from the main units, pending relief by mechanized forces.

Despite these conclusions, the matter of organizing and training such troops in the United States Army did not receive serious consideration until after the Munich Conference in 1938. On 6 May 1939, the Executive in the Office of the Chief of Infantry suggested to G-3 of the War Department General Staff that consideration be given to the organization of a small detachment of air infantry.[3] It was noted that the infantry regiment was adaptable to such an experiment without material change in organization, and that a study would determine the kind of equipment and supply required, suitable missions to be performed, degree of control to be exercised by higher command, and collaboration with the Air Corps in obtaining the necessary aircraft.

The initiation of the proposed study eventually led to a discussion as to which branch should control the proposed development. The Chief of Engineers held that inasmuch as these troops were to be used primarily as saboteurs and demolition crews that their training and employment should properly be under Engineer direction. The Air Corps proposed that they should be "Marines of the Air Corps", to be designated as "Air Grenadiers". The Chief of Infantry insisted that airplanes were but a means of transportation and that the primary mission of such airborne troops was to fight on the ground as ground soldiers after they had landed. In the fall of 1939, at a three-way conference of the Chiefs of Engineers, Infantry, and Air Corps, the contention of the Chief of Infantry prevailed. Thus airborne troops came under the control of this branch of the service. The matter of control of the project continued to be a bone of contention for some time as will appear later in this history.

On 2 January 1940, the Chief of Infantry was authorized by the War Department to study the feasibility of air infantry and the practicability of the air transport of all types of ground troops included within the infantry division.[4,5] Later in January the Infantry Board at Fort Benning, Georgia, was directed by the Chief of Infantry to conduct a preliminary study and to develop and submit a general plan for the project.[6] On 25 April 1940, the War Department approved the Chief of Infantry's plan to organize a test platoon to function under the Infantry Board.[7] In addition, the Materiel Command of the Air Corps was directed to develop a parachute which would permit safer jumping and landing from a low altitude. At the end of April, the Commanding Officer, Flight "B" of the 16th Observation Squadron, Lawson Field, Georgia, was designated as the first airborne liaison officer for the project[8], thereby establishing the first official liaison for joint operations between the two army branches which were to play predominant parts in the later developments of the "Airborne Effort".

While development of the airborne project was in this rather nebulous state, the importance of airborne troops and some indication of the part they were to play in the war in Europe was vividly brought to general realization with the invasion of the Low Countries by Germany in May 1940. In the attack against Holland, Germany was faced with successive defense lines which, though not impregnable, would effectively retard the rapid advance of the German army and allow the Dutch sufficient time to destroy the bridges over the Maas and Waal Rivers. The capture of these key bridges intact was vital to the success of the German "Blitzkrieg" tactics and was accomplished by the use of parachutists who were dropped in the vicinity of the bridges, seized and held them against counterattack. Thus, when the Panzer units, constituting the ground element of the airborne-ground team, had pierced the defense lines and reached the bridges, further advance was assured, and with the crossing of these two river lines, the fate of Holland was sealed.

In Belgium, similar tactics were used to reduce Fort Eben-Emeal, key fortress of the King Albert Canal defensive line. Here a small force of airborne troops, approximately 100, both parachute and gliderborne, landed inside the fortress, imprisoned some 1800 defenders, and neutralized this key installation.

The employment of airborne forces in these two instances is of particular significance in its relationship to the development of the "Airborne Effort" in the United States Army. Not only was attention directed to the accomplishments of the comparatively small German airborne forces employed, but the relative bearing of their achievements in the attainment of the main objective provided a concrete example of the capabilities of airborne troops, when properly employed. The tactics of employment of these German airborne troops furnished an initial guide, which for a time at least, was to influence the development of the doctrine of employment of airborne troops in the United States Army.

Following the successful employment of airborne troops by the Germans as outlined above, by War Department order dated 21 September 1940, the Commanding General of the 2d Division was directed to conduct such tests as were necessary to develop reference data and operational procedures for air-transported troops. Because of the impossibility of foreseeing the size or composition of a force which might be required to meet a particular situation arising in the future, the tests were to be conducted so as to result in the assembly of necessary data permitting the rapid determination of the transport requirements and loadings of any size task force organized.

An infantry battalion was selected as a type unit to study. The tests conducted were to determine what equipment and personnel were to be transported by air, how they were to be loaded, and how many bombardment and transport airplanes would be required. Similar data was determined for artillery and other supporting services which would be required by a task force.[9]

C. The Test Platoon.

On 25 June 1940, the War Department directed organization of a test platoon, under the Commandant of the Infantry School at Fort Benning, Georgia, personnel to be secured from the 29th Infantry Regiment.[10] (Appendix No. 2) Lieutenant (later Colonel) William T. Ryder, who had previously heard that experiments in the dropping of personnel and supply by parachute were being conducted at Lawson Field, and who had subsequently filed his application for parachute duty with the Infantry Board, was designated platoon leader. On 11 July, Lieutenant (later Lieutenant Colonel) James A. Bassett was selected as assistant platoon leader. The first task undertaken in the organization of the Test Platoon was to select, from the 200 enlisted men who had volunteered for parachute duty, the authorized quota of 48. A flight surgeon was detailed from Maxwell Field, and he, with the aid of two assistants, began the process of selection which was based primarily on the highest standards of health and rugged physical characteristics.[11]

Organization having been completed, the Platoon moved into a tent camp located near Lawson Field in order to be as near as possible to the airplanes based there. An abandoned, corrugated iron hangar was made available and utilized as a combined training hall and parachute packing shed. To assist in getting the project underway, a warrant officer and four riggers, with twenty-one parachutes, were made available from Wright Field. The Test Section of the Infantry Board prepared an eight-week training schedule (Appendix No. 3) in which were incorporated all phases of parachute training from the first orientation flight and the packing of parachutes to jumping from airplanes in flight. In addition, a specialized training program emphasizing the technique of the parachutist and including one hour of callisthenics, tumbling, hand-to-hand combat, forced marches, and a daily three-mile run, was put into effect. This schedule was

superimposed upon a regular schedule of standard infantry training. With the initiation of this training program, the project was now definitely on the way.

Early in July, Lieutenant Colonel (later Major General) William C. Lee (who, as a Major in the Office of the Chief of Infantry, had rendered valuable service in fostering the parachute project), and Infantry Board representatives witnessed demonstrations of the jump towers at the New York World's Fair. Impressed with these demonstrations and visualizing the use of such towers as valuable training aids in the early stages of parachute training, Colonel Lee recommended that the Test Platoon be moved to Hightstown, New Jersey, for a week's training on these towers, which were the property of the euphemistically-named "Safe Parachute Company". On 29 July, the Test Platoon was moved to Hightstown in accordance with Colonel Lee's recommendation and there received one week's training. The results obtained were so satisfactory that two of these 250-foot towers were purchased and installed at Fort Benning, Georgia.[12]

One of the major obstacles confronting the Test Platoon at this time was the removal or revision of the provisions of paragraph 48, Army Regulations 95-15, prescribing 1500 feet as the minimum altitude from which parachute jumps would be made except in emergencies. The Platoon complied with this provision on initial training jumps, but felt that this altitude was not practical for mass jumps under combat conditions. Therefore recommendations were transmitted to the Chief of Infantry, through the Infantry Board, on 11 July 1940, that the regulation be revised as follows: "No jumps will be made at altitudes less than 1500 feet, except in emergencies and for training and employment of parachute troops."[13]

The recommendation was not favorably considered at that time by the War Department; however, on 21 August 1940, the Chief of Infantry was directed to train parachutists under the following instructions: "The initial jump for each individual will be made at an altitude of not less than 1500 feet; thereafter the altitude to be determined by the officer conducting training, but at not less than 750 feet without further authority."[14] This revision provided the authority under which jumps could be made at altitudes considered practical and commensurate with those made in combat.

Now that the project was well underway and held promise of eventually developing into one of major proportions, the old issue of control, which had been temporarily decided in the fall of 1939 at the three-way conference of the Chiefs of Infantry, Engineers, and Air Corps, again came to the fore. In June 1940, the G-3 Division of the War Department had recommended that the project be taken from the Chief of Infantry and placed directly under War Department G-3.[15] On 23 June 1940, the Miscellaneous Section of the War Department G-3 advocated that the project be placed under the Chief of Air Corps and stationed at Fort Bragg, North Carolina. General Arnold here entered the picture in support of this proposal.[16] General McNair, in one of his first official acts at GHQ, reiterated the previous contention of the Chief of Infantry, that the primary mission of parachute troops was ground action and that air transport was only another means of transportation; therefore control properly should be vested in the Chief of Infantry.[17] A later proposal of the War Department G-3 suggested that the project be placed under the direct control of GHQ, with location at either Fort Sam Houston, Texas, or at Mather Field, California.[18] On 27 August 1940, a conference was held in the Office of the Deputy Chief of Staff (General Bryden) to reach a decision establishing control and location of the project. After prolonged discussion, General Bryden announced that the project would continue at Fort Benning under the supervision of the Chief of Infantry.[19] Meanwhile the Office of Chief of Staff directed that GHQ give attention to the "organization, equipment, and tactical employment of parachute and air-transported infantry."[20]

The first parachute jump from airplanes in flight by personnel of the Test Platoon was made on 16 August 1940, from Douglas-built B-18, twin-engine, low-wing, medium

bomber aircraft. Each parachutist wore the standard Air Corps T-3, free-type, human escape parachute, and in addition, an emergency test type parachute.[21] The initial mass jump took place on 29 August 1940, before an imposing assembly of high-ranking officers and notables who were not only duly impressed but enthusiastic in their praise of the accomplishments to date and their faith in the future of the "Airborne Effort". Thereafter, mass jumps became a regular training feature.

D. Expansion of the Parachute Project.

On 16 September 1940, less than three months after the organization of the Test Platoon, the War Department authorized the constitution of the 1st Parachute Battalion. On 2 October 1940, the first paragraph of this order was amended to read: "The 501st Parachute Battalion is constituted and will be activated at the earliest practicable date at Fort Benning, Georgia". (Appendix No. 4.) The personnel of the Test Platoon were utilized in the organization of the battalion. Major (later Major General) William W. Miley was selected battalion commander.

With the activation of the first tactical parachute unit, increasing interest in the project became evident; adequate housing, special buildings, jump towers, and a better jumping area were provided. In October, high priority having been given to the project, new jump areas were cleared by CCC workers. After some delay in obtaining sufficient funds, three new training buildings were constructed at Lawson Field.

E. Air-landing Troops - Early Thought and Development.

Probably the greatest single impetus to airborne development and expansion was provided by the German invasion of Crete in May 1941. Here, for the first time in history, airborne forces were employed en masse in a combined effort of major proportions. The German Air Forces, obtaining complete aerial superiority, isolated the island, while glider-borne and parachute troops landed and stormed key installations. Maleme Airdrome was captured shortly after the initial landing and was utilized to land air-transported forces which completed the occupation of the entire island in short order. Prior to this operation, little consideration had been given to the use of gliders or powered aircraft for the landing of ground troops, emphasis having been placed entirely on the development of parachute forces. Here was a conclusive demonstration of the ability of glider-borne troops to effect tactical landings, bringing in with them heavy weapons and transportation essential to the success of sustained ground action in overcoming organized resistance. "Airborne Thinkers" seized upon this operation as an illustration of the unlimited capabilities of a balanced airborne force, comprising all the elements of the standard infantry division, and limited only by the cargo-carrying capacity of the available air transport. In July 1941, the Air Corps began experiments with gliders for the transportation of men and materiel, and the following month War Department G-3 called on the Air Corps to develop new cargo aircraft for an airborne combat team, to consist of an infantry battalion, an antitank company, a field artillery battery, and a medical detachment.[22]

The first air-landing unit of the United States Army was activated on 1 July 1941 at Fort Kobbe, Canal Zone, and was designated as the 550th Infantry Airborne Battalion, with an authorized strength of 22 officers and 550 enlisted men. Lieutenant Colonel (later Major General) Harris M. Melasky was selected as the first commanding officer of the unit. Personnel were all volunteers recruited from units stationed in the Canal Zone.[23] A short time after activation, the 550th was reinforced by the attachment of Company "C", 501st Parachute Infantry Battalion, which had completed its basic training at Fort Benning, Georgia.

A training program was prepared and put into effect emphasizing the employment of this parachute-air-landing team in the assault of key installations, particularly air

bases. Concept of employment envisioned parachutists dropping near the objective, seizing it and holding it pending the arrival of the air-landing component, with its heavier weapons and transportation. Only a limited number of aircraft were available for training purposes, these being B-18's, B-18A's, and C-39's. In the absence of sufficient aircraft, in most training exercises it was assumed that the force had been dropped or air-landed, following which the techniques of assembly peculiar to both parachutists and air-landing troops was emphasized, followed by the assault of the objective and defense against counterattack.[24]

In August 1941, the reinforced battalion, having been ordered to Rio Hato for a month's training, elected to make a tactical exercise of the move. Plans were made and orders issued for the air movement, the objective being the seizure of the auxiliary air field near Rio Hato. Coordination with the Air Corps resulted in 78 airplanes being made available for the exercise - 74 B-18's and 4 C-39's. An air movement table was prepared and a system for air-ground communication provided in the form of visual signals - flares, coded panels, smoke, etc. - no radio communication being available. Parking plans for aircraft were drawn up and both Air Corps and ground troops were thoroughly briefed. Since the route selected was over water, Mae Wests were issued to each individual.[25]

Troops enplaned at Howard Field, Canal Zone, and moving in two lifts, with the parachute element spearheading the attack echelon, completed the movement without mishap. By the time the air-landing element reached the target area (one hour later), the air field had been secured by the parachutists and was held for the landing of the powered aircraft. The entire operation was termed "a complete success" by the many high-ranking officers and notables present.

This tactical exercise is worthy of note in that it was the first major airborne training exercise in the United States Army, and because it vividly emphasized the requirement for:

(1) Complete staff coordination between Air Corps and airborne forces.

(2) Air-ground communication.

(3) The development of aircraft designed to transport ground troops and equipment. In addition, the effectiveness of the parachute-air-landing team as an effective striking force was vividly portrayed.[26]

Meanwhile, the Chief of Staff had been considering the organizing, for test purposes, of a special air-transported unit. On 27 June 1941, the Secretary of the General Staff sent an informal memorandum to the Assistant Chief of Staff, G-3, noting that the Chief of Staff desired action initiated immediately. The memorandum further advised that the initial steps should be the creation of type combat teams with such auxiliary troops as necessary,[27] and with the additional note that G-3 should "contact G-4, Air Corps, and go to it."

The new project was assigned to Major (later Brigadier General) Josiah T. Dalbey of the Operations Branch, G-3, who successfully "wet-nursed" it until 10 October 1941, when the War Department announced the activation of the 88th Infantry Airborne Battalion. (Appendix No. 5) Lieutenant Colonel (later Major General) Kibridge G. Chapman was selected as battalion commander.

The battalion was strictly an experimental agency, under the direction of the Chief of Infantry, with the preliminary mission of conducting tests pertaining to airborne troops. With its activation, the Infantry Board was relieved of further responsibility

in testing organization, equipment, logistics, training, and development of airborne units. Priority for the test program was established as follows: (Appendix No. 6.)

(1) Airplane transport, including proper combat loads and merits of airplanes then in service.

(2) Armament and special equipment.

(3) Tables of Organization and Tables of Basic Allowances.

(4) Tactical doctrine, including landing formations, liaison with air support units, tactical dispositions of small units for combat cooperation with parachute units, and defense of landing fields and the advance thereon.

(5) Training program for the Airborne Battalion, for preparing a standard infantry battalion for airborne missions, and special training for attached units of other arms and services.

(6) Training literature.

F. The Parachute Group.

With expansion of the parachute arm in immediate prospect, the requirement became evident for proper headquarters to plan and execute the expansion and to coordinate training activities. To provide the required controlling agency (Appendix No. 7), the Provisional Parachute Group Headquarters was activated on 10 March 1941, with permanent station at Fort Benning, Georgia,[28] and placed under the control of the Chief of Infantry. Lieutenant Colonel William C. Lee was assigned to the command of the Corps. It was stated (unofficially) at the time of the organization, that the Group would be called upon at a later date to submit recommendations for the permanent organization of Group Headquarters and Headquarters Detachment.[29] Immediate and constant attention was directed toward:

(1) The provision of training cadres for additional parachute battalions as the need should arise.

(2) Study of permanent Tables of Organization and Basic Allowances.

(3) Development of tactical doctrine for the proper employment of parachute troops.

(4) Preparation of training literature.

To attain maximum jumping-fighting strength in the lettered companies and at the same time to make them light, mobile, easy to transport and supply, all administrative personnel were placed in battalion headquarters and headquarters company. The administrative personnel in headquarters company were so organized as to provide for separate administration, and supply detachments, for lettered companies when a single company was to be used on a separate combat mission. Also, the administrative and supply organization of the battalion was such that the battalion was reasonably self-sustaining when acting on separate and independent missions. The lettered companies were so organized that each squad and platoon was a complete combat unit within itself, capable of limited independent action.

With the initiation of the expansion program, the Provisional Parachute Group found its functioning handicapped by shortages of specialized personnel. Already understrength, the 501st Parachute Battalion was further depleted when it provided a cadre for the 502d Parachute Battalion, which was activated on 1 July 1941.[30]

The activation of the 3d Battalion, 503d Parachute Infantry, was in the immediate offing. Unpredictable problems occasioned by school washouts, some cases of inferior battalion personnel, and transfers further complicated the situation. In addition, the entire problem of personnel procurement was "up in the air", pending a decision whether or not the National Guard would return to State service, and the authorization of an increase in the Army by Congress. Until those questions were decided, personnel for the activation of units in accordance with 1942 Troop Basis were not available. By 1 July 1941, the Replacement Training Centers had run dry and no men could be procured therefrom. When the Office of the Chief of Infantry asked for a clear-cut picture of the personnel situation, Colonel Lee commented, "I can well understand why you are confused as to our enlisted personnel. With the general intermixture right now, damned if we don't have trouble understanding it ourselves."[31] A partial solution was effected by making available Regular Army personnel of the 8th and 9th Infantry Divisions; nevertheless, the 502d Parachute Battalion was activated at reduced strength.[32]

To alleviate the personnel shortage, Colonel Lee and two of his staff officers visited the 9th Infantry Division at Fort Bragg, to secure 172 jumpers to fill the 502d Parachute Battalion. Major General (later General) Jacob L. Devers, the Division Commander, offered full cooperation, and his Chief of Staff accompanied Colonel Lee to each of his regimental commanders, who in turn permitted Colonel Lee to talk to company commanders. In addressing them, Colonel Lee stated that misfits, slow-wits, stupid and physically awkward men, chronic drunkards, habitual AWOL's, and offenders of military discipline would be promptly returned to their units.[33] Neither Colonel Lee nor his officers talked to the men directly, the proposition being presented by the divisional company commanders. Volunteers then reported to the visiting parachute officers at various recreation halls made available for consultation and examination. The results obtained exceeded the most optimistic expectations, approximately 1000 men having volunteered for the quota of 172 vacancies, including 400 non-commissioned officers who were willing "to take a bust" to volunteer for parachute duty.[34]

Results from the 8th Infantry Division at Fort Jackson, South Carolina, were not as satisfactory. Officers assigned for recruiting purposes with this division had not perfected the system used so successfully by Colonel Lee and his officers at Fort Bragg, and it became necessary to canvass the division several times before securing the required personnel. In summing up the results, Colonel Lee concluded, "The cow at that place has been milked dry....the 9th Division at Bragg is a fertile pasture....."[35]

By 14 July 1941 the personnel picture had brightened. The requested increase in allotment of grades and ratings for the Infantry Service Command (Parachutists' Course) and the establishment of a course for parachutists as a part of the Infantry School was approved 10 July 1941, thus constituting a permanent force (The Parachute School) to properly train all new men. (Appendix No. 8.) The effect of this increase was to constitute an organization and to perform a function which had been in operation, unofficially, with instructors furnished from the 501st Parachute Battalion. With the establishment of The Parachute School, the 501st Parachute Battalion was brought up to full strength in officers and enlisted men, and all were qualified parachutists. The 502d Parachute Battalion was also at full strength. Colonel Lee was enthusiastic in his report to the Chief of Infantry: "Please permit me to say that your Personnel Section has certainly played ball with us... ."[36]

During July 1941, a tract of land in Alabama was acquired to provide adequate training areas for the rapidly expanding program. Two hundred and thirty-five thousand dollars were made available for training facilities, and by 14 July, the local Quartermaster had initiated preliminary surveys for target ranges, jump grounds, auxiliary landing fields, roads, and ferries. Reporting to the Chief of Infantry on 14 July, Colonel Lee was optimistic about the future of the entire project. Only one minor

detail worried him: "I pulled my remaining hair out the other day when three parachutes failed to open, but the reserve parachutes functioned and the boys came through smiling."[37]

On 2 September 1941, the addition of 971 enlisted men for the Parachute Group was approved, thus clearing up a number of problems in personnel shortages. The activation of the 504th Parachute Battalion was stepped up to 5 October. By that date, there were three battalions at full strength, less basics, and one battalion at full strength, including basics. Loss replacements and some overstrength were also made available to alleviate further shortages.[38]

The training of the early groups at Fort Benning was that of the regular infantry organization, with stress on callisthenics, long marches, daily three-mile runs, and other exercises tending to develop the physical stamina which the contemplated employment of the parachutist envisioned. Also, perfection was demanded in map reading, use of the compass, scouting and patrolling, and proficiency in all parachute weapons. It was repeatedly emphasized to the parachutist that the method by which he entered combat would, of necessity, impose upon him greater problems than those of the regular infantry soldier; therefore he must excel in every respect. In addition, an intensive technical training course with the parachute was required. This course was divided into two phases:

(1) Parachute maintenance, which included folding, packing, inspection and repair; and

(2) Jump training, which included proper exit from the airplane, manipulations of the parachute in the air and on the ground, proper landings for water, forests, etc.

Under the Provisional Parachute Group, this training was designated as individual training of the parachutist.

The early training of the units of the Provisional Parachute Group was divided into two phases: (1) Squad, platoon and company training; and (2) battalion training. The objective outlined was completion of these two phases within sixteen weeks after the parachutist had completed individual training. The first phase, fourteen weeks, included basic subjects, technical weapons training, marksmanship qualifications, communication specialist training, jumping with combat equipment, squad, platoon and company exercises (day and night) following parachute drops in which technique of assembly, communication, etc., were stressed, combat firing with the assumption that the troops had been dropped, combat missions with troops jumping and proceeding on tactical missions with resupply accomplished by parachute.

The second phase, or battalion training, included field exercises in which the battalion operated on independent missions: Two training periods of seventy-two hours each, of sustained combat, attack and defense; and one battalion exercise, prepared by the Provisional Parachute Group Headquarters and serving as a test of tactical proficiency. In all instances, the techniques of assembly, movement without transportation, communication with only signal equipment dropped by parachute, aerial resupply, and all other matters peculiar to parachute operations were emphasized. This phase was completed in two weeks.

While this training program was initiated by the Provisional Group Headquarters, it was extremely difficult to maintain. Parachute troops were the "Infant Prodigy of the Army", and as such, created intense interest in all quarters. Frequent calls for "demonstrations" were received. Officials of higher headquarters wished to observe and to display the "Parachute Infantry"; army commanders requested the participation of parachute troops in maneuvers. Thus in November 1941 we find Colonel Lee deeply

concerned over frequent interferences with training. He complained to the Chief of Infantry that the Group had not been able to maintain an orderly and progressive training program. With the 502d concentrating its efforts almost entirely in preparing for participation in maneuvers, its other essential training had been spotty. The planning, preparation, and coordination of outside exercises and activities detracted from the efficiency of the small Group Headquarters in the conduct of normal training routine, and purely spectacular jumps of the units gave the wrong impression to the Army and public.[39]

Ten days before Pearl Harbor, Colonel Lee, hospitalized by an accident, renewed his drive for thoroughness in the essentials of training. In a letter which was read to all battalion and company commanders, he stressed combat training as the primary objective of the group, insisting that all obstacles to intensive combat training be eliminated; stating bluntly: "A unit which cannot fight is useless."[40]

G. Equipment.

From the beginning, parachute units at Fort Benning were handicapped by shortages of equipment, particularly parachutes, communication equipment, and ammunition. In May 1941, Colonel Lee wrote to Major Gaither, who in those days fostered the project in the Office of the Chief of Infantry: "Our communication equipment is zero. God knows we have got to have something with which to fight or else we will have to use megaphones for communication."[41] Major Gaither, although not directly responsible for equipment, pulled many Washington strings to hurry along the procurement.[42] Major Ingomar Oseth also pulled strings within the Office of the Chief of Infantry for the equipment needs of the parachute battalion. He was handicapped, as were all elements of the Army that early in the game, by a lack of material with which to work. "Gaither showed me your letter....in which you very kindly said you didn't blame 'Ingomar', but suggested that I stir it up." Major Oseth wrote to Colonel Lee: "I have been stirring the matter up since the parachute project was first placed in your lap, but I am confronted by the inexorable fact that it does little good to stir an empty pot. When there is something to put into the pot, the stirring will produce results, but at present the principal items of signal equipment asked for are non-existent."[43]

Despite this discouraging response, Colonel Lee continued to press his needs for essential equipment, providing the Office of Chief of Infantry with precise information on the nature and seriousness of the various shortages; ultimately, the necessary equipment was forthcoming.[44]

Meanwhile, liaison was maintained with private parachute manufacturers, the Army Air Corps, and other interested agencies. Captain (later Colonel) W. P. Yarborough, Test Officer for the Group, and his associates rendered valuable service in this respect, frequently visiting Wright Field, Irving Air Chute Company, the Maintenance and Materiel Commands of the Air Corps, Marine Corps installations at Lakehurst, New Jersey, and other centers interested in parachute development. From these and many other sources, they obtained the latest items of equipment to conduct tests, and voiced the opinion of the Provisional Parachute Group on modifications and development in parachutes, weapons, airplanes, gas masks; in fact, everything down to water bags.[45]

Throughout 1941, the parachute shortage continually plagued progress, because, as aptly stated by one of the early parachute officers, "A parachutist without a parachute is like cavalryman without a horse, only more so".[46] Manufacturers were unable to step up production to meet the requirements occasioned by the expansion of the parachute program. The Irving Air Chute Company contracted to produce 200 parachutes by 8 September 1941, and 100 per week thereafter, while Switlick Parachute Company promised 3750 packs, T-5 by July 1941. By 15 October 1941, neither company had delivered nor was ready to make delivery of any parachutes.[47]

In mid-September, the Group had a slim total of 208 parachutes, with new men coming in fast. The Air Corps obligingly diverted some of its own parachute appropriation to the Group for the purpose of badly-needed 'chutes and some of the deficit was made up by open-market purchase; meanwhile, pressure from many sources was brought to bear on the contracting manufacturers to fill their commitments more promptly.[48]

H. Command Echelon for Parachute Troops - The Parachute Regiment.

At the time the first parachute battalion was activated in 1940, the idea was prevalent in the General Staff that parachute troops would seldom, if ever, be employed in units larger than a battalion; therefore they were organized as separate GHQ battalions without provisions for any higher headquarters. The mass employment of German parachute troops in Crete and later in Greece led Colonel Lee to state, "After these successful operations, I think it would indeed be dull of us to say that parachute troops will seldom be employed in units larger than a battalion".[49] Colonel Lee felt throughout the life of the Provisional Parachute Group that it was inadequate to exercise the necessary tactical control which the situation demanded. For example, in the early life of the Group, the Table of Organization provided only two staff officers and a small detachment of ten enlisted men. The duties of S-1 and S-4 were combined in one officer, and the S-2 was also the S-3. This organization was adequate for the experimental stage, but obviously could not exercise supervision and tactical control over the expanded parachute organization as it existed in the fall of 1941.

The lack of a larger group headquarters also created many administrative bottlenecks. War Department orders assigned officers to the battalions rather than to the Group; thus, when it became necessary or desirable to transfer officers from one battalion to another within the Group, requests had to be referred to the Office of Chief of Infantry and then to The Adjutant General before they could be effected. Corps Area and War Department agencies repeatedly by-passed the Group with information and orders for the battalions. Even funds, requested by the Group, were in some instances allocated directly to the battalions. Without court-martial jurisdiction, the Group was again by-passed as each battalion was placed under the 4th Division for such jurisdiction.

Faced with these difficulties, Colonel Lee continued to agitate for a tactical headquarters from the Fort Benning end, while efforts to attain this objective were exerted in the Office of Chief of Infantry and the War Department. With the formation of tank groups to exercise tactical supervision over separate tank battalions, it seemed logical to conclude that a similar tactical control should be established for the parachute battalions. With this long-sought objective apparently within immediate grasp, one thing caused Colonel Lee to temper his recommendation: The fear that the change would remove the Group from the control of General Hodges, Chief of Infantry, who by his efforts in fostering the project from the beginning, had earned the sincere appreciation of all interested in the parachute program. He cautioned General Hodges: "I believe that your office can feel out the General Staff in advance on this matter, and, if your office can get informal assurance that no step will be taken at this time to remove the Group from your control, I go on record as heartily recommending the action prepared by your Training Section".[50]

The issue of a tactical Group Headquarters was adroitly side-stepped. While General Hodges was considering the paper for the establishment of a tactical group, Major Gaither suggested to Major Dalbey that an order be issued assigning the four parachute battalions to the Provisional Parachute Group; thus in effect, accomplishing the desired result without presenting the issue squarely. Major Dalbey agreed to the suggestion, pointing out that inasmuch as both the Group and the battalions were GHQ troops, it would be necessary for GHQ to issue the order.[51] Therefore, the matter was discussed with Colonel (later General) Mark W. Clark in order to accomplish the result

without further question or debate, and by 1 July 1941, GHQ was ready to issue the desired order, giving Colonel Lee all the prerogatives of a regimental commander.[52]

Late in 1941, the War Department was considering the idea of placing all parachute and airborne troops under the Air Support Command of the Army Air Corps. Colonel Lee, in a letter addressed to Colonel Miley, commenting upon this plan, stated that he felt there should be a special headquarters under GHQ or the Chief of Staff, charged with organization, development and training of all parachute troops, airborne troops, and participating Air Corps troops. He further expressed the opinion that this headquarters should be commanded by a Major General, "preferably an outstanding Air Corps officer", and that the headquarters not be subject to any chief of branch.[53]

In reply to this proposal, Colonel Miley advocated "a parachute force similar to the Armored Force". His plan envisioned a number of parachute divisions, to consist of three parachute regiments and one group of air transport. A senior Air Corps officer on the staff would coordinate and advise on aviation matters. To assign parachutists to the Air Corps would be a "step backward", because there might be no tactical headquarters, and they would be overshadowed by other interests.[54]

With the outbreak of the war, there was renewed interest in airborne activities, both in the War Department and in GHQ. Four days after Pearl Harbor, G-3 War Department initiated a paper on the subject of a command echelon for parachute units. The paper compressed in two pages the tactical lessons of European operations and our own maneuver experiment consisting of intelligence, operations, communication, supply, and staff sections.[55]

Over in GHQ, thought was developing along the same lines. General Clark, writing personally to Colonel Lee, stated: "I for one feel that these units should be expanded materially, for they are mighty handy to have around when a difficult job is to be done."[56] General Clark further stated that he had passed upon a paper recommending in substance what G-3 War Department had originally drawn up.

The Chief of Infantry, in commenting on the expansion, advocated the use of the term "regiment" rather than "group", pointing out that this term was more familiar to the average infantryman, and that a regimental organization insured that with each three battalions, a new regiment would be added. Then too, it seemed that there was something a little foreign to Infantry and akin to Air Corps in the word "group".[57]

On 30 January 1942, the War Department directed that four parachute regiments be constituted.[58] The existing battalions were expanded immediately into two regiments, both of which were initially understrength. The 503d Parachute Infantry Regiment was formed from the 503d and 504th Parachute Battalions, and received priority on personnel and equipment during its formation. The 502d had an initial strength of less than 900 men and did not reach its authorized strength until enough men had completed basic parachute training to provide fillers. It was planned to activate the other two regiments by May 1942.

Chapter 2

ACTIVATION AND MISSION

A. Requirement for Unified Command.

Early in 1942, it became evident that the "Airborne Effort" had progressed to a stage where unity of command was required to provide uniform organization, equipment, training, and effective liaison with the Air Corps.

Up to this point, the several airborne components had progressed satisfactorily under the rather loose control of the Chief of Infantry and now provided a nucleus on which a real airborne force could be built. However, it had become apparent to those individuals closely associated with the developments that continued expansion, with its accompanying problems, required the direction and supervision obtainable only by a command echelon provided for that purpose.

Under the existing arrangement, parachute units, upon completion of unit training at Fort Benning under the Provisional Parachute Group, passed to control of GHQ for advanced training and preparation for combat. At that stage, such units were only partially trained and equipped. Further tactical training, in the form of battalion and regimental day and night jumps, loading and unloading of supplies and air transport, combat team exercises with air-landing units - field artillery, infantry, and antitank - and advanced training with air combat teams, was required.

It was the consensus of those responsible for the training of these units that this advanced and combined training could be best accomplished by a unified command under which all parachute regiments could be grouped until such training was completed, at which time they could be released to commanders in the theaters of operation. Under such an arrangement, regiments could be progressively released upon completion of training and new regiments formed to replace them, assuring uniform methods, proper equipment, and the achievement of a high standard of training. In the absence of such a training headquarters and the probable dispersal of these units to various parts of the United States, it was feared that not only would the training task be more difficult, but the lack of suitable means to insure uniformity, coupled with the non-availability of transport planes, might lead to the collapse of training control.

Experience during the past year's operations had emphasized the vital part that the Air Corps would play in basic, unit, and combined training stages. It was known that at the beginning of 1943 transports would be coming off production lines in quantities adequate for a major airborne operation, and that the Air Corps was engaged in training a suitable force, pilots and staffs, for such an operation. It had become evident that lack of effective coordination between the Air Corps and airborne troops was primarily due to the absence of accurate, long-range information of airborne transport requirements. Obviously without such advance information, the Air Corps would not properly train crews and perfect training to meet the requirements of airborne troops.

As a solution to all of these problems, Colonel Gaither, in a memorandum to the Chief of Infantry, suggested the creation of an "Air Infantry Training Command", pointing out the pressing need for such a command to direct and coordinate all airborne activities and concluding that without such control, the airborne program might well bog down deeply, both from lack of air transportation and from lack of organization in advance planning to carry it beyond the basic air training for small parachute units which was then being accomplished under the Chief of Infantry.[1]

The reorganization of the War Department and the Army, effected 9 March 1942,[2] paved the way for the constitution of such a command as had been proposed by Colonel

Gaither. The creation of the Army Ground Forces and the merging into one command of the various Army agencies under which the several parachute and air-landing units were operating, simplified procedure and established unity of command. The establishment of the Army Air Forces, and the delegation to that headquarters of all functions, duties and powers, formerly exercised by the GHQ Air Force (Air Force Combat Command) and the Chief of the Air Corps, provided one air force command to which airborne units, through Army Ground Forces, could effect the coordination required to provide the long-range planning which had been so obviously lacking and which was essential to controlled, progressive airborne training.

B. Activation.

With the wheels now set in motion for a suitable headquarters to control the training of airborne troops and to provide effective liaison with the Army Air Forces, Army Ground Forces evidenced interest in the formation of a higher headquarters for all airborne troops. In a memorandum to the Chief of Staff, United States Army, on the subject of the Airborne Command, General McNair (Commanding General, Army Ground Forces) stated:

"1. In order to provide properly trained airborne forces for offensive action, this headquarters proposes to form an Airborne Command.

"2. The several components of an airborne task force have progressed separately to a point where their training and their common need for air transport requires direction, supervision, and coordination obtainable only by a command echelon provided for that purpose.

"3. The Airborne Command will operate directly under this headquarters to: organize and train especially organized airborne ground units such as parachute, air-landing infantry and artillery; continue airborne training of such other ground force units as may be designated; control the allocation for training of such Air Corps transport airplane or glider units as may be made available by the Army Air Forces; coordinate training with Army Air Forces combat units; determine operating procedures for airborne operations and supply of large forces; and cooperate with the Navy to determine operating procedure for joint airborne-seaborne operations.

"4. It is proposed to move immediately the Headquarters, Provisional Parachute Group from Fort Benning, Georgia, to Fort Bragg, North Carolina, and redesignate that Group as the Airborne Command.

"5. This information is furnished in view of the fact that such a command was not included in the original organization chart of the Army Ground Forces".

The Commanding Officer was empowered to activate airborne units under authority from Army Ground Forces.[3] Unit and airborne training and all organization were to be under the direction of Army Ground Forces. Liaison with the Army Air Forces, formulation and development of tactical training doctrine, and development and standardization of materiel and equipment were among the primary functions of the Airborne Command.

The Infantry School was to continue parachute jump training,[4] its graduates being assigned to the Airborne Command. The Replacement and School Command was designated to provide suitable officer parachute volunteers to be given parachute training at the School.[5]

The Airborne Command, as such, was activated 21 March 1942, at Fort Benning, Georgia, under the command of Colonel W. C. Lee, and included the following units:

Headquarters and Headquarters Company, Airborne Command.
501st Parachute Infantry, less one battalion (inactive).
502nd Parachute Infantry.
503rd Parachute Infantry (less 3rd Battalion, inactive, then at Fort Bragg, North Carolina).
88th Infantry Airborne Battalion.[6]

Under the memorandum from the Commanding General, Army Ground Forces, to the Commanding Officer, Airborne Command, it was agreed that the Airborne Command should be transferred from Fort Benning, Georgia, to Fort Bragg, North Carolina, on or after 1 May 1942.[7]

C. Key Personalities.

Two names in particular are synonymous with the Airborne Command: Major General William C. Lee, first Commanding General of the Airborne Command, leading exponent of airborne thought and development in the early stages of airborne history; and Major General Elbridge G. Chapman, the first Chief of Staff, and second Commanding General of the new headquarters.

Major General William Carey Lee was designated as Commanding Officer of the Airborne Command coincidentally with the constitution and activation of that command, effective 21 March 1942, and retained command until relieved to assume command of the newly activated 101st Airborne Division, 15 August 1942.

General Lee was born in Dunn, North Carolina, 12 March 1895. He attended Wake Forest College and North Carolina State University where he won letters in football and baseball.

General Lee entered the service on 15 August 1917, when he was commissioned a second lieutenant, Reserve, of Infantry. He saw active duty in France during World War I, as a platoon and company commander, followed by a tour of duty in Germany through 1 1919 with the American Army of Occupation.

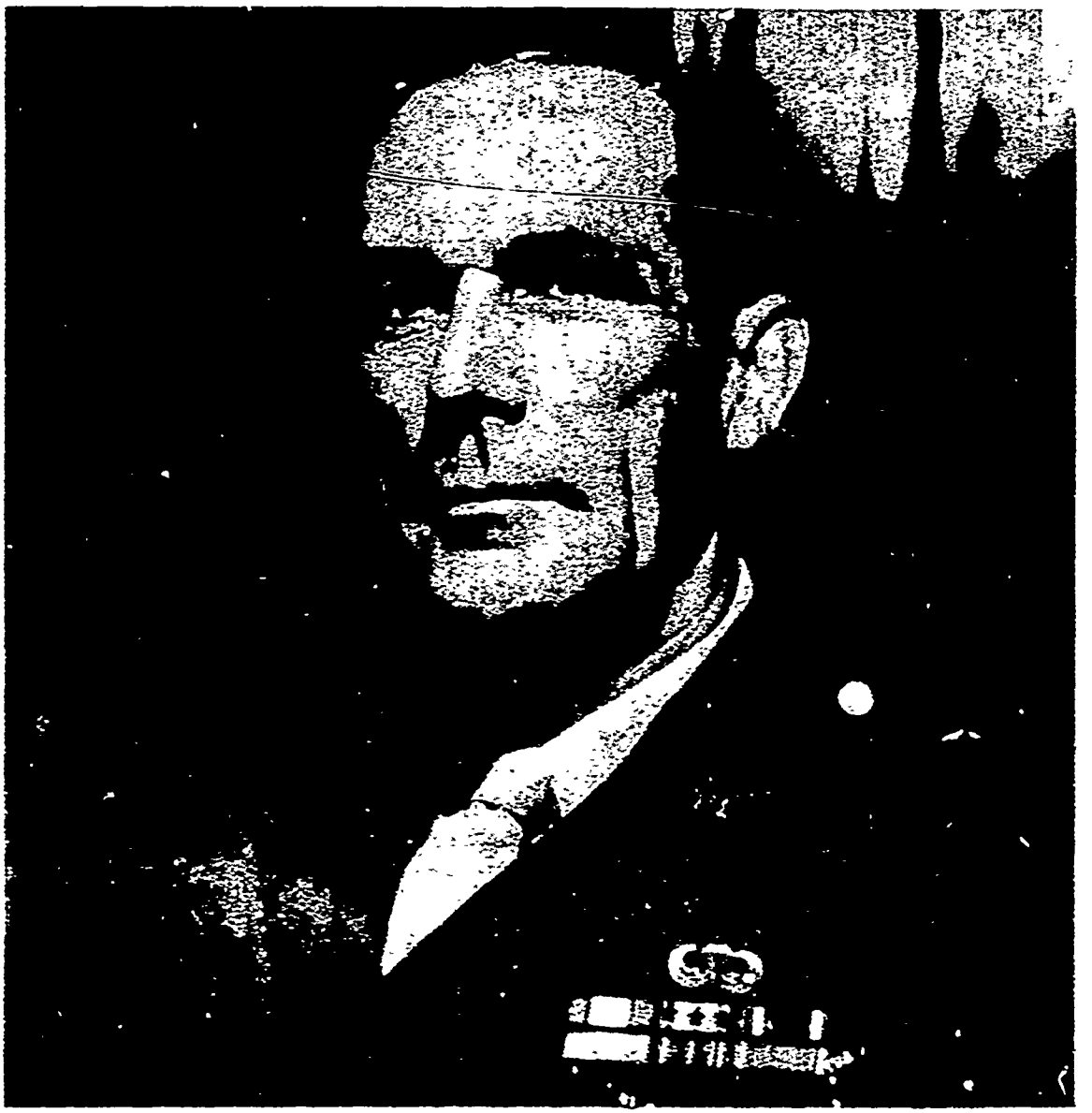
In 1922, he graduated from the Company Officer's Course at The Infantry School at Fort Benning, Georgia, following which he served for four years on the military faculty of North Carolina State College at Raleigh, North Carolina, and afterwards serving in Panama for three years. In 1930, he graduated from the Tank School, and three years later from The Infantry School Advanced Course.

In 1932, General Lee was sent to France and England as a military observer. He returned to Europe in 1933, and while in France, attended and graduated from the French Tank School. Upon graduation, he served one year with a tank regiment of the French Army, after which he returned to the United States in 1935.

For four years, he was an instructor in the United States Army Tank School and the Infantry School, at the end of which period he was ordered to the Command and General Staff School at Fort Leavenworth, Kansas, graduating in 1938.

After receiving his diploma from the Command and General Staff School, General Lee was Executive Officer of the 2d Infantry Brigade, 1st Division, and then was ordered to duty in the Office of the Chief of Infantry in Washington, D. C.

It was while on duty in the Chief of Infantry's Office that General Lee began to take an active interest in airborne development, and it was largely through his interest and efforts that parachute troops in the United States Army became a reality in 1940. On 24 January 1944, General Lee was awarded the Distinguished Service Medal, for



GENERAL WILLIAM CAREY LEE

exceptionally meritorious and distinguished service rendered in a duty of great responsibility while organizing and establishing the Airborne Command and the training of airborne units.

He was promoted to Major General to rank from 9 August 1942.

Major General Elbridge G. Chapman assumed command of the Airborne Command on 16 August 1942, and retained command until relieved to assume command of the 13th Airborne Division, 15 November 1943.

MAJOR GENERAL ELBRIDGE G. CHAPMAN

General Chapman was born in Denver, Colorado, 20 November 1895. He was graduated from the University of Colorado in 1917, and entered Federal Service with the Colorado National Guard on 20 June 1916, serving as a sergeant until 28 September 1916. He was commissioned a second lieutenant of Infantry in the Regular Army on 14 June 1917, and promoted to first lieutenant on the same day.

He was promoted to captain (temporary) on 22 November 1917, and resigned on 15 September 1919. He was commissioned on 1 July 1920, as a first lieutenant of Infantry, and promoted to captain the same day; to major on 1 August 1935; to lieutenant colonel

on 26 July 1940; to colonel (temporary) on 24 December 1941; and to brigadier general (temporary) on 30 July 1942.

With the Colorado National Guard, General Chapman served during the Border Crisis. From May until August 1917, he attended the Officers' Training Camp at Fort Riley, Kansas, and upon receiving his commission, was assigned to the 48th Infantry at Syracuse, New York. He went to France in September, 1917, and was assigned to the 5th Machine Gun Battalion. In October and November, 1917, he attended the I Army Corps School, then returning to the 5th Machine Gun Battalion.

He served at Chateau-Thierry, in the Vaux and Soissons areas, at St. Mihiel, in the Champagne Sector, and in the Meuse-Argonne Offensive. He was wounded in action on 3 November 1918. For bravery in action he was awarded the Distinguished Service Cross, the Silver Star with Oak Leaf Cluster, and the Purple Heart.

He entered Oxford University in England in April 1919, and in July 1919, returned to the United States. He resigned from the Army in September, 1919, and upon his return in 1920, was assigned to Fort Benning, Georgia, as Personnel Adjutant. He entered the Infantry School there in September 1921, and was graduated in June 1922 He remained at the Infantry School for duty until September 1923, when he was assigned to Northwestern University at Evanston, Illinois, as a Professor of Military Science and Tactics.

In June 1928, he went to Boston, Massachusetts, as Executive Office of the 18th Brigade, and in April 1931, he reported to Fort William McKinley, Philippine Islands, for duty serving with the 45th Infantry there. In June 1931, he moved to Camp John Hay, Philippine Islands, with that regiment. He became Liaison Officer between the Army and the Philippine Government in Manila in July 1932, and served in that capacity until August 1935, when he returned to the United States.

He became Aide to Major General Paul B. Malone at Headquarters of the Ninth Corps Areas at the Presidio of San Francisco, California, and in July 1936, he went to Fort Snelling, Missesota, for duty with the 3rd Infantry. He entered the Command and General Staff School at Fort Leavenworth, Kansas, in August 1937, and was graduated in June 1938. He then became an instructor at the Infantry School, Fort Benning, Georgia.

In July 1940, General Chapman became Chairman of the Attack Committee at the Infantry School. He was named to command the 88th Infantry Airborne Battalion at Fort Benning, in September 1941. Early in 1942, he was assigned to Headquarters of the Airborne Command. On 15 August 1942, he was named Commanding General of the Airborne Command. He was promoted to Major General to rank from 17 March 1943.

Chapter 3

EXPANSION AND DEVELOPMENT

A General.

From the date of activation (23 March 1942) to the date of reorganization (28 February 1944), the Airborne Command, in compliance with Army Ground Forces directives, devoted the major portion of its time and effort to the activation, training, equipping, and preparation of units for combat.

During this period, the search for better methods, perfected organization, and improved equipment, was continuous. With the expansion of the airborne effort from infantry alone to all elements of a division, other arms and services were developed and trained for airborne operations. In the attainment of this objective, the assistance and cooperation of the various service schools were timely and helpful; especially was this true of the Field Artillery School, the Infantry School, and the Antiaircraft School of the Coast Artillery.

Constant search was maintained for effective lightweight weapons and vehicles to increase the fire power and mobility of airborne units. The requirement was not limited to air-transportability alone, for ammunition, in quantity, had to be moved with the piece. In most instances, after landing, both guns and ammunition had to be man-handled into position.

The problem of supply by air was recognized as a challenge to the success of airborne operations, and as such, the Airborne Command devoted much time and thought to develop methods and techniques to provide the proper solution. The development of a workable communication plan for large-scale airborne operations, the perfection of organization, procurement of equipment, and training of signal personnel were matters of primary concern and major importance.

With the expansion of the glider program of the Army Air Forces, and the activation of the I Troop Carrier Command, glider training centers were established at Laurinburg-Maxton, North Carolina; Sedalia, Missouri; and Alliance, Nebraska, with the greatest activity centered at Laurinburg-Maxton. Through coordination with Army Air Forces, airborne units were later stationed at each of these bases and there received advanced glider training.

The Parachute School at Fort Benning, Georgia, previously operating under the Infantry School, was activated under the Airborne Command, and its facilities expanded to meet the ever-increasing demand for parachute personnel.

The requirement for the establishment of a training camp for the exclusive usage of airborne troops resulted in the selection of Camp Mackall, North Carolina, as the location, and construction was rushed through to completion in early 1943.

It is impossible in one chapter fully to cover all important events occurring during this period. This chapter will be devoted primarily to outlining major events in the development and expansion of the Airborne Command. Subsequent chapters will be devoted in detail to activities such as training, test and development, personnel, etc.

B. Activities From 23 March 1942 to 15 August 1942.

On 9 April 1942, the headquarters was moved from Fort Benning to Fort Bragg, North Carolina. Prior to the movement, Colonels Lee, Chapman, and Miley had visited Fort Bragg to survey facilities available for the Airborne Command Headquarters and the 503d

Parachute Infantry. For many years, Fort Bragg had been known in Army circles as the largest field artillery installation in the United States Army; consequently, the authorities there were inclined to view without enthusiasm the possible encroachment of any other arm of the service. The advance party, therefore, was not received with open arms, and initially the outlook was anything but bright. Despite this chilly reception, suitable barracks, motor shops and sheds for the use of the regiment as parachute packing, maintenance, rigging and drying buildings, were secured. Modifications necessary to adequately provide space and facilities to meet the requirements of the 503d were accomplished at an expense of $27,000. A portion of the old 9th Division area, including the former administration building, was made available for Airborne Command Headquarters. Arrangements were completed to use airplanes based at Pope Field for orientation flights and jump training. Suitable jump fields being non-existent, two fields sufficient for immediate training requirements were selected and cleared.[1]

With the Command Headquarters now established at Fort Bragg, Colonel Lee set about the expansion of his staff by the addition of key officers and enlisted personnel selected from the 88th Infantry Airborne Battalion. Colonel Chapman was selected as Executive Officer, Lt. Colonel (later Brigadier General) Charles L. Keerans, S-4 and Captain (later Colonel) Hugh P. Harris, Assistant S-3. (Appendix No. 9).

One of the first missions undertaken by the headquarters was the preparation and publication of the "Instructional Pamphlet for Airborne Operations", based primarily on the findings of the 88th Infantry Airborne Battalion, and providing the information necessary in the planning and execution of the movement of an airborne force and for the training of units in the technique of loading and unloading airborne personnel and equipment, employing all available types of air transports and gliders.[2] This pamphlet, prepared under the direction of the S-3, Lt. Colonel (later Major General) James M. Gavin, provided the data used in the air-landing training of the Second Infantry Division later in 1942, and was the forerunner of many such pamphlets prepared and published by the Airborne Command in the form of "Training Bulletins", for the guidance of airborne troops in the loading and unloading techniques of infantry, artillery, antiaircraft, engineer, signal corps, quartermaster, ordnance and medical units. (Appendix No. 10) Additional training aids in the form of training films and film strips were prepared and made available not only to airborne units but also to all units undergoing air-landing training, as follows:

"Airborne Mission", a training film for air-transported units.
FS 7-79 - General Information of the C-47 Airplane.
FS 7-80 - Loading and Lashing the 37mm AT Gun in the C-47 Airplane.
FS 7-81 - Loading and Lashing the 75mm Pack Howitzer in the C-47 Airplane.
FS 7-82 - Loading and Lashing the 1-ton Trailer in the C-47 Airplane.
FS 7-83 - Loading and Lashing the 1/4-ton Truck in the C-47 Airplane.

This project was initiated in early May, 1942, and by 20 September 1942, instructional pamphlets, training films and film strips were available for troop instruction.

In early June, the Airborne Command and the 503d Parachute Infantry were inspected at Fort Bragg by Secretary of War Stimson, Chief of Staff General Marshall, Prime Minister Winston Churchill, and other dignitaries and officers of high rank. Shortly after this inspection, the Second Battalion, 503d Parachute Infantry, left the United States for further training in England, the first U.S. airborne unit to move overseas.

Activation of new units and the expansion of others now followed in rapid order. The 504th Parachute Infantry was activated effective 1 May 1942; The Parachute School was activated under the Airborne Command, 15 May 1942; the 3d Battalion, 503d Parachute Infantry, 8 June 1942; Battery A, 215th Field Artillery Battalion, 15 June 1942; 700th Coast Artillery Battery, Separate (AA) (AW), 27 July 1942; 505th Parachute Infantry,

6 July 1942; 506th and 507th Parachute Infantry Regiments, 20 July 1942. (Appendix No. 11.) To supervise and control the training of all parachute infantry regiments stationed at Fort Benning, Georgia, Headquarters and Headquarters Detachment, First Parachute Infantry Brigade, was activated 20 July 1942.

In late May 1942, General Lee had been ordered to England to observe and study British airborne organization and technique, and to make recommendations concerning the organization and employment of airborne troops in operations then under consideration by the combined Chiefs of Staff. Upon his return to the United States, he recommended the activation of an airborne division in the United States Army. On 30 July 1942, Army Ground Forces ordered the activation of two airborne divisions - the 82d and 101st - effective 15 August 1942, at Camp Claiborne, Louisiana, activation to be accomplished by the Third Army with the divisions assigned to Second Army for administration and to the Airborne Command for training.

Initially, consideration was given to placing the two divisions under Second Army not only for administration but also for ground training. Howeve , General McNair ruled against this division of training responsibility, and the Airborne Command was given the full responsibility of the training of the two newly activated divisions.

General (later Lieutenant General) Mathew B. Ridgway was assigned to command the 82d Airborne Division, and on 15 August 1942, General Lee relinquished command of the Airborne Command which he had been instrumental in developing from the initial stage of a "Test Platoon" in 1940, to a command with corps responsibilities in 1942, to assume command of the 101st Airborne Division. General Chapman assumed command of the Airborne Command on 16 August 1942.

C. Activities From 16 August 1942 to 15 November 1943.

With two airborne divisions activated and the activation of additional divisions, separate regiments, and battalions contemplated in the immediate future, expansion of the Airborne Command Headquarters was necessary to plan, coordinate, and supervise properly the many airborne activities then afoot. On 20 August 1942, authorization for such expansion was provided by Army Ground Forces directive, creating a general staff. (Appendix No. 12).

Organizational plans for the 82nd and 101st Airborne Divisions called for the assignment of the 502nd Parachute Infantry to the 101st Airborne Division and the 504th Parachute Infantry to the 82nd Airborne Division, assignment to be accomplished when the divisions were moved from Camp Claiborne to Fort Bragg, in October 1942. Personnel for other parachute elements (artillery, engineer, medical, etc.) were to be recruited within the divisions, receive individual parachute training at The Parachute School, then rejoin the divisions at Fort Bragg to complete individual, unit, and combined training.

In October 1942, the 82nd and 101st Airborne Divisions moved to Fort Bragg where they were joined by the 502nd and 504th Parachute Infantry Regiments, and immediately engaged in an intensive training program. The month of October also witnessed the departure of the 503d Parachute Infantry - the first parachute unit to go to the Pacific Theater of Operations. It was later to win fame at Lae, Salamaua and Corregidor.

In November 1942, the Army Air Forces glider base at Laurinburg-Maxton, North Carolina, was completed and made available for the glider training of airborne units by the I Troop Carrier Command. A glider school was constituted at Laurinburg-Maxton with the mission of giving air-landing training to all airborne units. Also in November, the cargo glider, CG-4, was checked out of the experimental stage at Wright Field, Ohio, and in limited quantity, was made available for the training of these two divisions.

In addition to its other responsibilities, the Airborne Command had been directed by Army Ground Forces to train the Second Infantry Division for movement by air transport. This mission was carried out in Texas in September and October, 1942, with Fort Sam Houston as the base of operations. Instructional teams were organized and dispatched to San Antonio; mockups of the C-47 and C-46 transports were constructed; the division was streamlined by the deletion of non-airtransportable equipment and non-essential personnel; combat teams were organized; and the necessary coordination effected with the Army Air Forces. The training of the division in the loading and lashing of its equipment was only the initial state in this training program. Staff functioning in the planning and preparation for an air movement was outlined and emphasized; details including movement to marshalling areas adjacent to airdromes; control of traffic at the airdrome; methods of enplaning; liaison with troop carrier elements; organization for control after landing, and all other essentials were fully covered.3

As a second phase in the training program, a flying CPX was prepared and conducted. The third and final phase consisted of the air movement of the division, by combat teams (because of limited aircraft available), to Brackettville and Del Rio, Texas.

Coincidentally with the training of the Second Division, an airborne team was conducting tests in determining procedures of air supply at the Desert Training Center in California. As a result of the findings of this team, on 15 November 1942, a draft copy of the Field Manual FM 30-40, "Supply of Ground Units by Air", was submitted to Army Ground Forces by Headquarters Airborne Command. It was realized that this draft did not provide the "last word" in aerial supply procedure, but it did make available in written form valuable data not heretofore available, and after much discussion and very little change, was published in May 1943.

On 9 November 1942, construction began on the new airborne training center. Preliminary surveys had been in progress for some time and a general location known as the "Sandhills Recreation Area", near Hoffman, North Carolina, and approximately forty miles from the Fort Bragg military reservation, had tentatively been agreed upon prior to final authorization by the War Department. Consisting of 97,000 acres, 65,000 of which were government-owned at the time, this area was deemed ideally located for an airborne training installation. Although close to existing airfields, the entire area was remarkably clear of air traffic. Numerous large and reasonably level areas were available and suitable for parachute drop zones and glider landing areas; the sandy loam soil assured quick drainage; the terrain was well adapted for ground training and maneuvers; records showed the area free of flood dangers and health surveys indicated generally favorable conditions; railroad transportation was assured by the nearby Seaboard Railroad lines. With proper pumping and filtering equipment, an ample water supply was available, and nearby power companies could furnish all necessary electrical power without the need of camp power installation. The area was in the heart of the North-South Carolina Maneuver Area, which minimized the difficulties entailed in staging division or other large-scale maneuvers, and the location of air bases at Pope Field, Laurinburg-Marton, Florence and Lumberton assured adequate departure bases for large-scale airborne maneuvers.

Approved plans called for a camp to accommodate Headquarters Airborne Command, two airborne divisions, five parachute regiments, the necessary station complement, and Army Air Forces station troops--a total of approximately 32,000 troops. The site consisted of approximately 18,000 acres; 2,000 acres for cantonment areas, 5,000 acres for small arms ranges, 1,000 acres for the airfield, and 10,000 acres for the maneuver area.4

On 27 November 1942, orders were received directing the activation of the 11th Airborne Division at the new camp at Hoffman, North Carolina, followed on 31 December by orders for the activation of the 17th Airborne Division. With this added incentive, construction of the new camp was pushed with the greatest vigor. On 25 February 1943,

the 11th Airborne Division was activated at the new camp, and on 4 April 1943, Headquarters Airborne Command was officially opened at Camp Mackall, North Carolina, which was the name given to the new camp in honor of Private John T. Mackall, the first airborne soldier to give his life in the invasion of North Africa.

While construction of Camp Mackall was in progress, training activities at Fort Bragg and Laurinburg-Maxton were under full headway, with both the 82nd and 101st Airborne Divisions rapidly completing training required prior to their release to theater of operation commanders. Parachute operations centered in the Bragg Area with Pope Field as the air operations base, while glider training was centered at Laurinburg-Maxton Army Air Base, to which units of both the divisions were moved successively to undergo advanced airborne training.

The outstanding highlight of this period was a visitation on 22-24 March 1943 by a party of distinguished notables including Anthony Eden, Foreign Minister of Great Britain, Sir John Dill, Chief of Staff General Marshall, and many others. To provide a realistic demonstration of the capabilities of airborne troops, both the 82nd and 101st Airborne Divisions were employed in a simulated attack of the Fort Bragg area. Following a realistic aerial bombardment, parachute and glider troops landed in the vicinity of Pope Field, seized the air base and secured the area for the air-landing of a standard infantry division (simulated). This mission having been accomplished, ground action continued into the Artillery Range area where the artillery of both the divisions, reinforced by eight-inch and 240-mm artillery units, massed their fires in support of the ground attack launched by the 101st Airborne Division. By the use of live ammunition, pyrotechnics, and smoke, by both ground and Air Force elements employed in this phase of the demonstration, little was left to the imagination to visualize this exercise as a major combat operation. All visiting dignitaries highly praised this evidence of cooperation and close coordination between the airborne and Air Force elements participating, and also expressed the opinion that the airborne units were approaching the stage of readiness for combat. A short time after this demonstration (in April 1943), the 82nd Airborne Division was ordered from Fort Bragg to the Port of Embarkation for overseas shipment.

Prior to movement, material changes were effected in the organization of this division. The 326th Glider Infantry was withdrawn and replaced by the 505th Parachute Infantry; the 456th Parachute Field Artillery Battalion was added; one glider engineer company was converted into a parachute engineer company. Thus, the combat elements of the reorganized division consisted of two parachute combat teams and one glider combat team (each team comprising an infantry regiment, a field artillery battalion, and an engineer company), with one glider field artillery battalion additional - available as a general support battalion. The two glider field artillery battalions were equipped with the howitzer, 105mm, M-3, the first airborne field artillery units to be issued larger caliber artillery materiel than the 75mm pack howitzer.

On 5 April 1943, the First Airborne Infantry Brigade, commanded by Colonel (later Major General) Leo Donovan, and comprising Headquarters and Headquarters Detachment 88th Glider Infantry, 326th Glider Infantry, 507th Parachute Infantry, and 215th Glider Field Artillery Battalion, was ordered from Fort Benning to Fort Meade, South Dakota. The objective of this movement was to locate the tactical units of the Brigade in the vicinity of the Army Air Forces air base at Alliance, Nebraska, where Troop Carrier training was in progress, thus providing the opportunity for combined advanced training, not only for the airborne units but also for the glider and transport groups as well. While in this area, the 88th Glider Infantry was stationed at Fort Meade, with the 326th, 507th, and 215th at the Army Air Base, Alliance, Nebraska.

The 17th Airborne Division, commanded by Major General William M. Miley, was activated at Camp Mackall on 15 April 1943. On 28 April orders were issued for the

activation of the 713th Airborne Ordnance Maintenance Company and the 409th Quartermaster Company, in anticipation of the activation of the 13th Airborne Division, scheduled for 13 August 1943.

Realizing that the success of any airborne operation was greatly dependent upon the combined training and close cooperation of airborne and troop carrier elements, the Commanding General, Airborne Command, had recommended to Army Ground Forces that combined training of these two agencies be coordinated to the greatest possible extent and that the final test of an airborne unit's readiness for combat should be its proven ability to plan and execute an airborne operation, followed by a sustained ground maneuver against opposing troops. This recommendation received the approval of Army Ground Forces and concurrence of the Army Air Forces, which recognized the training value of such procedure to elements of the Troop Carrier Command.

In preparation for such a maneuver for the 101st Airborne Division, which was nearing completion of its training, the Airborne Command organized its first maneuver directorate and completed all necessary preparations for the staging and direction of a full-scale maneuver to be held in the vicinity of Camden, South Carolina, on 24-28 May 1943. Following this maneuver, the 101st Airborne Division, reinforced by the 506th Parachute Infantry, participated in the Tennessee Maneuver under Second Army. During the progress of these maneuvers and prior to its departure overseas, the division engaged in an airborne CPX, prepared and directed by Headquarters Airborne Command.

In July 1943, the Second Airborne Infantry Brigade was activated at Camp Mackall, with Brigadier General George P Howell as Commanding General. After completion of organization and training, the Brigade was ordered overseas in December 1943. Colonel (later Brigadier General) Ridgely Gaither succeeded General Howell as Commandant of The Parachute School.

On 10 July 1943, the Command, as well as all airborne units, was electrified by the news that the 82d Airborne Division had spearheaded the allied invasion of Sicily. Despite the fact that later detailed reports revealed that planning and execution of this mission left much to be desired, the effect on morale and the stimulus to training were immediate.

Many principles of employment, long advocated by airborne commanders and generally recognized as essential to the success of airborne operations, were violated in the planning and execution of this mission. As a result, by War Department directive, a board was constituted, comprising representatives of the War Department, Army Air Forces, and Airborne Command, with the mission of recommending procedure to be followed in the planning and execution of airborne missions in combined operations. The recommendations of this board were published as War Department Training Circular No. 113, "Employment of Airborne and Troop Carrier Forces". Throughout the remainder of World War II, adherence to the general principles outlined therein prevailed, and the basic principles were determined to be basically sound and not requiring major change.

During the months of August and September 1943, the expension program of the Airborne Command was practically completed. The 464th and 466th Parachute Field Artillery Battalions were activated on 1 August 1943; the 13th Airborne Division was activated at Fort Bragg, 13 August 1943, with Brigadier General (later Major General) George W. Griner, commending; the 597th Airborne Engineer Company was activated 1 August 1943; and the 541st Parachute Infantry, 12 August 1943. To supervise the training of the several separate field artillery units then existing, the 407th Field Artillery Group was activated at Camp Mackall, 5 August 1943. On 1 September, the 542d Parachute Infantry was activated at Fort Benning, Georgia.

During late September and early October 1943, General Chapman having been ordered to the European Theater as an observer, Major General Swing assumed command during his absence. On 15 November 1943, shortly after his return, General Chapman was assigned to command the 13th Airborne Division. On 16 November, Brigadier General Leo Donovan assumed command of the Airborne Command.

D. Activities from 16 November 1943 to 28 February 1944.

The outstanding events in the history of the Airborne Command during this period were the combined airborne-troop carrier maneuvers staged in December 1943 and January 1944, under the direction of combined airborne-troop carrier maneuver headquarters constituted for that purpose.5

Combined maneuvers under such a directorate had long been the objective of the Airborne Command, not only as a training exercise of inestimable value and a test of readiness for combat for both airborne and troop carrier forces employed, but also as the most suitable means of effecting the coordination required between the two agencies in the planning and execution of a major airborne operation.

The Troop Carrier Command recognized the value of such procedure, but participation in combined training and maneuver had been hampered by overseas shipment of troop carrier units on short notice and without suitable replacements, resulting in the frequent disruption of carefully planned training activities of both airborne and troop carrier units. Then too, in all prior combined maneuvers, troop carrier units and staffs had been made available on such short notice, and in such limited number, that in many instances the normal functions of troop carrier staffs had, of necessity, been performed by airborne staffs. Such procedure was definitely unsatisfactory, unrealistic, and not conducive to the attainment of success in combat airborne operations.

The Airborne Command had repeatedly brought this matter to the attention of the Army Ground Forces, insisting that remedial action be taken.

The solution was provided on 2 November 1943, when both Army Ground Forces and Army Air Forces issued directives covering "Joint Training of Airborne and Troop Carrier Units", (Appendix No. 13), setting forth the training policy and providing the instrumentability under which such training and maneuver could be accomplished.

Combined airborne-troop carrier headquarters was established 12 November 1943, at Camp Mackall, North Carolina, with Brigadier General Frederick W. Evans, Director of Maneuver, and Brigadier General Leo Donovan, Co-Director, and plans were developed for the combined maneuver to be staged from 6 to 10 December 1943. For the January maneuver, the officers were reversed.

The 11th Airborne Division, reinforced by the 501st Parachute Infantry, constituted the airborne force (attacking force). One combat team from the 17th Airborne Division, reinforced by one battalion of the 541st Parachute Infantry, composed the defending force. Participating troop carrier elements were:

53rd Troop Carrier Wing
Signal Company Wing
Pigeon Detachment Wing
436th Troop Carrier Group
437th Troop Carrier Group
438th Troop Carrier Group
439th Troop Carrier Group
879th Airborne Engineer Aviation Battalion
Air Evacuation Unit

The scope of the maneuver called for an operational period of five days, the use of four departure air bases, the flying of a circuitous route of approximately 200 miles, with at least one-half of the landings and assembly of airborne units made at night, and reinforcement, resupply, evacuation, and other support to be effected by air only.[6]

During the exercise, the 53rd Troop Carrier Wing utilized 200 C-47 transport aircraft and 234 CG-4A gliders (most of which were flown in double tow); landing 10,282 men, either by parachute drop, glider, or air-landing. One thousand, five hundred and four tons of equipment and supplies, including 295 1/4-ton trucks, 48 1/4-ton trailers, and 326 tons of supplies, were flown in and landed.

Total casualties for the maneuver, including air and ground operations, were two fatalities and 48 minor injuries.[7]

One month after the first successful combined airborne-troop-carrier maneuver, the same combined headquarters conducted the second maneuver (6-9 January 1944), with the 17th Airborne Division comprising the airborne force, and other elements, troop carrier and ground, commensurate with those employed in the first maneuver. The only change of importance was in the length of the flight from departure air bases to the target area, which was increased to approximately 300 miles.

The success of these two combined airborne-troop-carrier operations demonstrated the feasibility of committing the airborne division by air, without major loss of either personnel or equipment, when prior planning by efficient combined staffs preceded the employment of highly trained airborne and troop carrier forces.

Immediately following the second maneuver, Brigadier General Donovan was relieved of command of the Airborne Command, and assigned as G-3, Army Ground Forces. Colonel Josiah T. Dalbey assumed command on 22 January 1944. On 1 March 1944, the Airborne Command was reorganized and redesignated as the Airborne Center.[8]

Chapter 4

THE AIRBORNE CENTER

A. General

The Airborne Command was reorganized and redesignated as the Airborne Center by War Department order, effective 1 March 1944. The mission of the Airborne Center was essentially the same as its predecessor, the Airborne Command. Its activities were much less extensive. The sizable reduction of the troop list, occasioned by the completion of training and departure of the 11th and 17th Airborne Divisions and various smaller combat units, and the shifting of major administration fuctions to other headquarters, materially alleviated the responsibilities of the headquarters and decreased the demands made on it by subordinate units making possible a reduction of personnel and reorganization of staff.

The general staff was replaced by four operating sections: Adjutant General Section; Organization, Doctrine and Training Section; Supply Section; and Equipment and Materiel Section.

Units assigned to the Airborne Center for all training were 3 regiments, 1 battalion and 1 company (colored) of parachute infantry; 1 battalion of airborne infantry; a field artillery group, a field artillery battalion, and 3 battalions of parachute field artillery; an antiaircraft battery; 1 battalion and 1 company of airborne engineers; 1 airborne quartermaster company, 1 quartermaster company; and 1 airborne ordnance maintenance company. In addition, the 13th Airborne Division was attached to the Airborne Center for airborne training only.

Following the reorganization of the Airborne Center, orders were issued by higher headquarters materially affecting the status of many of the units assigned to the newly designated Airborne Center. Effective 10 March 1944, the 515th Parachute Infantry was assigned as an organic element of the 13th Airborne Division. At the same time the 466th Parachute Field Artillery Battalion and the 597th Airborne Engineer Company were assigned to the 17th Airborne Division.[2] On 8 March, the 542nd Parachute Infantry was reorganized and redesignated as the 542nd Parachute Infantry Battalion.[3] On 15 March, the 465th Field Artillery Battalion was reorganized as an eight-inch howitzer, tractor drawn, unit and reassigned.[4] The 410th Airborne Quartermaster Company was reorganized as the 410th Quartermaster Depot Company, and the 715th Airborne Ordnance Maintenance Company became the 715th Ordnance Light Maintenance Company[5] - both units passing from the command of the Airborne Center.

The 550th Infantry Airborne Battalion and the 1st Battalion, 551st Parachute Infantry, completed training and were ordered overseas in April 1944.[6]

Effective 7 July 1944, the 541st Parachute Infantry was released from attachment to the Airborne Center and assigned to the Replacement and School Command,[7] with the mission of training replacements for parachute organizations in the European and Pacific theaters.

With the departure of airborne units to overseas theaters and the reorganization and reassignment of others, the training of airborne units, heretofore the major function of the headquarters, was practically completed. Only three airborne units remained - the 13th Airborne Division, the 541st Parachute Infantry, and the 464th Parachute Field Artillery Battalion. Airborne training of these units was completed under the Airborne Center in late 1944 and early 1945, and all three units proceeded to the theaters of operations.

Airborne Training of Standard Infantry Divisions.

On 18 July 1944, orders were received directing the Airborne Center to conduct a course of air-transport training for six standard infantry divisions, with dates indicated:[8]

Unit	Station	Date to Begin	Date to be Completed
84th Inf Div	Camp Claiborne, La.	31 July 1944	19 August 1944
103rd Inf Div	Camp Howze, Texas	7 August 1944	26 August 1944
100th Inf Div	Fort Bragg, N. C.	4 August 1944	23 September 1944
78th Inf Div	Camp Pickett, Va.	14 August 1944	2 September 1944
76th Inf Div	Camp McCoy, Wis.	18 September 1944	7 October 1944
66th Inf Div	Camp Rucker, Ala.	18 September 1944	7 October 1944

To complete the air-transport training of these divisions within the time limit imposed by the Army Ground Forces schedule, five instructional teams were organized to do the job. Plans called for the use of sixty C-47 and sixty CG-4A mockups for each division. Three weeks were required to train each division, one combat team being trained per week. The 84th and 103rd Divisions completed the course of instruction and the instructional teams were prepared to move to the next two divisions when orders were received from Army Ground Forces cancelling the remainder of the training program, because of the "stepped-up" movement of these divisions to theaters of operations.[9] (Details of air-transport training are included in Chapter 6, Training).

B. Training Detachments, Schools, and Demonstrations.

In December 1944, participation in joint airborne-troop carrier training of troop carrier combat crew replacements was initiated.[10] At that time the I Troop Carrier Command, Army Air Forces, operated four replacement training unit bases, located at Bergstrom Field, Austin, Texas; George Field, Lawrenceville, Illinois; Sedalia Army Air Field, Warrensburg, Missouri; and Maulden Army Air Field, Maulden, Missouri. Each of these bases was engaged in the training of approximately eighty-five replacement crews per month.

To orient, indoctrinate, and instruct these combat crew replacements on pertinent airborne subjects, an airborne instructional team was placed on detached service at each replacement training unit base.

As agreed between Airborne Center and I Troop Carrier Command, instruction conducted by the airborne instructional teams was coordinated with the replacement training unit program and was classified as ground school training, and flying training.

Ground school training comprised a comprehensive course in the organization of airborne troops, the procedures that airborne troops were taught, and the knowledge required by troop carrier crews to obtain maximum effectiveness in airborne-troop carrier operations.

Flying training included actual flying problems, involving the dropping of free bundles and bundles from pararacks, and concluding with the planning and execution of a demonstration parachute drop involving the employment of actual troops and equipment, consisting of one parachute infantry platoon, one parachute field artillery gun section, and one parachute engineer squad. In the absence of combined airborne-troop carrier training, (not possible because all major airborne units were in theaters of operations) this procedure provided the means whereby replacements were prepared for operations with

airborne troops, and proved to be of such value that, at the request of I Troop Carrier Command, it was continued and remained in effect as of 1 September 1945.

In September 1943, at the request of Headquarters Army Air Forces, arrangements were completed by the Airborne Center to provide a short course of instruction on airborne tactics and techniques for Army Air Forces staff classes, after their completion of the course of instruction at the Command and General Staff School, Fort Leavenworth, Kansas and as a part of their general orientation on the functions of the various Army Ground Forces commands. Four such classes received instruction under Airborne Command between 11 September 1943 and 24 November 1943. On 24 December 1943, Headquarters Army Air Forces requested that arrangements be made to provide similar instruction to each Air Forces class completing the course at the Command and General Staff School [11] Subsequently ten classes received a three-day course of instruction under the direction of the Airborne Center. (Appendix No. 15).

In May 1944, in compliance with the request of Headquarters Army Air Forces School of Applied Tactics, Orlando, Florida,[12] arrangements were completed for a tactical small-scale airborne task force to participate in a combined tactical demonstration, staged monthly for the orientation and edification of graduates of senior officers attending the Army Air Forces Tactical Center. The first demonstration was staged 15 June 1944, and at the request of the Army Air Forces, participation in such demonstrations has continued regularly since that date.

Another activity engaged in by the Airborne Center, which also can be termed cooperation with the Army Air Forces, is "airborne training in safe loading for Army Air Forces glider pilots." The value of such training was recognized by the airborne headquarters in the early stages of joint airborne-troop carrier training. The opportunity to engage in such a training program for glider pilots was not present until early June 1944, when Headquarters I Troop Carrier Command, Stout Field, Indianapolis, Indiana, directed that sixteen hours of loading, lashing, and balance, be incorporated into the glider pilot training course.[13] Troop carrier officials at Laurinburg, Maxton, having no instructors qualified to prepare and conduct such training, called upon Airborne Center for assistance which was gladly provided. By 1 September 1945, sixteen classes had been instructed under the supervision of the Airborne Center, and the continuance of this type of instruction was contemplated as long as desired by the Army Air Forces. (Appendix No. 16).

C. Theaters of Operations Detachments.

Charged with the responsibility of developing and recommending the organization and doctrine, tactics and techniques of airborne troops, Headquarters Airborne Center, early in 1944, felt a crying need for constant and continuous contact with airborne troops in both theaters of operations. It was fully realized that airborne organization, equipment, and materiel were not perfect, having been hastily consummated and procured to meet emergency requirements, and being recognized at the time as only the most suitable expedient readily available.

Official operations reports and reports of theater observers clearly indicated that, practically without exception, airborne units, before engaging in combat operations, were modifying items of equipment and augmenting Tables of Equipment by the procurement of other items. Organization was constantly being changed to meet combat requirements. Reports available, through channels, to Airborne Center were generally insufficiently detailed to provide the information necessary for corrective action. In a letter addressed to Major General M. B. Ridgway, Commanding General, XVIII Corps, Airborne, General Dalbey stated:

"I am just in receipt of a top secret letter from _____. Of particular concern

was the listing of several airborne needs. As is the usual case, these items were not described in sufficient detail, or there was considerable doubt as to what work on them might be done in the United Kingdom, and exactly what work it was desired should be done in the United States. Needless to say, we are extremely anxious to do anything and everything that could possibly meet your desires and which might also be of benefit to our troops in the Pacific..... We are keenly conscious of the fact that we are far removed from the scene of action, and that our efforts to do constructive work for the benefit of all airborne units is hampered tremendously by this separation.... A solution would appear to be an overseas detachment of the Airborne Center, charged with the same functions as at present. In effect, it would amount to an advance and a rear echelon in which the advance echelon would be able to ascertain the needs of the troops in sufficient detail and the United States echelon could do a proper and expeditious job."[14]

In reply, General Ridgway stated: "I have thought for some time that there should be a development and research section here to serve our airborne forces in this theater, and have so recommended to General Brereton. I will let you know as soon as his decision is announced."[15]

As a result of this correspondence, Headquarters First Allied Airborne Army, on 29 August 1944, initiated a request, through channels, for four officers and twenty enlisted men from Airborne Center to be placed on temporary duty with that headquarters for a period of approximately ninety days. This request having received the approval of the War Department, such a detachment was prepared and shipped by air, arriving in the theater on 28 September 1944. Evidence of its attainments is reflected in the remarks of the Deputy Chief of Staff, First Allied Airborne Army, in a letter addressed to the Commanding General, Army Ground Forces: "This detachment, since its arrival, has been and is conducting a series of tactical evaluation tests relating to the development of airborne equipment, procedure and technique. This work has been most beneficial and it is essential that it be continued."[16]

In addition to the detachment mentioned, First Allied Airborne Army requested the services of "one officer with a tactical background and a general understanding of both glider and parachute materiel and operations. This officer would not be an integral part of the test section; he would work in and out of the evaluation and requirements section of the First Allied Airborne Army. It is recommended that this officer be sent at once, bringing with him complete data of tests, new materiel, developments, and other matters pertaining to airborne. He should be rotated on a one-hundred-and-twenty-day-basis, with a thirty-day overlap."[17]

In response to this request, Colonel Myron A. Quinto, Chief of the Organization, Doctrine and Training Section, Headquarters Airborne Center was ordered to the European Theater for temporary duty with the First Allied Airborne Army. Upon the completion of his tour of duty, he was replaced by Lieutenant Colonel John A. Wallace, Glider Officer, Headquarters Airborne Center, who in turn was replaced by Lieutenant Colonel John T. Ellis, Jr. These officers, in addition to their duties with the First Allied Airborne Army, established and maintained contact with the British airborne establishments, providing effective liaison between those establishments in the United Kingdom and the Headquarters Airborne Center in the United States. This liaison both with the United States airborne forces in the European Theater as well as the British establishments were maintained until V-E Day.

The value of direct contact with our airborne forces in the European Theater, not only to the combat units themselves but to the Airborne Center in the furtherance of the development of organization and materiel, led directly to authorization of a like contact in the Pacific Theater. Shortly before V-J Day, a detachment was sent to that theater.

D. War Bond Demonstration Teams.

In April 1945, at the request of the United States Treasury Department and in compliance with Army Ground Force orders, three War Bond Airborne Demonstration teams (each team consisting of four officers and 28 enlisted men) were organized and prepared to cooperate with the I Troop Carrier Command in demonstrations to be staged in 54 of the largest cities in the United States. (Appendix No. 17).

The demonstrations, sponsored jointly by the War and Treasury Departments as a feature of the Seventh War Loan Drive, were staged to provide the American public with an opportunity to view, at first hand and on a miniature scale, the work of airborne troops, Troop Carrier Command, and Army Air Forces, in simulated combat operations, as practiced in the European and Pacific Theaters of operation.

In each city visited, weather permitting, an "Airborne Attack" was launched in the logical sequence used so successfully in combat operations: First, a parachute echelon dropped and seized a landing area; second, reinforcements consisting of glider-borne troops with artillery, antitank guns, and transportation, were flown in and landed; third, resupply was landed by both parachute and glider; and fourth, wounded were evacuated by gliders snatched by troop carrier planes in flight.

These demonstrations were witnessed by thousands in each city visited and to use the phraseology of most newspaper accounts, "the Airborne Attack demonstration with its thundering planes and whistling gliders attracted probably the largest crowd ever gathered in this city."[18] Prior to and following demonstrations, the public was invited to inspect airborne equipment and materiel as well as Air Force equipment such as transport planes and gliders. During the "Airborne Attack", by the use of public address systems, narrators informed the spectators as to the tactics and techniques employed.

These tours began 1 May 1945 and were concluded 8 July 1945, during which time a total distance of approximately 27,000 miles was flown, 798 individual parachute jumps were made, and demonstrations were witnessed by an estimated four million persons.

E. Publications and Visual Aids.

In the accomplishment of that portion of its mission dealing with the development and recommendation of organization and doctrine, tactics and technique, and training literature and visual aids, the Airborne Center completed and submitted to Army Ground Forces, drafts on the following manuals:

(1) Technical Manual 71-210 - Air Transport of Troops and Equipment. (Published April 1945).

(2) Field Manual 71-30 - Employment of Airborne Troops. (Draft submitted April 1945).

(3) Field Manual 71-24 - Communications in the Airborne Division. (Draft submitted June 1945).

Airborne Training Bulletins, the publication of which was initiated under Airborne Command, and which had provided the means of quickly disseminating pertinent information to airborne troops, were revised in keeping with latest tactics and techniques, and new bulletins published as required. (Appendix No. 10).

Training charts, an immediate source of basic information required in planning for and preperation of airborne training and combat operations were constantly modified and kept up to date in keeping with the many and varied changes in airborne Tables of

Organization and Equipment. Those considered most noteworthy as a product of Airborne Center are:

(1) Compilation of Miscellaneous Data for an Airborne Division, 15 February 1944. Revised 15 March 1945.

(2) Compilation of Miscellaneous Data for an Airborne Division, 1 July 1945. Based on T-Series, Tables of Organization and Equipment.

(3) Radio Sets in Airborne Units, 25 April 1944.

(4) Aerial Delivery Containers, 10 April 1944.

(5) Parachute Delivery of 75mm Pack Howitzer, 15 August 1944.

(6) Compilation of Miscellaneous Data for an Infantry Division, 15 August 1944.

Training films and film strips covering all phases of airborne training from airborne maneuvers to details of parachute, glider, and air-landing training were prepared and used in the training of troops and in the conduct of staff classes. This type of development was a continuous process at Headquarters Airborne Center.

Chapter 5

PERSONNEL

Procurement of personnel for the Provisional Parachute Group was initiated in early 1941. The system developed at that time by General Lee has been previously outlined in Chapter I. Briefly, teams of parachute officers and enlisted men were organized, and operating through the commanders of units designated by the War Department, interviewed and selected the personnel required, applying the standards then prescribed by the War Department. (Appendix No. 18.)

In July 1941, the question of availability of trainees for parachute duty was raised in the announcement of War Department policy as to distribution of surplus trainees.

No change was made in existing requirements and qualifications for parachute units,[1] except to change the age bracket of selectees were to be drawn from two sources: certain units, and infantry replacement training centers. The units (the 4th, 8th, and 9th Divisions) were those previously designated to furnish enlisted men to the Parachute Group. To qualify for transfer from one of these divisions an enlisted man must have completed six months of service in an infantry regiment, and have at least six months of service ahead of him. If transferred directly from an infantry RTC he must also have six months still to serve, and must have had thirteen weeks of training.[2]

In December 1941, authority was granted through the Chief of Infantry, to procure 850 men from infantry replacement training centers at Camps Croft, Wheeler, and Walters. As requested by the Provisional Parachute Group Headquarters, two officers and four enlisted men were authorized to be sent to each of the three infantry replacement training centers for the purpose of assisting in the selection of volunteers for parachute duty. These parachute officers were authorized to interview all volunteers completing courses of instruction up to 15 February 1942. Upon completion of selection, they were to leave with the commanding general of each infantry replacement center a list of the names in order of priority desired, sending a duplicate list to the Office of Chief of Infantry. This office in turn consolidated the information and furnished the data to the Office of The Adjutant General who issued appropriate shipment orders.[2a]

On 9 January 1942, following the entry of the United States into the war, procurement policy was changed to accentuate the flow of parachute volunteers necessitated by the activation of additional parachute units.[3]

The change led to certain difficulties not experienced under the previous method of procuring parachute volunteers. Now selections were made by reception centers. Volunteers were earmarked for parachute duty and ordered to replacement training centers where they received thirteen weeks of training, then were shipped to the Infantry School, and ultimately reached the Provisional Parachute Group. The selection of volunteers by parachute teams, which had worked so well at infantry replacement centers and designated infantry units, was discarded and selection was now accomplished at reception centers by personnel who not only were not familiar with the basic requisites for parachute duty but also were apparently lax in applying the general standards prescribed by the War Department. Definitely, lack of uniformity in interpretation of directives and method of application by the various reception centers was indicated by the fact that many individuals selected under this system failed to meet the physical requirements stipulated by War Department directives. Also, considerable difficulty was encountered due to the fact that incomplete records accompanied new arrivals. Classifications were either inaccurate or incomplete; in one instance, a CAA licensed rigger with 150 test jumps to his credit reported to Camp Wheeler without this fact noted on his records. In some instances, parachute volunteers without prior military service were sent direct

from reception centers to Fort Benning instead of being sent to infantry replacement training centers as prescribed by War Department directive.[4]

Faced with the activation of additional parachute units provided for in the 1942 Troop List, General Lee was deeply concerned with the establishment of a workable system which would provide a steady flow of basically qualified trainees to The Parachute School. In reply to a letter received from Fourth Corps Area, 27 February 1942, advising that all applications for volunteer transfers to parachute units directed to that headquarters be held in abeyance until further instructions due to the fact that quotas allotted the Fourth Corps Area for parachute troops had been filled, General Lee stated:

"Reference to basic communication, request that necessary action be taken to authorize unlimited procurement of volunteers for parachute units through voluntary transfers. This method of procurement affords an excellent method of procuring desirable and basically trained personnel, and action requested above is deemed advisable at this time inview of the contemplated expension of parachute units. There are on hand at this headquarters thirty applications for transfer to parachute units that are being held in abeyance, in accordance with instructions in basic communication. Applications are being received at an average of fifteen per day."[5]

Meanwhile, personnel losses at The Parachute School had been showing a marked increase, considerably in excess of expected rates. Men were arriving in poor physical condition, certainly not prepared physically to undergo the strenuous training required of parachute trainees. It had become evident that a large percentage of new men had no intention of completing the parachute course but they had been attracted by the additional pay and the opportunity to change stations. Once the veil of glamor was drawn aside, revealing the basic fact that the parachutist must become a proficient ground soldier, undergoing the fatigue and drudgery of long and arduous hours of training before he ever jumped, much mind-changing took place among the newly arrived trainees.[6]

In a report based on an exhaustive study of personnel matters, Captain Ryder, then Executive Officer of the Parachute Section, Infantry School, stated:

"There is evidence that medical examiners at replacement centers, reception centers or various stations are not even complying with the existing general physical requirements. Specific cases have come to the addention of this headquarters where students have reported for parachute duty with the following faults:

"(a) Absolute defective vision beyond 20/40.
"(b) Over-age.
"(c) Faulty bone structure and previous operations that render them incapable of any heavy duty.
"(d) No previous examinations for parachute duty given at any time prior to reporting to Fort Benning.

"Regulations regarding parachutists are of such a nature that a man receives extra pay the day he begins parachute training, and continues to draw that pay until such time as he is placed on non-jumping status; in addition, any man at any time can be relieved from parachute training by merely making verbal request because this duty is of a voluntary nature. As a result, the following practices are observed on the part of students:

"a. Many students are fully aware that they will not jump from a plane in flight soon after they arrive, but instead of requesting relief immediately, they try to drag out their preliminary training period as long as possible by claiming an injury or sprain, thereby prolonging the extra pay period and deferring the final date when he either refuses to jump or requests relief from parachute duty.

"b. Many men are volunteering for parachute duty apparently because they either desire a change of station, are merely curious, or because they hope to avoid straight-line duty. They know they can request and obtain relief from parachute duty, no disciplinary action taken, no statements attached. Therefore, men "quit" the minute they find the work or training becomes physically difficult.

"The flow of students into The Parachute School is most irregular at this time, and apparently no regular or set system has been initiated which will insure a steady flow of volunteers to this station. As a result, many training hours are lost because of men reporting in such small numbers and at such irregular intervals that it is impossible to obtain maximum efficiency from training facilities and personnel."[7]

Captain Ryder's recommendations to correct this deplorable condition and to insure a higher standard of volunteers included:

a. Change and make more specific physical requirements.
b. Set up parachute volunteer replacement battalions at designated replacement training centers where physical conditioning can be emphasized and a true picture of parachute duty presented.
c. Send out selection detachments to replacement centers to select parachute volunteers pending the establishment of the parachute volunteer replacement battalions.
d. Issue letter directive to replacement centers and all stations directing that all parachute volunteers must be medically examined within thirty days prior to date of reporting for parachute training, and that this form must accompany students to the Infantry School.
e. Prepare recruiting publicity and data.
f. Obtain interpretations of parachutist's pay that prevent students who failed to qualify from receiving this pay during the training period.

The report took into consideration that, pending the adoption of a plan of this nature, some method of securing a constant flow of the desired type of volunteers should be initiated immediately, and suggested that this admittedly desirable end might best be accomplished by the establishment of a board, or boards, to visit reception and replacement centers for the purpose of interesting, interviewing, and examining prospective volunteers, as well as orienting procurement personnel as to the standards of volunteer desired.

While this plan, in its entirety, was never adopted, it served a definitely useful purpose in focusing the attention of higher headquarters on the need for immediate remedial action. Later, certain recommendations contained therein, became established procedure for parachute volunteer procurement.

The reorganization of the War Department in 1942 and the constitution of Headquarters Army Ground Forces, followed by activation of the Airborne Command, eliminated many of the devious channels formerly existing through which all personnel matters must pass. Soon thereafter direct and effective action was initiated to bring order out of chaos in personnel matters by the establishment of a headquarters charged with the responsibility of directing the flow of personnel within the Army Ground Forces.

By direction of the Army Ground Forces, the following provisions governed the procurement and training of parachute personnel as of 28 March 1942:[8]

1. Parachute volunteers were sent from reception centers to infantry replacement training centers where they completed the prescribed course of basic training, then were shipped to the Infantry School for parachute training under the Parachute Section. No personnel were to be diverted to other assignments except to officer candidate schools.

2. The Infantry School continued the present course of parachute jump training and specialist training.

3. Enlisted graduates of the parachute course, upon graduation, were assigned to the Airborne Command.

4. The Replacement and ... col Command was charged with the responsibility of providing an adequate flow of ... ar parachute volunteers for parachute training at the Infantry School. Upon com... n of the parachute course, graduates were to be assigned to the Airborne Command.

On 30 April 1942, Army Ground Forces directed the Airborne Command to appoint a board of officers, including one medical officer, for the purpose of proceeding to each replacement training center and examining parachute volunteers undergoing basic training thereat, with a view of eliminating individuals unsuited for parachute duty. This board was authorized to inform replacement training center commanders of all undesirable parachute volunteers. Upon receipt of such information, replacement training center commanders were to take the necessary steps to remove such individuals from the quotas earmarked for shipment to The Parachute School.9

In pursuance of this directive and policy, careful plans and preparations were made and followed. In general, the procedure was to submit a letter to the commanding general of the replacement training center one week prior to the arrival of the examining board, informing him of the expected date of arrival and of certain arrangements required to facilitate the examination. Mimeographed forms were prepared; films, pictures, posters illustrating training phases, were obtained as were various items of parachute equipment for display purposes. All of this material was used to present an accurate picture of parachute training, and to attempt to eliminate, then and there, undesirable volunteers.

At the replacement training center, the first step called for the assembly of all parachute volunteers for a brief talk, outlining the parachute training course and subsequent tactical training. Every possible attempt was made to present a complete and accurate picture of all phases of training. Films were then shown which illustrated the points emphasized in the preceding lecture. Following the films, question and answer periods were conducted, providing the prospective parachutist the opportunity to fully clarify any doubtful points that he might have had in mind. Information pamphlets and mimeographed data sheets were distributed for the further edification and orientation of the individual. A questionnaire was also provided for each prospect which he was required to fill in and sign.

During the next few days, individual volunteers were interviewed and examined, and finally a complete picture was again drawn in which the hardships and rigors of parachute training were clearly portrayed in a final attempt to discourage men unsuitable for the course. Finally a roster of those individuals who successfully passed all tests was prepared and a copy submitted to the commanding general of the replacement training center, with the recommendation that the volunteers listed therein be made available for parachute training.

While the establishment of this selection board partially solved the personnel problem by the elimination of many undesirables at the replacement training centers, it did not assure a steady flow of volunteers sufficient to obtain the maximum results from training facilities and personnel of The Parachute School, and to bring existing parachute units to full strength in jumping personnel. As the flow of enlisted men into the replacement training centers was irregular, the flow of parachute volunteers was irregular. General Lee felt that the existing plan for procurement of volunteers required further revision and revamping. On 9 May 1942, in a communication to the

Commanding General, Army Ground Forces, he presented the problem in detail and offered recommendations.[10]

In brief, General Lee proposed that the procurement and reassignment both of officers and enlisted men for parachute training be concentrated in the hands of a single agent within The Airborne Command, the Commandant of the Parachute School. For officers the procedure he recommended was that the Commandant be furnished immediately the lists of officers who had volunteered for parachute duty on file with the R&SC, Headquarters Army Ground Forces, and The Adjutant General and a list of those whose orders were being currently processed by the R&SC; that The Adjutant General issue a call for further officer volunteers "to the infantry at large" in the United States; and that the Commandant of the School be authorized to interview parachute applicants in the basic officer and communication courses of the Infantry School, with a view to selecting officers for assignment to parachute duty. As for enlisted personnel, General Lee recommended that in addition to volunteers in RTC's earmarked for parachute duty after completing thirteen weeks of training, and those approved for transfer from tactical units, volunteers be sought among enlisted men being trained in RTC's, to fill up quotas desired. Better to regulate the flow of parachute trainees, he recommended that given percentages of the parachute volunteers in RTC's be assigned to specialist training,[11] and the Commandant of the Parachute School informed of the number under each classification. In addition, General Lee recommended that the Commandant, The Parachute School, be authorized to report direct to the Commanding General, Replacement and School Command, the names of officers and enlisted men failing the parachute course, and request their reassignment to units other than parachute units.

Approval from higher headquarters was immediate. On 16 May 1942, Army Ground Forces directed the Commanding General, Replacement and School Command, to initiate action along the lines requested by General Lee.[12]

On 25 May 1942, the Secretary of War directed the Commanding Generals of Infantry Replacement Training Centers, located at Camp Wolters, Texas, Camp Roberts, California, Camp Croft, South Carolina, and Camp Wheeler, Georgia, to select each week from enlisted men undergoing training, 105 parachute volunteers for transfer to The Parachute School, Fort Benning, Georgia, this weekly quota to remain in effect until changed or cancelled by that office. During the period between 25 May 1942 and 15 June 1942, volunteers were to be accepted to the date of completion of training at the replacement training center. After 15 June 1942, they were to be accepted during the first eight weeks of training only, and before they had been included in a regular weekly availability report.[13] Qualifications set forth were those standardized as a result of innumerable medical reports and examinations. The volunteer must be alert, active, supple, with firm muscles and sound limbs, capable of development into an aggressive individual fighter, with great endurance. Age requirements were: Majors not over forty years of age; captains and lieutenants, not over thirty-two; and enlisted men, eighteen to thirty-two, inclusive. Medium weight was desired, maximum not to exceed 185 pounds; height, not to exceed seventy-two inches; vision, maximum visual acuity of twenty-forty, each eye; blood pressure, persistent systolic pressure of 140MM, or persistent diastolic pressure about 100MM to disqualify. Also on the disqualification list were recent venereal disease, evidence of highly nervous system, lack of normal mobility in every joint, poor or unequally developed musculature, poor coordination, lack of at least average athletic ability, history of painful arches, recurrent knee and ankle injuries, recent fractures, old fractures with deformity, pain or limitation of motion, recurrent dislocations, recent severe illness, operation or chronic disease.[14]

As the effective work of the selection boards (now increased to two) began to obtain results at the replacement training centers and The Parachute School was relieved of personnel failing to qualify in the parachute course, training efficiency increased, permitting the accommodation of more parachute volunteers. On 10 June 1942, the weekly

quota for each replacement [redacted] was raised to 125, with the priviso that this quota could be exceeded in any week provided that the monthly total from any replacement training center did not exceed 500.[15] By late June, a recapitulation of parachute volunteers in infantry replacement centers, who had been selected as suitable for parachute duty, showed a total of 6,393. Headquarters Army Ground Forces believed that when all of these men had completed the parachute course, the strength of parachute regiments should total 10,000 men - not far from the authorized quota for 1942 of 12,159 officers and men.[16] The procurement system now perfected was functioning smoothly.

In the attainment of this highly desirable state of affairs, credit must be given to the very effective work of the selection boards, who performed Trojan service at the replacement training centers, also to a similar board consisting of one parachute medical officer and two Medical Department parachute staff sergeants who made a recruiting trip to Medical Department, Replacement Training Centers, located at Camp Barkley, Texas, Camp Joseph T. Robinson, Arkansas, Camp Grant, Illinois, Camp Pickett, Virginia, and to the Medical Field Service School, Carlisle Barracks, Pennsylvania, for the purpose of interesting medical personnel in parachute duty. This board was absent from Fort Bragg from 26 January 1942 to 20 February 1943; traveled 4,300 miles by rail; lectured and provided demonstrations to more than 8,000 officers and men; secured 375 Medical Department enlisted men for parachute duty from a total of 2,000 interviewed and examined; and secured 40 Medical Department officers for parachute duty.[17]

Throughout the spring of 1942, in fact until the middle of July, personnel problems were well under control. By 15 July, General Lee was again becoming concerned over the flow of parachute volunteers to The Parachute School. On that date he addressed a communication directly to The Adjutant General, inviting attention to the fact that, although the Parachute School could accommodate 700 students a week in the basic parachute course, and present and contemplated plans required maximum utilization of this capacity, the existing quota provided for a total of only 500 a week. He requested that the quotas from each of the four infantry Replacement Training Centers be increased to 175 a week.[18] On 29 July 1942 the request was disapproved by The Adjutant General. Three days previously, the Army Ground Forces, after rebuking General Lee for disregarding the chain of command, advised him that two infantry divisions were to receive airborne training, beginning on or about 15 August 1942, and that it would be necessary for approximately one-third of the personnel from these divisions to receive parachute training.[20]

Subsequent events proved General Lee to be correct in his estimate of the situation. No parachute training was given to the two infantry divisions. Instead, two airborne divisions were activated (the 82d and 101st) 15 August 1942. On 17 August 1942, in response to a request from the Commanding General, Airborne Command, that the flow of parachute volunteers be increased in order that the 506th Parachute Infantry Regiment be brought to its authorized strength as quickly as possible, the Commanding General, Army Ground Forces, not only concurred but further stated that two additional parachute regiments had been authorized.[21]

The activation of the 82d and 101st Airborne Divisions created problems which heretofore had not entered into the personnel picture, inasmuch as parachute infantry had been the only element dealt with. Now for the first time, the procurement of artillery, engineer, antitank, antiaircraft, ordnance, and quartermaster personnel became necessary. Insofar as the first two airborne divisions were concerned, the problem was simplified to some extent by the decision of Army Ground Forces and higher headquarters to reorganize the 82d Motorized Division into two separate airborne divisions, utilizing personnel of the division to fill all elements other than the parachute infantry regiments, which already existed and simply would be assigned to the airborne divisions upon activation. Personnel of the divisions from elements other than infantry, upon volunteering for parachute duty, were sent to The Parachute School for training, and upon completion of the parachute course, rejoined the division. Additional enlisted

men required, other than parachutists, were shipped direct to the two divisions from replacement training centers upon requisition.

The matter of parachute officers for the two divisions was not so easily solved. On 21 August 1942, the urgent necessity of securing officer volunteers from the Army at large was brought to the attention of the commanding generals of all procurement agencies and tactical commanders by the Commanding General, Army Ground Forces.[22] The requirement for field artillery officers was brought to the attention of the Commandant, The Parachute School, by the Commanding General, Airborne Command, pointing out the existing authority for the Commandant, Field Artillery School, to canvass field artillery candidate classes and determine whether or not applicants met the required standards.[23] On 4 September, Airborne Command recommended to Army Ground Forces that action be initiated for a canvass of the Corps of Engineers and the Quartermaster Corps for officer volunteers to serve in the parachute elements of engineer and quartermaster units of airborne divisions. In this communication it was noted that such action had already been initiated by the Surgeon General and the Chief of Chaplains.[24]

Upon the completion of activation of the two divisions and careful analysis of the personnel in the light of their contemplated employment as airborne units, a rather critical condition was found which could be corrected only by higher headquarters. Reports compiled on the two divisions revealed that on 15 August 1942, 14 percent of the enlisted men were Grade V, whereas the normal expectancy on a nationwide basis was believed to average from 7 to 8 percent.

The average age of enlisted men in the divisions was comparatively high, there being 2,486 over thirty-three, and 447 over thirty-seven years of age. The withdrawal of officer candidates had caused a loss of leadership within the ranks, 384 officer candidates having already been sent out and 140 additional having been accepted by the division board from the 82d Infantry Division prior to its reorganization into the two airborne divisions. Also, there were officers assigned originally to the 82d Infantry Division, now with the airborne divisions, who were not believed suited for airborne duty.

In presenting this matter to Army Ground Forces, Generals Lee and Ridgway, in a joint letter, stated:

"In the type of combat in which airborne divisions are likely to engage, control will be decentralized to leaders of small units among whom casualties will be high. Accordingly, airborne divisions will require an unusually large number of junior officers and enlisted men of a particularly high order of intelligence, leadership, and physical condition."[25]

In order to reinforce the reserve of leadership within the two divisions, it was requested that officers, who, in the judgment of the Commanding Generals, 82d and 101st Airborne Divisions, had demonstrated unsuitability for airborne duty when reported so by name, be promptly transferred out of these divisions by competent authority; that enlisted men, who had demonstrated their unsuitability for airborne service by reason of low AGCT rating (Classes IV and V), impaired physique or disability due to age, conscientious objection, chronic air sickness, or temperamental inadaptability to airborne service, be immediately transferred.

It was also requested that enlisted replacements supplied the airborne divisions include only Class IV enlisted men or better; that officer candidates originating in the airborne divisions be returned to these units upon graduation; and that the airborne divisions be authorized a twenty-percent in overstrength in officers of the grades of first and second lieutenants.[26]

While these recommendations were not accepted in toto, Army Ground Forces generally approved the policy, stating:

"Instructions will be issued in the near future which will carry into effect the general recommendations contained therein. Recommendation that enlisted replacements supplied airborne divisions include only Class IV enlisted men or better is not favorably considered; however arguments will be made by this headquarters to have only enlisted men under thirty years of age assigned in the future as replacements."[27]

On 18 September 1942, this matter was further clarified and policy outlined by letter from the Commanding General, Army Ground Forces, addressed to all headquarters concerned.[28] (Appendix No. 20). Immediate improvement followed. The first steps had been taken to insure the maintenance of a desirable standard of officer and enlisted personnel in airborne units.

In early 1943, a new problem entered the picture -- the provision of parachute "filler and loss" replacements. At that time one parachute infantry regiment (503d) and one parachute infantry battalion (the 509th) were already overseas. The two divisions, 82d and 101st, were scheduled to move to theaters in early spring. Troop requirements for the year 1943 called for the activation of four additional divisions, each including one parachute infantry regiment and one parachute field artillery battalion. Four parachute infantry regiments had previously been activated and were undergoing training (the 501st, 506th, 507th, and 508th). In addition, Airborne Command had been authorized to accept and train 4,000 parachutists, to be used as "filler and loss" replacements for the parachute elements of the airborne divisions and the four separate parachute regiments.[28]

The immediate problem (later procurement became even more important) was the establishment of training facilities, equipment and personnel necessary to train officer and enlisted replacements. Toward this end, General Chapman, on 24 February 1943, submitted two plans to Army Ground Forces for consideration, stating:

"It is imperative that one of these plans be approved and put into effect without delay. It would be a critical oversight not to take cognizance of the training needs for these 'filler and loss' replacements .... They must be sufficiently trained to fulfill their functions as replacements for combat duty."[29]

In brief the two plans presented the alternative of individual versus unit training for replacements.

Plan No. 1 called for the training of replacements in a tactical training division of the Parachute School, to be composed of three training teams; viz., a tactical training team, a weapons training team, and a general subjects training team.

The purpose of the division would be to conduct a six-week course of tactical instruction for all "filler and loss" replacement graduate students of the parachute course. Such a course might be expected to accomplish two objects: (1) insure that parachute volunteers had received enough training to qualify them as an individually trained soldier; (2) determine the assignment within a parachute unit for which each volunteer was best suited and insure his qualification in the basic weapons with which he would be armed in that assignment.

The plan had obvious advantages. It would set up a permanent headquarters to train filler or loss replacements for parachute units. The instruction conducted under its direction would insure that loss replacements had the maximum qualifications that the individually trained soldier could attain under the existing thirteen weeks basic training program. Each replacement would be sent out definitely classified as a rifleman,

a crew weapons member, or specialist. Filler or loss replacements could therefore be supplied in terms of the requirements of tactical units, viz., a rifle company, or battalion headquarters and headquarters company. One disadvantage of the plan was that it called for additional equipment and personnel to be used purely for training purposes. It ran counter also to another basic AGF concept. The highest type of esprit could not be expected of the separate tactical companies thus formed inasmuch as these companies would have no parent unit but would simply be replacement companies.

Plan No. 2 called for the training of replacements in tactical parachute units preactivated and assigned to Fort Benning. A unit thus preactivated with authorization for complete equipment would fill its companies with replacement students and start each unit thus formed on a unit training program, which would be preceded by a six weeks' review training period. It would be understood that the unit thus preactivated would be subject to loss of any of its elements (companies, battalions) upon call by higher headquarters for a quota of replacements for combat duty.

General Chapman recommended that Plan No. 2 be put into effect only if troop requirements did not call for the activation of additional parachute elements during 1943. If they did, and a part of the units in existence were to be shipped overseas within six months, he believed that Plan No. 1 should be adopted and a permanent replacement training division established in the Parachute School.[30]

Plan No. 2 was authorized and put into effect, with the 513th Parachute Infantry Regiment initially utilized to administer the parachute loss replacement pool at Fort Benning.[31] This function later was performed by the 515th Parachute Infantry Regiment, following its activation.[32] The feeling of Army Ground Forces regarding the training of replacements was expressed in a report of the Executive Officer, The Parachute School, following his discussion of this matter with G-1, Army Ground Forces.

"Regarding the matter of creation of a replacement training establishment, the Army Ground Forces definitely does not desire to have personnel assigned to duties which may indicate that they will remain in "zones of interior" for long periods of time, and does not desire to establish a unit or to assign personnel to duties of such nature. On the contrary, they desire that such jobs as the training of replacements be accomplished by tactical units which will know that they are not to remain permanently in the rear; therefore they will be continually preparing for future combat assignments. Army Ground Forces realizes that from the standpoint of training of replacements, this may not be the most desirable policy, but from the standpoint of developing tactical units, it is the right policy."[33]

Requirements for shipment of replacements to theatre began in April 1943, and continued from that date to the end of activities in both theaters. The first shipment called for 1,332 enlisted parachute jumpers and 104 officers.[34]

The entire program (procurement and training) of replacements and fillers throughout 1943 and early 1944 was complicated by lack of definite information from higher headquarters as to anticipated requirements. Calls from overseas theaters greatly exceeded estimates upon which the replacement program was planned, and each was an emergency call allowing insufficient time to prepare to meet it. Such procedure soon resulted in the exhaustion of the replacement supply provided by the training regiment, delayed the flow of fillers to parachute units already activated, and in some instances resulted in the necessity of stripping tactical units in advanced stages of training preparatory to overseas movement. By the end of August 1943 the situation had become acute. The G-3, Airborne Command, reported that, "due to the fact that 900 infantry replacements were furnished for overseas movement, the fillers for the 508th and 501st were delayed indefinitely. Future plans for these two units require that remedial action be taken to insure that these units receive replacements with a minimum of delay."[35]

The Parachute School was fully cognizant of the situation but was unable to cope with it adequately for lack of advance information as to future requirements. Consequently, the flow of replacement personnel could not be regulated far enough in advance to meet unforeseeable demands. At a conference held 18 November 1943, to discuss and attempt to solve the replacement problem, Colonel Gaither, the Commandant, The Parachute School, presented the views of the School:

"The most acute future problem of The Parachute School is its function with reference to replacements and fillers. At present, nothing is known of how many fillers will be needed for regiments in the States or for overseas. Figures of one and one-half percent per month (training losses for units in the States), and one and one-half percent for units overseas were once indicated as normal expectancy. This would require a total of 14,500 for all existing parachute units. Neither Army Ground Forces nor War Department has set up any qualifications or allotment, either per month or per year.... The 515th Parachute Infantry (administor of the replacement pool) has men in all stages of training. Only one battalion has attended The Parachute School, and the morale of the regiment is at a low ebb due to the fact that for the past four months they have done nothing but process rejects from The Parachute School and overseas replacements.36

On 3 December, following the conference, a decision was reached which called for the designation of one unit (the 542d Parachute Infantry) to train and furnish parachute replacements for overseas shipments.37 In effect, this was reverting to General Chapman's Plan No. 1, which had previously been frowned upon but which now appeared to provide the best possible solution. Under this plan, it was hoped to: (1) free The Parachute School of the duty of training battle replacements, permitting this agency to proceed with its normal function of parachute training and supplying fillers to tactical units; (2) eliminate the erratic training level existing among replacement personnel previously supplied directly from The Parachute School to overseas theaters; (3) correct disciplinary deficiencies noted in replacements trained directly under The Parachute School where individual achievement was emphasized and the opportunity to stress unit discipline was limited.

A replacement training program was prepared and approved (Appendix No. 21), and the new replacement system began to function. In a very short time, it became apparent that this plan was effective. It remained in effect until the requirement for replacements ceased with the ending of hostilities in 1945.

The matter of additional pay, and the problems incidental thereto, cannot be overlooked in considering airborne personnel problems.

In 1940, there was no such thing as "parachute pay"; however, since parachute duty necessarily called for regular participation in aerial flights, "flying pay" was authorized. On 10 July 1940, one officer, six sergeants, and forty-two privates, 29th Infantry, (personnel of the Test Platoon) were attached to the Air Corps for temporary service (for purpose of complying with paragraph 2h, AR 35-1480) to permit them to qualify for flying pay.38 On 15 November 1940, the rating of "parachutist" was created and flying pay authorized for personnel so rated. But a limitation was placed on the number of officers, warrant officers and enlisted men who could attain this rating and thereby qualify for flying pay. Officers and warrant officers were so rated by the War Department upon the approved recommendations of commanders concerned. Enlisted men were rated by the commander of the parachute battalion, or other parachute unit, or parachute jumping school. But an enlisted man could not be rated as a parachutist unless he could be simultaneously rated as a specialist first class, and the number of enlisted men who could be so rated was restricted by the allotment of specialist first class ratings to the unit concerned.39

To alleviate the extra pay situation in the 501st Parachute Battalion, the War Department initiated action to increase the allotment of grades and ratings by 363 specialist ratings first class and to decrease its allotment by 57 specialists second class.[40]

With the expansion of the parachute program, the matter of extra pay became more complicated and critical. Throughout 1941, various efforts were made to establish procedure by which all parachute personnel could secure additional pay. Major Gaither pushed the issue from within the Office of Chief of Infantry, but to no avail. In September 1941, Colonel Lee reported to Major Gaither that this factor was a vital question among officers and men, and that they felt very strongly about their pay status. "I am sure that an organization such as ours, in which the duty is performed voluntarily by all individuals, small things which affect morale can easily develop into something serious.... This matter of pay is important and urgent", stated Colonel Lee.[41] The matter of extra pay for parachute duty was not completely clarified until the enactment of the Pay Readjustment Act of 1942, which provided additional pay at the rate of $100 per month in the case of an officer, and $50 per month in the case of an enlisted man, not in flying-pay status, who was assigned or attached as a member of a parachute unit, including parachute-jumping schools, and for whom parachute jumping was an essential part of his military duty.[42]

While the matter of parachute pay was definitely settled in 1942, a problem of equal, if not greater, import was presented to airborne commanders with the activation of glider units and their incorporation in airborne divisions. No provision was made for additional pay for glider troops, and apparently higher headquarters did not consider that there was justification for "flying-pay" or glider pay. The Commanding Generals of the 82d and 101st Airborne Divisions, as well as the Commanding General, Airborne Command, viewed the matter in an entirely different light.

On 20 October 1942, General Lee, now Commanding General of the 101st Airborne Division, addressed a letter to the Commanding General, Airborne Command, on the subject of "Pay for Glider Personnel", which set forth the requirement for the initiation of the necessary action for the procurement of additional pay for commissioned and enlisted personnel of airborne units other than parachute personnel. General Ridgway, Commanding General, 82d Airborne Division, fully concurred in the recommendation made by General Lee.[43]

In presenting this matter to the Commanding General, Army Ground Forces, General Chapman set forth the general principle that higher pay for increased hazards was fundamental in both military and naval services, and pursuant to this principle, special legislation had been enacted providing additional pay for qualified parachutists assigned or attached to parachute units. Attention was invited to the fact that approximately one-third of the personnel of an airborne division were classified as parachutists, thereby qualifying for additional pay under the provisions of the 1942 Pay Readjustment Act. He also stated his belief that the hazards involved in glider training and combat would be comparable to that of parachute activities. In addition, General Chapman pointed out that

(1) A uniform pay standard should be established for all units within airborne divisions since all of its combat elements were subjected to similar hazards in training and battle; (2) A higher standard of morale within the airborne divisions could be maintained if parachute and glider personnel were paid on the same basis, since the existing variance in pay created "branch" feeling rather than division esprit.[44]

Immediate action was not forthcoming, nor had it been expected. Meanwhile the problems resulting from the unequitable pay status of parachute and glider troops were ever present to plague airborne commanders. Heated discussions between parachutists and

glidermen frequently resulted in minor clashes. The parachutist, with his highly polished boots, parachute badge, and natty appearance, was admittedly a better dressed soldier than the glideman. His additional pay provided him with the material means with which he could procure many of the "good things of life", which the glideman's pay would not provide. These factors created a feeling of resentment on the part of the glideman toward the parachutist - a situation highly undesirable, and at times difficult to control.

The problem of morale became accentuated with the progress of training activities. During 1943 and early 1944, when advanced training called for tactical glider landings, not on air base runways but in open fields, glider crack-ups became frequent occurrences. Very few of these resulted in casualties, but the hazardous nature of glider activities came to be fully appreciated by all participants therein. As a result of such experiences, a group of photographs of several glider accidents made its appearance at the Glider School at Laurinburg-Maxton Army Air Base. A placard over this group of photographs bore the sarcastic slogan, "Join the Glider Troops! No Flight Pay! No Jump Pay! But Never a Dull Moment!" (Appendix No. 22.)

Gradually, the hazardous nature of glider duty became public knowledge. The press played up training accidents; members of Congress visited airborne training centers, and after participating in just one ride in a "flying coffin", (pet name given to the CG-4A glider by glidermen) became advocates of a more equitable pay status for glider troops. On 20 April 1944, the War Department authorized extra pay for glider troops by expressing the desire that all personnel in glider units be given the opportunity to volunteer for parachute duty within their present organizations. The directive on this subject stated in part:

"Pending revision of War Department Circular No. 92, 2 March 1944, duty in all glider units will hereafter be considered duty in a capacity which requires parachute jumping as an essential part of the performance of such duty. This will not be interpreted to require parachute jumping by glider personnel who have not volunteered for such duty."[45]

Later in 1944, Congress amended Section 18 of the Pay Readjustment Act of 1942, to provide additional pay for personnel who were required to participate in regular and frequent glider flights. This action became effective 1 July 1944, thereby eliminating the unequitable pay differential formerly existing between parachutist and glideman and placing both on the same pay basis.[46]

In connection with the preceding outline of the "extra pay" problem, it is considered worthy to record the feeling of parachutist towards glideman, and vice versa, as of July 1945, after airborne units had been engaged in combat throughout 1943, 1944 and early 1945. By this time, the parachutist fully recognized the hazards involved in glider flights, and most glidermen had qualified as parachutists. Each recognized the requirement for the other in a force of combined arms, and each enjoyed the respect and esteem of his fellow airborne soldier, whether parachutist or glideman. Insofar as tactical employment was concerned, it was generally recognized by all combat commanders that flexibility of employment required that all combat personnel within an airborne force should be qualified both as parachutist and glideman. In expressing his opinion on the subject of revision of existing airborne Tables of Organization and Tables of Equipment, General Maxwell D. Taylor, then Commanding General, 101st Airborne Division, stated in part:

"The terminology 'parachutists' and glideman', as indicative of unit distinction within the airborne division, should cease to exist; instead, units should be designated 'airborne', with all combat personnel qualified for commitment by either parachute or glider as necessity dictates."[47]

This opinion was concurred in by Major General Gavin, Commanding General, 82d Airborne Division, Major General Chapman, Commanding General, 13th Airborne Division, and Major General Miley, Commanding General, 17th Airborne Division.

Chapter 6

ORGANIZATION OF THE AIRBORNE DIVISION

TRAINING OF AIRBORNE AND STANDARD GROUND UNITS

A. General.

Training activities of parachute and airborne units preceding the activation of the Airborne Command, in March 1942, have previously been related in Chapter I. Those activities will not be discussed further, except as may be required to maintain the continuity of the training narrative. Instead, this chapter will be devoted to the analytical recording of training activities subsequent to the centralization of all airborne training responsibilities in the Airborne Command. Emphasis will be placed upon decisions by higher headquarters which affected training policy and procedure. Training objectives, difficulties encountered, action taken, and results achieved will be discussed from the viewpoint of the Airborne Command.

To prepare the reader for the detailed discussion of training activities which follow, it should be stated in the beginning that the training of airborne units and their preparation for combat, generally, was divided into the two categories of ground training and airborne training.

The method by which airborne troops normally entered combat, their limitations in strength, sustained firepower, transportation, communication, supply, medical care and evacuation, all imposed the necessity for the development and perfection of training measures to counterbalance these limitations. While the primary mission of the airborne soldier and the airborne unit was to fight on the ground, and ground training programs and procedures therefore closely followed directives from Army Ground Forces, certain modifications became necessary to accentuate techniques developed for the specific purpose of overcoming the limitations inherent in the airborne organization and the problems created by the methods of its commitment.

Entry into combat of an airborne unit (either by parachute and/or glider) normally followed an air movement of from 100 to 300 miles, culminating in deployment behind enemy lines and on terrain reconnaissance of which had, of necessity, been limited to the available maps and aerial photographs. Under these circumstances, contact with enemy forces could be expected immediately to follow landing. Limited communication facilities and dispersion of forces added to the difficulty of obtaining command control. Initial action, of necessity, was by individuals and small units.

Organic transportation was limited - so limited in fact that it was provided only for personnel and units whose functions could not possibly be performed without it, and then in a minimum degree. Service units were streamlined to a maximum, and an airborne unit could maintain itself in the field for only a limited-time without augmentation of service elements and transportation.

The training objective of the Airborne Command in the ground training phase, therefore, embodied all of the training prescribed by Army Ground Forces, plus that required to prepare the individual and unit for the additional difficulties occasioned by the limitations and method of commitment just outlined.

Airborne training was an entirely different matter. It involved a factor which was controlled neither by the Airborne Command nor by airborne commanders. This was air transport. Mockups could be utilized in training individuals and units to load and lash equipment, but such training was only the initial step in airborne training. To attain the high degree of training required to prepare airborne units for combat

operations, the availability of sufficient transport aircraft for the progressive training of a unit was essential. This training should begin with small unit training, progress to battalion, regiment, and combat team training, and finally conclude with the participation of the entire division or task force in a full scale airborne operation. Both General Lee and General Chapman were firm in the opinion that an airborne unit was not prepared for combat until this progressive training had been completed, and combined maneuvers with troop carrier elements successfully performed. Not only was this training essential to airborne units, but it was considered highly desirable for troop carrier elements as well, inasmuch as any airborne operation was, of necessity, a joint enterprise, the success of which required maximum efficiency and coordination of effort on the part of airborne and troop carrier elements participating.

With this requirement constantly in mind, Airborne Command battled continually for sufficient transport aircraft to accomplish the training considered so essential. Despite this fact, the availability of transport aircraft in 1942-1943, and early 1944, can be described in no other terms than "too little and too late". To this statement, many airborne commanders and thousands of enlisted men would undoubtedly add, "and not sufficiently trained". These statements are not made with the view of "indicting the Army Air Forces, or more specifically, the Troop Carrier Command", but rather as reflecting a condition which materially affected airborne training and ultimately resulted in the movement of several airborne units to theaters of operations prior to completion of training considered essential.

From a report of airborne operations "Husky and Bigot", prepared by Headquarters, Fifth Army Airborne Training Center, the following comments are extracted which reflect the status of training, both ground and airborne, of certain units:

"The ___ Division was in superb physical condition, well qualified in the use of infantry arms, in combined ground operations, and in individual jumping. It was extremely dificient in its air operations. The ___Troop Carrier Wing did not cooperate well. Training was, in general, inadequate. Combat efficiency for night glider operations was practically zero. The combined force of ___Airborne Division and troop carrier units was extremely deficient."[1]

The factors which resulted in this deplorable condition were not under the control of Airborne Command. Requests for sufficient aircraft to conduct training were made far enough in advance to insure the difficult coordination required. Higher headquarters, deeply concerned with procurement and shipment of transport aircraft and crews to overseas theaters to participate in impending operations, at times apparently did not realize that the employment of such aircraft, pilots, and crews was necessary to perfect the training of the troop carrier and airborne elements scheduled to participate in the same operations. An illustration is taken from the notes of a conference held 14 June 1942, at Headquarters Army Ground Forces, on the subject of "Air Transport Requirements for Airborne Training", attended by representatives of Army Air Forces, Army Ground Forces, and Airborne Command. In outlining the transport requirements of Airborne Command for the conduct of airborne training, Lieutenant Colonel Gaither stated:

"Two airborne divisions are to be organized and trained for overseas shipment, one in January and one in February. In addition, the 2d Infantry Division will receive airborne training and must be ready for shipment by 1 December. In order to accomplish this training, we must know how many transport planes we can have continually and how many planes we can concentrate, and at what time they can be concentrated. Also when we can expect the gliders."[2]

To this the Army Air Forces representative, Colonel Slater, replied: "One group working continuously with Airborne Command is about all that can be expected between now and January 1943". Colonel Gaither then explained that to train the troops expected

to fight in early 1943, Airborne Command could not operate on that small scale. In the general discussion which followed, it was brought out by the Army Air Forces representatives that they were working under a plan devised by higher authority and that the whole matter would have to be brought to the attention of the Plans Division in order that a reallocation of airplanes might be made.

Regarding gliders, one Army Air Forces officer stated that it was rumored that 165 would be available the first of October. Another said he had just received word that these would be delayed "a little". Both agreed that no glider pilots were available.

After general discussion, it was decided that the present commitments of the Army Air Forces would not allow enough transport airplanes to accomplish the airborne training program under the current strategic plan (Bolero). As a solution, it was agreed that Headquarters Army Ground Forces would initiate a letter setting forth Airborne Command transport airplane requirements in carrying out the training program directed, that this letter would be presented to Army Air Forces in order that they might attach an indorsement indicating that under their present commitments it was impossible to meet the requirements of Airborne Command.[3] On 1 August 1942, General McNair accordingly addressed a memorandum to the Chief of Staff, United States Army.[4] On 21 August 1942, War Department General Staff replied:

"Action has been taken to defer the transfer of one troop carrier group each in August and September if the situation at that time permits. To the extent that revision of the above shipping dates permit, the Commanding General, Army Air Forces, has been directed to make available for airborne troop training a total of three groups until 31 October 1942, and thereafter, four groups."[5]

It was already apparent that the problem of airborne training was to be the major training problem of Airborne Command, and that it would center on the availability of sufficient transport aircraft and properly trained crews and staffs to conduct essential training. Such proved to be the case. Although understanding of training requirements, both airborne and troop carrier, improved, never were enough gliders or powered transport airplanes available in training to move an airborne division in one lift. With this general analysis of the training problems, both ground and airborne, the history now returns to April 1942, to discuss policies and procedures then in effect and to continue the training narrative from that date.

B. Decisions of Higher Headquarters effecting Training Policy and Procedure. Plans for Training Standard Infantry Divisions. Parachute Training Program.

To present a complete training picture of the Airborne Command, it is necessary to point out the concepts of tactical organization and employment as they existed in early 1942. In some instances, these concepts changed with the progress of the war in Europe and the participation of airborne forces therein. Development and perfection of technique and equipment necessitated other changes. Training policy and procedure were kept abreast of the times, and changes were effected as requirements developed.

No more appropriate initial point from which to launch this narrative could be selected than the enunciation of policy regarding airborne training by the War Department, as outlined in a memorandum dated 18 April 1942, which stated in part:

1. No units other than parachute units and special task and test units will be organized solely for airborne operations.

2. All infantry divisions and automatic antiaircraft weapons units will so far as practicable be trained for airborne operations prior to departure of the unit to an overseas theater of operations....

3. Ground units will be trained basically for movement by transport and gliders....

4. The Commanding General, Army Ground Forces, is responsible for the ground training of ground troops for airborne operations; for the determination of equipment and personnel within each unit which will be moved by air; and for training and indoctrination in emplaning and deplaning of ground troops. This last will require close coordination with the Army Air Forces and will include combat exercises with transport airplanes and gliders. The Commanding General, Army Air Forces, will make airplanes and gliders available for this training.

5. The Commanding General, Army Air Forces, is charged with the development of doctrine and tactics concerning the movement of air troop carriers; their protection while in the air; and the air support by combat aviation at the objective and during subsequent operations....

6. All concerned must realize that the development of equipment, doctrine and tactical methods of operation for airborne operations will require wholehearted cooperation on the part of all commanders."[6]

This then was the policy of the War Department regarding the organization and training of airborne troops as of April 1942, and in the furtherance of the objectives set forth, Airborne Command was then fully engaged. The Parachute School was turning out trained parachute infantry volunteers; the Airborne Command was receiving the graduated parachute trainees, assigning them to tactical units, and directing the training of those units. The 88th Airborne Battalion, under direction of the Airborne Command, was developing the technique of loading and lashing the air-transportable equipment of standard ground units and preparing the logistical data incident to the air movement of such units. The training of automatic antiaircraft weapons units in the fundamentals of air-landing operations was in progress. In addition to these activities, extensive plans were being formulated for the training of all infantry divisions as contemplated under the general policy outlined by the War Department.

As of March 1942, the activation of airborne divisions was not contemplated by higher headquarters. Instead, especially organized and trained parachute units, with selected air-landing infantry and artillery units trained for air-landing operations, were envisioned as the elements of task forces assembled for specific operations. General McNair's policy regarding the constitution of special type units was well known. His belief in the principles of flexibility and economy was strong, and he was disinclined to organize manpower and resources for special needs which might never materialize, or which, if they did, might be less urgent than the need for standard forces.[7]

On 4 May 1942, policy regarding the training of airborne troops for the year 1942 was outlined in a letter from the Commanding General, Army Ground Forces, which stated that the tentative training objective assigned to Airborne Command was to train one infantry division and three parachute regiments for airborne operations by 1 December 1942. Concerning the availability of transport aircraft to participate in this training, Army Ground Forces advised that fifty transport airplanes would be available by 1 June-15 July; 100 transport airplanes after 15 July; gliders after 1 September; sufficient air transports to move the division and one parachute regiment for large-scale exercises after 1 September. Based on the availability of air transport as indicated, Army Ground Forces wanted to know:

a. When the Airborne Command would be prepared to initiate training of the division?

b. What period of time would be required for training elements of the division?

c. What use should be made of airplane mockups in the airborne training of an infantry division, and how many mockups would be necessary?[8]

In reply, General Lee advised that Airborne Command was engaged in perfecting detailed plans for the training of infantry divisions and automatic antiaircraft weapons units, and that this planning called for the setting up of instructional groups which could move to and conduct training at the station of the unit being trained. Preliminary preparations consisted generally of:

a. Determination of equipment and personnel within each unit, which would be moved by air, and preparation of reference data.

b. Detailed methods of training and indoctrination in enplaning and deplaning of ground troops and equipment.

c. Preparation of logistical data required for staff planning and staff operations.

d. Organization and training of instructional groups and demonstration units.

General Lee further stated that the ideal training plan called for sufficient supervisory and instructional personnel, and demonstration troops, to move to a division station and there to conduct the training of all elements of the division simultaneously, pointing out that in this way training time could be reduced substantially. Instructional units and demonstration teams would be provided by the 88th Infantry (when reorganized as previously requested) functioning under the supervision of staff officers of the Airborne Command. As to the other questions asked, he replied that:

(1) The Airborne Command would be prepared to initiate training of the infantry division by 1 July, provided thirty-eight transport airplanes could be made available as of that date.

(2) Six weeks would be required for the training of the first division; thereafter training time could be reduced as availability and efficiency of training teams increased.

(3) During the six weeks training period, no element of the division would be required to devote more than two weeks to airborne training.

(4) Mockups should be used in all basic training in loading, lashing, and unloading of personnel, arms, equipment, and supplies. For the training of one division, a total of thirty-eight mockups would be required: Twelve C-46; fourteen C-47; and twelve C-54A. The total cost of the thirty-eight mockups was approximated at $152,250, and the time required for construction was eight weeks after receipt of funds.[9]

While these preparations were underway to train infantry units in the technique of air-landing operations, the training of parachute units was not lagging. Airborne Command Training Memorandum No. 2, dated 15 May 1942, outlined the objectives and procedure for newly activated parachute regiments in detail. These training objectives were:

a. To train the qualified parachutist in those basic subjects necessary to produce an aggressive, resourceful, and effective individual soldier.

b. To teach the trained individual to carry out his assigned duties in the small combat unit and enable it to function as an integral part of a higher unit.

c. To train the parachute battalion to function as a combat unit, separately or as a part of a larger command, and be ready for combat service four months from the inception of this training program.

d. To train all units of the regiment in the performance of their specific duties in order that the regiment would be prepared to effectively carry out any task assigned by higher headquarters.

Training time consisted of a forty-eight-hour training week broken down into six eight-hour days.

Training periods were divided into four phases: The first two of six weeks each; the last two, four weeks each. The phases were:

(1) Individual specialist training;
(2) Basic small unit combat training;
(3) Advanced unit training; and
(4) Combined arms training.

The first training period began immediately upon the transfer of the qualified parachutist from The Parachute School to his assigned unit. During this period, the individual received thorough instruction in the employment of his principal arm, and was trained to operate effectively all other weapons in his platoon. Training in hand-to-hand combat, grenade work, bayonet and knife fighting, and physical conditioning were emphasized. Standard subjects such as scouting and patrolling and the tactical training of the individual infantry soldier were stressed throughout. Instruction in parachute packing and equipment drills, and at least two mass jumps were included.

The second training period stressed the importance of the individual as a part of a combat unit, and included thorough combat training of the squad and platoon. Instruction in varied problems and situations likely to be encountered by parachute troops was carefully planned and supervised by unit commanders. Small unit mass jumps followed ground instruction on similar problems in order that all phases of preparation and mechanics of actual operations would be understood and appreciated. All specialists, including medical personnel, were integrated with the unit and participated in its tactical exercises which were sufficient progressive length to insure that the unit could maintain itself in the field and could operate efficiently over an extended period of time and under adverse conditions. Details of supply and communications with small units in the field were carried out simultaneously with unit training.

The third period was devoted to company and battalion training, including extended field exercises, beginning with mass jumps of entire units and all equipment, with resupply by air throughout. By the end of this period, the battalion should be prepared to function effectively in combat.

An extended regimental field exercise initiated the fourth period of training, following which the unit participated in combined arms training with large units involving the use of supporting aircraft, air-landing infantry, etc. Emphasis was placed upon moving component units of the regiment under conditions likely to be encountered in the theater of operations.

During the second and third training periods, command post exercises were conducted to familiarize the members of various staffs with their duties in parachute operations. This entire program was to be completed and the regiment ready for combat duty within six months following activation, provided fillers arrived one week after activation.10

C. The Airborne Division.

While the Airborne Command was engaged in the foregoing activities, decisions were being made in higher headquarters which materially affected airborne organizations and training. Strategic plans were under consideration looking to the invasion of Western

Europe in April 1943. Airborne forces were included in the contemplated invasion force.[11] General Lee was ordered to England to analyze plans for the airborne phase, confer with British airborne commanders, and to make recommendations concerning airborne forces to be employed. Upon his return, General Lee recommended the activation of a formally organized airborne division, activated and trained as such, as the best possible solution to the problem at hand.[12] He reported that:

"In recent conferences abroad with British airborne commanders, the fixed opinion was held that enemy airfirlds and landing areas which will permit landing transport airplanes are generally so fortified as to make their capture a costly, if not impossible, operation. It is the experience of the British that it is highly wasteful to attempt to carry ordinary troops in gliders, as thirty percent must be eliminated due to air sickness. It has been found that the selection, physical standards and special training for glider troops must approximate that prescribed for parachute troops."[13]

General McNair's reaction to General Lee's recommendation is best stated in his own words:

"I believe that Lee's analysis of the situation (his paragraph 3) is sound. Consequently, we should inaugurate studies without delay, looking to the organization of whatever airborne divisions can be formed from one triangular infantry division, plus the available parachute regiments." (Appendix No. 23.) Further commenting on General Lee's recommendations, General McNair outlined, in general, his views as to the elements to be included in the proposed airborne divisions:

a. It seems that, based on Lee's conception, two glider and one parachute regiment are more logical than one glider and two parachute regiments. The airborne division is of the second phase, and comes into the picture after the first phase has been executed. It seems reasonable that the first phase would be executed by fewer troops than the second phase.

b. ...the division artillery should consist of a 75mm howitzer battalion for each glider infantry regiment, plus a composite battalion composed of a 75mm howitzer battery for each parachute infantry regiment, a 37mm antitank company (battery), and an antiaircraft battery.

c. Yarborough's engineer battalion is preferable to Lee's company.

d. Yarborough's signal company is preferable, also his quartermaster company.

e. An airborne division should be evolved with a stinginess in overhead and in transportation, which has absolutely no counterpart thus far in our military organization. (Appendix No. 23)

The matter of organization became the subject of staff study by Army Ground Forces staff divisions concerned. In commenting on the organization, the Training Division commented:

"It is believed that we should strive for an organization susceptible of maximum flexibility. Were divisional troops readily available for attachment (such as artillery, engineers, signal and quartermaster), the ideal solution would be the formation of numbers of parachute and glider regiments, and the making up of a task force as indicated by the situation. It is very difficult, however, to obtain auxiliary troops when they are not organic elements. The essential point is to provide in the T/O that the number of parachute regiments and the number of glider regiments may be varied to meet the training situation or to fit the specific combat operation." (Appendix No. 23.)

On 6 July 1942, General McNair (in a memorandum for record, the Commanding General, Army Ground Forces), proposed that the 82d Motorized Division be reorganized into two separate airborne divisions and utilized in the plan for European invasion in April 1943, each division to have a strength of 8,321, and to consist of a parachute regiment, two glider regiments, division artillery and service units. By such reorganization, two airborne divisions could be constituted without affecting the 1942 Troop Basic. This proposal was referred to OPD, which in turn communicated with General Eisenhower and concurrence was secured from both. (Appendix No. 23.) The organization, finally approved, carried out General McNair's conception, that of a miniature infantry division.[14] The parachute and glider infantry regiments had a strength of 1958 and 1605, respectively, in contrast to the 3000 of the standard infantry regiment. All service units were smaller than those of the standard infantry division. Weapons were much the same as the infantry division with a predominance of lighter types; the artillery consisted of thirty-six 75mm pack howitzers. In contrst with some 2000 in the standard infantry division, vehicles numbered 408 motors and 239 trailers, a total of 647, with a preponderance of 1/4-ton trucks and 1/4-ton trailers.

Tables remained substantially unchanged throughout the period of training in the United States. But all airborne commanders, after reaching theaters of operations, departed considerably from their tabular organization, rearranging resources and augmenting forces to meet the requirements imposed by each mission. This tendency was accentuated by the frequent assignment to them of combat missions beyond the capability of the airborne division as constituted.

The concept of employment envisioned by General McNair, General Lee, and other airborne authorities instrumental in establishing the tabular organization, envisioned the use of this specialized striking force for definite missions wherein the manner of their commitment made possible the attainment of complete surprise, which, followed by aggressive ground action, would be the decisive factor. The capture of beachheads, key terrain positions, air bases, road nets, and the immobilization of enemy reserves, etc., in quick decisive action followed by holding action preceding the arrival of the main body of the attacking force, were embodied in the doctrine of employment and constituted the primary factors upon which training was based. Sustained ground action beyond a period of six to ten days was not contemplated; consequently, the organization was ill equipped for employment for sustained action beyond this period of time.

In the theaters of operations, this doctrine did not always prevail. The mere fact that the organization bore the name "division" seemed to obscure the fact that it was actually a "miniature division," limited in strength, fire power, transportation, communication, and ability to sustain itself in prolonged ground action. The fact that normal commitment by air enabled the airborne division to "hurdle" enemy defensive installations seemed to create the impression that it was a highly mobile ground force, capable of occupying and holding sectors beyond even the capabilities of a standard triangular division. (Appendix No. 24.) Sustained ground action for periods of thirty days (sometimes longer) became the rule rather than the exception. Either success exceeded expectations and all available forces were required for the exploitation thereof, or the situation was more critical than anticipated and relief of airborne troops could not be considered favorably; in either event, the results were the same. Consequently, airborne divisions gradually began to assume organization somewhat commensurate with that of the standard infantry division. In August and September 1944, tables were revised to bring them into line with the organization which had actually developed in the theaters.[15]

D. Training of Airborne Divisions.

At the time of activation of the 82d and 101st Airborne Divisions, Army Ground Forces contemplated that the two divisions would be placed under Second Army control

for general ground training, supply and administration, and under the Airborne Command for airborne training only. General McNair disapproved the plan for the reason that it created an undesirable division of responsibility.[16] As finally issued 21 October 1942, the training directive placed the divisions under the Airborne Command for training, and under the Second Army for supply and administration.[17] This was the policy pursued with subsequent airborne divisions.

The training directive prepared and issued by the Airborne Command, 4 November 1942, was in accordance with the instructions contained in this AGF letter.* The objective was to produce well-trained, hard-hitting, fighting teams capable of orderly movement by air transport and able to operate effectively in combat. Training was to follow the normal progression through individual unit and combined phases. All units were directed to follow applicable parts of the directive, with the following exceptions:

(1) Individuals taking special parachute, riggers, communications, and demolition courses at The Parachute School were to be brought to the training level of their organization, by special courses of instruction if necessary, by the end of the unit training phase.

(2) Parachute artillery battalions were to continue jumping of personnel so that each parachutist jumped at least once a month.

(3) The two divisions (less parachute infantry regiments) were to begin the sixth week of unit training on 9 November 1942, their personnel having already gone through the earlier phases.

TRAINING PHASES

Individual Training:

During the thirteen weeks of individual training, all troops were to be hardened physically and mentally to withstand modern combat requirements. All individuals were to be conditioned to withstand extreme fatigue, loss of sleep, limited rations, and existence in the field with only the equipment that could be carried by parachute, glider, or transport aircraft.

Men were to be mentally and physically conditioned for battle field environment by the use of all of the training aids and measures normally employed in the training of standard ground units, such as obstacle courses, night fighting courses, street fighting courses, etc., with emphasis on the method of the airborne soldier's entry into combat.

An indication of individual proficiency and a basis of test was considered the ability to make a continuous foot march of twenty-five miles in eight hours, a five-mile march in one hour, and a nine-mile march in two hours, with full equipment.

Unit Training:

By the end of the ninth week of unit training, infantry battalions were to be able to function efficiently in the field, by day or night, independently or as a part of a combat team. Training progressed, as with standard divisions, from platoon to company and battalion, with emphasis on assembly of units and organization for combat following parachute drops or glider landings. Stress was laid on the careful preparation required prior to commitment and on aggressive teamwork after landing. Combat firing exercises emphasized infiltration tactics, rapid advances and continuous fire support. Battalion tactical exercises included training in air-ground liaison, proper and prompt requests for air support, and air-to-ground recognition training for aerial supply.

Field artillery training in general followed "Unit Training for Field Artillery (Modified for Airborne Field Artillery)". Stress was placed on decentralization within batteries to the end that self-contained gun sections were capable of delivering prompt fire, using both direct and indirect laying with hastily computed firing data in the early stages of any action. Training also included the operation of batteries, battalions, and division artillery as units in order that the artillery would be capable of delivering massed fire when battalion or division control was obtained. In this phase of training, tactical exercises were conducted, wherein the infantry battalion was supported by a battery of field artillery (standard training for infantry and artillery).

Division engineers were trained primarily in normal engineer combat duties. Since the limitation of engineer equipment to that transportable by airplane or glider or dropped by parachute imposed a definite handicap in the performance of normal engineer functions, emphasis was placed on such activities as equipment and transportation would permit, such as demolitions, construction of road blocks and tank traps, and clearance of mine fields. Engineer units also received thorough infantry training, enabling them to perform infantry functions, if necessary, dictated (as it frequently did later).

Medical units were trained to perform the normal functions of such units in ground operations and in the methods employed in evacuation by powered aircraft or glider. Limitation of transportation normally available to such units (ambulances), necessitated the development of techniques to convert 1/4-ton trucks and captured vehicles to this usage.

Quartermaster units were trained in all phases of ground and aerial supply, including packaging of supplies for parachute and free dropping, and for transport in aircraft. Combat training, to include local defense of supply installations, was mandatory.

Ordnance units were trained to repair standard ordnance and known enemy weapons and vehicles, and to supervise ordnance supply. In addition, they were trained in infantry tactics enabling them to defend ordnance installations or to assist in all around defense if necessary.

Signal units were trained to operate all communications equipment authorized for the airborne division with emphasis on the capability of all personnel to operate all types of equipment. Preparation of signal equipment for parachute dropping or transport in aircraft was a normal part of training, as was the maintenance of signal equipment.

Antiaircraft elements were trained in the normal procedures standard for such units. Ranges not being available at Fort Bragg or Camp Mackall, units were moved to the Antiaircraft School at Camp Davis for a portion of their training. These units were also trained as component parts of combat teams in the support of either offensive or defensive ground action.

Combined Training:

In the combined training phase, combat team and divisional tactical exercises were staged. Tactical situations which required the complete staff planning of airborn operations were the background of each exercise. All exercises required or envisioned the presence of appropriate troop carrier and air support elements. But the paramount importance of the ground operation was impressed on staffs and troops. During this period, each individual was given training in the assault of permanent land fortifications and was subjected to overhead artillery, machine gun, and mortar fire.

Airborne Training:

The plans for airborne training called for a course of instruction for division, regimental, and battalion staffs, prepared and presented by Airborne Command and staff officers, including lectures on characteristics of aircraft, historical examples, safety rules, air-ground liaison, load computation, tactics of airborne operations, aerial resupply, and coordination with troop carrier and air support units. This course was followed by instruction in basic operational procedure conducted by instructional teams provided by the Airborne Command. Divisions thereafter conducted basic airborne training. All division echelons viewed training films and attended conferences where appropriate airborne subject matter was presented by way of orientation and instruction. Loading and lashing of equipment, and the enplaning and deplaning of personnel was practiced on mockups until the technique was perfected. Training in assembly following landing was accomplished through the use of trucks to move units to simulated landing areas where dispersal in keeping with that normally expected in combat was effected.

The next step in division airborne training was the conduct of command post exercises. Two problems for each division were prepared by The Airborne Command and delivered to the divisions for solution. Division personnel participating included division, regimental, and battalion staffs and communication elements of each unit headquarters. All planning during the exercise was made from aerial photographs and materials normally available for the preparatory phase of an airborne operation. Movements were made in trucks in lieu of gliders, and were planned and executed as for a regular air movement, arriving at landing areas selected from aerial photographs according to time factors shown in movement tables. Staff officers of Airborne Command supervised and critiqued planning and execution of each exercise.

With the completion of the basic airborne training phase, the divisions progressed to the second phase, "Training at Glider Airbases". During basic glider training at glider training centers, the loading, lashing, and unloading of equipment in gliders, orientation flights for all personnel, and test flights of critical loads was completed. In the small unit problem phase which followed, each company or battery operated in accordance with a staff plan and detailed orders, but for problem purposes, landed at the glider center airbase. The third phase, a flying command post exercise, involved the movement to an outlying airdrome in accordance with a problem prepared by The Airborne Command, requiring staff solution. The tactical background, combat orders, annexes for combat orders, messages injected for realism, and staff requirements were included. Each headquarters, with communications personnel, was required to take off and land at the objective according to the time schedule announced in the movement table. At the completion of the exercise, personnel engaged therein were returned to the glider training center by glider.

Miscellaneous:

Other ground training, including intelligence, chemical warfare, officer and noncommissioned officer schools, night operations, etc., was included and generally followed Army Ground Forces directives regarding such training for standard ground units. Where applicable, emphasis was placed upon special techniques or procedures appropriate. Divisions conducted infantry platoon combat firing proficiency tests and field artillery proficiency tests. The Airborne Command conducted infantry battalion field exercises, infantry battalion combat firing tests, field artillery battalion tests, and physical training tests.

The training program directed for the 82d and 101st Airborne Divisions, with minor changes determined through the "trial and error" method, became the guide for the training of subsequent airborne divisions and smaller units.

E. Subordinate Training Commands:

Early in 1942, General Lee realized that the expansion program planned would necessitate the constitution of subordinate training agencies. As this expansion program developed, requests were initiated and approval secured for such agencies as were required. General Chapman later was confronted with the same situation and found the solution through the same means.

The first of such agencies activated was Headquarters 1st Parachute Infantry Brigade at Fort Benning, Georgia, 13 July 1942. (Appendix No. 11.) Its mission was to direct, coordinate and supervise all training of parachute tactical units stationed at Fort Benning, as directed by the Airborne Command. On 12 January 1943, it was redesignated the Headquarters and Headquarters Detachment, 1st Airborne Infantry Brigade, with station at Fort Meade, South Dakota. At that time, airborne units were stationed at Fort Meade and at the Army Air Base, Alliance, Nebraska. The mission of the Brigade was to perform the same functions with relationship to the airborne units at these stations as it had previously performed at Fort Benning. In July 1943, by Army Ground Forces directive (Appendix No. 11), this headquarters was reconstituted the Headquarters and Headquarters Company, 1st Airborne Infantry Brigade, and to it were assigned the airborne units training at Alliance and Fort Meade. A general training directive, along the same general lines as those for airborne divisions, was issued to the Brigade and training was conducted at Alliance and Fort Meade throughout 1943.[18] Troop carrier elements training at Alliance Army Air Base provided the required air lifts for combined training, later making possible a full scale brigade airborne maneuver.

Headquarters and Headquarters Company, 2d Airborne Infantry Brigade was activated at Camp Mackall, North Carolina, in June 1943 (Appendix No. 11.) It exercised training command of separate parachute infantry regiments prior to its movement to the European Theater.

The 407th Field Artillery Group was activated at Camp Mackall, 5 August 1943, for the purpose of exercising training command, under the Airborne Command, of the various separate field artillery units training at that station.[19]

Throughout the existence of these units, valuable service was rendered in the planning and supervision of training. Through decentralization, the Airborne Command had obtained the maximum efficiency required to complete its major training activities in 1943.

F. Joint Training of Airborne and Troop Carrier Units.

Although by June 1943 troop carrier participation in combined airborne-troop carrier operations had improved, the lack of sufficient airplanes and the limited opportunity for troop carrier elements to train with airborne troops remained a constant handicap. The Commanding General, Airborne Command, had exerted every possible effort to bring about the desired and required troop carrier participation. Faced with the task of completing the training of the 11th and 17th Airborne Divisions, plus three separate parachute infantry regiments and several field artillery units, General Chapman advised Army Ground Forces of the situation and urgently requested that action be initiated to bring about the necessary troop carrier participation. On 23 June 1943, the Commanding General, Army Ground Forces, in a memorandum for the Chief of Staff, United States Army, pointed out the conditions under which attempts were being made to conduct airborne training, stating in part:

Recent experiences in a controlled maneuver of the 101st Airborne Division with three troop carrier groups proved conclusively that combined airborne training to date is unsatisfactory. This condition exists due to lack of sufficient airplanes being

available for airborne maneuvers over a period of time necessary to develop proper command and control measures, especially in the initial landings. Improvement in command and control measures cannot be obtained without practice on a sufficiently large scale to develop procedure and coordination. Availability of troop carrier groups as indicated by the Commanding General, Army Air Forces, will make this practice impossible for the balance of 1943.... Provision for four troop carrier groups to be made available during the period 1 November-31 December 1943, is recommended as essential for satisfactory maneuver training of airborne divisions.[20]

On 30 August 1943, General Arnold, Commanding General, Army Air Forces, directed I Troop Carrier Command as follows:

Beginning immediately, troop carrier units in combined training will have first priority.... You will establish training schedules for the combined phase of troop carrier units in such a manner as to assure that each unit is proficient to perform an airborne missio. either as an independent unit or as part of a larger troop carrier operation. You will coordinate this training schedule to assure the maximum benefit to Airborne Command, commensurate with the training requirements of troop carrier units.[21]

At about this same time, two boards were convened by War Department direction for the purpose of studying the training and employment of troop carrier and airborne forces. These boards came to be known later, in airborne circles, as the "Swing Board" and the "Donovan Board", so named from the senior general officers heading each board. Their recommendations became far reaching in their effect on airborne-troop carrier training and employment. As a result of the conclusions reached and the recommendations made, effective joint training of airborne and troop carrier units, advocated by the Airborne Command, became a reality with the issuance of training directives by both Army Ground Forces and Army Air Forces on 2 November 1943 (Appendix No. 13). The doctrine for the "Employment of Airborne and Troop Carrier Forces" was established with the publication of War Department Training Circular No. 113, 9 October 1943.

Subsequent training activities of the Airborne Command, while of interest, would add little of material value to this history, and, in general outline form, are covered in Chapters 3 and 4.

The history of the "Airborne Effort", as herein recorded, ends as of 1 September 1945. It was development which dated back to that day in May 1940 when the Germans first employed parachute troops in Holland, disturbing the transquility of the War Department and raising the question: "What are we doing about airborne troops?" To this query, a staff officer replied: "There's a Major Lee down in the Chief of Infantry"s office who has A PLAN....."

Chapter 7

TEST AND DEVELOPMENT OF EQUIPMENT AND MATERIEL

A. General.

The test and development of equipment and materiel to determine its suitability for use by airborne troops has been a continuous process closely associated with the development of airborne tactics and techniques, beginning with the activation of the Test Platoon in June, 1940, carried on by the Test and Development Section of the Airborne Command, and since November, 1944, by the Airborne Board. The initiation of the parachute project, the subsequent expansion of the airborne arm, culminating in the constitution of the airborne division, and the method by which this force was transported and projected into combat, presented problems whose solution required that careful thought and consideration be given to each item of equipment and materiel, from the footgear of the individual soldier to the parachute with which he descended or the glider or powered aircraft in which he was transported and landed.

No background of experience existed which could serve as a guide to chart the course of experimentation and development. A new field was being opened for exploration. Beyond the basic fact that personnel could be transported in powered aircraft or gliders and could be landed by parachute, very little had been determined, other than that a requirement existed for the organization, equipping, training, and preparation for combat of airborne forces capable of accomplishing specific missions by vertical envelopment.

The parachute had been developed by the Air Corps strictly as a "human escape parachute" to be used in cases of emergency. The glider was primarily the "plaything" of a limited number of civilians. It had no particular military significance in early 1940. No item of equipment or materiel had been developed specifically for the use of either parachute or air-transported troops. In fact, very little, if any, thought had been given to the existence of such a requirement. In view of these circumstances, the primary efforts of the Test and Development Section were directed, first, to the determination of what standard items (without modification) were suitable for airborne usage, and second, what modification was necessary and parcticable to adapt standard items for such usage. Development of new equipment and materiel was considered later, after it was determined that a requirement existed which could not be solved by the use of standard items or the modification thereof.

B. Accomplishments of Test Platoon and Provisional Parachute Group.

The first Test Section, as organized, constituted a well-rounded group of individuals properly trained in their respective specialties. Captain (later Lieutenant Colonel) James A. Bassett, then Assistant Plans and Training Officer of the Infantry School Service Command, was charged with the supervision of Test and Development work. Lieutenant (later Colonel) W. P. Yarborough, was designated as Testing Officer for all organizational equipment under the Table of Equipment. Lieutenant (later Major) L. Alverson was Testing Officer for all individual equipment, and Lieutenant (later Colonel) Julian J. Ewell was Communications Equipment Expert.

Among the enlisted men selected to work in the Test Section were Sergeant Clay C. Daniels and Corporal L. C. Rutland. Daniels was designated as Armorer Artificer and Custodian of all property of the section, while Rutland was Rigger, with the responsibility of inspection and maintenance of all parachutes in compliance with technical orders issued by higher headquarters.

Procedure in the beginning was, of necessity, make-shift, and most tests were accomplished by the trial and error method. Projects were initiated by the Office of Chief of Infantry, were channelized by directive to the Infantry School, thence to the Infantry Board, and finally to the Test Section which assigned the project to the officer under whose direction the project would be completed.

The first directive issued by Captain Bassett stated: "Directives covering projects or tests are not intended to be rigid and inflexible. Test officers are encouraged to use initiative and ingenuity in conducting tests and to make suggestions and recommendations on the results of tests."[1]

At first, much of the time and effort of the section was directed toward the examination and testing of the thousand and one plans and ideas submitted from the nation at large and to eliminating those submitted by crack-pot artists, mechanics, and inventors. With the release of information that a parachute organization was to be activated in the United States Army, it appeared that every inventor or cellar mechanic who had any ideas regarding floating through air, with or without a parachute, submitted his gadget or idea to the War Department. Normal military procedure then channelized these suggestions to GHQ, Chief of Infantry, Infantry School, Infantry Board, and finally to the Parachute Test Section, where they were received with the notation: "Evaluate and reply by indorsement."

While such ideas, evidencing the interest and concern of the public at large, were gladly received, very few were found to be of practical value or to outline procedures adaptable to military usage. Nevertheless each suggestion or idea required consideration and an answer, either by indorsement or direct to the originator as indicated by higher headquarters. One such idea which exemplifies the general nature of these suggestions dealt with supplemental footgear for paratroop use: "The principle involved in the suggestion is the use of a cushion of air completely encircling the foot and ankle. This is attained by the use of a supplemental light overshoe worn over the paratroop boot. (The overshoe to be put on just prior to the jump.) The overshoe is inflated at the proper time by means of the familiar small compressed CO_2 cylinder attached to the boot. A special valve is incorporated into each overshoe, which immediately releases the closed air on ground contact. This cushion of air released through this valve, on contact, absorbs the shock of impact."[2] This ingenious, though impractical idea, elicited a classic indorsement: "It has been the experience of this headquarters that all attachments to the sold of the parachute boot, such as springs, metal plates, shock pads of sponge rubber, etc., increase the distance from the ventral surface of the shoe to the ankle joint. This increase in distance decreases the lateral stability of the ankle joint, which in turn decreases the stability of the knee joint which is already a notoriously unstable joint."[3]

While the evaluation of such suggestions and tests of standard items of equipment and materiel such as clothing, footgear, and weapons to determine their suitability for parachute and airborne usage, were continuous and time-consuming, of much greater importance was the establishment and maintenance of contact with existing Army agencies (Ordnance, Engineer, Quartermaster, Signal, Air Corps, etc.) specifically concerned with the development and procurement of equipment and materiel, keeping them fully informed of the requirements of parachute and air-transported troops and securing their cooperation in the modification of standard items or the development of new ones, as the situation demanded. The requirement for the development and procurement of a troop type parachute and the modification of transport airplanes (functions of the Air Corps), matters of vital concern, called for maximum coordination of effort between airborne and Air Corps agencies. To effect this coordination, an airborne representative was stationed at Headquarters, Materiel Division, Air Corps, Wright Field. This contact has been maintained continuously since 1941.

Although the development of the troop type parachute (T-4, T-5, T-7) was perhaps the outstanding accomplishment of the combined effort of the Air Corps and the Parachute Test Section, the solution of many other problems of major importance to parachute and air-landing operations required the cooperative effort of Air Corps and airborne. The installation of external racks for the dropping of equipment bundles and the provision for the proper size doors in transport airplanes permitting the parachutist and his bulky equipment to exit with a minimum of danger and also to permit the rapid loading and unloading of 1/4-ton trucks, trailers, artillery, and antitank weapons, were the subject of several conferences held at Fort Benning and Wright Field in 1940 and 1941, participated in by representatives of the Air Corps and the Provisional Parachute Group. At first, Air Corps representatives opposed the installation of external racks, voicing the opinion that the suspension of bundles from external racks would materially affect the flying characteristics and stability of the transport aircraft. The requirement that materiel bundles be dropped simultaneously with the jumping of the paratrooper from the door of the transport, to facilitate the landing of the parachutists and their equipment in a compact ground pattern, was so vital to the tactical employment of parachute troops that constant and sustained pressure was maintained upon Air Corps representatives until agreement was reached (at a conference at Group Headquarters, Fort Benning, Georgia, 30 October 1941) for a trial of the method advocated by the parachute group.[4]

At the same conference, the width and height of the door was agreed upon as being: minimum height, at least four feet and nine inches; width, minimum two feet and four inches; ideal width, two feet and six inches.

Subsequently, two C-53 transport aircraft, each equipped with six standard bomb rack shackles, Type B-7, were made available for service test. On 20 January 1942, following tests conducted in December 1941, Captain Bassett filed a report of test with Headquarters Provisional Parachute Group, which stated, under the heading of Findings and Conclusions:

a. All racks functioned satisfactorily when properly loaded.

b. No interference was observed between containers and personnel or dummies.

c. There is no danger to personnel jumping from the same airplane upon failure of a container canopy to open, since the container retains the forward velocity of the airplane and has a path of fall ahead of all personnel.

d. No interference can result if the jumper leaves the door before the container is released, since he will be behind the container.

e. No interference appears to result if the container is released at the same instant as or at any time after the jumper leaves the door, as the container is to the right and below all personnel.

f. The mechanical and electrical arrangement of the racks appear to be satisfactory, except for the minor modifications already recommended by the Materiel Division, Air Corps.

g. It is concluded that:

(1) There is a necessity for the subject racks on airplanes assigned to duty with parachute troops.

(2) The subject racks are satisfactory.

(3) The subject racks will materially aid parachute troops in the problem of locating and securing arms and equipment in the shortest possible time after landing.

With reference to the question previously raised by the Air Corps, relative to the effect on the flying characteristics of the airplane, the report states:

(1) The racks reduce the flying speed about ten to fifteen miles per hour.

(2) The racks raise the minimum controllable flying spped to between ninety-five and one hundred miles per hour.[5]

On 26 January 1942, Lieutenant Colonel W. M. Miley, Acting Provisional Parachute Group Commander, recommended to the Materiel Division, Air Corps, that equipment racks, with the modifications already recommended by the Materiel Division, be standardized and installed on all transport airplanes assigned for duty with parachute troops.[6] Subsequently, this recommendation was approved and racks provided as requested.

The matter of installation of external racks and the height and width of doors of transport aircraft were only two of the many items involving the modification of Air Corps equipment for use by parachute and airborne troops. The installation and location of static line anchor cables; location and installation of signal lights; development and installation of folding type seats adapting the aircraft for use by either parachute troops with equipment, or in air-landing troops, and materiel such as 1/4-ton trucks, artillery, and antitank weapons; development of ramps to assist personnel and equipment to enplane and deplane rapidly; installation of winch powered by airplane motor to assist in loading of heavy equipment; moveable hoist in door of airplane for lifting of heavy equipment, up to and including the 105mm howitzer; installation of rubber mats on floor of airplane to prevent the parachutist from slipping when preparing to exit from airplane; provision for two doors (one on either side of airplane) to permit rapid exit of parachutists, thereby assuring minimum ground dispersion; provision of safety belts for each passenger; and the location of tie-down rings for the lashing of heavy equipment, all were of major importance and were the subjects of repeated conferences participated in by representatives of the Provisional Parachute Group (later by Airborne Command) and the Materiel Division, Air Corps. Eventually all such matters were favorably considered and remedial action taken. In each instance, the burden of proof of requirement evolved to the Test Section for substantiation. Constant effort and much "selling" was required to accomplish the desired modifications and installations.[7]

C. Test and Development Section, Airborne Command.

With the activation of Airborne Command in March 1942, and the subsequent movement of the headquarters to Fort Bragg, North Carolina, test and development became a responsibility of the G-4 Section, with Colonel Joe A. Hinton as Chief of Section. Actually, this phase of activity was delegated to Major James A. Bassett, who had initiated and supervised it in the Test Platoon and under the Provisional Parachute Group. The Test Section of the Parachute School at Fort Benning, Georgia, was continued as the test agency for parachute projects, with Captain William Lindsey in charge of the section.

At this time, test and development activities, comparatively speaking, were relegated to a position of secondary importance as a command function, with each individual unit proceeding on its own initiative and in accordance with its own conception of its peculiar requirements, which appeared to be extremely varied in nature. Each parachute unit was its own authority as to procedure regarding development of new items of equipment. Especially was this true as applied to containers of individual arms, equipment, and crew served weapons. For instance, the 503d Parachute Infantry constructed containers to carry the 60mm mortar tube, base plate, and bipod, as well as the .30 caliber light

machine gun. Other units finding requirements believed to be peculiar unto themselves, or techniques considered better than those which had been approved, secured and used Air Force duck and webbing to construct bags, straps, and containers of their own design. The seeds sown in those early days, when guidance from a strong centralized command was not available, multiplied many fold the problems of standardization which plagued the Airborne Command throughout its existence.

As a correction and to place the emphasis on test and development activities that their importance warranted, the Commanding General, Airborne Command, in September 1942, placed all test and development of equipment and materiel under Major (later Colonel) C. B. DeGavre, as a full time project, but remaining under control of the G-4 Section. Later (28 November 1942), the Test and Development Section was created, separate and apart from G-4 functions, thereby centralizing all such activities in one section of the Command charged with the responsibility of testing, developing, and making recommendations in furtherance of all matters pertaining to materiel and equipment for airborne units.[8]

The Test and Development Section of the Parachute School was retained as an unofficial agency, organized for the furtherance of matters pertaining to parachute materiel and equipment, with its activities subordinate to and governed by the Test and Development Section, Airborne Command.[9]

While the creation of such a section was definitely a step in the right direction, the personnel and facilities immediately available were entirely inadequate to cope fully with the problem at hand. The Section comprised the Chief of Section, one chief clerk, one stenographer, and one rigger. Packing and maintenance facilities were nonexistant; there was no workshop and all fabrication of new containers was accomplished by the one rigger who utilized the various unit packing sheds, as opportunity and the good nature of the unit riggers permitted. Even under these most unfavorable conditions, standardization was initiated, procedure established, and much good was accomplished.

Projects of major importance at this time included the Army-Navy dual purpose parachute, containers for folding stock carbines, servicycle, demolition kits, and parachute shipping boxes.

On 4 April 1943, the Test and Development Section was moved to Camp Mackall, where ample space was available for packing and maintenance as well as shops. With the move to Camp Mackall, a decision was reached to centralize there all test and development activities, thereby obtaining maximum results by pooling personnel and eliminating certain duplication unavoidable with the maintenance of two operating sections. Accordingly, the Parachute Test Section of the Parachute School, Fort Benning, Georgia, was disbanded and certain personnel and equipment moved to Camp Mackall. To maintain contact with the Infantry Board, Captain Lindsey, who had directed operations of the Parachute Test Section, was placed in the Infantry Board as Liaison Officer from the Parachute School.

This consolidation, while alleviating the acute personnel problem to some extent, still did not provide sufficient manpower for the conduct of all tests. Therefore, it became necessary to "farm out" certain tests to units of the Airborne Command stationed at Camp Mackall. This procedure was initially considered to have certain advantages in that it provided combat commanders with the opportunity to supervise such tests and to obtain first hand information upon which to base their conclusions and recommendations, which were greatly desired and eagerly sought. The results obtained, however, were in most instances disappointing. Although officers were competent and capable unit commanders, test reports indicated that they were inexperienced in testing equipment; they

did not go about the tests with a definite program and purpose in mind; reports were not complete and conclusive and were generally unsatisfactory. For these reasons, it invariably was necessary for the Test Section to perform the test again. The unsatisfactory results from this procedure of "farming out" tests led to the conclusion that efficiency in test and development work could best be obtained through the organization and training of adequate personnel for that specific purpose, and the section was expanded to accomplish that end (August 1943).

With adequate personnel to perform tests under direct control, the process of standardization began in earnest. It has previously been related that in the very early stages of parachute development, very little was known of parachuting troops in mass, in loading and lashing equipment in aircraft, or in any other phase of the new field opened for development. It was during this period that many false conceptions of the requirement for specialized equipment and materiel crept into the picture. It came to be believed that specially designed clothing, very special boots of the stoutest construction, special parachute uniforms, protective head gear, and many other items of a gadgetry nature were essential and indispensable. Early in 1941, a parachute suit was designed of silk. It was olive green with wool wristlets and anklets and multiple pockets. It shone with a gloss and sheen of which any circus performer would have been proud. The suit was more or less waterproof, but allowed no air circulation whatever and was found to be so hot that it was discarded after a limited production of some two or three hundred, but it was a garment of beauty. The parachute suit currently used in World War II was the next development growing out of the supposed requirement for special clothing. In cold weather it was not warm enough; in the jungle, it was too warm. Regardless of climate, it was of poor material and construction and the specially designed pockets were not sufficiently sturdy to carry the items desired by parachutists. Comments from the individual parachutist relative to the merits of the parachute boot were definitely the reverse. Nothing was wrong with the parachute boot. It was the "acme of perfection" in the footgear field, and the parachutists were highly incensed when the standard combat boot was accepted in lieu thereof.

Throughout the evolution of development under the Airborne Command, and later the Airborne Center, the motive and purpose of the testing agency was to deal with equipment and materiel realistically, de-emphasizing wherever possible the requirement for specialized clothing and equipment for airborne troops. While the requirement for a certain amount of specialized equipment and materiel was recognized, it was believed that certain items of clothing and equipment standard for other ground forces would serve equally as well for airborne troops. This belief was sustained by exhaustive tests in the United States, and later in the theaters under combat conditions. The controversial items of clothing and footgear very definitely were in this category.

It was understandable that airborne troops, with great pride in the "Airborne Arm" and drawing additional pay for hazardous duty, desired a distinctive uniform. It was a shock to lose the "parachute boot," and in an attempt to retain this much loved and distinctive item, claims arose from all quarters that the buckles on combat boots fouled the suspension lines of parachutes, resulting in injury to the parachutist, and that the combat boot was inferior to the parachute boot for field service. In submitting a report of "Protector, Boot, Parachutist",[10] Project No. 253, the Airborne Board in 1945 presented a discussion in part as follows:

"If consideration be given by Army Ground Forces and Army Service Forces to re-establishment of the parachute boot, it is the opinion of this Board that such consideration should be on the basis of the best boot for ground wear and possibly on the morale factor involved. It is not worthy of consideration based on the danger factor during parachute jumping. If the Army Ground Forces and Army Service Forces would consider reissue of the parachute boot for morale purposes alone, this agency would heartily concur."

D. Equipment and Materiel Section, Airborne Center.

With the reorganization of the Airborne Command and its redesignation as the Airborne Center, 1 March 1944, and the accompanying drastic reduction of personnel, a small group was set up to be carried in the Equipment and Materiel Section for the purpose of continuing test and development activities. This section was allowed one Colonel, one Lieutenant Colonel, one Major, one Warrant Officer, two Staff Sergeants, one Sergeant, and three Privates.[11] Even with this mere handful of men, a system was devised which proved to be fairly satisfactory. A platoon or unit appropriate for the test was made available by Airborne Center and the personnel of the unit physically conducted the tests under the supervision of an officer from the Materiel and Equipment Section. The one definite disadvantage to this procedure was that the unit from whom the detachment was drawn lost control of the detachment during the period required for the test. In some instances this proved to be deterrent to normal training activities of the unit concerned.

In the summer of 1944, Headquarters, Army Ground Forces initiated a new policy regarding test and development activities which called for the conduct of only the airborne phase of the particular item covered by the directive. For a long time it had been obvious to Airborne Command and Airborne Center that tests conducted by the airborne test agency should be confined to the application of the item to airborne troops; however, this policy was not always adhered to and frequently Army Ground Forces directives called for tests which the airborne agency was not capable of nor qualified to perform. Examples of this practice are exemplified by directives calling for testing of various vehicles for basic service, weapons for reliability under varied conditions of weather, etc. The airborne phase was more properly concerned with how the weapon or vehicle fitted into the airborne organization and whether or not it could be carried on a parachutist or loaded and transported by various types of aircraft. For the basic service test, many other agencies were better qualified, manned and equipped. The assignment of an airborne officer to the Requirement Section of Army Ground Forces (long advocated by Airborne Command) materially influenced this change of policy and procedure and provided the basis for better understanding of airborne problems by Headquarters Army Ground Forces.

During the regime of the Equipment and Materiel Section, many items of equipment were under consideration for standardization. Of these, the Quick Release Parachute Harness was of most immediate concern and became the subject of considerable controversy and discussion, not only in Army circles but also through the press. In view of these circumstances, full discussion of this matter is deemed pertinent to the history of the test and development of airborne equipment.

In 1941, when the parachute project was in its infancy, the Test Section of The Parachute School had conducted extensive tests of various quick release devices, including the device manufactured by the Irving Parachute Company. At that time the technique of parachuting was not perfected and the concept of employment of parachute forces envisioned their landing under cover of darkness and in isolated areas where enemy forces were not present, or if present, in limited strength. While the release of the parachutist from the encumbrance of his parachute and other equipment, permitting freedom of action for defense or offense, was important, it was secondary to his safe descent to the ground. The Irving Quick Release Device provided a method of immediate release; however, tests disclosed that it was deficient in not providing the necessary safety factor and could be inadvertently released by the parachutist, thereby releasing him prematurely while descending. For this reason, the device was considered unsafe for mass jumping and was not recommended for standardization.

Instead, a harness was standardized which provided the required safety factors and yet could be disengaged in a very short time after landing by parachutists properly trained in its usage.

In April 1943, following the invasion of North Africa, the matter of a quick release device was reopened because of combat experience indicating a requirement for a device permitting the parachutist to immediately disengage himself, after landing, from his harness and other accoutrements, so that he could make immediate use of his weapons for defensive or offensive action as the situation demanded. Colonel Edson D. Raff, who commanded the 509th Parachute Infantry Battalion, which spearheaded this invasion, secured and returned to Army Ground Forces a quick release device (actually the Irving device modified by additional safety factors) in use by German parachutists, which apparently provided the answer to this requirement.

On 3 April, this device was forwarded to Headquarters Airborne Command with a letter from Headquarters Army Ground Forces, stating in part: "It is desired that this German device be returned to Colonel Edson D. Raff after it has been studied by your Command and any development agency concerned. It is desired that action for development, if deemed desirable, be processed through this headquarters."[12] On 15 April 1943, General Chapman, in reply, stated: "The quick release device mentioned in basic communication has been examined and returned to Colonel Edson D. Raff. A similar quick release device manufactured by the Irving Parachute Company has previously been tested by this headquarters. It was rejected because it was considered unsafe. It did not have a safety-fork preventing accidental release as does this German device. Further consideration is considered desirable. Simple modifications of the American device, based on the German design are believed possible to make the American device suitable to meet the existing requirements. It is recommended that this headquarters be authorized to continue development of a quick release device."[13]

The authority to continue development having been granted, collaboration with Headquarters Materiel Command, Army Air Forces, was effected to perfect the device along the lines indicated by General Chapman. On 10 October 1943, various types of harnesses and quick release boxes were delivered to Airborne Command for test. On 26 November 1943, following extensive tests, the Airborne Command recommended the Irving device, as modified, for standardization and issue to replace the current type harness in future production of T-5 parachute assemblies.[14] On 13 December 1943, Headquarters Army Ground Forces approved the recommendation of the Airborne Command, and authorized immediate action.[15] Two days later, the Commanding General, Army Air Forces, recommended that the Air Service Command be instructed to change over from the T-5 to the parachute harness recommended by the Army Ground Forces.

Procurement and issue to airborne troops was materially delayed by the usual difficulties in tooling for production, and once production was under way, by the diversion of initial production to Air Forces use on human escape parachutes for Air Forces Personnel (a usage not originally contemplated). Meanwhile, Airborne Command, acutely aware of the requirement for the quick release harness in overseas theaters, pressed for procurement and issue with great earnestness. On 11 February 1944, The Commanding Officer, Airborne Command, in a letter addressed to the Commanding General, Army Ground Forces, stated:

"Inasmuch as the parachutist is helpless on the ground until he disengages himself from his parachute, the Irving Quick Release Device is an urgent combat need for parachute units. It is recommended that production of this item be expedited and that initial issue be made to parachute units in overseas theaters."[16]

The clamor for issue of the quick release device to combat units in overseas theaters continued without surcease, and for a time, with negative results. In a report to the Commanding General, XVIII Corps, Airborne, 24 October 1944, the Commanding Officer, Airborne Center, reviewed the procurement and distribution of this controversial item as follows: "During the month of August 1944, 4,794 T-7 assemblies were procured.

During the month of September 1944, 10,110 T-7 assemblies were procured. During the month of October 1944, it is estimated that 10,000 additional T-7 assemblies will be procured. Based on the current contract, 26,400 T-7 assemblies remain to be procured. A new contract for 85,000 T-7 assemblies will be let upon completion of the present contract. The September procurement lag was due to difficulty in production. Between 2 September and 18 October 1944, 9,900 T-7 assemblies have been shipped to Army Air Forces, Intransit Depot for ETO. Two shipments of 752 each will be made on 23 or 24 October 1944. Requisitions are on hand for 37,849 from ETO and will be shipped as soon as additional T-7 assemblies are received from manufacturers."[17]

In early 1945, sufficient T-7 assemblies were present in the European Theater of Operations to equip all parachute units, and these were issued to replace the T-5. The parachute units employed in the airborne phase of the "Rhine River Crossing" were equipped with the T-7, and all other units were similarly equipped; however, no occasion arose for their use in further combat operations in this theater.

The matter of the Quick Release Device was brought to the attention of the press by the accidental drowning of eight parachutists in a lake at Camp Mackall in early 1944. While it was the belief of all qualified personnel at Camp Mackall that the lack of the quick release device was not a contributing cause of the drownings, the publicity following this unfortunate occurrence no doubt added impetus to production and issue. The value of the device as an aid to prevent drownings was expressed in a letter by the Commanding Officer, Airborne Center, to Commanding General, Army Ground Forces: "The quick release device offers a lesser degree of safety in case of water landing to parachute troops than to parachutists of the Army Air Forces. The weight, bulk, and manner of attachment of equipment carried by parachute troops precludes the removal of the parachute harness by one single operation. It is current practice to wear a reserve parachute in training. (This is not always the case in combat.) This parachute and, in most cases, a rifle container covers the entire front of the body and also the quick release device. In order to operate the device, it is necessary to accomplish two preliminary steps: First, the removal of the waist band, and second, the removal of either snap attaching the reserve parachute to the lift web of the parachute harness. In addition, it is usually necessary to remove or hold aside the rifle container. Because of this equipment and the necessity of removing it prior to use of the quick release device, the value to parachute troops is materially minimized. The principal interest of the parachutist in the quick release device is the saving in time and lives in combat by reducing the period during which time troops are unable to return enemy fire. The value of the device is fully appreciated as an aid to prevent drowning, but that is a secondary benefit."[18]

Another item of importance considered by the Equipment and Materiel Section, and recommended for standardization and issue, was the Indian Lightweight Motorcycle. The requirement for this item grew out of the impracticability in combat of the servicycle and the Cushman Scooter. The product finally standardized was known as the Motorcycle, Solo, Extra Light. Development by the Indian Motorcycle Company was closely coordinated with the Equipment and Materiel Section. Recommendation for standardization was made in June 1944.[19] to replace the Scooter, Airborne. Owing to delay in the process of standardization, the new motorcycle did not find its way into the hands of troops before the end of hostilities.

By summer of 1944, while test and development policy and procedure had advanced to a satisfactory state, the full benefit to be derived from its efforts by combat units was impeded by lack of liaison with airborne troops in the theaters of operation. This fact was realized and stressed by the Commanding General, Airborne Center, resulting finally, in September 1944, in the authorization of a detachment consisting of one Lieutenant Colonel, two Majors, and fifteen enlisted men, for duty with airborne units

in the European Theater of Operation.[20] The authorization of this theater detachment, although strongly desired, practically decimated the Equipment and Materiel Section, leaving only one officer available to continue the functions of the section in the United States, since no increase in T/O strength was permitted. To overcome this difficulty, other officers of the Airborne Center "doubled in brass" to continue normal test and development functions. Enlisted personnel were drawn from the Training Detachment. Shortly after the departure of the European Theater of Operations Detachment, test and development functions were delegated to the Airborne Board, which was constituted on 17 November 1944.[21]

E. The Airborne Board.

The Airborne Board operated as any other service board. The Commanding General, Airborne Center, assigned all personnel to the Airborne Board with the exception of the President, who was assigned by Headquarters Army Ground Forces. On 24 December 1944, Lieutenant Colonel (later Colonel) Chester B. DeGavre was assigned to this duty.[22]

An increase in the Board personnel was granted when it was ascertained that the Army Ground Forces Airborne Detachment, European Theater of Operations (official designation now given to the European Theater detachment, authorized in September 1944) was to be retained and became a part of the Airborne Board. This detachment, as originally constituted, was authorized as a supplement to the Board, its officers and enlisted men serving on a rotational basis.[23] Three of the enlisted men with duties as photographer, clerk and draftsman, were on a non-rotational basis. A detachment, in accordance with the above organization, left the Airborne Board for the European Theater on 25 March 1945, and a subsequent relieving detachment left on 29 June 1945.

On 16 July 1945, the T/O strength of the Board was further increased by two Majors and thirteen enlisted men, to provide a detachment for similar duty in the Pacific Theater,[24] and on 29 July 1945, this detachment (the Army Ground Forces Airborne Detachment, Pacific Theater) left the Board for this duty.

The missions of these detachments in each theater were:

a. To be of all possible aid to the Commanding General of the highest airborne organization in the theater, with respect to development projects.

b. To transmit airborne requirements to the Airborne Board, through Army Ground Forces.

c. To disseminate information received from the United States to interested airborne commanders.

In the European Theater, these detachments proved to be of great value in bringing all airborne commanders up to date on the development of equipment and materiel projects under consideration by the Airborne Board and techniques being considered by the Airborne Center. In turn, the thoughts of airborne commanders concerning requirements determined from combat experience were transmitted to airborne agencies in the United States. One of the most important "lessons learned" regarding the development of equipment and materiel was the requirement for adequate representation of the test and development agency in the United States with airborne troops in each theater, beginning with the first movement of such troops to the theater and maintained continuously. Through such contact effective results were obtained with accuracy and dispatch. The opportunity to maintain such contact came to the Airborne Command and the Airborne Center in the latter days of operations in both theaters; therefore development was always behind requirements. Airborne commanders in both theaters, of necessity, were forced to devise and improvise in the theater, while an agency, fully capable and equipped, -

in fact, created for this specific purpose - was frequently "in the dark" as to what was required.

At the cessation of hostilities, it appeared that development policy for airborne items was practically perfect. An adequate board was in operation at Camp Mackall, North Carolina; liaison officers were stationed at the Air Technical Service Command, Wright Field, Dayton, Ohio, and at the Army Air Forces Board at Orlando, Florida; competent airborne representation was present in the Requirements Section of Headquarters, Army Ground Forces; and detachments were in both theaters of operation.

With the end of hostilities, the facilities for development of airborne materiel were changed. The detachments in Europe and the Pacific were terminated and the Airborne Board, as such, ceased to exist on 30 September 1945. The former board became the Airborne Service Test Section, Army Ground Forces Board No. 1, at Fort Bragg, North Carolina.[25]

During the final period of development, while the Airborne Board operated under direction of the Commanding General, Airborne Center, several important developments came about. Two of these, in particular, are worthy of note and record, namely, the General Purpose Bag, and an improved troop type parachute.

The requirement for the General Purpose Bag was manifested in several ways. First, the American airborne units in the European Theater of Operations employed the British "B" Bag or "Leg Bag" to carry various and sundry items, such as radios and land mines. This bag proved to be very cumbersome and unwieldy. At about this same time, consideration was being given at Airborne Center to ways and means of quickly freeing the parachutist from his parachute harness and other impedimenta and permitting him to move freely after landing. Related to the rapid removal of the harness was the encumbered condition of the individual by the presence of gas mask, field bag, trench knife, intrenching tools, individual weapons, etc., which were attached to his person in various positions. All of this equipment restricted the movement of the parachutist and made his debouchment from the parachute harness difficult. The Parachute School, meanwhile, had developed a bag for use in carrying demolitions in the Demolition School, and later extended its use to the Communications School for carrying radio equipment on the parachutist. This bag was later submitted to the Airborne Board to be considered for standardization. After consideration and modification, the bag was tested and found suitable for carrying the Machine Gun, Cal. .30, Light, the two-piece Rocket Launcher, Demolitions, Wire Dispensers, 60 mm Mortar, complete, and various radios including the SCR-536, SCR-300, and the SCR-609 and SCR-610.

The bag was carried on the front of the jumper instead of on one side as is the British "B" Bag, and the weight of the bag was supported on the parachute harness rather than on one leg as was the "B" Bag. By use of the General Purpose Bag, it is possible to carry crew-served weapons on the parachutist in a safe manner and with a maximum of freedom provided after landing, inasmuch as a fifteen-foot tape is provided for lowering prior to ground contact, thus taking all weight off the parachutist at the moment of impact with the ground. Since individual equipment can be put in the bag, in addition to other items related above, the parachutist lands encumbered only by his individual weapon, can speedily release himself from the parachute harness and go into action. The bag was found so versatile, allowing the maximum of flexibility, that it was recommended for standardization with a basis of issue of one per parachutist.[26]

Although the T-5 and T-7 parachutes in current use are considered the finest and most reliable parachutes in use by any airborne forces, they have two shortcomings: Their undesirable oscillation and their lack of turning or steering provisions. The Hart type of parachute with a different canopy from that of the T-5 and T-7, was studied

and put into development as a substitute for the T-7. It eliminates the oscillation and provides a means of positive turning.[27] Tests by the Airborne Center Equipment and Materiel Section and the Airborne Board were extensive. Between July, 1944, and the end of 1945, the Hart Parachute underwent three major tests, and while it had not been recommended for standardization at the termination of hostilities, it had been demonstrated that first, oscillation is materially less than that of the T-7; second, forward landings are effected in the majority of cases; and third, the traveling feature causes no greater collision than is common with the T-7.

Development has been broader in scope than the few projects presented would indicate. Liaison has been maintained with the Army Air Forces and with individual manufacturers to the maximum possible extent. Members of the Airborne Command, Airborne Center, and the Airborne Board have visited aircraft plants on countless occasions to comment on and advise manufacturers in the design of aircraft intended for airborne usage. They have worked with the Office, Chief of Ordnance, in the development of paracrates for dropping the 75 mm Pack Howitzer, for recoilless weapons, and other ordnance items. They have worked with the I Troop Carrier Command and with troop carrier units in developing equipment for delivering navigational aids to the ground by parachutists. The examples given indicate how extensive the field of airborne test and development have been.

FOOT NOTES

Chapter 1:

1. CofInf memo for G-3 WD, 6 May 39, sub: Air Inf. CI-320/9685-B(5-1-39) 352.01/9332-B(5-1-39).

2. Rpt No. 16,204 of Lt Col Truman Smith, Mil Attache, Berlin, 22 Oct 38.

3. Memo of Col L. R. Fredendall, Inf Sch, for G-3 WD, 6 May 39 (Prcht Sch Orgn File)

4. CofInf 1st ind, 12 Jan 40, on WD ltr AG 580(11-7-39)M-C, to CofInf, 2 Jan 40 sub: Prcht Tr, Air Inf.

5. Wd ltr AG 580(11-7-39)M-C to CofInf, 2 Jan 40, sub: Prcht Tr, Air Inf.

6. CofInf 1st ind, 12 Jan 40, on WD ltr AG 580(11-7-39)M-C to CofInf, 2 Jan 40, sub: Prcht Tr, Air Inf.

7. WD 1st ind AG 580 (3-8-40)M-C, 25 Apr 40, on ltr CofInf to AG, 8 Mar 40.

8. WD 1st ind AG 580 (3-8-40)M-C, 25 Apr 40, on ltr CofInf to AG, 8 Mar 40.

9. WD ltr AG 320.2(8-12-40)M-C to CG 2d Div, 21 Sep 40, sub: Air Landing Forces.

10. Statement of Col W. T. Ryder to A/B Comd Historical Officer, Jan 44.

11. Ibid.

12. Ibid.

13. Inf Bd ltr IB 373 to CofInf, 11 Jul 40, sub: C in AR 95-15.

14. WD ltr (C) AG 580.2(7-11-40)P-C to CofInf, 21 Aug 40, sub: AR 95-15.

15. Brig Gen Ridgely Gaither, sub: Chronology of Important Papers and Conf. Gaither Correspondence.

16. Memo of Maj Gen H. H. Arnold for DCofS USA, 5 Aug 40, sub: Prcht Tr. 322.04/1-Inf.

17. Memo of Maj Gen McNair for Maj Gen R. C Moore, 8 Aug 40, sub: Prcht Tr. Ibid.

18. Brig Gen Ridgely Gaither, sub: Chronology of Important Papers and Conf. Gaither Correspondence.

19. Ibid.

20. Memo of Lt Col Orlando Ward for G-3 WD, 20 Aug 40. OCS 21157-1.

21. Record of telephone conversation between Lt Col I. B. Summers and CofInf Bd, 17 Aug 40.

22. Studies in the History of AGF, Historical Sec AGF, Abn Tr.

23. WD ltr (C) AG 320.2C to CG Panama Canal Dept, 11 Jun 41.

24. Statement of Col M. A. Quinto to A/B Center Historical Off, Oct 45.

25. Ibid.

26. Ibid.

27. Memo of Sec CofS USA for G-3 WD, 27 Jun 41. 320.2C.

28. WD ltr 320.2 (2-17-41) M (Ret) M-C, 25 Feb 41, sub: Prov Prcht Gp Hq.

29. Ltr of Lt Col Wm. C. Lee to Maj Gen Hodges, 18 Jun 41. Lee Correspondence.

30. Ltr of Lt Col Wm. C. Lee to Maj Ridgely Gaither, 16 Jun 41. Ibid.

31. Ltr of Lt Col Wm. C. Lee to Maj Ridgely Gaither, 20 Jun 41. Ibid.

32. Ltr of Maj Ridgely Gaither to Lt Col Wm. C. Lee, 28 Jun 41. Ibid.

33. Ltr of Lt Col Wm. C. Lee to Lt Col John P. Lake, 14 Jul 41. Ibid.

34. Ltr of Lt Col Wm. C. Lee to Maj Ridgely Gaither, 17 Jul 41. Ibid.

35. Ltr of Lt Col Wm. C. Lee to Maj Ridgely Gaither, 31 Jul 41. Ibid.

36. Ltr of Lt Col Wm. C. Lee to Maj Gen Hodges, 14 Jul 41. Ibid.

37. Ibid.

38. Ltr of Maj Ridgely Gaither to Lt Col Wm. C. Lee, 2 Sep 41. Ibid.

39. Ltr of Lt Col Wm. C. Lee to Maj Ridgely Gaither, 7 Nov 41. Ibid.

40. Memo of Lt Col Wm. C. Lee for Capt R. E. Lindquist, 27 Nov 41. Ibid.

41. Ltr of Lt Col Wm. C. Lee to Maj Ridgely Gaither, 14 May 41. Ibid.

42. Ltr of Maj Ridgely Gaither to Lt Col Wm. C. Lee, 19 May 41. Ibid.

43. Ltr of Maj Ingomar Oseth to Lt Col Wm. C. Lee, undated. Ibid.

44. Ltr of Lt Col Wm. C. Lee to Lt Col G. A. Schlicker, 3 Jul 41. Ibid.

45. Memo of Capt W. P. Yarborough for Lt Col Wm. C. Lee, 17 Jul 41. Yarborough Correspondence.

46. Ltr of Capt J. B. Shineberger to Lt Col Wm. C. Lee, 19 Aug 41. Lee Correspondence.

47. Rpt of Capt W. P. Yarborough to CO Prov Prcht Gp, 18 Sep 41. Yarborough Correspondence.

48. Rpt of Capt W. P. Yarborough to CO Prov Prcht Gp, 18 Sep 41. Ibid.

49. Ltr of Lt Col Wm. C. Lee to Maj Gen Hodges, 18 Jun 41. Lee Correspondence.

50. Ltr of Lt Col Wm. C. Lee to Maj Gen Hodges, 18 Jun 41. Ibid.

51. Ltr of Lt Col Wm. C. Lee to Lt Col Wm. M. Miley, 25 Nov 41. Ibid.

52. Ltr of Maj Ridgely Gaither to Lt Col Wm. C. Lee, 1 Jul 41. Ibid.

53. Ltr of Lt Col Wm. C. Lee to Lt Col Wm. M. Miley, 25 Nov 41. Ibid.

54. Ltr of Lt Col Wm. M. Miley to Lt Col Wm. C. Lee, 11 Dec 41. Ibid.

55. GHQ memo, G-2 draft for CofS GHQ and CofInf, 11 Dec 41, sub: Comd Echelon for Prcht Units. G-2 40911. Lee Correspondence.

56. Ltr of Brig Gen Mark W. Clark to Lt Col Wm. C. Lee, 17 Dec 41. Lee Correspondence.

57. Statement of Brig Gen Ridgely Gaither to A/B Comd Hist Off, Feb 44.

58. Memo of Brig Gen H. L. Twaddle for AG, 30 Jan 42, sub: Constitution, Activation, and Redesignation of Prcht Units.

Chapter 2

1. Ltr of Lt Col Ridgely Gaither to CofInf, 31 Jan 42, sub: Abn Tr Tng.

2. Cir 59, WD, 2 Mar 42.

3. AGF ltr to CO A/B Comd, 24 Mar 42, sub: A/B Comd. 320.2/2 (Airborne Comd)-GNOPN (3-23-42).

4. Ibid.

5. AGF ltr to CO A/B Comd, 24 Mar 42, sub: A/B Comd. Ibid.

6. A/B Comd ltr to Col Walker, 10 Apr 42. Lee Correspondence.

7. Ibid.

Chapter 3

1. Memo (C) of Col Wm. C. Lee for Brig Gen L. C. Allen, 17 Mar 42. 353 (C).

2. Statement of Col H. P. Harris to A/B Center Hist Off, Oct 45.

3. Training Files, A/B Center.

4. Site Bd Rpt, Engr Office, Cp Mackall, N. C. A/B Center files.

5. AGF ltr to CG A/B Comd, 2 Nov 43, sub: Joint Tng of A/B and Tr Carrier Units. 353 (2 Nov 43) GNGCT.

6. Maneuver Rpt 1, 12 Nov 43. A/B Center AG-file.

7. Maneuver File, A/B Center.

8. AGF ltr (C) to CG A/B Comd, 22 Feb 44, sub: Reorgn of A/B Comd. 320.2/102 (A/B) (C).

Chapter 4

1. AGF ltr (C) to CG A/B Comd, 22 Feb 44, sub: Reorgn of A/B Comd. 320.2/102 (A/B) (C).

2. WD ltr AG 322 (29 Feb 44) OB-I-GNGCT-M to CG A/B Center, 3 Mar 44, sub: Change in Assignment and Redesignation of Certain Units.'

3. Ibid.

4. AGF ltr (R) to CG XIII Corps, 15 Mar 44, sub: Reorgn of 465th FA Bn. 321/233 (FA) (R).

5. WD ltr to CG A/B Center, 15 Mar 44, sub: Reorgn and Redesignation of AGF Units. AG 322 (10 Mar 44) OB-I-GNGCT-M.

6. A/B Center ltr (C) to CO 550th Inf A/B Bn, 18 Mar 44, sub: Movement Orders. 370-5-GNVDT.

7. AGF ltr (R) to CG A/B Center, 7 Jul 44, sub: Assignment of 541st Prcht Inf. 321/222(Inf)(R).

8. AGF ltr (S) to CG A/B Center, 18 Jul 44, sub: Air-Transport Tng of Inf Div. 353 (A/B) (S).

9. AGF ltr (S) to CG A/B Center, 3 Aug 44, sub: Air-Transport Tng of Inf Div. Ibid.

10. AGF ltr (C) to CG A/B Center, 28 Nov 44, sub: Joint A/B, Tr Carrier Tng. 353/106 (A/B) (C).

11. AAF ltr to CG A/B Center, 24 Dec 43, sub: 4th Class, AAF Staff Course. AFACT-5.

12. AAFSAT ltr to CG A/B Center, 1 May 44, sub: Demons of Employment of AAF. A/B Center file 353.01.

13. Statement of Lt Col John A. Wallace to A/B Center Hist Off, Oct 45.

14. Ltr of Brig Gen Josiah T. Dalbey to Maj Gen M. B. Ridgway, 28 Jul 44. A/B Center file 322/2.

15. Ltr of Maj Gen M. B. Ridgway to Brig Gen Josiah T. Dalbey, 26 Aug 44. Ibid.

16. FAAA ltr (S) to CG AGF, 21 Nov 44, sub: Temp Attachment of Experienced Personnel from A/B Center to This Hq. AG 210.453 X 220.453 (FAAAC).

17. Ibid.

18. A/B Center Newspaper files, Airborne Attack.

Chapter 5

1. (1) WD ltr AG 560 (4-18-41) EA-E, 27 May 41, sub: Prcht Bns (2) WD ltr AG (6-26-41) EA-C, 3 Jul 41, sub: Procurement of Enl Pers for Prov Prcht Gp.

2. WD ltr AG 324.71 (7-26-41) EC-C to CGs Armies, Corps, et al, 29 Jul 41, sub: Distribution of Surplus Trainees. A/B Cen file 341.

3. WD ltr AG 341(2-4-42)ER to CG 1st Corps Area, 4 Feb 42, sub: Destination of Men Enlisted as Parachutists. Ibid.

4. Prov Prcht Gp ltr to CofInf, 31 Jan 42, sub: Assignment of Volunteer Recruits to the Prov Prcht Gp. A/B Center file 341/1.

5. Prov Prcht Gp 1st ind, 27 Feb 42, on CG IV Corps Area ltr to Prov Prcht Gp, sub: Procurement of Volunteers for Prcht Units. Ibid.

6. Rpt of Capt Wm. T. Ryder, 16 Apr 42, sub: Existing Standards. A/B Center file 353/2.

7. Ibid.

8. AGF ltr 320.2/2 (A/B Comd) to CG R&SC, 26 Mar 42, sub: A/B Comd. A/B Center file 341/1.

9. AGF ltr 201.6-GMTRG(4-30-42) to CG A/B Comd, 30 Apr 42, sub: Examination of Prcht Volunteers at RTCs.

10. A/B Comd ltr 341-ABPER to CG AGF, 9 May 42, sub: Procurement of Prcht Volunteers and Reassignment of Non-Graduates of the Prcht Course. A/B Center file 341/1.

11. This special training was to be in communication (radio only), 10 percent; heavy weapons, 20 percent; rifle course, 70 percent.

12. AGF ltr 322.96/4(R &SC)GNPER(5-16-42) to CG R &SC, 16 May 42, sub: Pers for Prcht Tr.

13. WD ltr AG 220.63(5-11-42)EC to CG, IRTC, Cp Walters, Tex, 25 May 42, sub: Procurement of Prcht Pers for RTCs.

14. Sec V, Cir 155, WD, 21 May 42, sub: Qualification Requirements for Prcht Tr.

15. RAD AG 320.2(6-11-42)EC, to CGs RTCs, 11 Jun 42. A/B Center file 341/1.

16. AGF 1st ind on A/B Comd ltr to CG AGF, 10 Jun 42, sub: Rpt on Examination of Prcht Volunteers at RTCs. A/B Center file 341/2.

17. Rpt OofSurg A/B Comd 341 GNVMC, 4 Mar 43. A/B Center file 341.2.

18. A/B Comd ltr to TAG, 15 Jul 42, sub: Increase of Quota of Prcht Volunteers from IRTCs. 341/1-GNVPR.

19. TAG 1st ind, 29 Jul 42, on A/B Comd ltr to TAG, 15 Jul 42, sub: Increase of Quota of Prcht Volunteers from IRTCs.

20. AGF ltr (R) to CG A/B Comd, 26 Jul 42, sub: Increase of Quota of Prcht Volunteers from IRTCs. 353(Prcht)(R) GNGCT (7-15-42).

21. A/B Comd 3d ind, 24 Apr 42, AGF 4th ind, Aug 42, on 5th Serv C ltr to AG, Serv of Sup, 17 Aug 42, sub: Voluntary Enlistments as Parachutists. A/B Center file 341.

22. AGF ltr 353/58 (Prcht Tr) GNGAP (5-28-42) to CG A/B Comd, 21 Aug 42, sub: Prcht Tr.

23. A/B Comd ltr 341/1-GNVPER to TPS, 24 Aug 42, sub: Volunteers for FA Prcht Tng.

24. A/B Comd ltr 341/1-GNVGA to CG AGF, 4 Sep 42, sub: Off Volunteers for Prcht Duty.

25. 82d A/B Div ltr to CG AGF, 28 Aug 42. Sub: Improvement of Pers of 82d and 101st A/B Div. A/B Center file 320/1.

26. Ibid.

27. AGF 2d ind, 12 Sep 42, on 82d A/B Div ltr 320.2 (Airborne)GNGAP-I(8-28-42) to CG AGF, 28 Aug 42, sub: Improvement of Pers of 82d and 101st A/B Div.

28. A/B Comd ltr 353-GNVGC to CG AGF, 24 Feb 43, sub: Plans for Tng of Prcht Filler and Loss Repl.

29. Ibid.

30. Ibid.

31. AGF ltr (R) to CG A/B Comd, 30 Dec 42, sub: Activation of 513th Prcht Inf. 321/61(Inf)(R).

32. AGF ltr (R) to CG A/B Comd, 9 May 43, sub: Orgn of 515th Prcht Inf. 321/94 (Inf)(R).

33. Memo of Col G. H. Williams for CofS A/B Comd, 26 Mar 43, sub: Comments Resulting from Visit to AGF. A/B Center file 300.6/1.

34. AGF ltr (C) 210.31/102 (MO) GNAGS(4-7-43) to CG A/B Comd, 7 Apr 43, sub: Movement Orders, Shipment EGB 448.

35. Memo of A/B Comd G-3 for G-1, 31 Aug 43, sub: Repl. A/B Center File 300.6/1.

36. A/B Comd Conf Notes, 18 Nov 43, sub: Repl Policy. Ibid.

37. Ltr of Lt Col Wm. T. Ryder to CG A/B Comd, 3 Dec 43, sub: Plan for Tng Repl. A/B Center file 353/1.

38. WD ltr AG 580(8-3-40)M-A to Comdt Inf Sch, 10 Jul 40, sub: Flying Pay for Pers of Prcht Tr and Air-Inf.

39. WD ltr AG 240 (9-9-40)M-A-M to CGs all Armies, Corps Areas and Depts, CofS GHQ, and Chiefs of Arms and Services, 15 Nov 40, sub: Ratings and Pay for Prcht Tr.

40. Ibid.

41. Ltr of Col Wm. C. Lee to Maj Ridgely Gaither, 9 Sep 41. Lee Correspondence.

42. Bulletin 28, WD 25 Jun 42, sub: Prcht Pay.

43. 101st A/B Div ltr to CG A/B Comd, 20 Oct 42, sub: Pay for Glider Pers. A/B Center file 242.14.

44. A/B Comd ltr to CG AGF, 25 Nov 42, sub: Pay for Glider Pers. Ibid.

45. WD ltr AG 240 (17 Apr 44) OB-S-C to CG AGF, 20 Apr 44, sub: Extra Pay for Glider Tr.

46. Bulletin 14, WD, 13 Jul 44, sub: Glider Pay.

47. Ltr of Maj Gen M. D. Taylor to Lt. Col John T. Ellis, Jr, 25 Jun 45, sub: Revision of A/B T/O & E's. Ellis correspondence.

Chapter 6:

1. Brief of Rpt of A/B Opns, Husky and Bigot, 17 Sep 43, included with memo (S) OPD 319.1 (15 Aug 43) for CofS, 20 Sep 43. WD Opns Div File.

2. AGF Rpt of Conf on Air Transport Requirements for A/B Tng, 14 Jul 42. Part of file WDGC 452.1(8-1-42).

3. Ibid.

4. (1) AGF memo (S) 452.1/56-GNGCT for CofS USA, 1 Aug 42, sub: Air Transport Requirements for A/B Tng. (2) WD memo 452.1(8-1-42)-WDGCT for CG AGF, 21 Aug 42, sub: Air Transport Requirements for A/B Tng.

5. Ibid.

6. WD memo WDGCT 320.2(4-18-42) for CGs AGF, AAF, 18 Apr 42, sub: Policy Regarding Tng of A/B Trs.

7. Studies in the History of AGF No. 8, Reorganization of Ground Troops for Combat. AGF Historical Files.

8. AGF ltr 353(A/B Comd)-GNTRG(4-18-42) to CG A/B Comd, 4 May 42, sub: Policy Regarding Tng of A/B Tr.

9. A/B Comd 1st ind, 13 May 42, on AGF ltr 353(A/B Comd) GNTRG (4-18-42) to CG A/B Comd, 4 May 42, sub: Policy Regarding Tng of A/B Tr.

10. A/B Comd Tng Memo 2, 15 May 42, sub: Tng Dir for Newly Activated Prcht Regts.

11. Memo (S) of Col Lemnitzer for CofS AGF, 17 Jun 42, sub: A/B Div for Bolero. AGF Plans Sec file 20/31 (S).

12. AGF memo (S) for CofS USA, 2 Jul 42, sub: Policy Regarding Tng of A/B Tr. 320.2/26(Inf)(S).

13. Ibid.

14. T/O 71 and Allied Tables for an A/B Div, 15 Oct 44.

15. T/O & E 71, 1 Aug 44, and T/O & E 71T, 16 Dec 44, for an A/B Div.

16. AGF memo (C) for G-3, 9 Oct 42, sub: Dir for Tng A/B Div. A/B Center file 353 (C).

17. AGF ltr (C) to CGs Second Army, Third Army, A/B Comd, 21 Oct 42, sub: Dir for Tng A/B Div. 353/11 (Airborne)(C).

* AGF ltr (C), 21 Oct 42, sub: Directive for Tng A/B Divs. 353/11 (A/B)(C).

18. A/B Comd ltr to CG 1st A/B Inf Brig, 24 Jun 43, sub: Tng of 1st A/B Brig, 353-GNVGC. A/B Center file 353/2.

19. A/B Comd ltr to CO 407th FA Gp, 13 Oct 43, sub: Tng Dir, 353-GNVFA. A/B Center file 353/4.

20. AGF ltr (S) to CofS USA, 23 Jun 43, sub: Plans for A/B Tng for Balance of 1943, 353(Airborne)(S)(4-6-43)-GNGCT.

21. AAF ltr to CO ITCC, 30 Aug 43, sub: Combined Tng with A/B Comd for Balance of 1943, AFACT-4. A/B Center Classified Document 327A.

Chapter 7:

1. Statement of Lt Col J. A. Bassett to A/B Center Hist Off, Nov 45.

2. A/B Center Equip and Materiel Sec File, 421.3-GNVEM, sub: Uniform, Footwear (Boots, Parachutist).

3. Ibid.

4. Prov Prcht Gp Conf Notes, 30 Oct 41, sub: The Exterior Provisions for Delivery Units on the C-53 Ap. A/B Center Equip and Materiel Sec File, 452.11-GNVEM.

5. Prov Prcht Gp rpt of test, 20 Jan 42, sub: Test of External Equip Racks on C-53 Ap. Ibid.

6. Prov Prcht Gp ltr to Materiel Div, AC, Wright Fld, Ohio, 26 Jan 42, sub: External Equip Racks on C-53 Ap, 452.331. Ibid.

7. A/B Center Equip and Materiel Sec File, 452.1, sub: Airplanes.

8. A/B Comd memo, 28 Nov 42, sub: Test and Development Sec.

9. Ibid.

10. A/B Bd rpt of test, Project 353, 17 Apr 45, sub: Test of Protector, Boot, Parachutist. A/B Bd Files.

11. AGF ltr (C) to CG A/B Comd, 22 Feb 44, sub: Reorgn of the A/B Comd. 320.2/102(A/B)(C).

12. AGF ltr (C) to CG A/B Comd, 3 Apr 43, sub: Quick Release Device for Prcht Harness. 452.161(C).

13. A/B Comd 1st ind, 15 Apr 43, on AGF ltr (C) 452.331/2 GNVTD to CG A/B Comd, 3 Apr 43, sub: Quick Release Device for Prcht Harness.

14. A/B Comd rpt of test, Project 146, 22 Nov 43, sub: Quick Release Harness for Tr Type Prcht. A/B Bd Files.

15. AGF 3d ind to AAF, 13 Dec 43, on AGF ltr 452.161/2-GNVTD to A/B Comd, 10 Oct 43, sub: Test of Quick Release Harness for Troop Type Prchts.

16. A/B Comd ltr to CG AGF, 11 Feb 44, sub: Irving Quick Release Device. 475-GNVCO.

17. A/B Center ltr to CG XVIII Corps (A/B), 24 Oct 44, sub: Procurement and Distribution of Irving Quick Release Device. 400.112-GNVEM.

18. A/B Center ltr to CG AGF, 9 Mar 44, sub: Quick Release Device for Prcht Harness. 452.33-GNVDF.

19. A/B Comd rpt of test, Project 186, 24 Jun 44, sub: Comparative Test of Indian Aerocycle No. 144 vs Cushman Scooter. A/B Bd Files.

20. WD ltr (S) AGMS-A-OPD-210.482 (18 Sep 44) to CG A/B Center, 21 Sep 44, sub: Temp Duty Orders.

21. AGF ltr to CG A/B Center, 17 Nov 44, sub: Establishment of an A/B Bd. 334/1(A/B Bd).

22. AGF ltr (R), 24 Dec 44, sub: Orders. 201-DeGavre, Chester B. (Off)(R).

23. AGF ltr (R) to CG A/B Center, 17 Mar 45, sub: Revised Allotment of Pers to A/B Center for A/B Bd, Cp Mackall, N.C. 320.2 (A/B)(R).

24. AGF ltr (S) to CG A/B Center, 16 Jul 45, sub: Revised Allotment of Pers to A/B Center for A/B Bd, Cp Mackall, N.C. 320.2(A/B)(S).

25. AGF ltr (R), 22 Sep 45, sub: AGF Bds. 334/127(R).

26. A/B Bd rpt of test, Project 233, 19 Mar 45, sub: Test of Quick Release, Prcht Equip Bag. A/B Bd Files.

27. A/B Bd rpt of test, Project 231, 30 Mar 45, sub: Comparative Test of Tr Type Prchts. Ibid.

THE AIRBORNE COMMAND AND CENTER

Study No. 25

APPENDICES

WHERE AIRBORNE UNITS FOUGHT

UNIT	DATE OF ACTION	PLACE OF ACTION	TYPE OF ACTION
509th Prcht Inf Bn	8 Nov 42	*Oran, North Africa	First American use of airborne troops.
	15 Nov 42	*Youks Les Bains, Tunisia	Contact French troops and proceed to Gafsa, Tunisia for attack; at Gafsa encountered Italian troops.
	Nov 42 *Faid	*Faid Pass, Tunisia	Demolition action and infantry contact with Italian troops.
(Radiomen, Pathfinders)	Sep 43	*Island of Ischia off the coast of Naples, Italy.	Captured garrison and Radar units.
	14 Sep 43	*Avellino, Italy	Attacked 25 miles behind enemy lines.
	22 Jan - 1 Apr 44	Anzio, Italy	Sent to hold beachhead.
	Dec-Jan 45	"Belgian Bulge"	
82d Airborne Division	9-10 Jul 43	*Gela, Trapani, Palermo	First large scale airborne operation - night operation.
	14 Sep 43	*Salerno, Italy	Reinforcements to hold beachhead.
	5-6 Jun 44	*Normandy, France	Disrupt Nazi communications and supply.
	17 Sep 44	*Nijmegen, Holland	Seize and hold highway bridges across Maas River at Grave and Waal River at Nijmegen

NOTE: * Denotes airborne assaults.

Appendix No. 1

Appendix No. 1 (cont'd)

UNIT	DATE OF ACTION	PLACE OF ACTION	TYPE OF ACTION
82d Airborne Division	20 Dec 44-17 Feb 45	Stavelot, Trois-Ponts, Hablemont Siegfried Defenses, Wenbreth, to the Roer	"Belgian Bulge"
	Apr-May 45	Elbe River Bleckede Area	Assault across Elbe River - Contacted Russians at Grabow.
504th Prcht Inf Regt	14 Sep 43	*Altavilla, Italy	Reinforce Salerno Beachhead.
	Oct-Dec 43	Venafro, Italy	Ground fighting
	22 Jan 44-1 Apr 44	Anzio, Italy	Sent to hold beachhead.
505th Prcht Inf Regt	15 Sep 43	Salerno to Naples, Italy	Beachhead landing-weeks of fighting.
(Two battalions)	Oct 43	Villa Litorno to Volturno River, Italy	Ground action with British X Corps.
First Airborne Task Force: 517th Prcht Inf Regt 460th Prcht FA Bn 463rd Prcht FA Bn 509th Prcht Inf Bn 551st Prcht Inf Bn 550th Glider Inf Bn 596th A/B Engr Bn	15 Aug 44	*Southern France	Spearhead invasion
101st Airborne Division	5-6 June 44	*Normandy, France	Seize causeways, disrupt Nazi communications and supply.
	17 Sep 44	*Eindhoven, Holland	Seize the four highway and railway bridges over the Aa River and Williams Vaart Canal at Vechel, seize bridge at St. Oedenrode, seize Eindhoven and bridges.

NOTE: * Denotes airborne assaults.

Appendix No. 1 (cont'd)

UNIT	DATE OF ACTION	PLACE OF ACTION	TYPE OF ACTION
101st Airborne Division	20-26 Dec 44	Bastogne, Belgium	"Belgian Bulge"
	Apr 45	Germany - Berchtesgaden	Ground fighting
11th Airborne Division	Jan 45	Leyte, P.I.	Boat landing - an artillery battalion dropped by parachute.
	1 Feb 45	Nasugbu. Luzon	Amphibious operation with glider elements of the division.
	3 Feb 45	*Tagaytay, Luzon	Invasion of South Luzon.
	23 Feb 45	*Los Banos Camp, Luzon	Raided prison camp, liberating 2,146 American civilians.
	Mar 45	Cavite, Manila, Batangas, Luzon	Ground fighting.
	25 Jun 45	*Luzon	Parachutists, gliders (used for first time in Pacific Theater)
	Aug 45	Honshu, Japan	First troops to arrive at Honshu - air-landed.
17th Airborne Division	Jan-Feb 45	Flamierge, Flamizoule, Clervaux, Belgium.	"Belgian Bulge"
	24 Mar 45	*Across the Rhine at Wesel	Start of rush to Berlin.
503d Prcht Inf Regt	5 Sep 43	*Lae, Salamaua, New Guinea	To cut off route of escape of 20,000 Japanese fleeing from Salamaua and Lae.
	3 Jul 44	*Noemfoer Island	To capture main airdrome.
	16 Feb 45	*Corregidor, P.I.	Destroy enemy guns from the rear.
	Apr 45	Negros Island, P.I.	67 days of continuous fighting.
13th Airborne Division	Apr 45	Marshalling areas, France	Reserve troops.

THE ADJUTANT GENERAL'S OFFICE
Washington

AG 580 (6-11-40)
M-Inf.-C

June 25, 1940

SUBJECT: Organization of Test Platoon, Parachute Troops and Air Infantry.

TO: The Commandant, The Infantry School, Fort Benning, Georgia.

1. It is desired that you designate personnel for the test platoon from the 29th Infantry, as follows:

One (1) first or second lieutenant.

Six (6) sergeants.

Forty-two (42) privates 1st/cl and privates.

The above personnel will be placed on special duty at the disposal of the President, The Infantry Board, effective immediately.

2. The following additional grades and ratings are allotted to the Commanding Officer, 29th Infantry, for the specific purpose; these grades and ratings to be made available not later than July 1, 1940:

Privates, 1st/cl.	-	28
Spec. 2d/cl.	-	42

3. The test platoon will be a composite unit of specially selected men rather than a regular platoon; service with the test platoon will be voluntary.

4. All personnel of the test platoon are authorized flying pay for the period of assignment on this duty.

5. The requirements for flying pay will conform to the policy of minimum flight now existing in the Air Corps.

By order of the Secretary of War:

Adjutant General

Appendix No. 2

OFFICE OF
THE INFANTRY SCHOOL
Fort Benning, Georgia

July 1, 1940

SUBJECT: Parachute Troops and Air Infantry.

TO: Chief of the Test Section, The Infantry Board.

1. Reference is made to the following inclosures on the above subject:

Incl. 1: Letter AGO, January 2, 1940 and 1st Ind. of Chief of Infantry (with 9 inclosures) which directs the initiation of a Parachute Troops and Air-Infantry project.

Incl. 2: 2nd Ind., The Infantry Board which recommends the step by step plan for development of the project.

Incl. 3: Letter Chief of Infantry, March 8, 1940 and 1st Ind., AGO, April 25, 1940, which approves, with certain comments, the step by step plan.

Incl. 4: Letter AGO, June 25, 1940, directing formation of and authorizing extra pay for a test platoon of parachute troops.

2. The necessary instructions have been issued for the formation of the platoon and procurement of the initial equipment. The test platoon of selected men from the 29th Infantry, equipped initially as a rifle platoon (TO 7-17) is available at once.

3. Captain Reuben Kyle, Jr., A. C., is the Air Corps liaison officer and the supply officer for Air Corps equipment for this project. He will furnish on call the necessary personnel and Air Corps equipment including a parachute instructor, parachute riggers, airplanes, parachutes, parachute dummies and aerial delivery units.

4. In testing the platoon the guiding consideration will be based on the most probable method of employment, as set forth in paragraph 2, letter AGO, January 2, 1940, Incl. No. 1, which contemplates the employment of parachute troops in Hemisphere Defense to seize landing areas where only light opposition is expected and to secure the areas for short periods until reinforced by Air Infantry.

5. It is desired that the Test Section, The Infantry Board investigate the above subject, make suitable tests with available facilities during the period July 1 to August 31, 1940 and make recommendations as to:

a. Organization of a parachute platoon.

b. Uniform and equipment for the platoon including arms and special equipment.

c. Training necessary for the platoon.

d. The method of landing troops and equipment by parachutes.

Appendix No. 3

Appendix No. 3 (cont'd)

e. The practicability and feasibility of employment of the platoon under the assumed conditions.

f. Indications of tactical methods.

6. Testing the platoon will include the necessary training to accomplish its contemplated mission. It will be assumed that all men have completed one year basic infantry training including marksmanship qualifications with principal weapon. The following objectives are suggested for each week:

1st Week:

Orientation flights
Parachute packing
Physical training
Physical examinations.

2nd Week:

Flights
Parachute packing
Dropping dummies and equipment from planes at low altitudes.
Physical training including acrobatics and close-in fighting.

3rd Week:

Flights
Parachute packing
Dropping dummies and equipment from self packed parachutes
Physical training and close-in fighting
Defensive measures
Suspension exercises.

4th Week:

Continuation of work of 3rd Week
Grenades
Explosives and demolitions
Hasty entrenchments
Camouflage
Instruction in jumping.

5th Week:

Continuation of subjects of 3rd and 4th Weeks.

6th Week:

Continue qualifications in previous subjects
Communications and control
Special tactical exercises
Manipulation of parachute on ground.

Appendix No. 3 (cont'd)

7th Week:

Experiment with aerial delivery units
Special training
Trial jumps from planes.

8th Week:

Final instruction and mass jumping from planes under an assumed situation.

7. The First Section, The Infantry Board is charged with this project.

For the President:

SAMUEL T. WILLIAMS,
Major, Infantry,
Recorder.

4 Incls.
Noted in
Par. 1, above.

WAR DEPARTMENT
THE ADJUTANT GENERAL'S OFFICE
WASHINGTON

AG 580 (9-9-40) M-C-M September 16, 1940

SUBJECT: Constitution of 1st Paracmute Battalion

TO : Chief of Infantry
Chief of Air Corps and
Commanding General, Fort Benning, Georgia

1. The 1st Parachute Battalion is constituted and will be activated at the earliest practicable date at Fort Benning, Georgia. It will be organized in accordance with tentative Tables of Organization which have been furnished, except that the number of specialists' ratings, second class, will be reduced to 57 for the battalion.

2. The personnel now on duty with the test parachute platoon at Fort Benning, with their present grades and ratings, will be utilized in the initial organization of the battalion. All jumping personnel will be from volunteers therefor.

3. The development of equipment and training doctrines is charged to the Chief of Infantry, in collaboration with the Chief of Air Corps, under the principle laid down in letter to the Chief of Infantry, AG 580 (11-7-39) M-C, January 2, 1940.

4. The Chief of Air Corps will be responsible for all engineering and development in connection with improvements and changes in airplanes, parachutes, and accessories' attached to the airplanes and parachutes for the Parachute Battalion. He will provide the necessary facilities and personnel to conduct this work at the Materiel Division, Dayton, Ohio. Airplanes for training of the Parachute Battalion will be provided by the Chief of Air Corps in accordance with program arrav ed between the Chief of Infantry and the Chief of Air Corps.

BY ORDER OF THE SECRETARY OF WAR:

/s & t/ WILLIAM N. DICK
Adjutant General

Appendix No. 4

WAR DEPARTMENT
THE ADJUTANT GENERAL'S OFFICE
WASHINGTON

AG 580 (9-26-40)
M (Ret) M-C

October 2, 1940

SUBJECT: Constitution of 501st Parachute Battalion

TO : Chief of Infantry,
Chief of Air Corps, and
Commanding General, Fort Benning, Georgia

Parachute 1 of letter, this office, dated September 16, 1940, subject: "Constitution of 1st Parachute Battalion", is amended to read:

"1. The 501st Parachute Battalion is constituted and will be activated at the earliest practicable date at Fort Benning, Georgia. It will be organized in accordance with tentative Tables of Organization which have been furnished, except that the number of specialists' rating, second class, will be reduced to 57 for the battalion."

BY ORDER OF THE SECRETARY OF WAR:

The Adjutant General

Appendix No. 4

WAR DEPARTMENT
THE ADJUTANT GENERAL'S OFFICE
WASHINGTON

AG 320.2 (8-21 41)
MR-M-C

September 10, 1941

SUBJECT: Experimental Air-Infantry Battalion.

TO : Commanding General, Fourth Corps Area,
Chief of Army Air Forces,
Chief of Infantry,
The Surgeon General.

1. The 88th Infantry Air-borne Battalion is constituted and will be activated and organized as an air Infantry Battalion by the Chief of Infantry.

2. The following provisions will govern:

a. The Battalion will be in an exempted status under control of the Chief of Infantry.

b. Station: Fort Benning, Georgia.

c. Authorized strength: In accordance with tentative tables of organization now being processed.

d. Initial strength: Not to exceed 500 enlisted men.

e. Additional personnel: Will be provided, if practicable, when housing is available at Fort Benning, Georgia, estimated about January 1, 1942.

f. No additional construction authorized.

3. An allotment of grades and ratings will be made in a separate communication.

4. The Assistant Chief of Staff, G-3, War Department, will take action at the proper time to procure the necessary additional personnel and to provide for the attachment of a field artillery unit for test.

5. The Chief of Army Air Forces will designate an air support command to cooperate with the Chief of Infantry in the development of the battalion. Direct correspondence with the designated support command is authorized.

6. It is desired that the Chief of Infantry make arrangements for the transfer of not to exceed 50 selected enlisted men from the 9th Division, and requisition upon Infantry Replacement Training Centers for the remainder of the prescribed initial strength and call upon the Surgeon General for the minimum medical personnel deemed necessary.

Appendix No. 5

Appendix No. 5 (cont'd)

7. Direct correspondence is authorized on all matters in connection with the organization and test of this battalion.

8. It is desired that the Chief of Infantry keep the Assistant Chief of Staff, G-3, War Department, currently informed of the progress of the test.

BY ORDER OF THE SECRETARY OF WAR:

ADJUTANT GENERAL

WAR DEPARTMENT
OFFICE OF THE CHIEF OF INFANTRY
WASHINGTON

GI 320.2/9949 October 8, 1941

SUBJECT: Test of Airborne Infantry.

TO : The Commandant, The Infantry School, Fort Benning, Georgia.

1. Reference is made to letter this office dated September 13, 1941, subject: "The Activation of the 88th Infantry Airborne Battalion" in which you are charged with the activation of this battalion as a part of your command. This battalion is an experimental agency under direction of this office, with the primary mission of conducting tests pertaining to airborne troops.

2. It is desired that the Commanding Officer, 88th Infantry Airborne Battalion, conduct, under your supervision, the necessary experiments and test of organizations, equipment, logistics, and training, in furtherance of development of airborne infantry. The Infantry Board stands relieved of further responsibility of development and tests of airborne troop matters, except that the Board should make available to the Commanding Officer, 88th Infantry Airborne Battalion, such facilities at its command as you may deem desirable. Other facilities under your control, similarly, should be employed to the full advantage in the furtherance of this project.

3. The general basis for the development of this project is contained in the extracts of a memorandum (copy attached) subject: "Air Infantry", dated July 9, 1941, from the Chief of Infantry to the Assistant Chief of Staff, G-3, WDGS.

4. This experimental battalion is to be organized in conformity with special Tables of Organization. These tables approximate standard tables, deviating only to provide the basis for additional armament and equipment necessary for experimentation. The tables represent no criteria for the organization which may eventually be recommended.

5. In the development of appropriate organization, cognizance must be taken of two procedures for both of which solutions are to be prepared, namely:

a. The conversion of elements of a triangular infantry division into an airborne unit that can successfully perform airborne missions.

b. The organization of airborne units having airborne missions as their sole purpose.

The details of organization, training, and equipment must be solved for each of the foregoing procedures.

6. The following program of test, in general order of priority, is indicated at this time:

Appendix No. 6

Appendix No. 6 (cont'd)

a. Airplane Transport.

(1) Combat loads for each type transport now in service or for which plans or mock-ups have been furnished, to include logistical report and diagrammatical sketches covering distribution of cargo weights.

(2) Types of planes now in service, or for which plans have been furnished. and the relative merit of each as a means of transport as to their tactical landing capabilities.

b. Armament and special equipment.

c. Tables of Organization and Tables of Basic Allowances for:

(1) Infantry airborne battalion.

(2) Units or detachments of arms and services required as part of the airborne battalion combat team.

(3) Conversion factor (if any) for standard infantry battalion when detailed for airborne action.

d. Tactical doctrine, including landing formations, liaison with air support units, tactical dispositions of small units for combat, cooperation with parachute units, and defense of landing fields and the advance thereupon.

e. Training.

(1) Program for the airborne battalion, for the first 13 weeks of training after organization.

(2) Program to prepare a standard battalion of Infantry for airborne mission, assuming the battalion to be properly trained as a combat battalion.

(3) Special training for attached units of other arms or services.

f. Training Literature.

7. The necessary studies and practical experiments and tests should be initiated without delay, and should be concurrent with the processes or organization and general training of the battalion as a combat unit.

8. Reports will be submitted to this office by the Commanding Officer, 88th Infantry Battalion, through the Commandant, The Infantry School, as follows:

a. A monthly progress report, beginning November 1, 1941.

b. Special reports on completion of any major phase of the development.

FOR THE CHIEF OF INFANTRY:

/s & t/ PAUL J. MUELLER
Col., Inf.,
Acting Executive

Incl.

Appendix No. 6 (cont'd)

(Incl.)

MEMORANDUM TO: Assistant Chief of Staff, G-3

SUBJECT : Air Infantry.

1. This office has been studying the problem of landing infantry from the air on hostile territory to seize strategic localities. Judging from recent operations in Europe, their problem appears to require troops equipped for three distinct phases, similar in many aspects to landing from the water on a hostile shore:

1st phase - parachute troops landing, to seize the perimeter of a landing field (initial beach-head).

2nd phase - landing of air personnel carriers with infantry prepared to reinforce the parachute troops, extend the defensive ring around the landing area (division beach-head), seize additional landing areas, or effect a junction with ground forces.

3rd phase - ferrying forces of all arms by air in to secure landing areas to carry on major operations therefrom, or effect a junction with ground forces. (Direct landing of large ships at docks in captured harbors).

2. Development of the first phase, parachute troops, has successfully progressed, and is being constantly developed under supervision of this office.

Test of the third phase has been made by the 2nd Infantry Division and their report is adequate as a basis for troop training.

No development of the second phase has been initiated, and the Chief of Infantry considers it should be begun under his direction at once.

The problem is essentially: what equipment, organization, and special training should air-infantry units have to enable them to land in close support of parachute troops, under fire if necessary, to leave their planes, deploy and carry out the mission indicated in paragraph 1 above?

Should these units be specially organized, or should standard line units be reorganized to form air task forces. If so, what dispositions are necessary and what training should the units conduct to enable them to perform an air mission?

What are the troop-carrying capabilities of gliders, and how do they fit into the air-infantry transport?

FOR THE CHIEF OF INFANTRY:

/s & t/ PAUL J. MUELLER
Col., Inf.,
Acting Executive

WAR DEPARTMENT
THE ADJUTANT GENERAL'S OFFICE
WASHINGTON

AG 320.2 (2-17-41)
M (Ret) M-C

February 25, 1941

SUBJECT: Provisional Parachute Group Headquarters

TO : Commanding General, Fourth Corps Area.

1. The Provisional Parachute Group Headquarters is constituted and will be activated at Fort Benning, Georgia, by the Commanding General Fourth Corps Area, at the earliest practicable date.

2. The following instructions will apply:

a. The 501st Parachute Battalion will provide the personnel to consist of five non-commissioned officers and three privates first class or privates. The allotment of grades and ratings to the 501st Parachute Battalion is reduced by a corresponding number pending publication of Tables of Organization and revised allotments.

b. The Provisional Parachute Group Headquarters is placed under control of Chief of Infantry.

c. Transfers of enlisted men will be made in grade.

BY ORDER OF THE SECRETARY OF WAR:

Appendix No. 7

Appendix No. 7 (cont'd)

PROVISIONAL PARACHUTE GROUP
HEADQUARTERS AND HEADQUARTERS DETACHMENT

POSITION	NAME	RANK WHEN ASSIGNED
Commanding Officer	William C. Lee 0-008381	Lt Colonel
Executive	George P. Howell 0-15291	Lt Colonel
Commanding Officer, Recruiting Detachment	Theodore L. Dunn 0-016258	Lt Colonel
S-1	Roy E. Lindquist 0-018125	Captain
S-2	William P. Yarborough 0-020362	Captain
S-3	James M. Gavin 0-17676	Major
S-4	George V. Millet, Jr. 0-017787	Captain
Engineer Officer	Henry S. Beeler 0-286503	Captain
Assistant Adjutant	William E. Ekman 0-21190	Captain
Assistant S-3	Julian J. Ewell 0-021791	1st Lieutenant
Air Officer	Bela A. Harcos 0-21617	1st Lieutenant
Surgeon	David E. Thomas 0-22700	Captain

Appendix No. 7 (cont'd)

Provisional Parachute Group, Headquarters and Headquarters Detachment (cont'd)

Enlisted Men

S. A. Lewis, Master Sergeant

A. L. Haynes, Technical Sergeant

J. H. Davis, Staff Sergeant

M. J. Allgeier, Corporal

W. E. Bevan, Private First Class

S. M. Deletiner, Private First Class

J. Ferenconitz, Private First Class

C. J. Harley, Private First Class

N. H. McCuller, Private First Class

G. B. Smith, Private First Class

R. F. Stein, Private First Class

R. Z. Cox, Private

R. Van Gelder, Private

R. L. Garner, Private

P. H. Gordon, Private

R. F. Hanna, Private

J. E. Hartsough, Private

D. A. Johnson, Private

J. M. Shutak, Private

E. W. Soromen, Private

J. D. Tibbetts, Private

PROVISIONAL PARACHUTE GROUP
Fort Benning, Georgia

April 30, 1941

SUBJECT: Organization of a Parachute School.

TO : The Chief of Infantry, Washington, D. C.
(Thru: The Commandant, The Infantry School)

1. In compliance with verbal instructions from the Chief of Infantry, the attached Table of Organization for a Parachute School is submitted. This Table of Organization is based on the Group School already in existence which is training replacements for the 501st Parachute Battalion.

2. The effect of this Table of Organization will be only to secure grades and ratings for the school which already exists, and which cannot be dispensed with. A Group School is now in operation with the instructors for the school on special duty furnished from the 501st Parachute Battalion. This is a great hardship on the battalion as men holding key grades and ratings are away from their organization.

3. This group of instructors would constitute a permanent force to train properly all new men. They would be available to train each new battalion now authorized as it is activated; i.e., 502d, 503d, and 504th Parachute Battalions. And thereafter, replacements for these battalions.

4. Without a permanent instructional group, no continuity of instruction can be maintained. All units would have to run separate schools for replacements, and recently trained members of cadres would train their battalions. If any battalion were ordered away, it would have to take with it these instructors or lose many key men from a tactical standpoint.

5. The operation and administration of this school could be either under the Group Headquarters or as an integral part of the Infantry School in the same manner as the automotive group. To be a part of the Infantry School would give it permanence in event the Group were ordered away.

/s/t/ W. M. MILEY,
Major, 501st Parachute Battalion,
Commanding.

Appendix 8

Appendix No. 8 (cont'd)

Subject: Increase in Allotment of Grades and Ratings for the Infantry School Service Command (Parachutists' Course).

AG 352 Inf Sch
(4-30-41)MT-A

3d Ind. ESK:BHH

War Department, A.G.O., July 10, 1941 - To: The Chief of Infantry.

1. The establishment of a course for parachutists as a part of the Infantry School is approved.

2. When the 1942 allotment is announced for the Infantry Section of the War Department overhead, it will contain the following for the operation of the Parachutists' Course of the Infantry School:

1 Major, Regular Army

2 Captains, Regular Army

6 1st Lieutenants, Reserve

3. The allotment of grades and ratings to the Infantry School Service Command is increased as follows to provide enlisted personnel for the operation and administration of the Parachutists' Course.

Grades

1 - 2 - 3 - 4 - 5 - 6 - 7	Total	1 - 2 - 3 - 4 - 5 - 6	Total
2 - 1 - 6 -23 - 1 - 9 - 5	47	0 - 0 - 0 - 1 - 2 - 0	3

Number of three-year enlistments: 42.

By order of the Secretary of War:

/s/t/ R. G. HERSEY
Adjutant General

ORIGINAL STAFF OF AIRBORNE COMMAND
(General Order No. 1, Hq A/B Command, 5 April 1942)

POSITION	NAME	RANK WHEN ASSIGNED
Commanding Officer	William C. Lee, O-008381	Colonel
Executive Officer	Elbridge G. Chapman, O-6232	Colonel
Acting Plans and Training Officer	Charles L. Keerans, O-12504	Lt. Colonel
Assistant Plans and Training Officer	Gerald J. Higgins, O-19530	Major
Adjutant	Roy E. Lindquist, O-18125	Major
Assistant Adjutant	William E. Ekman, O-21190	Captain
Intelligence Officer	William P. Yarborough, O-20362	Major
Acting Supply Officer	James A. Bassett, O-21202	Captain
Air Officer	Bela A. Harcos, O-21617	1st Lt.
Assistant Supply Officer	Henry S. Beeler, O-236503	Captain

Appendix No. 9

Appendix No. 9 (cont'd)

Later Changes

POSITION	NAME	RANK WHEN ASSIGNED	DATE ASSIGNED
Assistant Executive	Roy E. Lindquist, 0-18125	Major	20 April 1942
Adjutant	William E. Ekman, 0-21190	Captain	20 April 1942
Assistant Plans and Training Officer	John J. Stark, 0-19383	Captain	25 April 1942
Assistant Plans and Training Officer	Hugh P. Harris, 0-18518	Captain	25 April 1942
Supply Officer	Charles L. Keerans, 0-12504	Lt. Colonel	4 May 1942
Plans and Training Officer	James M. Gavin, 0-17676	Lt. Colonel	4 May 1942
Assistant Plans and Training Officer (FA)	Sanford P. England, 0-23129	1st Lt.	4 May 1942
Assistant Adjutant	Samuel A. Lewis, W-2101997	WOJG	15 May 1942
Assistant Supply Officer	Charles C. Caldwell, 0-217778	Captain	1 July 1942
Assistant Supply Officer (Signal)	Eugene M. Link, 0-12690	Major	1 July 1942
Assistant Executive Officer	Glen J. McGowan, 0-290985	Major	1 July 1942
Assistant Plans and Training Officer (Inf)	Frank E. Ross, 0-300004	Major	1 July 1942
Assistant Personnel Officer	Herbert J. Dietenhofer, C-1283042	2nd Lt.	7 July 1942
Intelligence Officer	Chester B. DeGavre, 0-19262	Major	12 July 1942
Assistant Executive Officer	William H. Smith, 0-25074	Lt. Colonel	12 July 1942
Supply Officer	Joe A. Hinton, 0-11654	Lt. Colonel	12 August 1942

TRAINING BULLETINS
PREPARED BY AIRBORNE COMMAND

No.	Date	Subject
1	28 December 1942	Organization of the Airborne Division.
2	1 September 1943	Characteristics of the Cargo Glider CG-4A.
3	25 January 1943	Characteristics of the Airplanes C-53 and C-47.
4	4 July 1944	Loading Procedure for Loads in the Glider CG-4A.
5	1 January 1943	Procedure for Loading .50 Cal. Antiaircraft Gun.
6	6 January 1943	Reference Notes on Air Support.
7	1 February 1944	Planning Procedure for Airborne Operations.
8	15 April 1943	Tactical Loading for Parachute Field Artillery.
9	28 January 1943	Loading Charts and How to Use Them.
10	2 February 1943	Procedure for Loading C-47 Airplanes.
11	3 February 1943	Flight Rules and Use of Parachutes by Air-Landing Units.
12	9 February 1943	Tactical Loading for Glider Field Artillery.
13	10 February 1943	Tactical Loading of the Antiaircraft Battalion.
14	3 March 1943	Tactical Loading for Headquarters & Headquarters Battery, Airborne Division Artillery.
15	15 April 1943	Basic Information for Planning a Troop Movement by Air.
16	8 April 1943	Transport by Air of Infantry Division Field Artillery.
17	16 April 1943	Tactical Loading of the Airborne Medical Company in CG-4A Gliders and C-47 Airplanes.
18	1 June 1943	Loading Procedure for 105mm Howitzers M2 and M3 in C-47 Airplanes.
19	15 June 1943	Tactical Loading for the Airborne Engineer Battalion.
20	20 June 1943	Tactical Loading for Airborne Quartermaster Company in CG-4A Gliders and C-47 Airplanes.
21	1 October 1943	Tactical Loading Plans for Glider Infantry.
22	1 February 1944	Airborne Tactical Loading, Field Hospital.

Appendix No. 10

Appendix No. 10 (cont'd)

No.	Date	Subject
23	1 June 1944	Airborne Training Procedure and Information for Units Attached to Headquarters Airborne Center.
24	1 August 1944	Suggested Loading Plan for Infantry Division, C-47, CG-4A.
25	1 August 1944	Reference Data for Air-Transported Units.
26	10 November 1944	The Cargo Glider CG-13A.
27	15 April 1945	Tactical Loading for Air-Transport of the Evacuation Hospital.
28	15 May 1945	The Control Pattern.
29	14 May 1945	Characteristics of the C-46 Airplane.

ACTIVATION DATA OF AIRBORNE UNITS

UNITS ACTIVATED AND TRAINED	DATE AUTHZD BY HIGHER HEADQUARTERS	AUTHORITY HIGHER HEADQUARTERS	DATE OF AB COMD ORDER	AB COMD GENERAL ORDER NO.
504 Prcht Inf Regt	24 Mar 42	320.2/2(AB Comd) GNOPN (3-23-42)	13 Apr 1942 Eff: 1 May 42	GO #2
The Parachute School	6 May 42	320.2(AB Comd) GNOPN (4-19-42)	11 May 1942 Eff: 15 May 42	GO #7
88th Infantry (less 2 Bns) Redesignation of 88th Inf AB Bn as 1st Bn. 88th Inf.	9 Jun 42	353/1(AB Comd) GNOPN (6-9-42)	13 Jun 1942 Eff: 15 Jun 42	GO #16
3d Bn. 503d Prcht Inf	4 Jun 42	320.2/2(Para-troops) GNOPN (6-4-42)	6 Jun 1942 Eff: 8 Jun 42	GO #13
Btry A, 215th F. A. Bn.	9 Jun 42	353/1(AB Comd) (R)-GNOPN(6-9-42)	14 Jun 1942 Eff: 15 Jun 42	GO #17
700th C.A. Btry, Separate (AA) (AW)	9 Jun 42	353/1(AB Comd) (R)-GNOPN(6-9-42)	27 Jul 1942 Atchd 88th Inf	GO #28
505 Prcht Inf Regt	25 Jun 42	320.2/5(Airborne) (R)-GNOPN(6-25-42)	30 Jun 1942 Eff: 6 Jul 42	GO #18
507 Prcht Inf Regt	25 Jun 42	320.2/5(Airborne) (R)-GNOPN(6-25-42)	7 Jul 1942 Eff: 20 Jul 42	GO #21
506 Prcht Inf Regt	1 Jul 42	320.2/7(Airborne) (R)-GNOPN(7-1-42)	11 July 1942 Eff: 20 Jul 42	GO #23
Hq & Hq Det, 1st Prcht Infantry Brigade	4 Jul 42	320.2/16(Inf)(R) GNOPN-(7-4-42)	13 Jul 1942 Eff: 20 Jul 42	GO #25
82d Airborne Division	30 Jul 42	320.2/9(AB Comd) (R)-GNGCT(7-30-42)	Activated by Third Army.	
101st Airborne Division	30 Jul 42	320.2/9(AB Comd) (R)-GNGCT(7-30-42)	Eff: 15 Aug 42	Activated by Third Army.
Reorganization of 88th Inf Regt (Rifle), and redesignated as 88th Gli Inf Regt	18 Sep 42 Amended 25 Sep 1942	320.2(Airborne) (R) GNGCT(9-18-42)	24 Sep 1942 Eff: 24 Sep 42	GO #45
Hq, 456 Prcht F.A. Bn Hq & Serv Btry, 456 Prcht FA Bn (Less 2 How Btry Sections). AA & AT Sections of Transportation & Maint Platoon. Btry B, 456th Prcht FA Bn	18 Sep 42	320.2(Airborne)(R) GNGCT(9-18-42)	24 Sep 1942 Eff: 24 Sep 42	GO #45
Btry D, 151st AB AA Bn	18 Sep 42	320.2(Airborne)(R) GNGCT(9-18-42)	24 Sep 1942 Eff: 24 Sep 42	GO #45

Appendix No. 11 (cont'd)

UNITS ACTIVATED AND TRAINED	DATE AUTHZD BY HIGHER HEADQUARTERS	AUTHORITY HIGHER HEADQUARTERS	DATE OF AB COMD ORDER	AB COMD GENERAL ORDER NO.
508 Prcht Inf Regt	6 Oct 42	AG 320.2(10-3-42) OB-I-GN-M	13 Oct 1942 Eff: 20 Oct 42	GO #51
Reorganization and Redesignation of Btry A, 215th FA Bn as Btry A, 215th Gli FA Bn	11 Oct 42	AG 320.2(10-9-42) OB-I-GN-M	15 Oct 1942 Eff: 17 Oct 42	GO #53
501 Prcht Inf Regt	31 Oct 42	320.2/21(Airborne) (R)OGNGCT(10-31-42)	4 Nov 1942 Eff: 15 Nov 42	GO #57
11th Airborne Division	27 Nov 42	AG 320.2(11-24-42) OB-I-GN-M	Eff: 25 Feb 43	Activated by Second Army.
513 Prcht Inf Regt	30 Dec 42	321/61(Inf)-GNGCT (12-30-42)	5 Jan 1943 Eff: 11 Jan 43	GO #2
17th Airborne Division	31 Dec 42	AG 320.2(12-25-42) OB-I-GN-M	Eff: 15 Apr 43	Activated by Second Army
Redesignation of Hq & Hq Det, 1st Prcht Inf Brig as Hq & Hq Det, 1st Abn Infantry Brigade	8 Jan 43	AG 320.2(12-31-42) OB-I-GN-M	12 Jan 1943	GO #7
215th Gli F.A. Bn. (less Btry "A")	16 Jan 43	321/52(FA)(R) - GNGCT(1-16-43)	20 Jan 1943 Eff: 21 Jan 43	GO #11
465 Gli F.A. Bn	24 Jan 43	321/59(FA)(R) - GNGCT(1-24-43)	3 Feb 1943 Eff: 1 Mar 43	GO #14
Inactive Elements of 456 Prcht F.A. Bn	29 Jan 43	320.2/15(Airborne) (R)-GNGCT(1-29-43)	3 Feb 1943 Eff: 4 Feb 43	GO #15
1st Bn, 190th Gli Inf (less Companies B & C)	1 Feb 43	320.2/28(Airborne) (R)-GNGCT(2-1-43)	5 Feb 1943 Eff: 10 Feb 43	GO #16
Hq & Hq Btry & Btry A, 458 Prcht F.A. Bn	16 Feb 43	321/63(FA)(R) GNGCT(2-16-43)	20 Feb 1943 Eff: 20 Feb 43	GO #21
1st Bn Section, Med Det, 190th Gli Inf	4 Mar 43	321/75(Inf)(R) GNGCT(3-4-43)	11 Mar 1943 Eff: 15 Mar 43	GO #27
13th Airborne Division	7 May 43	AG 320.2(5-4-43) OB-I-GNGCT-M	Activated by Second Army	
515 Prcht Inf Regt	9 May 43	321/94(Inf)(R) - GNGCT(5-9-43)	17 May 1943 Eff: 31 May 43	GO #41
3538 Ord Med Auto Maint Co	18 May 43	321/185(Ord)(R) GNGCT(5-18-43)	2 Jun 1943 Eff: 24 Jul 43	GO #42

Appendix No. 11 (cont'd)

UNITS ACTIVATED AND TRAINED	DATE AUTHZD BY HIGHER HEADQUARTERS	AUTHORITY HIGHER HEADQUARTERS	DATE OF AB COMD ORDER	AB COMD GENERAL ORDER NO.
Hq & Hq Det & Med Det, 157th Ordnance Bn	18 May 43	321/185(Ord)(R) GNGCT(5-18-43)	2 Jun 1943 Eff: 24 Jul 43	GO #43
462d Prcht F.A. Bn	11 Jun 43		14 Jun 1943 Eff: 16 Jun 43	GO #44
Hq & Hq Co, 2nd Airborne Infantry Brigade	1 Jul 43	AG 322(29 Jun 43) OB-I-GNGCT-M	8 Jul 1943 Eff: 30 Jun 43	GO #46
Hq & Hq Co, 1st Airborne Infantry Brigade	1 Jul 43	AG 322(29 Jun 43) OB-I-GNGCT-M	8 Jul 1943 Eff: 6 Jul 43	GO #47
407th F.A. Group	24 Jun 43	321/85(FA)(R) (24 Jun 43)-GNGCT	8 Jul 1943 Eff: 5 Aug 43	GO #48
464th Prcht F.A. Bn	24 Jun 43	321/85(FA)(R) (24 Jun 43)-GNGCT	8 Jul 1943 Eff: 1 Aug 43	GO #49
466th Prcht F.A. Bn	24 Jun 43	321/85(FA)(R) (24 Jun 43)-GNGCT	9 Jul 1943 Eff: 1 Aug 43	GO #50
597th AB Engr Co	22 Jul 43	321/177(Engrs)(R) (22 Jul 43)-GNGCT	28 Jul 1943 Eff: 1 Aug 43	GO #55
541 Prcht Inf Regt	6 Aug 43	321/111 (Inf) (6 Aug 43) GNGCT	10 Aug 43 Eff: 12 Aug 43	GO #57
542 Prcht Inf Regt	6 Aug 43	321/111 (Inf) (6 Aug 43) GNGCT	12 Aug 1943 Eff: 1 Sep 43	GO #58
* 555 Prcht Inf Co	19 Dec 43	321/129(Inf)(R) (19 Dec 43) GNGCT	23 Dec 1943 Eff: 30 Dec 43	GO #80
467 Prcht F.A. Bn	8 Dec 44	321/269(FA)(R) (8 Dec 44)-GNGCT	8 Dec 1944 Eff: 20 Dec 44	

* Colored Troops.

GENERAL AND SPECIAL STAFF
AIRBORNE COMMAND, 20 AUG 42 - 28 FEB 44

POSITION	NAME	RANK WHEN ASSIGNED	RANK WHEN RELIEVED	DATE OF INCUMBENCY FROM	TO
Commanding General	Elbridge G. Chapman, 0-6232	Brig Gen	Maj Gen	16 Aug 42	16 Nov 43
	Leo Donovan, 0-7266	Brig Gen	Brig Gen	16 Nov 43	22 Jan 44
	Josiah T. Dalbey, 0-12440	Colonel	Brig Gen	22 Jan 44	1 Oct 45
Chief of Staff	Josiah T. Dalbey, 0-12440	Colonel	Colonel	20 Aug 42	22 Jan 44
	Bryan Evans, 0-12133	Colonel	Colonel	22 Jan 44	28 Feb 44
G-1	William H. Smith, 0-25074	Lt Col	Colonel	20 Aug 42	31 Jan 44
	Charles C. Caldwell, 0-217778	Major	Lt Col	1 Feb 44	28 Feb 44
G-2	Harold H. Cartwright, 0-330159	Lt Col	Lt Col	20 Aug 42	18 Sep 42
	Martin D. McAllister, 0-6808	Colonel	Colonel	18 Sep 42	22 Nov 43
	James C. Crockett, 0-9069	Lt Col	Lt Col	22 Nov 43	28 Feb 44
G-3	Hugh P. Harris, 0-18518	Major	Lt Col	20 Aug 42	14 Nov 42
	Leo Donovan, 0-7266	Colonel	Colonel	14 Nov 42	30 Mar 42
	Hugh P. Harris, 0-18518	Lt Col	Lt Col	30 Mar 43	25 Nov 43
	Myron A. Quinto, 0-18210	Lt Col	Lt Col	26 Nov 43	28 Feb 44
G-4	Joe A. Hinton, 0-11654	Lt Col	Colonel	20 Aug 42	7 Jan 43
	Remington Orsinger, 0-6625	Colonel	Colonel	7 Jan 43	4 Feb 44
	James A. Bassett, 0-21202	Lt Col	Lt Col	4 Feb 44	28 Feb 44

Appendix No. 12

Appendix No. 12 (cont'd)

General and Special Staff, Airborne Command, 20 Aug 42-28 Feb 44 (Cont'd).

POSITION	NAME	RANK WHEN ASSIGNED	RANK WHEN RELIEVED	DATE OF INCUMBENCY FROM	TO
Adjutant General	Samuel A. Lewis, 0-483415	1st Lt.	Major	20 Aug 42	28 Feb 44
Air Officer	Bela A. Harcos, 0-21617	Major	Major	20 Aug 42	5 Feb 43
	George R. Stanley, 0-289148	Major	Lt Col	5 Feb 43	28 Feb 44
Field Artillery Officer	Sanford P. England, 0-23129	Captain	Captain	20 Aug 42	7 Sep 42
	Walter R. Hensey 0-14950	Lt Col	Colonel	7 Sep 42	16 Aug 43
	Bryan Evans, 0-12133	Colonel	Colonel	16 Aug 43	22 Jan 44
Field Artillery Officer	Robert E. Huneycutt, 0-301341	Major	Major	22 Jan 44	28 Feb 44
Signal Officer	Eugene W. Link, 0-12690	Lt Col	Lt Col	20 Aug 42	29 Oct 43
	Mulford M. Brandt, 0-250576	Lt Col	Lt Col	29 Oct 43	28 Feb 44
Engineer Officer	Henry S. Beelor, 0-286503	Major	Major	20 Aug 42	30 Oct 42
	David C. Wallace, 0-19715	Major	Lt Col	30 Oct 42	22 May 43
	James Devere Lang, 0-19728	Lt Col	Lt Col	22 May 43	28 Feb 44
Fiscal Officer	Charles C. Caldwell, 0-217778	Major	Major	20 Aug 42	14 Oct 42
	James S. Rockefeller, 0-905525	Major	Major	14 Oct 42	24 Apr 43
	John W. Cochrun, 0-392977	Captain	Major	24 Apr 43	28 Feb 44
Test Officer	Glen D. McGowan, 0-290985	Major	Major	20 Aug 42	25 Sep 42
	Chester B. DeGavre 0-19262	Major	Lt Col	25 Sep 42	19 Jul 43
	Jack Blades, 0-362766	Major	Major	19 Jul 43	28 Feb 44

Appendix No. 12 (cont'd)

General and Special Staff, Airborne Command, 20 Aug 42-28 Feb 44 (Cont'd).

POSITION	NAME	RANK WHEN ASSIGNED	RANK WHEN RELIEVED	DATE OF INCUMBENCY FROM	TO
Antiaircraft Officer	John H. Kochevar, 0-16867	Lt Col	Lt Col	11 Sep 42	28 Feb 44
Surgeon	David I. Littauer 0-333413	Major	Lt Col	19 Oct 42	28 Feb 44
Chemical Warfare Officer	John T. Ellis, Jr. 0-483837	Major	Lt Col	24 Oct 42	28 Feb 44
Quartermaster Officer	Monnie O. Skaret, W-116102	WOJG	WOJG	20 Aug 42	14 Nov 42
	Joseph M. McKee, 0-222080	Major	Lt Col	14 Nov 42	28 Feb 44
Inspector General	Ralph E. Bower, 0-6610	Lt Col	Colonel	19 Jan 43	28 Feb 44
Ordnance Officer	William J. D'Espinosa 0-15156	Lt Col	Lt Col	25 Sep 42	27 Feb 43
	James O. Baker, 0-19396	Lt Col	Lt Col	27 Feb 43	28 Feb 44
Publications & Visual Aids Officer	Paul H. Troth, Jr., 0-275055	Captain	Majo	8 Sep 42	28 Feb 44

HEADQUARTERS
ARMY GROUND FORCES
Army War College
Washington, D.C.

353(2 Nov 43)GNGCT 2 November 1943.

SUBJECT: Joint Training of Airborne and Troop Carrier Units.

TO : Commanding General, Airborne Command, Camp Mackall, North Carolina.

1. Combined troop carrier-airborne training is the joi. responsibility of the Commanding Generals, Army Air Forces and Army Ground Forces. By direction of the War Department, this headquarters is responsible for the designation of airborne units for combined troop carrier and airborne training, for the preparation of training plans, and for the submission of training requirements to the War Department for coordination with the Army Air Forces and the determination of the availability of means required.

2. Troop carrier units to receive troop carrier-airborne training will be designated by the Commanding General, Army Air Forces, in accordance with requirements established by the War Department. The current schedule of requirements is contained in War Department Memorandum WDGCT 353.01 (24 Sep 43) G-3, WDGS, dated 24 September 1943, to Commanding Generals, Army Ground Forces and Army Air Forces, subject: "Schedule for Troop Carrier Units"

3. The Airborne Command will designate ground units and submit detailed schedules for combined troop carrier-airborne training to this headquarters sufficiently in advance to insure coordination by the War Department and the availability of means required.

4. Training of airborne units will insure:

a. That airborne staffs can efficiently plan and supervise the execution of an airborne operation.

b. That airborne troops are capable of orderly and efficient air movement, rapid assembly after landing, and attack by combined arms, both day and night.

5. The program for combined airborne-troop carrier training for separate battalions and regiments, as well as divisions, is prescribed below. Separate battalions and regiments will complete training directed in sub-paragraphs a and b. The training of those airborne divisions which follow the 11th Division will be conducted as directed in sub-paragraphs a, b, and c. The present schedule of training for the 11th Airborne Division will be modified to incorporate those phases of combined training prescribed in sub-paragraphs b and c.

a. Small unit training.

(1) Minimum period - 4 weeks.

Appendix No. 13

(2) Troops - 1 troop carrier group.

1 airborne division.

(3) Objectives -

Troop Carrier: Operations by squadrons.

Airborne: Loading, landing, assembly and entry into combat by company or battery. Parachute and glider units to employ tugs and gliders on the same flight.

b. Large unit training period.

(1) Minimum period - 3 weeks.

(2) Troops - 1 troop carrier wing headquarters.

2 troop carrier groups

1 airborne division

(3) Objectives -

Troop Carrier: Operation by groups.

Airborne: Loading, landing, assembly and entry into combat by battalion combat teams.

c.. Divisional training period.

(1) Minimum period - 1 week.

(2) Troops - 1 troop carrier wing headquarters

4 troop carrier groups

1 airborne division

(3) Objectives -

Troop Carrier: Operation as a wing.

Airborne: Loading, landing, assembly and entry into combat as a division, moving in two lifts over a route approximately 300 miles long. (See par. 8).

6. a. During the period of combined troop carrier-airborne training, airborne units will emphasize:

(1) Flexibility in loading plans. The approximate load capacity of all tugs and gliders will be utilized.

(2) Motor movement to air fields; air departure from separate fields.

(3) Rapid assembly after landing, day and night, and attack by combined arms.

(4) Maintaining themselves in the field with only the rations, supplies and equipment that can be transported by troop carrier units.

b. Troop carrier units will emphasize: (WD Memo 353 (1 Oct 43), dated 9 October 1943, for CG, AGF and AAF, sub: "Directive for Joint Training of Airborne and Troop Carrier Units.")

(1) Squadron and/or group formations to include single and double tow of gliders with appropriate loads in the airplanes and gliders.

(2) Night operations with departure from separate air fields.

(3) Locating objective areas, by day and night, with only those navigational aids that can be expected in a combat theater; and in dropping parachutists and/or landing gliders therein.

(4) Staff operation and coordination with airborne staffs.

7. Tests designed to determine the ability of airborne units to operate efficiently as a part of the air-ground team for each of the periods prescribed in the training schedule, par. 5, will be prepared by the Airborne Command after coordination with the Troop Carrier Command. Copies of these tests will be submitted to this headquarters for approval and coordination with the Commanding General, Army Air Forces.

8. Before airborne units are considered capable of performing their primary mission in combat theaters, each airborne division must satisfactorily engage in a combined maneuver of the following scope: (See par. 5 c)

a. Duration - approximately 5 days.

b. Employ at least 4 departure air bases.

c. Objective area to be reached by circuitous route of approximately 300 miles.

d. At least one-half of the landings and assembly of units to be made at night.

e. The maneuver will be planned so that contact with friendly ground forces will not be made prior to D plus 4.

f. Re-supply and evacuation by air and/or air landing during period D to D plus 4.

9. Direct communication on this subject between the Airborne Command and Troop Carrier Command is authorized.

By command of LT. GEN. McNAIR:

/s/t/ J. R. DEYOUNG,
Lt. Col., A.G.D.,
Asst. Ground Adj. Gen.

STAFF OF AIRBORNE CENTER, 1 MARCH 1944 - 1 SEPTEMBER 1945

POSITION	NAME	RANK WHEN ASSIGNED	RANK WHEN RELIEVED	DATE OF INCUMBENCY FROM	TO
Commanding General	Josiah T. Dalbey, 0-12440	Colonel	Brig Gen	1 Mar 44	25 Sep 45
	Anthony C. McAuliffe, 0-12263	Maj Gen	Maj Gen	25 Sep 45	Present
Chief of Staff	Bryan Evans, 0-12133	Colonel	Colonel	1 Mar 44	20 Jun 44
	William H. Smith 0-250274	Colonel	Colonel	20 Jun 44	1 Nov 45
	Guy S. Meloy, Jr. 0-16892	Colonel	Colonel	10 Nov 45	Present
Adjutant General	Herbert J. Dietenhofer 0-1283042	Captain	Captain	1 Mar 44	22 Mar 44
	Charles C. Caldwell 0-217778	Lt Col	Lt Col	22 Mar 44	25 Oct 45
Organization, Doctrine and Training Section:					
Chief of Section	Myron A. Quinto, 0-18210	Lt Col	Colonel	1 Mar 44	Present
Parachute Officer	Chester B. DeGavre, 0-19262	Lt Col	Lt Col	1 Mar 44	15 Aug 44
	Louis A. Walsh, Jr. 0-19567	Lt Col	Lt Col	15 Aug 44	4 Jan 45
	Daniel W. Rachal 0-392469	Major	Major	4 Jan 45	20 Aug 45
	Louis A. Walsh, Jr. 0-19567	Lt Col	Lt Col	20 Aug 45	Present
Glider Officer	John A. Wallace 0-358872	Major	Lt Col	1 Mar 44	Present
Field Artillery Officer	Robert E. Huneycutt 0-301341	Major	Lt Col	1 Mar 44	Present
Engineer Officer	Roy T. Christiansen 0-484069	Major	Lt Col	1 Mar 44	27 Mar 45
	Alfred P. Hutchison 0-413892	Lt Col	Lt Col	27 Mar 45	Present

Appendix No. 14

Appendix No. 14 (cont'd)

POSITION	NAME	RANK WHEN ASSIGNED	RANK WHEN RELIEVED	DATE OF INCUMBENCY FROM	TO
Signal Officer	Mulford M. Brandt 0-254578	Lt Col	Lt Col	1 Mar 45	20 Feb 45
	Samuel Turner 0-1633607	Captain	Captain	3 May 45	20 Sep 45
Medical Officer	Marshall H. Brucer 0-443666	Captain	Major	1 Mar 44	Present
Antiaircraft Officer	John H. Kochevar 0-16867	Lt Col	Lt Col	1 Mar 44	18 Jul 44
	Richard F. Ludeman 0-22233	Major	Major	18 Jul 44	Present
Publications and Visual Aids Officer	Paul H. Troth, Jr. 0-275055	Major	Major	1 Mar 44	Present
Air Corps Officer	George R. Stanley 0-289148	Lt Col	Lt Col	1 Mar 44	20 Apr 45
	Sterling D. Roberts 0-424681	Major	Major	20 Apr 45	3 Oct 45
Equipment and Materiel Section:					
Chief of Section	James A. Bassett 0-21202	Lt Col	Lt Col	1 Mar 44	21 Jul 44
	James O. Baker 0-19396	Lt Col	Lt Col	21 Jul 44	16 May 45
Supply Section:					
Chief of Section	James S. Rockefeller 0-905525	Lt Col	Lt Col	1 Mar 44	26 Sep 45

ARMY AIR FORCE OFFICERS STAFF CLASSES

CLASS NUMBER	DATE OF TRAINING	WHERE TRAINED
1	11-13 Sept 43	Maxton, N. C.
2	Oct 43	Maxton, N. C.
3	18-20 Nov 43	Maxton, N. C.
4	22-24 Nov 43	Maxton, N. C.
5	21-23 Feb 44	Maxton, N. C.
6	24-26 Feb 44	Maxton, N. C.
7	1-3 May 44	Camp Mackall, N. C.
8	3-6 May 44	Camp Mackall, N. C.
9	9-12 July 44	Camp Mackall, N. C.
10	12-15 July 44	Camp Mackall, N. C.
11	30 Aug-3 Sept 44	Camp Mackall, N. C.
12	4 Sept-6 Sept 44	Camp Mackall, N. C.
13	11 Nov-15 Nov 44	Camp Mackall, N. C.

Appendix No. 15

AIRBORNE SAFE LOADING CLASSES FOR ARMY AIR FORCE
GLIDER PILOTS CONDUCTED BY AIRBORNE CENTER

CLASS NUMBER	DATE OF TRAINING	WHERE TRAINED
1	21-26 June 44	Camp Mackall, N. C.
2	22-27 June 44	Camp Mackall, N. C.
3	23-28 June 44	Camp Mackall, N. C.
4	25-29 June 44	Camp Mackall, N. C.
5	4-9 Sept 44	Maxton, N. C.
6	14 Sept 44	Maxton, N. C.
7	22 Sept 44	Maxton, N. C.
8	10-11 Oct 44	Maxton, N. C.
9	9 Nov 44	Maxton, N. C.
10	17-18 Jan 45	Maxton, N.CC.
11	19-21 Feb 45	Maxton, N. C.
12	16-17, 30 March 45	Maxton, N. C.
13	5, 19-20, 30 Apr 45	Maxton, N. C.
14	2, 23, 25, 28 May 45	Maxton, N. C.
15	6-8 June 45	Maxton, N. C.
16	7, 9, 14, 16 Aug 45	Maxton, N. C.

Appendix No. 16

WAR BOND TOUR ITINERARIES FOR AIRBORNE DETACHMENTS

Unit No. 1

Indianapolis, Indiana	29 April	Cleveland, Ohio	2,3 June
Columbus, Ohio	2 May	Harrisburg, Pennsylvania	6 June
Cincinnati, Ohio	5,6 May	Buffalo, New York	9,10 June
Lansing, Michigan	9 May	Albany, New York	13 June
Chicago, Illinois	12,13,14 May	Burlington, Vermont	16,17 June
Madison, Wisconsin	16 May	Bangor, Maine	20 June
Milwaukee, Wisconsin	19,20 May	Boston, Massachusetts	23,24 June
Toledo, Ohio	23 May	Portland, Maine	27 June
Detroit, Michigan	26,27 May	Hartford, Connecticut	30 June 1 July
Akron, Ohio	30 May	Springfield, Massachusetts	4 July

Unit No. 2

Indianapolis, Indiana	26,29 April	Monroe, Louisiana	6 June
Louisville, Kentucky	2 May	New Orleans, Louisiana	9,10 June
Baltimore, Maryland	5,6 May	Fort Smith, Arkansas	13 June
Richmond, Virginia	9 May	Memphis, Tennessee	16,17 June
Charlotte, N. C.	12,13 May	Peoria, Illinois	20 June
Raleigh, Durham, N. C.	16 May	Des Moines, Iowa	23,24 June
Atlanta, Georgia	19,20 May	Burlington, Iowa	27 June
Jacksonville, Florida	23 May	Omaha, Nebraska	30 June 1 July
Mobile, Alabama	26,27 May	Topeka, Kansas	4 July
Baton-Rouge, Louisiana	30 May		
Houston, Texas	2,3 June		

Appendix No. 17

Appendix No. 17 (cont'd)

Unit No. 3

St. Louis, Missouri	5,6 May	Open Date	13 June
Oklahoma City, Oklahoma	12,13 May	Fresno, California	16,17 June
Tulsa, Oklahoma	16 May	Redding, California	20 June
Amarillo. Texas	19,20 May	Portland, Oregon	23,24 June
Albuquerque, New Mexico	23 May	Spokane, Washington	27 June
Denver, Colorado	26,27 May	Seattle, Washington	30 June 1 July
Phoenix, Arizona	2,3 June	Boise, Idaho	4 July
Los Angeles, California	9,10 June		

WAR DEPARTMENT
The Adjutant General's Office
Washington

In reply
refer to: AG 580 (4-18-41)EA-A. May 27, 1941.

Subject: Parachute Battalions.

To: The Commanding Generals, 4th and 8th Divisions, and
Fort Benning, Georgia.

1. The Commanding Generals Fort Benning, 4th and 8th Divisions will issue orders transferring enlisted men as indicated on attached chart, to 502nd Parachute Battalion, Fort Benning, Georgia. This personnel includes 92 additional men as the cadre for the 503rd Parachute Battalion. The following instructions will apply:

a. Enlisted personnel will be obtained from designated units in numbers, grades and with special qualifications as shown on the attached chart. The additional 92 men of the 502nd Parachute Battalion will constitute the cadre for the 503rd Parachute Battalion and will be transferred thereto to fill original vacancies upon activation of the 503rd Parachute Battalion, on or about September 1, 1941.

b. The following requirements and qualifications will govern selection of personnel to be transferred:

1. Selections for jumping personnel (Column 3, attached inclosure) to be made from unmarried volunteers only with the following additional requirements and qualifications:

(a) Men with good military records.

(b) Age - 21 to 30 (both inclusive).

(c) Physical standards:

Weight - to conform to weight standards required by paragraphs 28 and 31, Changes No. 4, AR 40-105, but maximum weight not to exceed 185 lbs.

Vision - Minimum visual acuity of 20-40 each eye.

Blood Pressure - Persistent systolic pressure of 140 MM, or persistent diastolic pressure above 100 MM to disqualify.

Other than as listed above, the physical standards to be the same as those prescribed for entrance into the Regular Army (See AR 40-105).

(d) As a prerequisite for transfer, volunteers to be given physical examination at home stations.

Appendix No. 18

(e) Selected applicants from Regular Army Infantry units to have had at least 6 months service and to have at least one year of current enlistment to serve before discharge, except that those having less than one year to serve of current enlistment may be discharged and reenlisted for transfer to the parachute battalions.

2. Selections for non-jumping personnel (Column 4, attached inclosure) to be based on the experience and ability of the individual in the performance of the special duties for which he is selected and designated; each individual to be well qualified for the particular duty indicated.

c. Commanders of units listed on attached inclosure are instructed as follows:

1. Each selected applicant to be informed that service in parachute units may require all personnel to participate regularly and frequently in aerial flights; and that training in parachute jumping will be required for personnel listed in Column 3, attached inclosure, but will not be required for personnel listed in Column 4.

2. As an inducement to obtaining volunteers for duty as parachutists, interested personnel may be informed that service in a parachute unit will carry extra pay for those qualifying as jumpers; and that a limited number of vacancies in the higher grades will exist for individuals possessing the necessary qualifications.

d. Travel of Personnel.

1. Cost of movements from Fort Jackson, S. C., to Fort Benning, Georgia made prior to July 1, 1941, will be charged to the following:

Travel of the Army

FD 1437 P 3-06 P 17-06 A 0410-01 (For travel of enlisted men; and for travel of dependents of enlisted men of the first three grades.)

Army Transportation-Rail

QM 16242 P 54-0110 P 54-0284 P 54-1378 P 54-0701 A 0525-12 "D" (For packing, crating, and shipping authorized household goods allowance of enlisted men of the first four grades.)

2. Procurement authority for movements from Fort Jackson, S. C. to Fort Benning, Georgia made after June 30, 1941 will be furnished at a later date.

3. Detailed instructions relative to the movement of selectees from replacement centers will be furnished at a later date.

2. The Surgeon General will furnish this office a report showing the source of Medical Department personnel shown on attached chart.

By order of the Secretary of War:

/s/ Edward F. Detsell
Adjutant General

1 Incl.

EMP:FE:llr

AG 341 (1-9-42)ER January 9, 1942

SUBJECT: Procurement of enlisted men for Parachute Units.

The Commanding General,
First Corps Area,
Boston, Mass.

1. Qualified men may now be enlisted for parachute troops either directly from civil life or may be procured as volunteers in reception centers. The restriction of procurement of such personnel to volunteers in infantry replacement training centers and to men who have had previous military service is removed.

2. All volunteers for parachute duty will meet the following requirements:

a. Volunteer for parachute duty.

b. Alert, active, supple, with firm muscles, and sound limbs; capable of development into an aggressive individual fighter, with great endurance.

c. Age - 20-to 30, both inclusive.

d. Physically qualified as follows:

(1) Weight - maximum weight not to exceed 185 pounds.

(2) Vision - minimum visual acuity of 20-40, each eye.

(3) Blood pressure - persistent systolic pressure of 140 MM or persistent diastolic pressure about 100 MM to disqualify.

(4) Other than as listed above, the physical standards to be the same as those prescribed for entrance into the Regular Army (see AR 40-105). A signed statement in the form shown in Incl. 1 will be required by each parachute volunteer, attached to and made part of his service record.

3. Corps area commanders will take necessary steps to secure parachute volunteers in reception centers utilizing necessary recruiting agencies. They are authorized to correspond directly with The Commandant, The Infantry School, Fort Benning, Georgia, for the necessary literature and films to aid in the recruiting for parachute units.

4. All corps areas now have unfilled requisitions for parachute troop enlistments. Additional requisitions for parachutists are anticipated in the near future.

SAME LETTER TO ALL CORPS AREAS.

Appendix No. 19

Appendix No. 19 (cont'd)

5. Parachute volunteers will be sent from reception centers to infantry replacement training centers for training. While undergoing training, volunteers will be held specifically for parachute unit assignment and will not be made available for assignment to any other unit.

6. Upon completion of thirteen weeks training at infantry replacement training centers, all parachute volunteers will be transferred to the Infantry School, Fort Benning, Georgia.

By order of the Secretary of War:

(Sgd) Eustace M. Peixotto,
Adjutant General.

1 Incl.

Appendix No. 19 (cont'd)

VOLUNTARY DUTY IN PARACHUTE UNITS

I, (name of soldier) hereby volunteer for duty with parachute troops. I understand fully that in performance of such duty, I will be required to jump from an airplane and land via parachute.

Signature of soldier.

Officer witnessing signature

This form to be attached and made a part of soldier's service record.

Incl. No. 1

HEADQUARTERS
ARMY GROUND FORCES
Army War College
Washington, D.C.

210.31/92 (Airborne)-GNGAP
(9-18-42)

September 18, 1942.

SUBJECT: Improvement of Personnel in Airborne Divisions.

TO : Commanding Generals
Second and Third Armies,
Airborne Command,
Antiaircraft Command,
Replacement and School Command,
Chief of the Armored Force.

1. In order to assist airborne divisions to prepare for future employment, the commanding generals of these divisions are authorized·

a. To report by name to this headquarters and to Headquarters Replacement and School Command for reassignment, those officers who have demonstrated unsuitability for airborne duty, as follows:

(1) Officers of the Army to be reported to Headquarters Replacement and School Command.

(2) Officers of the Services to be reported to Headquarters Army Ground Forces.

b. To transfer enlisted men who have demonstrated unsuitability for airborne service by reason of impaired physique, including disability due to age, to certain Army Ground Force overhead installations; namely, the Replacement and School Command, Birmingham, Alabama; Antiaircraft Command, Richmond, Virginia; and the Armored Force, Fort Knox, Kentucky--enlisted men to be transferred to the three overhead installations as follows:

(1) 19% to the Antiaircraft Command.

(2) 32% to the Armored Force.

(3) 49% to the Replacement and School Command.

c. To transfer in equal numbers to units of the Second and Third Armies, as recommended by the respective commanding generals of these armies, enlisted men who have demonstrated unsuitability for airborne service because of chronic air sickness.

d. To transfer in equal numbers to units of the Second and Third Armies, as directed by the commanding generals of these armies, enlisted men who have demonstrated unsuitability for airborne service because of low rating AGCT (Classes IV and V). These transfers are authorized until the percentage of enlisted men remaining assigned to the

airborne division concerned approximates the national average in Class IV and Class V (21.6% and 8.9%, respectively), after which no further transfers are allowed for the reason of low AGCT.

2. Attention is called to the fact that the authority to transfer enlisted men contained in paragraph 1 b, c, and d, above, is not to be construed so as to authorize the airborne division commanders to transfer incorrigibles or undesirables, except for reasons as specifically stated in paragraph 1, preceding.

3. To effect the transfers authorized herein, direct communication is authorized between the headquarters concerned.

By command of LT. GEN. McNAIR:

/s/t/ CLYDE L. HYSSONG
Colonel, A.G.D.
Ground Adjutant General

PLAN FOR TRAINING PARACHUTE REPLACEMENTS

1. GENERAL.-

Under this plan the 542d Parachute Infantry will become a training regiment with the purpose of providing the following types of individual replacements, to parachute units overseas, or within the Airborne Command:

Rifleman	(745)
Light Machine Gunners	(604)
60-mm Mortar Gunners	(607)
81-mm Mortar Gunners	(607)
Radio Operators	(177)
Demolition Men	(027)

Other Specialists as required.

The primary training mission of the 542d Parachute Infantry will be the accomplishment of adequate, individual training for the above types of personnel replacements.

Graduates of The Parachute School who are rated as Thirteen (13) Weeks Infantry Trained, will be granted furloughs whenever practicable upon graduation. A minimum of five (5) weeks additional training will be required to fit them as replacements, and this training shall be allotted as follows:

1 Week	Proficiency Test and Assignment.
4 Weeks	Weapons and Tactical Training.

The above five weeks training program will insure that the following MINIMUM training requirements are met by all personnel before shipment overseas as replacements:

(1) Thirteen Weeks Infantry Trained Standard.
(2) Qualification in basic arm or weapon.
(3) Transition firing for riflemen and technique of field fire for crew served weapons men.
(4) Accomplishment of the Battle Indoctrination Course.
(5) Participation in a squad tactical jump.

Upon completion of the five weeks training program, personnel will be available to be shipped, and upon receipt of call will be processed in accordance with POR requirements. In the event that calls have not been received, an additional four weeks advanced training program will be initiated involving small unit tactics. The company shall be considered as the integral training unit, and replacements will be taken from the company with the most advanced training status.

2. DETAILED PLAN.-

a. Organization.-

In order to insure a proper standard of individual proficiency among replacement personnel, companies of the regiment will be organized as shown in Annex I - Organization of Replacement Companies. It is to be noted that the following system of assignment will be followed:

Riflemen and LMGS	Rifle Companies.
Mortarmen and Communications	Bn Headquarters Companies
Communications and Demolition	Regtl Headquarters Co.

Appendix No. 21

Although this organization is not identical to that of the standard Parachute Regiment, it will adapt itself to the most efficient methods and procedures for individual, weapons, and specialists training, and at the same time permit small unit training, viz, riflemen can train as part of riflemen squads, and weapons crews can train as part of IMG or Mortar squads. Specialists can progress by receiving additional training in the technique of communications or demolitions, and practical field work.

b. Testing and Assignment.-

One company of the regiment ("A" Company) shall be designated as the Testing Company. All graduates from The Parachute School will be assigned initially to this company for a period of one week. During this week all men will undergo an individual proficiency test, similar to that prescribed by Airborne Command, in the following subjects, to determine the level of training for each man:

Military Customs and Discipline,
Articles of War,
Military Sanitation, Hygiene, and First Aid,
Defense vs. Chemicals, Individual,
Extended Order Drill,
Map Reading,
Hand Grenades,
Bayonet,
Use of Compass,
Field Fortifications,
Rifle M-1,
IMG, Cal. 30,
Mortar, 60-mm,
Tactical Training of Individual Soldier.

The test shall be conducted on the county-fair system and shall include written and oral questions and practical work. Men will be graded and will be assigned to units as indicated in accordance with their test grades:

(1) "Less-than-average" students return to The Parachute School for reassignment to a tactical unit whose training level can accommodate them.

(2) "Average" students will be assigned to the Tactical Company unfilled at the time, and begin the Weapons and Tactical Training Course.

(3) "Better-than-Average" students will be assigned to an advanced Tactical Company, so as to be available as replacements at an earlier date.

c. Weapons and Tactical Training.-

Upon assignment to a tactical company, students will begin the REPLACEMENT TRAINING PROGRAM outlined in Annex II attached. It is to be noted that this program calls for qualification firing with either the rifle or a crew served weapon. It is true that this will result in many men refiring for qualification within a current year; however, it is believed that this procedure is justified for the following reasons:

(1) Service Record accounts have often proved inaccurate when the men have been questioned as to practical application. That is to say, men have been shown as qualified with the rifle, and they claimed to have fired only a refresher course.

(2) Varying standards of rifle marksmanship are accomplished at replacement centers, and inasmuch as these men are soon to be shipped overseas, there should be no doubt as to their qualification in arms.

(3) Battle experience has proven the need for better than average marksmen among parachute troops because of the nature of their employment behind enemy lines with limited ammunition supply.

Aothough extra ammunition is required for this purpose, the primary requisite of an adequate replacement, should be absolute proficiency with his weapon.

It is to be further noted that a squad tactical jump, with equipment, is included as part of this program; this will do much towards improving the mental attitude of the replacement towards jumping as he would in operations, and give him the experience with handling his equipment.

d. Advanced Training.-

As stated before, if replacements have not been called for by the time a company has completed the Weapons and Tactical Training Program, that company will initiate an additional four (4) week ADVANCED TRAINING PROGRAM - See Annex III. Under this program rifle and weapons (LMG and Mortar) squads will function tactically as squad units. Although these squad units will not conform exactly to the organization of the typical parachute squad the major principles of assemblage, organization, and offensive and defensive group tactics can be taught. At the same time the present organization lends itself to a close supervision of the individual, functioning in his military specification capacity, viz, rifleman, gunner, etc., etc. In as much as there is no way by which the eventual combat assignment of an individual within a squad, or platoon can be predicted, it would appear that the factor of most importance is his individual ability to function within the team to which he will eventually be assigned.

e. Processing for Overseas Shipment.-

When a call is received for an overseas shipment, personnel will be taken from the company most advanced in training, and they will be assigned to the REPLACEMENT PLATOON, of Service Company. This platoon will be staffed by a group of officers and enlisted men, and clerical personnel capable of carrying out the processing of replacements in accordance with the following schedule:

D Day	Arrival of personnel, Indoctrination program, Reading of AWs 28 and 58, and Medical Processing.
D + 1	Inspect and correct personnel records by personal interview. Showdown inspection of equipment and clothing.
D + 2	Requisition additional clothing and equipment. Have all men sign the payroll.
D + 3	Draw clothing and equipment; prepare personal equipment for shipment home.
D + 4	Issue clothing and equipment to complete requirements.
D + 5	Mark clothes, equipment, and "A" and "B" Bags.

D + 6 Payment of all due.

D + 7 Inspection by Inspector General Teams.

D + 8 Correction of deficiencies noted in inspection.

In addition to the above processing routine it is anticipated that the morale and general attitude of all replacements can be considerably improved by the nature of their treatment during the period that they are being processed. The keynote of this period should be to make the men feel as though they are SELECTED men, and proud that they have this opportunity to go overseas. Also discipline and morale should be stressed to insure proper conduct en route. It is believed that these things can be accomplished, if the replacements are moved into a separate area during the process stage, and the following actions taken during this period to improve the morale, discipline, and welfare:

(1) Special attention to mess and recreational facilities within the area, including canteen service.

(2) Music and parade formations within the area, and daily retreat formations.

(3) Travel and training films of various parts of the world, to develop an interest in the various theaters of operations.

(4) Lectures by officers with battle experience.

(5) Chaplain and Red Cross service.

(6) Lectures on customs of the service, cooperation with port authorities, discipline, etc., etc.

If but a small amount of extra consideration is given to these men during the replacement processing period, the men will soon become cognizant that they are better-than-average soldiers selected for overseas duty, rather than a group washed out of a unit. Efficient processing will result in efficient shipments of eager and satisfied soldiers.

3. ADMINISTRATIVE DETAILS.-

In order to accomplish the above replacement training program the following general policies must be approved:

1. Extra ammunition must be allowed the 542d Parachute Infantry for firing of replacement personnel.

2. There must be a definite allocation of planes from The Parachute School for tactical jumping.

3. An extra battalion area will be needed in the Alabama area.

4. Authority must be granted to go overstrength and draw the additional equipment for that overstrength.

A diagrammatic sketch showing the intended flow of replacements under this plan is attached as Annex IV.

WILLIAM T. RYDER,
Lt. Colonel, Infantry
Commanding

Appendix No. 22

AGF M/S, CG to CofS, 19 June 42, sub:

1. I believe that Lee's analysis of the situation (his paragraph 3) is sound. Consequently, we should inaugurate studies without delay, looking to the organization of whatever airborne divisions can be formed from one triangular infantry division, plus the available parachute regiments.

2. The following comments are made simply as a result of these studies:

a. It seems that, based on Lee's conception, two glider and one parachute regiment are more logical than one glider and two parachute regiments. The fact that we are in process of forming six parachute regiments is beside the point. We might use two or three of them in airborne divisions and the remainder in separate parachute brigades or groups. The airborne division is of the second phase, and comes into the picture after the first phase has been executed. It seems reasonable that the first phase would be executed by fewer troops than the second phase.

b. In my view - not a considered one - the division artillery should consist of a 75mm howitzer battalion for each glider infantry regiment, plus a composite battalion composed of a 75mm howitzer battery for each parachute infantry regiment, a 37mm antitank company (battery), and an antiaircraft battery.

c. Yarborough's engineer battalion is preferred to Lee's company.

d. Yarborough's signal company is preferred, also his quartermaster.

e. I cannot go along with the chemical company or detachment (4.2 mortar). There are sufficient infantry mortars and artillery to handle whatever smoke is needed, to say nothing of the use of smoke candles and airplane smoke screens.

3. An airborne division should be evolved with a stinginess in overhead and in transportation which has absolutely no counterpart thus far in our military organization.

4. Please initiate studies looking toward a program of airborne divisions, along with the development and procurement of suitable equipment. The two phases of the work can go hand-in-hand. The preliminary studies should be completed as soon as possible, and in a rather general form, sufficient only to present the matter to the War Department sufficiently to secure approval of the necessary initial measures.

L. J. M.

Appendix No. 23

Appendix No. 23 (cont'd)

AGF M/S, TRC to CofS, 22 June 42, sub: Policy re Training of Airborne Troops. 320.2/3 (S)

* * * * * * *

b. Major Boyle (Brit[illegible]my) stated that they have few glider troops at present and that practically [illegible]der troops and parachute troops have been assigned to their one airborne division. [illegible]e resulting ratio of two parachute units to one glider unit is a matter of circumstance and not of design. They feel this is satisfactory, however, because parachute units can be used in many cases where it is not desirable or practicable to use gliders; they regard the second parachute regiment in their present division as a "spare parts" unit, available for small commando-type operations not requiring gliders.

It is believed that the above solution is dictated by necessity, and is not sound from a viewpoint of organization and long-range planning.

2. It is believed that we should strive for an organization susceptible of maximum flexibility. Were divisional troops readily available for attachment (such as artillery, engineers, signal and quartermaster), the ideal solution would be the formation of numbers of parachute regiments and glider regiments, and the making up of a task force as indicated by the situation. It is very difficult, however, to obtain auxiliary troops when they are not organic elements.

3. It appears necessary, therefore, to set up a type division to provide the appropriate auxiliary troops. The essential point is to provide in the T/O that the number of parachute regiments and the number of glider regiments may be varied to meet the training situation or to fit the specific combat operation.

4. The Training Division adheres to its opinion that the triangular division of one parachute and two glider regiments is most convenient for immediate purposes.

5. The selection of a division for this conversion is under study.

MORAN

Appendix No. 23 (cont'd)

WD D/F, 6 Jul 42, sub: Policy re Training of Airborne Troops. 320.2(S)
WDGCT 320.2 (4-18-42)

Memorandum for record.

CG, AGF, proposed that the 82nd Motorized Div be reorganized into two separate airborne divisions and utilized in Bolero. Each division has a strength of 8,321 and consists of a parachute regiment, two glider regiments, division artillery and service units. This reorganization can be effected without an increase in the overall strength of the Troop Basis. The 82nd Division which is proposed for reorganization is a motorized division which is just now completing individual training. AGF proposed that the 90th Inf Div be redesignated as a motorized division to replace the 82nd.

This proposal was referred to OPD who in turn communicated with General Eisenhower. The latter and OPD (Colonel Hull) concur in the attached directive.

Tentative organization chart is approved pending submission of final organization by AGF.

Appendix No. 23 (cont'd)

320.2/2 (Airborne)(S) - GHRQT
(7-23-42)

July 23, 1942.

SUBJECT: Tables of Organization and Tables of Basic Allowances for Units of the Airborne Division.

TO : The Commanding General, Services of Supply
The Chief of Engineers
The Surgeon General
The Quartermaster General
The Chief Signal Officer
The Provost Marshal General

1. Due to the early activation of Airborne Divisions, informal requests have been made of each of the interested arms and services to prepare Tables of Organization and Tables of Basic Allowances based on the attached tentative organization chart, which has been approved by the War Department pending submission of the final organization.

2. It is requested that the preparation of the above Tables of Organization be expedited and forwarded to this headquarters for review not later than August 1, 1942. It is also requested that the preparation of Tables of Basic Allowances be initiated and placed in final form upon receipt of the approved Tables of Organization.

FOR THE COMMANDING GENERAL:

C. L. HYSSONG

HEADQUARTERS 82ND AIRBORNE DIVISION
Office of the Division Commander

APO 469 U. S. Army
27 November 1943.

SUBJECT: Summary of Principles Covering Use of The Airborne Division.

TO : Commander-in-Chief, ALLIED FORCES.

a. Airborne troops are weapons of opportunity. Commanders must refrain from assigning airborne missions merely because airborne troops are available, and commit them only at appropriate times on missions suitable to their capabilities, limitations and available supporting means.

b. Realistic and thorough combined training for air forces and airborne troops for each specific operation is an absolute essential, and responsible higher commanders must insist that the necessary time, generally a matter of weeks, and the facilities are provided.

c. Decision to execute an airborne operation having been made; allow time for proper training, commit the airborne troops to action, withdraw them promptly, and at once begin training them and their associated troop carrier unit to correct deficiencies noted in that operation and to prepare for the next.

d. Make every effort to secure suitable aircraft and airfields in adequate numbers.

e. On airborne missions employ the airborne division as a whole. If available aircraft or airfields will not permit this, bring into the Theater and use, in whole or by elements, the separate parachute and glider regiments now in being in the United States. Avoid piece-meal employment of the airborne division.

f. Place the planning staffs of all echelons of all units concerned in an airborne operation in the closest possible proximity to each other.

g. Recognize and insist that an airborne effort like an infantry ground effort must have adequate support of combat aviation, to include aircraft for neutralizing enemy air and antiaircraft defense (day and night fighters, bombers, smoke-laying planes); reconnaissance (visual and photographic); and resupply (by combat aircraft, if transport planes are unavailable or unable to perform such missions).

h. Insist that the enemy situation, ground and air, is accorded full and continuous consideration and that an operational mission is not planned merely as a map problem.

i. Airborne troops must either be put down in areas free or practically free of hostile ground defenses, or adequate support in the form of air bombardment, smoke, and diversionary attacks must be provided. The analogy of a landing on a hostile shore is complete. The support requirements of the airborne troops are even more exacting than those of a seaborne effort.

Appendix No. 24

j. Airborne operations in daylight must be assured of protection against hostile combat aircraft, and must be so routed as to avoid all strong enemy antiaircraft defenses.

k. The airborne effort should support the main ground effort, and be so coordinated with it in time and space that contact with ground forces can be reasonably guaranteed within twenty-four to forty-eight hours.

l. There must be continuous detailed coordination between airborne, air, ground and sea forces throughout the entire planning and operational stages of an operation involving airborne troops.

m. If appropriate opportunities to employ airborne troops on airborne missions do not appear imminent, or if sufficient aircraft to permit employment of the Division as a whole are not available, the Division should be unhesitatingly employed as a whole as a light infantry combat division with missions appropriate to its fire power and combat strength. In such a situation, the airborne division must be provided with additional motor transportation, and medical, engineer, signal, and quartermaster support. Its own organic means are wholly inadequate for sustained mobile ground operations.

n. Likewise, if after landing, airborne troops are to be employed for sustained mobile operations, provision must be made in advance to supply them with those essentials of motor transport, administrative services, clothing, and equipment possessed and required by other infantry troops. If such an operation is conducted over water and in connection with amphibious operations as in SICILY and ITALY, then the additional motor transportation and administrative support must be so planned as to arrive on the beaches with the first follow up, preferably within the period D plus two to D plus four.

o. The Airborne Division Commander should be given full opportunity to present his views from the very beginning of planning for airborne operations.

M. B. RIDGWAY,
Major General, U. S. Army,
Commanding

HEADQUARTERS AIRBORNE COMMAND
ARMY GROUND FORCES
Fort Bragg, North Carolina

November 4, 1942

SUBJECT: Training Directive.

TO : Commanding General, 82d Airborne Division, Fort Bragg, N.C.
101st Airborne Division, Fort Bragg, N.C.

I. GENERAL:

a. In accordance with letter 353/11 (Airborne)(C)-GNGCT, Headquarters Army Ground Forces, dated October 21, 1942, Subject: "Directive for Training Airborne Divisions", the Airborne Command is responsible for the training of the 101st and 82d Airborne Divisions. Effective November 9, 1942, this directive will govern the training of the 82d and 101st Airborne Divisions.

b. Training will be conducted in three phases, as follows:

(1) Individual Training 13 weeks

(2) Unit Training 13 weeks

(3) Combined Training 11 weeks

c. All units will follow applicable parts of this directive except as indicated below:

(1) Individuals taking special parachute, riggers, communications, and demolitions courses at the Parachute Schools will be brought to the training level of their organization by special courses of Instruction, if necessary, by the end of the unit training phase.

(2) The 82d and 101st Airborne Divisions (less Parachute Infantry Regiments) will begin the 6th week of unit training on November 9, 1942, and follow this directive, as applicable, thereafter.

(3) The 502d and 504th Infantry Parachute Regiments will continue their present training programs until their parent divisions enter the combined training phase, when each will follow this directive.

(4) Parachute artillery battalions will continue jumping of personnel so that each parachutist jumps at least once a month.

(5) This headquarters will direct the beginning of special airborne training upon the completion of the battalion stage (9th week) of unit training. This training will be continued during the combined training period until proficiency in airborne operation is attained.

Appendix No. 25

Appendix No. 25 (cont'd)

II. OBJECTIVE:

The training objective is to produce well-trained, hard-hitting, fighting teams capable of orderly movement by air transport and able to operate effectively in combat.

III. TRAINING PHASES:

a. Individual training: (See Inclosure No. 1)

During the 13 weeks of individual training all troops will be hardened physically and mentally to withstand modern combat requirements. All individuals will be conditioned to withstand extreme fatigue, loss of sleep, limited rations, and existence in the field with only the equipment that can be carried by parachute, glider, or transport aircraft. An indication of individual proficiency and a basis of test is considered the ability to make a continuous foot march of twenty-five (25) miles in eight (8) hours, a five (5) mile march in one (1) hour and a nine (9) mile march in two (2) hours, with full equipment.

Men will be mentally and physically conditioned for battle field environment by obstacle courses that overtax endurance as well as muscular and mental reactions, by passage of wire obstacles so situated as to permit overhead fire, by a night fighting course with sound only as an indication of danger, and a street fighting course with booby traps and sudden appearing targets. Live ammunition will be employed in all three tests.

b. Unit training: (See Inclosure No. 2)

By the end of the 9th week of unit training Infantry battalions will be able to function efficiently, by day or night, independently or reinforced.

Field Artillery training will, in general, follow "Unit Training Program for Field Artillery (Modified for Airborne Field Artillery)". Stress will be placed on decentralization within batteries to the end that self-contained gun sections will be capable of delivering prompt fire, using both direct and indirect laying with hastily computed firing data in the early stages of any action. Training will also include the operation of batteries, battalions, and division artillery as units in order that the artillery can be capable of massing its fire.

The unit training phase of infantry battalions will include tactical exercises in which the battalion is supported by a battery of field artillery.

Division engineers will be trained primarily in engineer combat duties. See Inclosure a. (Clearance and repair of airdromes or landing strips will be performed by aviation engineers.)

Medical units will be trained for normal functions in ground operations and also will be trained in evacuation by air.

Quartermaster units will be trained in all phases of ground and aerial supply, to include local defense of supply installations.

Ordnance units will be trained to repair standard ordnance and known enemy weapons and vehicles.

Antiaircraft elements: (See Inclosure No. 2)

Signal units will be trained to operate all communication equipment issued to the division emphasizing the capability of all personnel to operate all equipment.

All units will be prepared to either enter combat immediately on landing or to move promptly by marching against an objective.

During unit training, combat firing exercises, emphasizing infiltration tactics, rapid advance, and continuous fire support will be planned to conclude each phase.

Battalion tactical exercises, whenever possible, will include training in air-ground liaison, proper and prompt requests for air support, and air to ground recognition training for aerial supply.

Unit training will be concluded by tactical exercises including separate glider and parachute regiments, artillery and engineer battalions, and divisional special units (company).

b. Combined training: (See Inclosure No. 3.)

Regimental combat team and divisional tactical exercises will be held during this period. Tactical situations which require the complete staff planning of an airborne attack will be the background of each problem, but the paramount importance of the ground operation will be impressed on staffs and troops. All problems to be solved will envision, or will actually require, the presence of appropriate troop carrier and air support units.

IV. MISCELLANEOUS:

a. Airborne Training:

The Airborne Command will furnish instructional teams to teach basic airborne operational procedure. Thereafter, divisions will continue training in transport aircraft and gliders which will be furnished on request to this headquarters. Flying command post exercises and divisional airborne problems will be conducted by divisions during the combined training phase in keeping with availability of aircraft.

Airborne operations require a thorough understanding of the capabilities and limitations of troop carrier aircraft and air support units. The coordination required between airborne troops, transporting aircraft, and protective fighter craft cannot be over emphasized.

Division command post exercises will require the movement of each headquarters and its communication elements, to include battalions, from departure airdromes to objective (s). Each headquarters will move on the time schedule shown for it in previously planned movement tables. Communication within and from the zone of action at the objective to rear base installations will be tested and developed until divisional command and air force channels can furnish effective radio contact.

b. Supply:

Supply by air will be normal for airborne divisions. Plans for supply for contemplated period of operation, and actual supply as completely as available air transportation permits, will be a part of all field exercises or maneuvers.

Combat units will be trained in self supply; i.e., units initially must expect to draw supplies from supply points near the landing area (s).

All officers will be trained in supply procedure.

c. Intelligence:

(1) Training - Will be conducted in compliance with the current training directive for infantry divisions. Combat intelligence training will be stressed. Successful airborne operations require exceptional speed and thoroughness in interpretation and analysis of enemy information.

(2) Coordination between A-2 and G-2 - Special attention will be given to familiarity with the intelligence procedure of Air Corps; for example, field manual No. 1-40 (Intelligence Procedure in Aviation Units) should be used in conjunction with field manual No. 30-5 which pertains to Ground Forces, Military Intelligence. Likewise, field manual No. 1-35 referring to Air Corps Aerial Photography should be used in conjunction with field manual No. 30-21 which covers Aerial Photography of the Ground Forces. Some instruction should be given in the reading of foreign maps, reference FM 30-22.

(3) Weather interpretation - (Ref. TM1-232) - Airborne Intelligence personnel should be familiar with basic weather forecast and interpretation as it pertains to time and distance factors of enemy information.

(4) Identification of enemy - Personnel and equipment, including aircraft, will be stressed.

(5) Enemy interrogators - Field Manual 30-15 covers this subject. Schools for translators and interpreters are conducted by higher headquarters. Appropriate personnel will be assigned by higher headquarters to units prior to their entrance into the theater of operations.

(6) Counter-intelligence, secrecy, discipline and camouflage. The division as a whole, and all intelligence personnel in particular, will be frequently instructed and checked on counter-intelligence measures covering both the zone of the interior and the theater of operations. Combat counter-intelligence will emphasize methods and procedure covering security of airports and landing fields.

(7) Staff intelligence training - Will include the briefing of all staff officers and personnel to the end that all will be familiar with S-2 records, estimates, reports, establishments of OP's and listening posts, and the influence of terrain on operations and intelligence.

(8) Innovations in intelligence procedure and training aid - The intelligence training of airborne units should result in many short-cuts or innovations in combat intelligence. The Airborne Command has been directed by the Army Ground Forces to submit these suggestions or improvements in Intelligence procedure for the improvement of combat intelligence training in general. Reference A.G.F. letter May 23, 1942, file No. 353/1320.

Appendix No. 25 (cont'd)

d. Security:

Since airborne units must rely principally on radio communications, signal security will be emphasized. The importance of preventing capture of codes, SOI, and all other secret or confidential material will be stressed during all stages of training.

Local security against mechanized, aerial, and infantry infiltration attacks will be given special emphasis during unit and combined training stages.

e. Night operations:

Light discipline, technique of night attack, and occupation and preparation of defensive position under cover of darkness will be stressed throughout all phases of training.

Units will be trained for day and night air movement.

f. Chemical Warfare training:

(1) Personnel will be accustomed to combat while wearing masks.

(2) Attacks against smoke-blanketed gun positions will be practiced during small unit training.

g. Rail Movement:

Units will maintain a plan for movement to a staging area or port of embarkation.

h. Schools:

Schools will be conducted as necessary to instruct officers and non-commissioned officers in the tactics and technique of their respective arms and services, both for air movement and ground operations. No troop schools will be operated which detach either officers or enlisted men from their units during scheduled troop training, except by authority of this headquarters.

i. Tests:

(1) Division commanders will conduct the following tests and report results of same to this headquarters for transmission to the Commanding General, Army Ground Forces:

(a) Infantry Platoon Combat Firing Proficiency Test.

(b) Field Artillery Battery Tests.

(2) The Airborne Command will conduct the following tests:

(a) Infantry battalion field exercise.

(b) Infantry battalion combat firing test.

(c) Field artillery battalion test.

(d) Physical training tests.

j. Umpires:

Umpires in adequate numbers in all combat units must be trained so that they can operate in accordance with FM 105-5. The need for this training must be stressed as the success of maneuvers depends on it.

By command of Brigadier General CHAPMAN:

/s/t/ JOSIAH T. DALBEY
Colonel, General Staff Corps
Chief of Staff

6 Incls:
Incl #1 - 37 Week Tng Program for an A/B Div (Chart 1 - Individual Tng)
Incl #2 - 37 Week Tng Program for an A/B Div (Chart 2 - Unit Tng)
Incl #3 - Combined Tng Chart
Incl #4 - Tng of Service Units
Incl #5 - Suggested Program for Div School
Incl #6 - Chemical Warfare Tng.